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

Environmental Assessment
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Ely District Water Canyon
Wild Horse Growth Suppression Pilot Program

Environmental Assessment
Location: White Pine County

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1.0 INTRODUCTION

The Bureau of Land Management (BLM) Ely District (EYDO), Schell Field Office (SFO), has prepared this Environmental Assessment (EA) to address potential environmental consequences associated with wild horse growth suppression applications. The EYDO manages approximately 3.7 million acres comprised of Herd Management Areas (HMAs) and 1.8 million acres comprised of Herd Area (HAs) out of approximately 11.5 million acres of public land within White Pine, Lincoln, and Nye Counties in Nevada. The BLM administers this area through three field offices; the Egan Field Office (EFO), the Schell Field Office (SFO), and the Caliente Field Office (CFO).

This EA is a site-specific analysis of the potential impacts that could result from implementation of the Proposed Action or action alternative. The EA assists the EYDO in project planning, ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts would result from the analyzed actions. An EA provides analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI).

This document is tiered to the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/EIS, 2007) released in November 2007, and the Ely District Record of Decision and Approved Resource Management Plan (RMP, 2008).

1.1 Background

With passage of the 1971 Wild Free-Roaming Horses and Burros Act (WFRHBA), Congress recognized wild horses are living symbols of the pioneer spirit of the West. The Secretary of the Interior was ordered to manage wild, free-roaming horses and burros in a manner designed to achieve and maintain a thriving natural ecological balance on the public lands. From the passage of the Act through the present day, the BLM and EYDO has endeavored to meet the requirements of the Act. Throughout this period, BLM experience has grown, and the knowledge of the effects of current and past management of wild horses and burros has increased. At the same time, nationwide awareness and attention has grown. As these factors have come together, the emphasis of the wild horse and burro program has shifted. Program goals have expanded beyond simply establishing a thriving natural ecological balance (TNEB) by setting appropriate management levels (AML) for individual herds. In addition, goals now include achieving and maintaining healthy populations and slowing population growth through implementation of population growth suppression (PGS) treatments.

At the national level, holding facilities for excess and un-adopted horses are at or exceeding their capacity; therefore, gathering and removing large number of horses for the purpose of achieving and maintaining appropriate management level is a challenge at this time, as BLM determines where removals should be prioritized based on limited holding space. Relying primarily on removals of excess horses to achieve TNEB is also unsustainable and fiscally impossible. Population controls, such as the use of fertility control vaccines or permanent sterilization, need to be pursued as an alternative to removal of excess horses, to help control the population of wild horses in HMAs and to bring down the number of excess wild horses on the range in the long-run. If used as the sole approach to controlling population numbers, contraception would not allow the BLM to achieve the original population objectives; however, in conjunction

with other techniques (e.g., removals of excess animals and adoption) and through incorporation of other population control techniques (e.g., sex ratio adjustments, sterilization), it provides a valuable tool in a larger, adaptive management approach to wild horse and burro management.

Furthermore, the Humane Society of the United States (HSUS, 2010) has also completed analysis of the potential of population control with the modeling work showing that "*more aggressive changes in earlier years will yield more dramatic decreases in later years, obviating the need for removing any horses from the range in the future while still achieving AML*". The HSUS concludes that the current management program is unsustainable and that "*by replacing the current gather-and-remove programs with gather-treat-and- release programs, the BLM would save approximately $204 million dollars over 12 years while achieving and maintaining Appropriate Management Levels (AML) on wild horse Herd Management Areas (HMA) on public lands in the U.S*". The HSUS strongly supports the increased use of fertility control and other population controls, advocating the expansion of these programs as alternatives to gathers and Long Term Holding. A Capture, Treat and Release strategy that could be possible with repeated treatment of fertility control is a "win-win" for everyone and is a significant turning point for BLM (de Seve and Bowles-Griffin 2013).

Table 1 displays the total acreage, current population estimates, and established AML for the Antelope HMA. The Antelope HMA is approximately 331,000 acres. The project area would encompass the Water Canyon portion of the Antelope HMA which is approximately 31,000 acres within the Antelope HMA.

The AML is defined as the number of wild horses that can be sustained within a designated HMA which achieves and maintains a thriving natural ecological balance[1] in keeping with the multiple-use management concept for the area. The AML values were established through prior decision-making processes and re-affirmed through the Record of Decision (ROD) and the Approved Ely District Resource Management Plan (August 2008).

[1] The Interior Board of Land Appeals (IBLA) defined the goal for managing wild horse (or burro) populations in a thriving natural ecological balance as follows: "As the court stated in Dahl v. Clark, supra 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.' " (Animal Protection Institute of America v. Nevada BLM, 109 IBLA 115, 1989).

Table 1. Antelope Herd Management Area

Area	AML	Observed Population	Approximate Acres	Acres per horse
Antelope HMA Including Water Canyon Portion	150-324	669	331,000	2206 low end AML 1021 high end AML
Water Canyon portion of the HMA*	25-30**	66	31,000	2206 low end AML 1021 high end AML

*Water Canyon Project area AML and Acreage will remain included for Antelope HMA management.
* *The population size for the Water Canyon Portion of the HMA is 25-30 but does not represent a separate AML.

The HMA was flown in February 2015, and the inventory made using the Double Simultaneous Count method, which is where observers in an aircraft independently observe and record groups of wild horses. Sighting rates are estimated by comparing sighting records of the observers. Sighting probabilities for the observers is then computed from the information collected and a population estimate generated. However, the February 2015 data has not been processed and the current population of 669 wild horses is based on actual observed horses on the flight. The AML for the HMA is 150-324 wild horses.

The observed number of wild horses within the Water Canyon area is 66 wild horses. Wild horses within this area do not remain just in this portion of the Antelope HMA. However due to recent wildfires in the summer of 2014, BLM installed a fence along the fire's edge to assist in the rehabilitation of vegetation within the burned area. As a result of this fence, movement of wild horses in the Water Canyon portion of the HMA to other parts of the HMA is currently limited to a few canyons that lead east and west into the rest of the HMA. The fence prevents the movement of the horses from north to south into the rest of the HMA (Maps1-2).

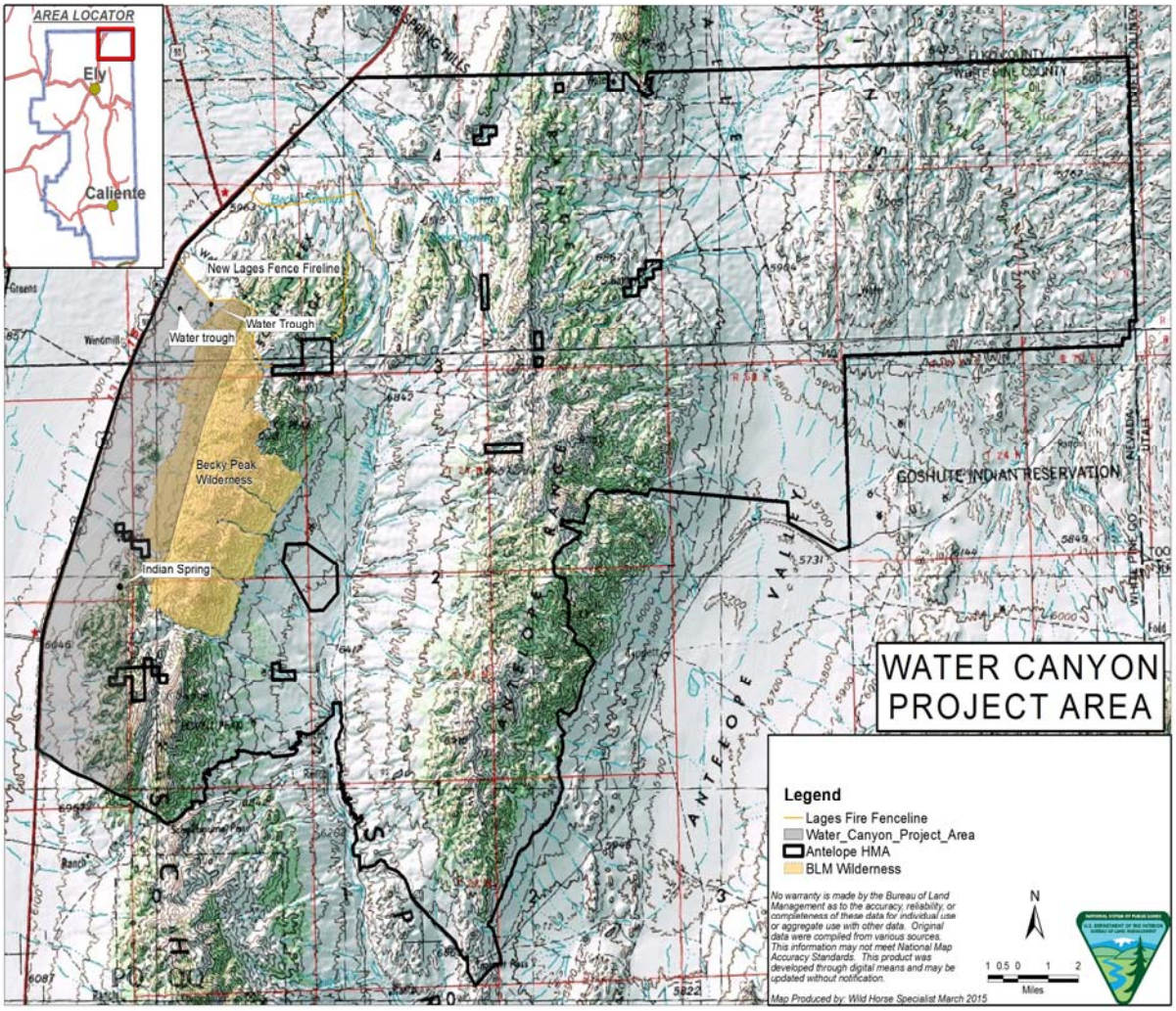
In the 2013 National Academy of Sciences' (NAS) report "Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward", the science review committee reported annual population statistics are probably substantial underestimates of the actual number of horses occupying public lands inasmuch as most of the individual HMA population estimates are based on the assumption that all animals are detected and counted in population surveys—that is, perfect detection. A large body of scientific literature focused on inventory techniques for horses and other large mammals clearly refute that assumption. The literature shows estimates of the proportion of animals missed on surveys ranging from 10 to 50 percent, depending on terrain ruggedness and tree cover (Caughley, 1974a; Siniff et al., 1982; Pollock and Kendall, 1987; Garrott et al. 1991a; Walter and Hone, 2003; Lubow and Ransom, 2009). The committee has little knowledge of the distribution of HMAs with respect to terrain roughness and tree cover, but state that a reasonable approximation of the average proportion of horses undetected in surveys throughout western rangelands may be 20% to 30%. An earlier National Research Council committee and a Government Accountability Office report concluded that reported statistics were underestimates. (National Academy of Sciences, 2013)

The 2013 NAS Report supported these population growth estimates based on the literature they reviewed. This has resulted in the BLM shifting program emphasis beyond just establishing AMLs to also conducting wild horse gathers to include a variety of management actions that further facilitate the achievement and maintenance of viable and stable wild horse populations and a "thriving natural ecological balance". Management actions resulting from shifting program em-

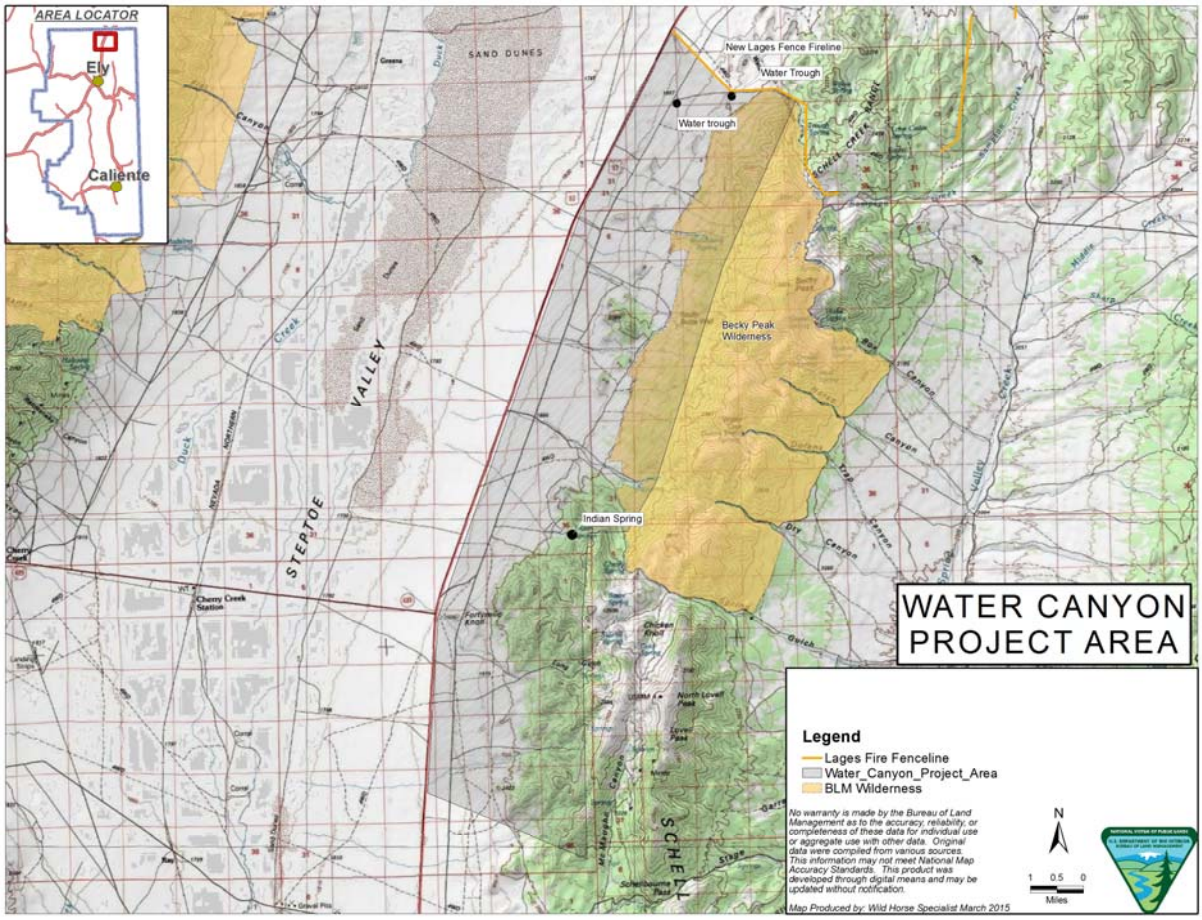
phasis include: increasing fertility control, adjusting sex ratio within the herd and collecting genetic baseline data to support genetic health assessments.

The Water Canyon Project Area represents 10.6% of the Antelope HMA with a target to manage 25-30 wild horses. The target management number is based on professional opinion, taking into consideration range condition, water availability and acreage comparisons. The target number also takes into account seasonal movement from the east during the summer and drier winter months.

Map 1



Map 2



1.2 Purpose and Need

The purpose of the Proposed Action is to achieve and maintain a targeted population level through implementation of a population growth suppression program to reduce population growth rates and removal of excess wild horse from the Water Canyon Project Area; which is a portion of the Antelope HMA. The Proposed Action would help prevent undue or unnecessary degradation of the public lands, and protect rangeland resources from deterioration associated with excess wild horses within the project area, and to restore a thriving natural ecological balance and multiple use relationship on the public lands consistent with the provisions of Section 1333 (a) of the 1971 WFRHBA. This action would allow for a management of a target population in balance with current resource conditions while reducing the number of excess animals that need to be removed from the range and/or placed into long term holding.

1.3 Conformance with BLM Land Use Plan(s)

The Proposed Action is in conformance with the 2008 Ely District ROD and Approved RMP (August 2008) on page 46, as required by regulation (43 CFR 1610.5-3(a)) as follows:

- **Goal:** "Maintain and manage healthy, self-sustaining wild horse herds inside herd management areas within appropriate management levels to ensure a thriving natural ecological balance while preserving a multiple-use relationship with other uses and resources."

- **Objective:** "To maintain wild horse herds at appropriate management levels within herd management areas where sufficient habitat resources exist to sustain healthy populations at those levels."

- **Management Action WH-8:** Manage sex ratios, phenotypic traits, reproductive cycles, and other dynamics on a herd management area basis.

1.4 Relationship to Statutes, Regulations, or other Plans

The Proposed Action is consistent with the following Federal, State, and local plans to the maximum extent possible.

- Federal Land Policy and Management Act of 1976
- Wild Free-Roaming Horses and Burros Act of 1971
- Endangered Species Act – 1973
- Wilderness Act – 1964
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186
- (1/11/01) Nevada Statewide Policy Plan for Public Lands (Nevada Division of State Lands, 1986)
- State Protocol Agreement between the Bureau of Land Management, Nevada and the Nevada Historic Preservation Office (1999)
- Northeastern Great Basin Resource Advisory Council (RAC) Standards and Guidelines (February 12, 1997)
- Bureau of Land Management "Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada" (October 2000)
- Western Association of Fish and Wildlife Agencies (WAFWA) Guidelines to Manage Sage Grouse Population and their Habitats (2004).
- Becky Peak & Government Peak Final Wilderness Management Plan and Environmental Assessment
- White Pine County Portion (Lincoln/White Pine Planning Area) Sage Grouse Conservation Plan (2004)
- White Pine County Elk Management Plan (2006 revision)
- White Pine County Public Land and Natural Resource Management Plan as adopted by the Board of County Commissioners of White Pine County (2007).

The Proposed Action is consistent with all applicable regulations at Title 43 Code of Federal

Regulations (43 CFR) 4700 and policies. The Proposed Action is also consistent with the *Wild Free-Roaming Horses and Burros Act of 1971 (*WFRHBA*)*, which mandates the Bureau to "*prevent the range from deterioration associated with overpopulation*", and "*remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area"*. Also the WFRHBA of 1971 sec 3 (b)(1): "*The purpose of such inventory exists and whether action should be taken to remove excess animals; determine appropriate management levels or wild free-roaming horses and burros on these areas of public land; and determine whether appropriate managements should be achieved by the removal or destruction of excess animals, or other options (such as sterilization, or natural control on population levels)."* Additionally, federal regulations at 43 CFR 4700.0-6 (a) state "*Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat* (emphasis added)."

4710.4 Management of wild horses and burros shall be undertaken with the objective of limiting the animals' distribution to herd areas.

According to 43 CFR 4720.2, upon written request from a private landowner, the authorized officer shall remove stray wild horses and burros from private lands as soon as practicable.

The Interior Board of Land Appeals (IBLA) in Animal Protection Institute et al., (118 IBLA 75 (1991)) found that under the Wild Free-Roaming Horses And Burros Act of 1971 (Public Law 92-195) "excess animals" must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area.

Regulations at 43 CFR 4700.0-6(a) also direct that wild horses be managed in balance with other uses and the productive capacity of their habitat. The Proposed Action is in conformance with federal statute, regulations and case law.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Proposed Action

Overview

The Antelope HMA is approximately 331,000 acres with an estimated population of 669 wild horses. The Antelope HMA has an Appropriate Management Level (AML) of 150-324. The project area would encompass the Water Canyon portion of the Antelope HMA which is approximately 31,000 acres within the Antelope HMA. Water Canyon portion has an estimated population of 66 wild horses with a target management level of 25-30.

The proposed action is to implement a long term management plan over the span of ten years which includes the gathering all of the wild horses within the Water Canyon portion of the Antelope HMA to apply fertility control treatment to mares on a regular basis to decrease population growth rates and to maintain a target management level of 25-30 animals. During the gathers and application for fertility control treatment, adaptable horses above AML would be removed in order to maintain the target number of animals.

Primary gather method would utilize the use of bait and water trap for all the wild horses

within the Water Canyon portion of the Antelope HMA (Map 1) and to treat and release approximately 25-30 horses back to the area. However, the proposed action is not limited to bait and water trapping. Helicopter drive trapping may be necessary to achieve management objectives. It is expected that during trapping some of the horses may leave the area and return at a later time; therefore, some of the wild horses in this area would not be trapped or treated. All the mares that are trapped and selected for release would be treated with the population growth suppression vaccine Porcine Zona Pellucida -22 (PZP-22) to prevent the animals from getting pregnant the following year(s). PZP-22 is a time-release pelleted PZP vaccine formulation with an expected efficacy of approximately 22 months. Studies have shown that PZP-22 is most effective the first year after it is administered; efficacy drops off in year 2. To maintain the continuous application of the vaccine, mares might potentially be held for 30 days and given a booster shot. This is expected to help the efficacy of the fertility control vaccine. Every 20-24 months BLM would trap, treat any new mares retained and/or retreat the previously treated mares, and then release the horses back to the area. All treated mares would be monitored to determine effectiveness of the treatments. While in the chute the horses would be identified for adoption or release due to age, gender and/or other desirable characteristics. A hair sample would be collected from each horse retained in the project area for genetic analysis to assess the current genetic health.

The mares identified for release would be aged, photographed, and freeze-marked for identification prior to being released to help identify the animals for future treatments/boosters and assess the efficacy of the growth suppression application. Each released mare would receive a single dose of PZP-22 contraceptive vaccine (or current formulation) to decrease the future annual population growth. The treatment would be controlled, handled, and administered by trained BLM employees. All immuno-contraceptive (fertility control) treatments would be conducted in accordance with the approved standard operation and post-treatment monitoring procedures (SOPs) detailed in Appendix III.

The goal of this project would be to monitor the effectiveness of the treatments and overall reduction in foaling rates following treatment while stabilizing and maintaining a small wild horse population within this portion of the Antelope HMA. It is also expected that there would be an initial removal of approximately 30-40 excess horses to achieve the target AML population for the area at the start of the project. An estimated 25-30 wild horses would reside in the area following this initial trapping and release at an approximate 50/50 ratio of studs to mares in the area. Any wild horses older than ten years would be released back on to public lands and would not be prepped for adoption or removal. Associated with the routine booster shots and/or treatment of the resident mares every 20-24 month, there would also be a need to remove a small number of horses (5-10 primarily young horses born after the start of the project) when the population exceeds 40 horses in the area. Horses would need to be trapped and removed back down to the 25-30 horses to assure that the horses in the pilot area have sufficient resources to sustain themselves throughout the year. Routine resource monitoring would continue to be conducted in the Water Canyon project area to assure adequate resources are available for the horses in the area.

PZP vaccine use in wild horse herds has been studied extensively for more than two decades, with papers published in peer-reviewed scientific journals by experienced reproductive physiologists, equine scientists, wildlife biologists, geneticists, and animal behaviorists. This scientific information confirms the safety, high efficacy, and absence of long-term behavioral, physical, or physiological effects from the vaccine. This data is supported by field data, with statistically adequate sample sizes. Data was collected by trained, unbiased individuals, who adhere to established research methodology within his or her respective field (Kirkpatrick et al. 2010).

Following the initial trapping and treatment, approximately 5-10 excess wild horses would be offered to the public through a trap site adoption. Horses between ages 0-3 not identified for release back into the area would be prepped for a trap site adoption. The adoption for these horses would be hosted by local volunteers shortly after the gather. All horses not adopted during this event or not selected for this trap site event due to age or potential adoptability would be transported to a BLM short-term holding facility where they would have more opportunities for adoption or be put into long-term holding. BLM would provide the temporary corrals for the wild horses that are being kept for adoption. A website would be created for the targeted adoption horses for public viewing and information.

Gathering of horses that fit the proposed action would occur as necessary for the next 10 years following the date of the decision (approximately August 2015). Horses would likely be trapped every other year and would be given a booster during gathers following the initial treatment. If a gather occurs through the rest of Antelope HMA this portion would not be gathered in order to not impact the long term management objectives for this project.

The most humane and efficient gather approach would be chosen when analyzing the gather area. Bait or water trapping by BLM staff or personnel authorized by the BLM would be the primary method used to gather wild horses from this small distinct geographic area. Any 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 for the areas being gathered. However helicopter-drive trapping may be needed to meet management objectives to capture the highest percentage of wild horses present. This appropriate gather method would be decided by the Wild Horse and Burro Specialist based on the location, accessibility of the animals, local terrain, vegetative cover, and available sources of water and forage. The use of roping from horseback could also be used when necessary. Based on wild horse watering locations in this area, it is estimated that four different trap sites may be used during trapping activities; however, horses in the area generally go to two main sources for water. Temporary trap (gather) sites, including helicopter drive and water/bait trapping sites, as well as temporary holding sites, may 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 (with the landowner's permission) if necessary to ensure accessibility and/or based on prior disturbance. Use of private land would be subject to Standard Operating Procedures (SOPs) (Appendix I) and to the written approval/authorization of the landowner.

Temporary gather and holding sites would be no larger than 0.5 acres. Bait or water trap-

ping sites could remain in place up to one year. Helicopter drive and temporary holding sites could be in place for up to 45 days. The exact location of the gather sites and holding sites may 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, 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 site. If cultural resources are encountered, the location of the gather/holding site would be adjusted to avoid all cultural resources. All gather (helicopter drive or water/bait trapping) and handling activities (including gather site selections) would be conducted in accordance with SOPs in Appendix I.

No trap sites would be set up on or near sage grouse leks, riparian areas, cultural resource sites, or Congressionally Designated Wilderness Areas. Gather sites would be located in previously disturbed areas. Gather activities would not occur during migratory bird nesting season (April- July). All trap sites and holding facilities on public lands would be recorded with Global Positioning System equipment. In general, gather sites and holding corrals would not be located where sensitive animal and/or plant species are known to occur nor within crucial intact habitat for big game species.

Activities in listed species habitat would be subject to Section 7 consultation under the Endangered Species Act with the level of consultation to be determined based upon the project site-specific proposed action. BLM would complete consultation prior to implementation of any specific action which may have an effect on a listed species.

Activities within Greater Sage Grouse habitat would be in accordance with the WO IM 2012-043 and adhere to Nevada State Office IM 2015-017.

Bait/Water Trapping

Bait and/or water trapping generally requires a longer window of time for success than helicopter drive trapping. 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 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 horses creates a low stress trapping method. During this acclimation period the 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 manned or checked on a daily basis by either BLM personnel or authorized contractor staff. 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 excess horses using bait/water trapping could occur at any time of the year and traps would remain in place until the target number of animals 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 few perennial water resources are available nearby. Under those circumstances, water trapping could be a useful means of reducing the number of horses at a given location, which can also relieve the resource pressure caused by too many horses. As the proposed bait and/or water trapping in this area is a low stress approach to gathering wild horses, such trapping can continue into the foaling season without harming the mares or foals.

Helicopter (if used)

If the local conditions require a helicopter drive-trap operation, the BLM would utilize a contractor or in-house gather team to perform the gather activities in cooperation with BLM and other appropriate staff. 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 IM No. 2010-164. Helicopter landings would not be allowed in wilderness except in the case of an emergency.

Helicopter drive trapping involves use of a helicopter to herd wild horses into a temporary trap. The SOPs outlined in Appendix I would be implemented to ensure that the gather is conducted in a safe and humane manner, and to minimize potential impacts or injury to the wild horses. Traps would be set in a area with high probability of access by horses utilizing the topography if possible to assist with capturing excess wild horses residing within the area. Traps consist of a large catch pen with several connected holding corrals, jute-covered wings and a loading chute. The jute-covered wings are made of material, not wire, to avoid injury to the horses. The wings form an alley way used to guide the horses into the trap. Trap locations are changed during the gather to reduce the distance that the animals must travel. A helicopter is used to locate and herd wild horses to the trap location. The pilot uses a pressure and release system while guiding them to the trap site, allowing them to travel at their own pace. As the herd approaches the trap the pilot applies pressure and a prada horse is released guiding the wild horses into the trap. Once horses are gathered they are removed from the trap and transported to a temporary holding facility where they are sorted.

If helicopter drive-trapping operations are needed to capture the targeted animals, BLM would assure that an Animal and Plant Health Inspection Service (APHIS) veterinarian or contracted licensed veterinarian is on-site during the gather to examine animals and make recommendations to BLM for care and treatment of wild horses. BLM staff would be present on the gather at all times to observe animal condition, ensure humane treatment of wild horses, and ensure contract requirements are met.

Gather related Temporary Holding Facilities (Corrals)

Wild horses that are gathered would be transported from the gather sites to a temporary holding corral in goose-neck trailers. At the temporary holding corral wild horses would be sorted into different pens based on sex. Horses would be identified for population growth suppression and administered a shot at the corrals. The horses would be aged and provided good quality hay and water. Mares and their un-weaned foals would be kept in pens together. At the temporary holding facility, a veterinarian, when present, would provide recommendations to the BLM

regarding care and treatment 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 abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Off-range Corrals, and Adoption Preparation

All gathered wild horses would be removed and transported to BLM holding facilities where they would be inspected by facility staff and if needed a contract veterinarian to observe health and ensure the animals are being humanely cared for.

Wild horses removed from the range would be transported to the receiving off-range corrals (ORC, formerly 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.

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 off-range corral, 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 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. .

After recently captured wild horses have transitioned to their new environment, they are prepared for adoption, sale, or transport to long-term grassland pastures. Preparation involves freeze-marking the animals with a unique identification number, vaccination against common diseases, castration, and de-worming. At ORC facilities, a minimum of 700 square feet of space is provided per animal.

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 horse for one year and inspects the horse and facilities during this period. After one year, the applicant may take title to the horse, at which point the horse becomes the property of the applicant. Adoptions are conducted in accordance with 43 CFR Subpart 4750.

Sale with Limitations

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 buyers cannot sell the horse 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 1971 WFRHBA and

congressional limitations.

Off-Range Pastures

When shipping wild horses for adoption, sale or off-range pastures (ORPs),, the 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 space to allow all animals to eat at one time.

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 ORP, they remain available for adoption or sale to qualified individuals; and foals born to pregnant mares in ORP are gathered and weaned when they reach about 8-12 months of age and are also made available for adoption. The ORP 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 ORP contractor and periodic counts of the wild horses to ascertain their well-being and safety are conducted by BLM personnel and/or veterinarians.

Euthanasia or Sale without Limitations

While the destruction of healthy excess animals and sale without limitations is allowed under the WFRHBA, neither option is currently available for disposition of excess horses under the Department of the Interior's fiscal year 2015 budgetary appropriations, due to Congressional restrictions in the Department of the Interior's appropriations bills. This appropriations language has been in effect for much of the past twenty years, and BLM accordingly does not destroy healthy excess animals or allow their sale without limitations.

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 either before gather activities begin or during the gather operations. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy (Washington Office Instruction Memorandum (WO IM) 2015-070 or most current edition). Conditions requiring humane euthanasia occur infrequently and are described in more detail in Section 4.1.

Public Viewing Opportunities

Opportunities for public observation of the gather activities on public lands would be provided, when and where feasible, and would be consistent with WO IM No. 2013-058 and the Visitation Protocol and Ground Rules for Helicopter WH&B Gathers within Nevada (appendix III). This protocol is intended to establish observation locations that reduce safety risks to the public during helicopter gathers (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 located at gather or holding sites and would be subject to the same

cultural resource requirements as those sites.

2.2 Alternative B - Treat Mares for Release with GonaCon

Under Alternative B all the proposed management actions to be taken would be similar to the proposed action with the exception that all the released mares would be treated with the population growth suppression vaccine GonaCon-B instead of PZP-22. This immunocontraceptive vaccine has a longer lasting effect and has been shown to provide multiple years of infertility in several wild ungulate species including horses (Killian et al., 2008; Gray et al., 2010). GonaCon-B utilizes a gonadotropin-releasing hormone (GnRH) which is a small neuropeptide that performs an obligatory role in mammalian reproduction. When combined with an adjuvant, the GnRH vaccine stimulates a persistent immune response resulting in prolonged antibody production against GnRH, the carrier protein, and adjuvant (Miller et al., 2008). The most compelling hypothesis on the vaccine effectiveness suggests that antibodies to GnRH likely induce transient infertility by binding to endogenous GnRH, thus preventing attachment to receptors on gonadotropes and suppression of pulsatile luteinizing hormone (LH) secretion (Molenaaret al., 2010). As anti-GnRH antibodies decline over time, concentrations of available endogenous GnRH increase and treated animals usually regain fertility (Power et al., 2011). GonaCon-Equine has been registered with the U.S. Environmental Protection Agency (EPA) since January 2013.

2.3 No Action Alternative

Under the No Action Alternative, no population growth suppression action or wild horse removals would take place. The population of the wild horses in the Water Canyon portion of the Antelope HMA would continue to grow at the national average rate of increase seen in the majority of HMAs of 20 to 25% per year. Nationally, there is a shortage of both short-term and long-term holding space for wild horses that have been removed from the range. Until adequate holding space becomes available, removals are not being authorized.

2.4 Alternatives Considered but Eliminated from Detailed Analysis

Dart horses with ZonaStat-H (Native PZP)
This alternative was eliminated from further consideration due to the difficulties inherent in darting horses in the project area. Most horses in the Antelope HMA are very flighty and tend to avoid humans. Although some horses could successfully be treated by darting it is unlikely that it would be as effective as trapping in gathering a sufficient number of horses and administering growth suppression. This formulation of PZP also requires a booster given every year following treatment to maintain the highest level of efficacy. Darting would also not believe the horses in this area can be successfully approached and darted multiple times in order to initiate the treatment and then booster it a few weeks later as well as annually dart them to achieve the high efficacy. By capturing the wild horses in this area, BLM can collect important allow BLM to obtain the base line information (age, sex ratios, and genetics) that to better understand the effectiveness of the growth suppression administered as well as have the best chance for successful implementation of the treatment. , and that would be collected from horses gathered for fertility control applications

Administer ZonaStat-H (Native PZP)
ZonaStat-H requires an initial primer shot followed shortly (4-6 weeks preferred) by a booster shot to achieve the high efficacy results for the year. In order to maintain high efficacy, ZonaStat-H requires annual boosters. In comparison, PZP-22 is implemented through an initial primer dose, which is the same formulation as the ZonaStat-H vaccine, plus implant of three time released pellets. These pellets are designed to release PZP into the animal's circulatory system at 1, 3, and 12 months. This allows for the animal to receive a full efficacy while limiting the need to conduct year gathers. ZonaStat-H was eliminated from further consideration due to the expense associated with having to trap the horses every year to maintain the highest level of efficacy due to the difficulties inherent in darting horses in the project area. BLM is trying to avoid the need to annually trap the Water Canyon project area and subject the horses to increased handling in order to achieve the highest efficacy. To booster the treated mares annually would involve a large amount of labor and funding expenditures that cannot be guaranteed at this time. Frequent annual gathers might cause horses to leave the area, which would reduce the effectiveness of the treatment and compromise the pilot project. The traps would need to be set up in the area for a few weeks prior to trapping to be effective. Leaving the traps up year-round may also affect other activities on the range such as hunting, grazing, and recreation. Due to the availability of other effective fertility control drugs that do not require a yearly booster, this alternative was eliminated from further analysis.

Gather Horses and Remove to a Population of 25-30 Head Every Other Year if Funding Allows
Most of the proposed management actions would be the same as the proposed action but horses would be captured and all horses above AML would be removed to achieve a population of 25-30 head every other year. Released horses at AML would not be treated with growth suppression. The population of the wild horses in the Water Canyon portion of the Antelope HMA would continue to grow at the national average rate of increase seen in the majority of HMAs of 20 to 25% per year. The horses gathered would likely end up being adopted or in long-term holding. This alternative would not slow the growth rate of the population of wild horses in the Water Canyon project area and requires sufficient holding space for excess wild horses that are removed. Given the shortage of holding space, need to prioritize removals at a national level where the resource or wild horse conditions are most pressing, this alternative would be inconsistent withthe purpose and need for the project, which is to develop an approach that can maintain the wild horse population at AML by slowing population growth and reducing the number of excess wild horses that need to be removed from the range over the long-run.

Wild Horse Numbers Controlled by Natural Means
This alternative was eliminated from further consideration because it is contrary to the WFRHBA which requires the BLM to prevent the range from deterioration associated with an overpopulation of wild horses. An alternative of using natural controls to achieve and maintain the established AML has not been shown to be feasible in the past or practical. Wild horses in the Antelope HMA are not substantially regulated by predators or other natural factors. In addition, wild horses are a long-lived species with documented foal survival rates exceeding 95%, and they do not self-regulate their population growth rate. This alternative would result in a steady increase in horse numbers which would eventually exceed the carrying capacity of the range until severe and unusual conditions that occur periodically-- such as blizzards or extreme drought-- causes catastrophic mortality of wild horses. By the time such catastrophic mortality

occurs, the range could be irreparably degraded through the loss of native vegetative plant communities, leaving the range vulnerable to the spread of invasive and noxious plant species and and unable to recover naturally.

Gather Excess Wild Horses and Apply Two-Year Fertility Control (PZP-22)
This alternative would be to gather the Water Canyon Project Area (Antelope HMA), apply Two-Year Fertility Control (PZP-22) without achieving the target population level (25-30 horses) within the project area. This alternative is similar to Alternative A, but would not decrease the wild horse population to the target population level and would not achieve the targeted population level for years. Under this alternative, resource concerns associated with excess wild horses would continue. This alternative would not meet the purpose and need and is contrary to the WFRHBA which requires the BLM to prevent deterioration of the range when it determines there are excess wild horses that need to be removed from the range. This alternative did not receive any further consideration.

Raising the Appropriate Management Levels for Wild Horses
The monitoring data does not support raising the AML for wild horses within the current multiple use balance established under the RMP. This alternative was not brought forward for detailed analysis because it is outside of the scope of the analysis, and is inconsistent with the 2008 Ely District ROD and Approved RMP (August 2008) which direct the Secretary to immediately remove excess wild horses, and is inconsistent with multiple use management. Alternative D of the Ely Proposed Resource Management Plan/Final Environmental Impact Statement (November 2007) analyzed an alternative under which wild horse herds would be left largely unmanaged except for removal of wild horses outside the herd management areas and eliminated livestock grazing throughout the planning area to protect vegetation and soil resources. The analysis of this alternative concluded that this limited management approach for the herd management areas, combined with the wild horse population growth rate and the absence of fire management, would lead to rapid deterioration of ecological systems within these areas and the likely starvation of many animals as wild horse populations increased beyond the support level of their habitat.

Remove or Reduce Livestock within the HMAs
This alternative would leave wild horses above AML on the range and instead remove livestock. This alternative is inconsistent with the 2008 Ely District ROD and Approved RMP (August 2008) and would therefore require a land-use plan amendment. It was therefore not brought forward for detailed analysis. Livestock grazing under the existing RMP is reduced or eliminated following the process outlined in the regulations found at 43 CFR Part 4100, not through a wild horse management decision.

Monitoring and evaluation of livestock grazing in allotments within the Antelope HMA is in accordance with the Ely District Record of Decision and Approved Resource Management Plan dated August 20, 2008. This action is specifically provided for in Management Decisions LG-4 and LG-5.

The goals and objectives for livestock grazing found in the Ely District Record of Decision and Approved Resource Management Plan signed August 20, 2008, state, “Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained

yield, and watershed function and health." In addition, "To allow livestock grazing to occur in a manner and at levels consistent with multiple use, sustained yield, and the standards for rangeland health (p 85-86)."

Management Action LG-4 states, "Continue to monitor and evaluate allotments to determine if they are continuing to meet or are making significant progress toward meeting the standards for rangeland heath. Table 3, 4, 5 shows the current grazing preference, season-of-use, and kind of livestock for those allotments that currently are evaluated for meeting standards, are making progress toward achieving the standards, or are in conformance with the policies as determined either through the allotment evaluation process or associated with fully processed term permit renewals. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, and kind of livestock. Such changes will continue to meet the RMP goals and objectives, including the standards for rangeland health."

Management Action LG-5 states, "Maintain the current grazing preference, season-of-use, and kind of livestock until the allotments that have not been evaluated for meeting or making progress toward meeting the standards or are in conformance with the policies are evaluated. Depending on the results of the standards assessment, maintain or modify grazing preference, seasons-of-use, kind of livestock and grazing management practices to achieve the standards for rangeland health. Changes, such as improved livestock management, new range improvement projects, and changes in the amount and kinds of forage permanently available for livestock use, can lead to changes in preference, authorized season-of-use, or kind of livestock. Ensure changes continue to meet the RMP goals and objectives, including the standards for rangeland health."

The BLM is currently authorized to remove livestock from HMAs, "if necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury" under CFR 4710.5. This authority is usually applied in cases of emergency and not for general management of wild horses or burros.

3.0 AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

General Setting

The area is within the Great Basin physiographic region. This region is located in the Great Basin which is one of the largest deserts in the world. The Great Basin is effectively cut off from the westerly flow of Pacific moisture. Precipitation normally ranges from approximately five to seven inches on the valley bottoms to 16 to 18 inches on the mountain peaks. Most of this precipitation comes during the winter months in the form of snow occurring primarily in the winter and spring with the summers being quite dry. Temperatures range from greater than 90 degrees Fahrenheit in the summer months to minus 15 degrees or colder in the mountains in the winter. The area is characterized by long wide valleys and long narrow steep mountain peaks covered with heavy pinyon/juniper woodlands. On many of the low hills and ridges that are scattered throughout the area, the soils are underlain by bedrock. Elevations within the Antelope HMA range from approximately 5,000 feet to 10,200 feet.

Identification of Issues

Internal scoping was conducted by an interdisciplinary (ID) team on December 1, 2014, that analyzed the potential consequences of the Proposed Action. Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed in the NEPA Handbook H-1790-1 (2008) page 41, to determine if detailed analysis was required. Consideration of some of these items is to ensure compliance with laws, statutes or Executive Orders that impose certain requirements upon all Federal actions. Other items are relevant to the management of public lands in general, and to the EYDO in particular.

Table 3 summarizes which of the supplemental authorities of the human environment and other resources of concern within the project area are present, not present or not affected by the Proposed Action and alternatives.

Table 3. Summary of Supplemental Authorities and Other Elements of the Human Environment

Resource/Concern	**Issue(s) Analyzed ? (Y/N)**	**Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis**
Air Resources	N	The air quality status for the project analysis area in White Pine County is termed "unclassifiable" by the State of Nevada. No data is collected in White Pine County. The proposed action or alternatives would not affect air quality in White Pine County.
Water Resources	N	The proposed action would not affect water resources or water rights. Project design would avoid surface water and riparian systems. Permitted or pending water uses would not be affected. The proposed action would not affect drinking or groundwater quality. The project design would avoid surface water and riparian systems and no water wells would be affected.
Soils Resources	Y	Effects to resource are analyzed in this EA. Section 3.1
Vegetation Resources	Y	Impacts under each alternative could result in improving or deteriorating native plant communities. Effects to resource are analyzed in this EA. Section 3.2
Wetland and Riparian Zones	Y	Effects to resource are analyzed in this EA. Section 3.3
Fish and Wildlife	Y	Effects to resource are analyzed in this EA. Section 3.4
Special Status Species	Y	There are no Special Status Plant species or Threatened or Endangered Species within or near the project area. Effects to resource are analyzed in this EA. Section 3.4
Wild Horses	Y	Effects are analyzed in this EA. Section 3.5
Cultural Resources	N	In accordance with the SOPs for Gather and Handling Activities in Appendix I (BLM/SHPO Protocol), gather facilities would be placed in previously disturbed areas.

Resource/Concern	Issue(s) Analyzed ? (Y/N)	Rationale for Dismissal from Detailed Analysis or Issue(s) Requiring Detailed Analysis
		Should new, previously undisturbed gather sites or holding facility locations be required, appropriate Class III cultural resource inventories would be conducted to avoid placing gather facilities in areas with cultural resources and to ensure that measures are taken to avoid any cultural resource impacts. There are Mollusks and Brachiopods/corals identified within the Water Canyon Area. All known Paleontology would be avoided during the gather operations, therefore, no effects are expected from the Proposed Action
Native American Religious and other Concerns	N	No potential traditional religious or cultural sites of importance have been identified in the project according to the Ely District RMP Ethnographic Report (2003).
Visual Resources	N	The proposed action and alternatives would have no impacts to Visual Resources.
Recreation	N	The proposed action and alternatives would have no impacts to Recreation in this area.
Livestock Grazing	Y	Livestock grazing occurs in the project area. The project area is in the Schellbourne Becky Springs, Becky Creek, North Steptoe, North Steptoe Trail, Lovell Peak, and Cherry Creek Allotments. Effects are analyzed in this EA. Section 3.6
Watershed	N	The proposed action and alternatives would have no impacts to the Steptoe Watershed.
Floodplains	N	The project analysis area is not included on FEMA flood maps.
Noxious and invasive weeds	Y	Affected resources are analyzed in this EA. Section 3.7
Wilderness	N	The Becky Peak Wilderness is within the north and east portion of the project area. No traps would be set up within wilderness. If a helicopter drive operation is utilized flights over wilderness could occur, but no landings would be authorized within wilderness, except in an emergency.
Lands with wilderness characteristics	N	Both the original (1979-1980) and updated (2011) inventories for the project area found wilderness characteristics lacking (outside the Becky Peak Wilderness)
Special Designation other than designated Wilderness	N	No Special designations have been identified.
Wastes, Hazardous or Solid	N	No known hazardous or solid wastes exist in the designated HA/HMA boundaries, nor would any be introduced.
Human Health and Safety	Y	Potential effects to human health and safety are analyzed in this EA. Section 3.8
Environmental Justice	N	No environmental justice issues are present at or near the project.

The following critical or other elements of the human environment are present and may be affected by the Proposed Action or the alternatives. The affected environment is described for the reader to be able to understand the impacts analysis.

3.1 Soils Resources

Affected Environment

The extremes of climate, relief, aspect, and geologic type combine to form a wide variety of soil types. Soils vary with differing parent materials, position on the landscape (landform), elevation, slope, aspect, and vegetation cover. Soils range from those on the valley floor that are frequently deep, fine-textured, poorly drained, and alkaline with a high salt content to shallow mountain soils formed over bedrock.

Soils found in the project area are primarily Aridisols, Entisols, and Mollisols. The soils in the valleys are mainly mineral soils of two types: those that do not have water continuously available for three months when the soil is warm enough for plant growth (Aridisols); and soils showing little evidence of the soil forming process, the development of horizons or layers (Entisols). Aridisols dominate deserts and xeric shrub lands and have a very low concentration of organic matter. Water deficiency is the major defining characteristic of aridisols. Entisols accumulate on land surfaces that are relatively young (alluvium), extremely hard rocks or disturbed material, mined land, and highly compacted soils.

The mountain sides consist of Aridisols and Entisols, and some mineral soils with grass cover and darker surface horizon (Mollisols). Generally, Entisols occur on steep mountain slopes where erosion is active. They also occur on flood plains and alluvial fans where new material is deposited. Aridisols and Mollisols are older and occur on more stable alluvial fans and terraces.

Average annual soil loss varies by soil-type which is related to soil texture and landscape location. Some soils exhibit high rates of erosion while others exhibit much lower erosion rates. In general, as disturbance increases and/or soil cover is reduced, soil loss increases compared to undisturbed locations. Management actions which maintain or improve vegetation cover and reduce disturbance are expected to reduce the risk and rate of wind and water erosion.

Environmental Effects

Impacts Common to Proposed Action and Alternative B

Project implementation activities would primarily be limited to existing roads, washes and horse trail areas, and only relatively small areas would be used for trapping and holding operations. Horses may be concentrated for a limited period of time in traps. Traps placed on upland areas may result in some new soil disturbance and compaction, but these impacts would be temporary and would not be expected to adversely affect soil quality in the long term. Soil quality may improve in the long term since physical impacts from wild horse use above AML would decrease due to the proposed gather.

No Action Alternative

If the proposed gather do not occur, the impacts from horses as described under the Affected Environment would continue and would increase in intensity as the population of those wild horse herds increases, particularly in areas of congregation around water and/or in specific upland areas, where soil erosion is most likely to occur.

3.2 Vegetation Resources

Affected Environment

The vegetative plant communities within the project area have developed on many different soil types with several kinds of parent materials. The project area vegetation is characterized as black sagebrush and saltbush type communities. Within these vegetation type there are several plant communities described. The dominant plant species are black sagebush, shadescale, winterfat, Indian ricegrass and bluebunch wheatgrass.

Environmental Effects

Impacts Common to Proposed Action and Alternative B-

The proposed action is expected to have an impact on vegetative resources. The impacts would include trampling of vegetation by wild horses at gather sites and holding locations, crushing of vegetation by vehicles, and vegetation disturbance from the temporary corrals and holding facilities. These disturbed areas would make up less than one acre per location. Gather corrals and holding facility locations are usually placed in areas easily accessible to livestock trailers and equipment. Use of existing roads, gravel pits or other previously disturbed sites may also be an option. No new roads would be created. These likely impacts are temporary and vegetation would be expected to recover.

Under the Proposed Action vegetation resources would remain at or near the current condition. Water trap sites would most likely be at locations already disturbed by wild horse and other animal activity. However, the disturbance and trampling that would occur under the Proposed Action is very similar to the disturbance and trampling that is currently caused by the existing wild horse and wildlife populations. It is expected that under the Proposed Action, vegetation resources would be disturbed but in very small concentrated areas as compared to the total size of the project area. Vegetation disturbed as a result of the gather activities is expected to recover quickly.

Under the proposed action, the removal of wild horses would be expected to have a positive overall impact on the vegetation resources. There would be less grazing pressure throughout the year on the vegetation communities. Short term, this would allow plants to improve vigor and robustness. Long term, this would allow plant communities to become healthier and have a greater overall resilience to environmental fluctuations.

No Action Alternative

No impacts from the gather would occur. Horses above AML would not be gathered. The impacts to vegetation by grazing or trampling would increase as the horse population increases. This could result in impacts to plant health, reproduction, diversity, and composition within the project area. As impacts from rising horse numbers increase, plant community health and vigor would decline. As the overall health and vigor of the plant community declines it would become more susceptible to the effects of over grazing and other stressors, such as drought and invasive species. Over time forage resources would become less available.

3.3 Wetland and Riparian Zones

Affected Environment

There are several springs/riparian areas within the project area including Trough Spring, Woodcamp Spring, and Indian Spring. These springs support limited riparian habitat and water flows. Although these riparian areas are small in relative size, they occupy a unique position on the landscape and play an important role in protecting water quality and quantity within the project area. They also provide important habitat needs for many species, and support greater numbers and diversity of wildlife than any other habitat type.

Environmental Effects

Impacts Common to Proposed Action and Alternative B

Direct impacts to springs/riparian areas from bait and water trapping could occur if the temporary traps are set up around these water sources. Those impacts would include compaction and hummocking of the wet soils, and overuse of riparian vegetation. This could lead to a decrease in water quality and quantity. These impacts could be avoided by not locating temporary traps around springs/riparian areas. There would be no direct impacts if helicopter drive trapping is used.

Long-term impacts associated with the proposed action would be a reduction in the number of wild horses within the project area resulting in an improvement in the condition of riparian areas and water quality and quantity.

No Action Alternative

There would be no direct impacts to springs/riparian areas under the No Action Alternative since no traps would be set up. Over the long term, the overpopulation of wild horses would result in increased use around spring/riparian areas. This could result in compaction of wet soils, overuse of riparian vegetation, a decrease in the condition of riparian areas and eventually a decrease in water quality and quantity.

3.4 Fish and Wildlife (Including Threatened and Endangered Species, Special Status Species, and Migratory Birds)

Affected Environment

Fish and Wildlife

There is a diverse array of wildlife species typical of the Great Basin Desert in the Ely District. The project area provides a year-round habitat for big game species such as Rocky Mountain elk, mule deer, and pronghorn antelope. Common fur-bearers include coyote, gray fox, bobcat, and mountain lion. Other wildlife species include jackrabbit, cottontail, and numerous species of small mammals.

BLM Special Status Species

The BLM protects, by policy (BLM Manual 6840), special status species designated as "sensitive" by the BLM Nevada State Director. Table 4 lists the special status species occurring, or likely to within the project area. These species are likely to nest or forage within the project area.

Table 3.0 BLM Sensitive Species occurring or likely to occur within the project area.

	Common Name	Scientific Name

Mammals	Pallid bat	*Antrozous pallidus*
	Pygmy rabbit	*Brachylagus idahoensis*
	Townsend's big-eared bat	*Corynorhinus townsendii*
	Big brown bat	*Eptesicus fuscus*
	Spotted bat	*Euderma maculatum*
	Silver-haired bat	*Lasionycteris noctivagans*
	Western red bat	*Lasiurus blossevillii*
	Hoary bat	*Lasiurus cinereus*
	California myotis	*Myotis californicus*
	Western small-footed myotis	*Myotis ciliolabrum*
	Long-eared myotis	*Myotis evotis*
	Little brown myotis	*Myotis lucifugus*
	Fringed myotis	*Myotis thysanodes*
	Long-legged myotis	*Myotis volans*
	Yuma myotis	*Myotis yumanensis*
	Western pipestrelle	*Pipistrellus heperus*
	Brazilian free-tailed bat	*Tadarida braziliensis*
Birds	Golden eagle	*Aquila chrysaetos*
	Western burrowing owl	*Athene cunicularia*
	Ferruginous hawk	*Buteo regalis*
	Greater sage-grouse	*Centrocercus urophasianus*
	Pinyon jay	*Gymnorhinus cyanocephalus*
	Loggerhead shrike	*Lanius ludovicianus*
	Sage thrasher	*Oreoscoptes montanus*
	Brewer's sparrow	*Spizella breweri*

Environmental Effects

Impacts Common to Proposed Action and Alternative B

Wildlife and wildlife habitat would benefit indirectly from the pilot program. Reduction of wild horse populations to AML and slowing down population growth would protect rangeland habitats from overuse and reduce stress on wildlife. Implementing this pilot program would reduce the competition for forage and water resources. Habitat conditions in riparian areas, aspen stands, and uplands would be maintained, benefitting many wildlife species including Greater sage-grouse.

The pilot program could have some short-term negative impacts on wildlife. Wildlife present on or near trap sites or holding facilities could be temporarily displaced or disturbed during the gather activities. However, trap sites would typically be located in previously disturbed areas (i.e., livestock water troughs), and for short periods of time. Overall, improvement and/or preservation of wildlife habitat would be expected to occur as a result of a decrease in the numbers of wild horses over AML. There would be no impact to animal populations as a whole as a result of the pilot program.

Because gather sites and holding corrals would not be located where special status animal species are known to occur, there would be no impact from the placement of or activities at these facilities. Nor would there be any impact to populations of special status species as a result of gather operations.

Under the Proposed Action, wildlife habitat would likely see more improvement over time since the wild horse population would be gathered in increments and growth rates would be lower.

No Action Alternative
Wildlife and special status species would not be disturbed or displaced by pilot program gather operations under the no action alternative. However, competition between wildlife and wild horses for forage and water resources would continue, and may even increase as wild horse numbers continue to increase. Wild horses are aggressive around water sources, and some wildlife may not be able to compete, which could lead to the death of individual animals. Wildlife habitat conditions would deteriorate as wild horses reduce herbaceous vegetative cover. This could result in lower nesting success for Greater sage-grouse and migratory birds.

3.5. Wild Horses

Affected Environment
The affected environment would encompass the west portion of the Antelope HMA within the Ely District approximately 50 miles north of Ely. Due to wild fires in summer of 2014, a fence has been installed on the north end of Water Canyon on the edge of the Lages Fire along U.S. Highway 93. This fence will slow the movement of the horses in the area from north to south and almost isolates this portion from the rest of the HMA; however, there is expected to still be some interchange with horses from the east.

Horses generally reside in the northern portion of the project area due to water resources. Water available for use by wild horses within the Water Canyon Project Area is limited to a few perennial sources. Trough Spring and Indian Spring tend to produce water year round while Woodcamp Spring has seasonal water flow which usually dries up during the summer months. Wild horses tend to concentrate around these primary water sources. These water sources are monitored throughout the summer to make sure water is available for wild horses. Occasional wild horse use does occur at water flowing off of a private ranch in the area.

Current monitoring data collected using Range Utilization Key Forage Plant Method in 2014 indicates heavy (66%- 75%) use throughout the northern portion of the Water Canyon Project Area, and light (34%) use in the southern end.

A 2015 inventory flight shows a direct count of 669 horses in the Antelope HMA, and 66 wild horses inside the Water Canyon project area.

Environmental Effects
Impacts Common to Proposed Action and Alternative B
Impacts to individual animals could occur as a result of stress associated with the gather, capture, processing, and transportation of animals. The intensity of these impacts would vary by individual and would be indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individual horses from these activities is rare but can occur. Other impacts to individual wild horses include separation of members of individual bands and removal of animals from the population.

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

could occur and typically involve biting and /or kicking bruises. Horses may potentially strike or kick gates, panels or the working chute while in corrals or trap which may cause injuries. Lowered competition for forage and water resources would reduce stress and fighting for limited resources (water and forage) and promote healthier animals.

Indirect individual impacts are those impacts which occur to individual wild horses after the initial stress event, and may include spontaneous abortions in mares. 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 studs following sorting and release into the stud pen, which lasts less than a few minutes and ends when one stud retreats. Traumatic injuries usually do not result from these conflicts. These injuries typically involve a bite and/or kicking with bruises which don't 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 at time of gather can increase the incidence of spontaneous abortions. Given the two different capture methods proposed, spontaneous abortion is not considered to be an issue for either of the two proposed project. H methods, since helicopter/drive trap method would not be utilized during peak foaling season (March 1 thru June 30), unless an emergency exists, and the water/bait trapping method is anticipated to be low stress.

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. It is unlikely that orphan foals would be encountered since majority of the foals would be old enough to travel with the group of wild horses. Also depending on the time of year the current foal crop would be six to nine months of age and may have already been weaned by their mothers.

Gathering wild horses during the summer months can potentially cause heat stress. Gathering wild horses during the fall/winter months reduces risk of heat stress, although this can occur during any gather, especially in older or weaker animals. Adherence to the SOPs and techniques used by the gather contractor or BLM staff will 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 can be mitigated 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 horses' exposure to dust.

The BLM has been gathering excess wild horses from public lands since 1975, and has been using helicopters for such gathers since the late 1970's. Refer to Appendix I for information on the methods that are utilized to reduce injury or stress to wild horses and burros during gathers. Since 2006, BLM Nevada has gathered over 38,500 excess animals. Of these, gather related mortality has averaged only 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 and burros from the range. BLM policy prohibits gathering 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 period (mid-April to mid-May).

Through the capture and sorting process, wild horses are examined for health, injury and other defects. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. BLM Euthanasia Policy IM 2015-070 is used as a guide to determine if animals meet the criteria and should be euthanized. 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 which prevent 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, 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 should not be returned to the range.

Transport, Off-range Corrals, and Adoption Preparation

During transport, potential impacts to individual 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.

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.

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.

Mortality at short-term holding facilities averages approximately 5% (GAO-09-77, Page 51), which includes animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured and would not recover, animals that are unable to transition to feed; and animals that die accidentally during sorting, handling, or preparation.

Off-Range Pastures

Off-range pastures (ORPs), known formerly as long-term holding pastures, 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. Mares and sterilized stallions (geldings) are segregated into separate pastures except at one facility where geldings and mares coexist. About 31,250 wild horses that 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, and South Dakota. The establishment of ORPs was subject to a separate NEPA and decision-making process. Located in mid or tall grass prairie regions of the United States, these ORPs are highly productive grasslands compared to more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 10-11 acres per animal). Of the animals currently located in ORP, less than one percent is age 0-4 years, 49 percent are age 5-10 years, and about 51 percent

are age 11+ years.

Potential impacts to wild horses from transport to adoption, sale or off-range pastures (ORP) are similar to those previously described. One difference is when shipping wild horses for adoption, sale or ORPs, 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 water and two pounds of good quality hay per 100 pounds of body weight with adequate space to allow all animals to eat at one time.

A small percentage of the animals may be humanely euthanized if they are in very poor condition due to age or other factors. Horses residing on ORP facilities live longer, on the average, than wild horses residing on public rangelands, and the natural mortality of wild horses in ORP averages approximately 8% per year, but can be higher or lower depending on the average age of the horses pastured there (GAO-09-77, Page 52).

Wild Horses Remaining or Released into the HMA following Gather

Under the Proposed Action, the wild horses that are not captured may be temporarily disturbed and may move into another area during the gather operations. With the exception of changes to herd demographics, direct population- wide impacts from a gather have proven, over the last 20 years, to be temporary in nature with most if not all impacts disappearing within hours to several days of when wild horses are released back into the HMAs. No observable effects associated with these impacts would be expected within one month of release, except for a heightened awareness of human presence. There is the potential for the horses that have been desensitized to vehicles and human activities to return to areas where they were gathered if released back into HMA's.

The wild horses that remain in the HMAs following the gather would maintain their social structure and herd demographics (age and sex ratios) as the proposed gathers would mainly be targeting specific individual or bands of horses. No observable effects to the remaining population from the gather would be expected.

Fertility Control Treatments

Impacts Common to Proposed Action and Alternative B

Contraception has been shown to be a cost- effective and humane treatment to employ in horses to prevent increases in populations, or with other techniques, to reduce horse populations (Bartholow 2004, de Seve and Bowles-Griffin 2013). Because contraception by itself does not remove excess horses from an HMA's population, contraception would result in some continuing environmental effects resulting from the presence of treated and released mares if the overall population is in excess of AML. Horses are long-lived, reaching 20 years of age in the wild and if the population is above AML, treated horses returned to the HMA may continue exerting throughout their life span negative effects on the environment as described above, as compared to if horses above AML are removed when horses are gathered for treatment and release. Contraception, on the other hand, reduces future reproduction. Limiting future population increases of horses would limit increases in environmental damage from higher densities of horses. It may also reduce the effect of horse gather activities on the environment (if it limits the numbers of horse gathers

required). If application of contraception to horses requires capturing and handling horses, the risks and costs associated with capture and handling of horses may be roughly equivalent (not counting the cost of adoption). Application of contraception to older animals and returning them to the HMA may reduce risks associated with horses that are difficult to adopt and also negates the compensatory reproduction that follows removals (Kirkpatrick and Turner 1991).

Mares receiving the vaccine would experience slightly increased stress levels associated with handling while being vaccinated and freeze-marked. Serious injection site reactions associated with fertility control treatments are rare in treated mares. Any direct impacts associated with fertility control, such as swelling or local reactions at the injection site, are rare and would be minor in nature. Most mares recover quickly once released back to the HMA, and none are expected to have serious long term impacts from the fertility control injections. Newly captured mares that do not have markings associated with previous fertility control treatments would be marked with new freeze-mark letters for tracking purposes. This information would also be used to determine the number of mares captured that were not previously treated and would provide additional insight regarding gather efficiency.

One of the primary long-term and indirect effects to the wild horses through the continued treatment with fertility control would be to the overall health and wellbeing of the animals and the range. Many treated mares would not experience the biological stress of reproduction, foaling and lactation and would reflect better health as noted by higher body condition scores. Future foals born to these mares would be healthier overall, and would benefit from optimum nutrition from mares' milk and rangeland forage. Past application of fertility control has shown that mares reflect improvements to overall health and body condition even after fertility resumes. Subsequent observations of mares treated in past gathers showed that many of the mares were larger than the others were, maintained higher body condition than untreated mares, and had large healthy foals. Following resumption of fertility, the proportion of mares that conceive and foal could be increased (rebound effect) due to the increased fitness. Research is continuing to document and quantify these effects; however, it is believed that repeated contraceptive treatment will minimize this rebound effect.

The indirect effect of fertility control would be to reduce foaling rates and population growth, and would reduce the number of wild horses that have to be removed over time to achieve and maintain the established AML. Long term genetic and physical health and future reproductive success of mares within the herd would be sustained. Expanding the use of PGS to slow growth rates and reduce the number of animals removed from the range (especially to ORPs) is a BLM priority. Additionally, reducing the numbers of wild horses that would have to be removed in future gathers would also allow for removal of younger, adoptable excess wild horses, and thereby eliminate the need to send additional excess horses from this area to LTPs.

Reduced population growth rates and smaller population sizes would also allow for continued and increased improvements to range condition within the project area, which would have long-term benefits to wild horse habitat quality. As the population nears or is maintained at the level necessary to achieve a thriving natural ecological balance, vegetation re-

sources would continue to improve, thereby improving the forage available to wild horses throughout this portion of the Antelope HMA. With a better balance and more optimum distribution of wild horses across the Water Canyon portion of the Antelope HMA there would also be less trailing and concentrated use of waters which would have many benefits to the wild horses. There would be reduced competition among wild horses using the waters, and less fighting would occur among studs and individual animals accessing these waters. Water quality and quantity would continue to improve to the benefit of all rangeland users including wild horses. Wild horses would also have to trail less distance back and forth to water and desirable foraging areas.

Proposed Action

When injected, PZP (antigen) causes the mare's immune system to produce antibodies and these antibodies bind to the mare's eggs, and effectively block sperm binding and fertilization (Zoo, Montana, 2000). PZP is relatively inexpensive, meets BLM requirements for safety to mares and the environment, and can easily be administered in the field. In addition, among mares, PZP contraception appears to be completely reversible. One-time application at the capture site would not affect normal development of the fetus, hormone health of the mare or behavioral responses to stallions, should the mare already be pregnant when vaccinated (Kirkpatrick 1995). The vaccine has also proven to have no apparent effect on pregnancies in progress, the health of offspring, or the behavior of treated mares (Turner, 1997). Available data from 20 years of application to wild horses contradicts the claim that PZP application in wild mares causes mares to foal out of season or late in the year (Kirkpatrick and Turner 2003). The PZP vaccine is currently being used on over 75 areas managed for wild horses by the National Park Service, US Forest Service, or the Bureau of Land Management and its use is appropriate for all free-ranging wild horse herds. The long-term goal is to reduce or eliminate the need for gathers and removals (Kirkpatrick et al. 2010).

Following the gathers, application of effective PZP-22 would reduce fertility in a large percentage of mares. Recruitment of foals into the population would be reduced over a three-year period. Up to 94% of the mares treated would not foal the second year following implementation of fertility control, and 82% and 68% of mares in the following two years. Since gather efficiency would likely not exceed 85-90% via helicopter and would be less with bait and water trapping, there would be a portion of the population uncaptured, and an estimated 50% of these would be mares. Additionally, not all mares respond to the fertility control vaccine and would continue to foal normally.

The highest success for fertility control has been obtained when applied during the timeframe of November through February. The efficacy for the application of the two-year PZP vaccine (PZP-22) based on winter applications can be expected to fall in the efficacy rages as follows:

Year 1	Year 2	Year 3	Year 4
Normal	89-94%	24-82%	0-68%

Rates for summer application for an August to October treatment window are:

Year 1	Year 2	Year 3	Year 4
Normal	80%	65%	50%

Most mares recover quickly once released back to the HMA, and none are expected to have long term impact from the fertility control injections. Roelle and Ransom (2009) found that the most time-efficient method for applying PZP is by hand-delivered injection of 2-year pellets when horses are gathered. They observed only two instances of swelling from this formulation. Use of remotely delivered, 1-year PZP is generally limited to populations where individual animals can be accurately identified and repeatedly approached. This formulation produced injection-site reactions of varying intensity, though none of the observed reactions appeared debilitating to the animals. The longer term nodules observed did not appear to change any animal's range of movement or locomotor patterns and in most cases did not appear to differ in magnitude from naturally occurring injuries or scars. Any direct impacts associated with fertility control, such as swelling or local reactions at the injection site, would be minor in nature and of short duration.

Ransom et al. (2010) found no differences in how PZP-treated and control mares allocated their time between feeding, resting, travel, maintenance, and social behaviors in three populations of wild horses, which is consistent with Powell's (1999) findings in another population. Likewise, body condition of PZP-treated and control mares did not differ between treatment groups in Ransom et al.'s (2010) study. Turner and Kirkpatrick (2002) and Nunez (2009, 2010) found that PZP-treated mares had higher body condition than control mares in another population, presumably because energy expenditure was reduced by the absence of pregnancy and lactation.

In two studies involving a total of four wild horse populations, both Nunez et al. (2009, 2010) and Ransom et al. (2010) found that PZP-treated mares were involved in reproductive interactions with stallions more often than control mares, which is not surprising given the evidence that PZP-treated females of other mammal species can regularly demonstrate estrus behavior while contracepted (Shumake and Wilhelm 1995, Heilmann et al. 1998, Curtis et al. 2002).

Ransom et al. (2010) found that control mares were herded by stallions more frequently than PZP- treated mares, and Nunez et al. (2009, 2010) found that PZP-treated mares exhibited higher infidelity to their band stallion during the non-breeding season than control mares. Madosky et al. (2010) found this infidelity was also evident during the breeding season in the same population that Nunez et al. (2009, 2010) studied, resulting in PZP-treated mares changing bands more frequently than control mares and could lead to band instability. The research is inconclusive as to whether all the mares' movements between bands was related to the PZP treatments or the fact that they are not nursing a foal. Available research does not provide evidence of the loss of harem structure among herds treated with PZP. Long-term implications of these changes in social behavior are currently unknown, but no negative impacts on the animal's or population's welfare or well-being have been noted in these studies.

Nunez's 2010 research showed that a small number of mares that had been previously been treated with PZP foaled on the average 30 days later than untreated mares and expressed the

concern that this late foaling may impact foal survivorship and decrease band stability. However, the paper provided no evidence of this happening.

Nunez (2010) also stated that not all populations will respond similarly to PZP treatment. Differences in habitat, resource availability, and demography among conspecific populations will undoubtedly affect their physiological and behavioral responses to PZP contraception, and need to be considered. Kirkpatrick et al. (2010) conclude by stating that "*the larger question is, even if subtle alterations in behavior may occur, this is still far better than the alternative*" and that the "*other victory for horses is that every mare prevented from being removed, by virtue of contraception, is a mare that will only be delaying her reproduction rather than being eliminated permanently from the range. This preserves herd genetics, while gathers and adoption do not*."

Bartholow (2007) concluded that the application of 2 or 3-year contraceptives to wild mares could reduce operational costs by 12-20% or up to 30% in carefully planned population management programs and contraceptive treatment would likely reduce the number of horses that must be removed in total, with attendant cost reductions in the number of adoptions and total holding costs.

Under the Proposed Action, the BLM would return to the HMA every 2-3 years to re-apply PZP-22 and initiate new treatments in order to maintain its effectiveness in controlling population growth rates. PZP-22 can safely be reapplied every 2 years or as necessary to control the population growth rate. The probability of long- term infertility using PZP-22 is very low, and many mares retreated even after 3 years will return to normal fertility after the second treatment wears off (Turner, pers. comm.). Even through repeated booster treatments of PZP, most if not all mares would return to fertility. Observations at Assateague Island National Seashore indicate that the more times a mare is consecutively treated, that there is an increased time before fertility returns, but that even mares treated 7 consecutive years have started ovulating again (Kirkpatrick, 2002). Since the PZP formulations do not act permanently, determinations would be made as to how long to consecutively treat mares once the population growth is controlled.

Should the booster treatment and repeated fertility control treatment with PZP-22 or other formulation be continued into the future, the chronic cycle of over population and large gathers and removals would no longer occur, but instead a consistent cycle of balance and stability would ensue, resulting in continued improvement of overall habitat conditions and animal health.

Alternative B

GonaCon-Equine has been registered with the U.S. Environmental Protection Agency (EPA) since Jan 2013. When injected, the GonaCon vaccine targets the reproductive hormone gonadotropin releasing hormone (GnRH) secreted by the hypothalamus of the brain. Antibodies produced in response to the vaccine inactivate endogenous GnRH, which in turn eliminates stimulation of the pituitary gland and gonads in males or females. The resulting "immunocastration" renders animals unable to produce reproductive steroids or gametes. Secondary sex characteristics and reproductive behaviors dependent on gonadal steroids are also absent or greatly diminished in treated animals (Killian et al. 2004, 2006).

GnRH appears to lead to fewer behavioral modifications than PZP in this species in the short term. Long term influences of GnRH remain uncertain. The ultimate assessment of any fertility control agent must include the scope and magnitude of all potential contraindications, vaccine efficacy, and weighing the known effects against the benefit of reducing population growth. (Ransom et al. 2014).

Gray et al (2010) tested the efficacy and evaluated potential side effects of two contraceptive formulations, a porcine zona pellucida (PZP) formulation, SpayVac® and the GnRH formulation GonaCon-B, in a population of free-roaming feral horses within the Virginia Range, NV. Both contraceptive treatments significantly reduced fertility for the 3 years of study even with the absence of booster immunizations. Fertility rates for GonaCon-B mares were 39%, 42% and 31%, respectively, and 37%, 50% and 44% for SpayVac mares. During the same seasons, 61%, 67% and 76% of control females were fertile. They found no significant effects from contraceptive treatment on the sex ratio of foals, birthing season or foal survival as well as band fidelity. Data supports that treated mares with good body condition had a higher vaccine efficacy than mares in poor body condition. Treated mares in the lower body condition had foaling rates similar to the control group.

No Action Alternative

Under the No Action Alternative, no population growth suppression action or wild horse removals would take place. The population of the wild horses in the western portion of the Antelope HMA would continue to grow at the national average rate of increase seen in the majority of HMAs of 20 to 25% per year. Nationally, there is a shortage of both off-range corrals and off-range pastures for wild horses that have been removed from the range. Until adequate holding space becomes available, there is limited capacity to accommodate additional horses above AML. Over time forage resources would become less available, impacting wild horse herd health. Degradation of resources in the Western portion of the Antelope HMA would continue to take place.

3.6 Livestock Grazing

Affected Environment

The Water Canyon Project Area includes portions of the Schellbourne, Becky Springs, Becky Creek, North Steptoe, North Steptoe Trail, Lovell Peak, and Cherry Creek Allotments (Map 3). Current permitted use on these allotments is reflected in Table 3.1. The cattle operator has taken non-use on the Becky Springs Allotment for the grazing years 2012-2014 due to what they felt was excessive grazing use by an overpopulation of wild horses and ongoing drought conditions, resulting in very little forage remaining for livestock.

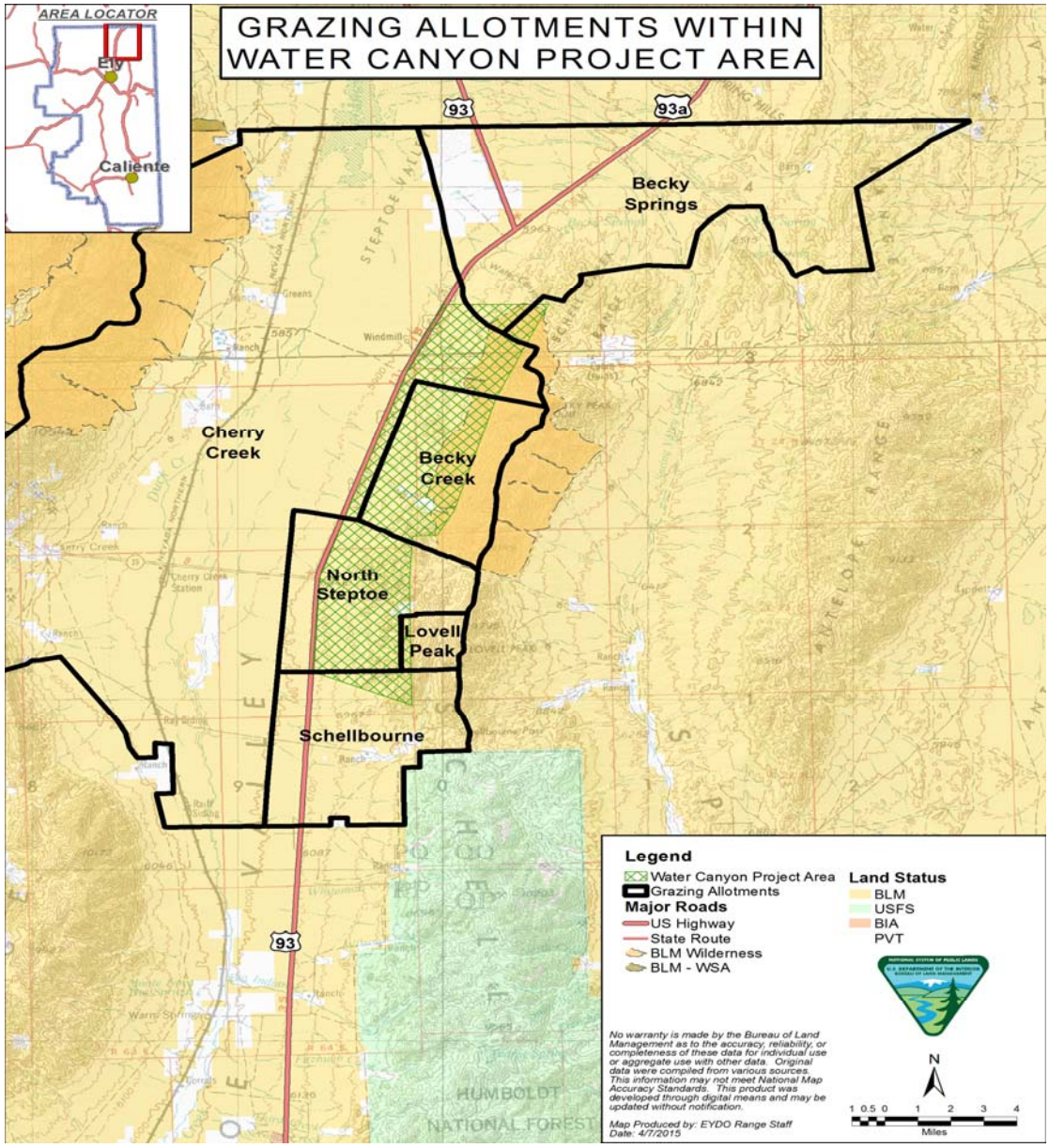
Table 3.1 Current permitted livestock use on Schellbourne, Becky Springs, Becky Creek, North Steptoe, No. Steptoe Trail, Lovell Peak, and Cherry Creek Allotments.

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin - End	Percent Public Land*	Type Use	Permitted Use (AUMs)
Schellbourne (00407)	98 Cattle	10/15 – 05/15	100	Active	683

Becky Springs (10101)	267 Cattle	11/15-02/28	100	Active	930
Becky Springs (10101)	2,000 Sheep	03/01-04/30	100	Active	802
Becky Springs (10101)	2,024 Sheep	11/01-02/28	100	Active	1,597
Becky Springs (10101)	517 Sheep	12/01-04/30	100	Active	513
Becky Creek (00404)	377 Sheep	11/01-03/15	100	Active	334
Becky Creek (00404)	377 Goat	11/01-03/15	100	Active	334
North Steptoe (00405)	630 Sheep	10/01-03/15	100	Active	692
No. Steptoe Trail	630 Sheep	09/15-03/30	100	Active	253
Lovell Peak (00406)	86 Sheep	07/01-09/30	100	Active	52
Lovell Peak (00406)	86 Goat	07/01-09/30	100	Active	52
Cherry Creek ** (00403)	29 Cattle	05/01-02/28	100	Active	290

* Percent public land for billing purposes
** That portion of the Cherry Creek Allotment east of U.S. Highway 93.

Map 3.



Environmental Effects

Impacts Common to Proposed Action and Alternative B

When horses are being trapped there may be some overlap between livestock and wild horse traps utilizing water sources. Coordination between livestock operators and BLM would take place to minimize the impacts to operators during the livestock grazing season.

Livestock would benefit directly from the pilot program. Reduction of wild horse populations would decrease overuse of rangeland vegetation and reduce competition between livestock and wild horses for available forage.

Under the Proposed Action, available forage for livestock would likely see an improvement in quality and quantity over time since the wild horse population would be gathered in increments and population growth rates would decline. The grazing pressure on the vegetation communities would be reduced.

No Action Alternative
Livestock would not benefit from increased forage availability. Competition between livestock and wild horses for forage and water resources would continue, and may even increase as wild horse numbers continue to increase. Forage conditions would deteriorate as grazing would reduce herbaceous vegetative cover. This could result in reduced carrying capacity for all users within the project area.

3.7 Noxious Weeds and Invasive Non-Native Species

Affected Environment
Noxious weed and invasive non-native species introduction and proliferation are a growing concern among local and regional interests. Noxious weeds are known to exist on public lands within the Water Canyon Project Area (Appendix II). Noxious weeds are aggressive, typically nonnative, ecologically damaging, undesirable plants, which severely threaten biodiversity, habitat quality and ecosystems. Because of their aggressive nature, noxious weeds can spread into established plant communities mainly through ground disturbing activities. In addition new weed species and sites can become established when their seeds hitchhike in on equipment or vehicles.

The proposed action is in Water Canyon Project area. Below is a list of the noxious species known to occur near roads, drainages and other transportation corridors throughout the area.

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress

The vast majority of the project area has been inventoried for noxious weeds in the past ten years. Below is a list of un-inventoried, invasive species found along transportation corridors throughout the Ely District.

Bromus tectorum	Cheatgrass
Erodium circutarium	Filaree

Kochia scoparia	Kochia
Halogeton glomeratus	Halogeton
Salsola kali	Russian thistle
Sysimbrium altissimum	Tumble mustard

These weeds occur in a variety of habitats including road side areas, rights-of-way, wetland meadows, as well as undisturbed upland rangelands.

Environmental Effects

Impacts Common to Proposed Action and Alternative B

The proposed gather may spread existing noxious or invasive weed species. This could occur if vehicles drive through weed infestations and spread seed into previously weed-free areas or arrive already carrying seeds attached to the vehicle or equipment. The contractor, together with the contracting officer's representative or project inspector (COR/PI) or other people involved, would examine proposed gather sites and holding corrals for noxious weeds prior to construction. If noxious weeds are found, the location of the facilities would be moved. Any equipment or vehicle exposed to weed infestations or arriving on site carrying dirt, mud, or plant debris would be cleaned before moving into or within the project area. All gather sites, holding facilities, and camping areas on public lands would be monitored for weeds during the next several years. Despite short-term risks, over the long term the reduction in wild horse numbers and the subsequent recovery of the native vegetation would result in fewer disturbed sites that would be susceptible to invasion by non-native plant species.

No Action Alternative

No impacts from the gather would occur. However, horse populations would remain and increase in number and would continue to degrade native vegetation as a result of overgrazing or trampling, which would lead to an expansion of noxious weeds and invasive non-native species.

3.8 Human Health and Safety

Affected Environment

Members of the public can inadvertently wander into areas that put them in the path of wild horses that are being herded or handled during the gather operations, creating the potential for injury to the wild horses or burros and to the BLM employees and/or 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 or inadvertently get in the way of gather activities.

If water/bait trapping method is selected, public safety concerns would be minimal. Visitors would be limited to viewing wild horses at temporary holding facilities (since human presence at trap sites would prevent wild horses from entering the trap).

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 in time to avoid members of the public in their path. These same unknown and

unexpected obstacles can impact the wild horses or burros being herded by the helicopter in that they may not be able to react and can be potentially harmed or caused to flee which can lead to injury and additional stress. 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. Though rare, helicopter crashes and hard landings can and have occurred (approximately 10) over the last 30+ years while conducting wild horse and burro gathers which necessitates the need to follow gather operations and visitor protocols at every wild horse and burro gather to assure safety of all people and animals involved. Flying debris caused by a helicopter incident poses a safety concern to BLM and contractor staff, visitors, and the wild horses and burros.

The BLM is committed to allowing access by interested members of the public to the fullest possible degree without compromising safety or the success of operations. To minimize risks to the public from helicopter operations, the gather Contractor is required to conduct all helicopter operations in a safe manner, and to comply with FAA regulations (FAR) 91.119 (Appendix IV) and BLM IM No. 2010-164 (Appendix V) [2]. Public observations sites would also be established in 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 horses), to the wild horses (e.g., by ensuring observers would not be in the line of vision of 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. The Visitation Protocol and Ground Rules for Helicopter WH&B Gathers within Nevada for public observation found in Appendix III provide the public with the opportunity to safely observe the gather operations. Every attempt will be made to identify observation site(s) at the gather location that offers 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 to ensure safe gather operations.

Environmental Effects

Impacts Common to Proposed Action and Alternative B

If water/bait trapping method is selected public viewing would be prohibited as it would directly interfere with the ability to safely capture wild horses. Only essential personnel (Contracting Officer Representative/Project Inspector (COR/PI), veterinarian, contractor, contractor employees, etc.) would be allowed at the trap sites during trapping operations. Visitors would be allowed to view wild horses once they are removed to the temporary holding facilities.

All helicopter operations must be in compliance with FAR 91.119. Public safety as well as that of the BLM and contractor staff is always a concern during the gather operations and is addressed through the implementation of Visitor and Ground Rules (see Appendix III) that have been used

[2] At recent gathers, public observers have ranged in number from only a handful of individuals to a maximum of between 15-25 members of the public. At these numbers, BLM has determined that the current level of public visitation to gather operations falls below the threshold of an “open air assembly” under the FAR regulations. 14 CFR § 91.119.

in recent gathers to ensure that the public remains at a safe distance and does not impede the safety of gather operations. Appropriate BLM staffing (public affair specialists and law enforcement officers) will 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.

During the herding process, wild horses or burros would 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 animal's path.

Disturbances in and around the gather and holding corral have the potential to injure the government and contractor staff who are trying to sort, move and care for the horses and burros by causing them to be kicked, struck, and possibly trampled by the animals trying to flee. Such disturbances also have the potential for similar harm to the public themselves.

No Action Alternative
There would be no gather related safety concerns for BLM employees, contractors or the general public as no gather activities would occur.

4.0 CUMULATIVE EFFECTS

Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The area of cumulative impact analysis is Water Canyon Project Area Antelope HMA (Map 1).

According to the 1994 BLM *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance.

Past, Present, and Reasonably Foreseeable Actions
The past, present, and reasonably foreseeable future actions applicable to the assessment area are identified as the following:

Project -- Name or Description	Status (x)		
	Past	Present	Future
Issuance of multiple use decisions and grazing permits for ranching operations through the allotment evaluation process and the reassessment of the associated allotments.	x	x	x
Livestock grazing	x	x	x
Wild horse and burro gathers	x	x	x
Mineral exploration / geothermal exploration/abandoned mine land reclamation	x	x	x

Recreation	x	x	x
Range Improvements (including fencing, wells, and water developments)	x	x	x
Wildlife guzzler construction	x	x	x
Invasive weed inventory/treatments	x	x	x
Greater sage-grouse 'warranted, but precluded" as Threatened or Endangered species	x	x	
Nevada and Northeastern California Greater Sage-Grouse Proposed Land Use Plan Amendment and Environmental Impact Statement		x	x
Wild horse and burro management: issuance of multiple use decisions, AML adjustments and planning	x	x	x

Any future proposed projects within the Ely District would be analyzed in an appropriate environmental document following site-specific planning. Future project planning would also include public involvement.

Past Actions

In 1971 Congress passed the Wild Free-Roaming Horses and Burros Act which placed wild and free-roaming horses and burros, that were not claimed for individual ownership, under the protection of the Secretaries of Interior and Agriculture. In 1976 the Federal Land Policy and Management Act (FLPMA) gave the Secretary the authority to use motorized equipment in the capture of wild free-roaming horses as well as continued authority to inventory the public lands. In 1978, the Public Range Improvement Act (PRIA) was passed which amended the WFRHBA to provide additional directives for BLM's management of wild free-roaming horses on public lands.

Past actions include establishment of wild horse HMAs and establishment of AML for wild horses, wild horse gathers, vegetation treatment, mineral extraction, livestock grazing and recreational activities throughout the area. Some of these activities have contributed to increased infestations of invasive plants, noxious weeds, and pests and their associated treatments.

In August 2008 the Ely District Record of Decision (ROD) and Approved Resource Management Plan (RMP) was signed. Management of HMAs and wild horse populations is guided by the 2008 Ely District ROD and RMP. The AML range for the Ely District is 810-1695 wild horses. The Land Use Plan analyzed impacts of management's direction for grazing and wild horses, as updated through Bureau policies, Rangeland Program direction, and Wild Horse Program direction.

The 2008 Ely RMP set boundaries and reaffirmed AML's for the Ely District and also established 15 Herd areas for the district. The 2007 EIS evaluated each herd management area for five essential habitat components and herd characteristics: forage, water, cover, space, and reproductive viability. Through this analysis and the subsequent Final RMP and Record of Decision (ROD) , the boundaries were established to ensure sufficient habitat for wild horses, and an AML was reviewed and set that would achieve a thriving natural ecological balance and rangeland health.

Under the 2008 Ely District RMP, no wild horses are to be managed within any Herd Areas (HA) based on analysis of habitat suitability and monitoring data, which indicated insufficient forage, water, space, cover, and reproductive viability to maintain healthy wild horses and rangelands over the long-term within the HAs.

Adjustments in livestock season of use, livestock numbers, and grazing systems were made through the allotment evaluation/multiple use decision process. In addition, temporary closures to livestock grazing in areas burned by wildfires, or due to extreme drought conditions, were implemented to improve range condition.

The Mojave and Northeastern Great Basin Resource Advisory Council (RAC) developed standards and guidelines for rangeland health that have been the basis for assessing rangeland health in relation to management of wild horse and livestock grazing within the Ely District. Adjustments in numbers, season of use, grazing season, and allowable use have been based on the evaluation of progress made toward reaching the standards.

Present Actions

Program goals have expanded beyond establishing a "*thriving natural ecological balance*" by setting AML for individual herds to now include achieving and maintaining healthy and stable populations and controlling population growth rates.

Though authorized by the WFRHBA, current and past appropriations have prohibited the destruction of healthy animals that are removed or deemed to be excess. Only sick, lame, or dangerous animals can be euthanized, and destruction is no longer used as a population control method. The WFRHBA allows the sale of excess wild horses that are over 10 years in age or have been offered unsuccessfully for adoption three times, but such sales are also made with limitations that prohibit sale for slaughter. BLM is adding additional long-term grassland pastures in the Midwest and West to care for excess wild horses for which there is no adoption or sale demand. Since fiscal year 2006, the BLM has removed over 64,370 excess wild horses or burros from the Western States. Most animals not immediately adopted or sold have been transported to long-term grassland pastures in the Midwest. Approximately 47,118 excess wild horses are being maintained within BLM's off-range corrals.

The BLM is continuing to administer grazing permits and authorize grazing within the CESA. Within the proposed gather area sheep and cattle grazing occurs on a yearly basis. Wildlife use by large ungulates such as elk, deer, and antelope is also currently common in the CESA.

The focus of wild horse management has also expanded to place more emphasis on achieving rangeland health as measured against the RAC Standards. The Northeastern Great Basin RAC standards and guidelines for rangeland health are the current basis for assessing rangeland health in relation to management of wild horse and livestock grazing within the Ely District. Adjustments to numbers, season of use, grazing season, and allowable use are based on evaluating achievement of or making progress toward achieving the standards.

The Greater Sage-Grouse has been determined by the US Fish and Wildlife Service to be warranted for listing as a threatened or endangered species but precluded due to higher priority

species (March 2010). The Nevada and Northeastern California Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement was released to the public on May 29, 2015 and the Record of Decision and Approved Resource Management Plan Amendment is expected to be signed by September 2015. The land use plan amendment may potentially change wild horse management throughout the Ely District.

Reasonably Foreseeable Future Actions

In the future, the BLM would manage wild horses within HMAs that have suitable habitat for an AML range that maintains genetic diversity, age structure, and targeted sex ratios. Current policy is to manage wild horse within an AML range, to allow for regular population growth, as well as better management of populations rather than individual HMAs. The Ely BLM District completed the *Ely Proposed Resource Management Plan/Final Environmental Impact Statement* (RMP/EIS, 2007) released in November 2007 which analyzed AMLs expressed as a range and addressed wild horse management on a programmatic basis. Future wild horse management in the BLM's Ely District would focus on an integrated ecosystem approach with the basic unit of analysis being the watershed. This process will identify actions associated with habitat improvement within the HMA. The BLM would continue to conduct monitoring to assess progress toward meeting rangeland health standards. Wild horses would continue to be a component of the public lands, managed within a multiple use concept.

While there is no anticipation for amendments to WFRHBA, amendments could change the management of wild horses on the public lands. The Act has been amended three times since 1971; therefore there is potential for amendment as a reasonably foreseeable future action.

As the BLM achieves AML on a national basis, future gathers should become more predictable in scope and size. Population growth suppression (PGS) should also become more readily available as a management tool, with treatments that last between gather cycles reducing the need to remove as many wild horses and possibly extending the time between gathers. The combination of these factors should result in an increase in stability of gather schedules, longer periods of time between gathers, and should help resolve issues leading to the over population of wild horses in the proposed gather area.

The proposed gather area contains a variety of resources and supports a variety of uses. Any alternative course of wild horse management has the opportunity to affect and be affected by other authorized activities ongoing in and adjacent to the area. Future activities which would be expected to contribute to the cumulative impacts of implementing the Proposed Action include: future wild horse gathers, continuing livestock grazing in the allotments within the area, mineral exploration, new or continuing infestations of invasive plants, noxious weeds, and pests and their associated treatments, and continued native wildlife populations and recreational activities historically associated with them. The significance of cumulative effects based on past, present, proposed, and reasonably foreseeable future actions are determined based on context and intensity.

The Nevada and Northeastern California Greater Sage-Grouse Proposed Land Use Plan Amendment and Final Environmental Impact Statement was released to the public on May 29, 2015 and the Record of Decision and Approved Resource Management Plan Amendment is expected to be signed by September 2015. The EIS addresses a range of alternatives focused on

specific conservation measures across the range of the Greater Sage-Grouse to maintain or enhance Greater Sage-Grouse habitat. The land use plan amendment may potentially change wild horse management throughout the Ely District.

Impacts Conclusion

Past actions regarding the management of wild horses have resulted in the current wild horse population within the Ely District. Wild horse management has contributed to the present resource condition and wild horse herd structure within the gather area.

The combination of the past, present, and reasonably foreseeable future actions, along with the Proposed Action, should result in more stable and healthier wild horse populations, healthier rangelands (vegetation, riparian areas and wildlife habitat), and fewer multiple-use conflicts.

Most past and all present and reasonably foreseeable future actions have noxious and invasive weed prevention stipulations and required weed treatment requirements associated with each project. This in combination with the active BLM Ely District Weed Management Program will minimize the spread of weeds throughout the watershed.

5.0 MITIGATION MEASURES AND SUGGESTED MONITORING

Mitigation and monitoring are incorporated into the Proposed Action through SOPs, which have been developed over time. These SOPs (Appendix 1) represent the "Best Practices" for reducing impacts associated with gathering, handling, and transporting wild horses and collecting herd data.

6.0 CONSULTATION AND COORDINATION

A preliminary environmental assessment was posted on BLM's National NEPA Registrar web page, http://on.doi.gov/1PKK0Jg , for a 30 day public review and comment period on May 15, 2015 and closed on June 15, 2015. Written or mailed-in comments were received from two individuals and agencies. E-mail comments (majority were form letters) were received from 8,508 individuals and/or organizations. Appendix VI summarizes the main comment points and BLM's response.

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 and burros. During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of the motorized vehicles. The Winnemucca District Office hosted the 2014 state-wide meeting on June 18, 2014; the current gather operation SOPs were reviewed in response to the concerns expressed and no changes to the SOPs were identified.

On May 14, 2015 the Ely District sent a Notice of Proposed Action (NOPA) to the Wilderness and Wilderness Study Area interested public mailing list notifying them of the action taking place in proximity to Wilderness. A formal tribal Consultation letter was also sent on Dec 16, 2014.

7.0 LIST OF PREPARERS

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Lisa Gilbert	Archaeologist	Cultural Resources
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8.2 Acronyms

AML- Appropriate management level
BLM-Bureau of Land Management
CFR-Code of Federal Regulations
DR-Decision Record
EA-Environmental Assessment
EIS-Environmental Impact Statement
FLPMA-Federal Land Policy and Management Act
FONSI-Finding of No Significant Impact
HA – Herd Area
HMA – Herd Management Area
ID-Interdisciplinary
IM-Instructional Memorandum
NEPA-National Environmental Policy Act
RFS-Reasonably Foreseeable Future Action
RMP-Resource Management Plan

APPENDIX I
GATHER OPERATIONS STANDARD OPERATING PROCEDURES

Gathers would be conducted by utilizing contractors from the Wild Horse Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses would 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 trap 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.

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

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

1. Helicopter Drive Trapping. This gather method involves utilizing a helicopter to herd wild horses into a temporary trap.
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 trap.

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 trap 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 trap locations as determined by the COR/PI. All traps 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 with each HMA.

3. All traps, 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. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not

be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.

b. All loading chute sides shall be a minimum of 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 trap 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 traps, 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 traps 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 traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. The contractor will supply certified weed free hay if required by State, County, and Federal regulation.

   a. 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 traps 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. Animals that are to be released back into the gather area may need to be transported back to the original trap site. This determination will be at the discretion of the COR/PI or Field Office horse specialist.

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 trap. 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. Traps 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 trap. If the contractor selects this method the following applies:

    a. A minimum of two saddle-horses shall be immediately available at the trap 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 trap

site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 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 Clearances

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

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

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

H. Animal Characteristics and Behavior

Releases of wild horses would be near available water when possible. If the area is new to them, a short-term adjustment period may be required while the wild horses become familiar with the new area.

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
Ruth Thompson, Wild Horse and Burro Specialist, Ely District
Ben Noyes, Wild Horse and Burro Specialist, Ely District
Alan Shepherd, NV WH&B Program Lead

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 Schell Supervisory Natural Resource Specialist and the Schell Field Managers will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and BLM Holding Facility offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Field Manager and/or the Supervisory Natural Resource Specialist and Field Office Public Affairs. 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.

Water and Bait Trapping Standard Operating Procedures

Gathers would be conducted by utilizing contractors from the Wild Horse and Burro Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses and burros would apply whether a contractor or BLM personnel conduct a gather.

Prior to any gathering operation, the BLM will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and preparation of a topographic map with wilderness boundaries, the location of fences, other physical barriers, and acceptable gather site 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 capture operations necessitate the services of a veterinarian, one would be obtained before the capture would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the capture 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 undue injury and stress to the animals, and to minimize potential damage to the natural and cultural resources of the area. Temporary holding sites would be located on or near existing roads.

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

1. Bait Trapping. This capture method involves utilizing bait (water or feed) to lure wild horses and burros into a temporary gather site.

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

B. Capture Methods Used in the Performance of Gather Contract Operations

The primary concern of the contractor is the safety of all personnel involved and humane handling of all wild horses and burros captured:

a) Some trap sites will require a staging area (Temporary Holding) as determined by the COR/PI.
b) All trap and staging areas 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 trap locations as determined by the COR/PI. All traps and staging facilities not located on public land must have prior written approval of the landowner.
c) The capture attempts may be accomplished by utilizing bait (feed, mineral supplement or water) or sexual attractants (mares in heat) to lure wild horses and burros into a temporary trap.

All capture attempts shall incorporate the following:
1 - All feed bait ingredients, and the formula in that bait will be given to the COR/PI one full week prior to using in the trap.
2 - When using water as the bait, other water sources shall not be cut off in the bait area. If the government determines that cutting off other water sources is the best action to take under this contract, elimination of other water sources shall not last longer than 48 continuous hours.

d) All traps, wings, and staging facilities shall be constructed, maintained and operated to handle the wild horses and burros in a safe and humane manner and be in accordance with the following:

1 - Darting of wild horses and wild burros will not be allowed.
2 - Traps and staging facilities shall be constructed of portable panels or equal material, 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 traps and staging facilities shall be flowing design without corners. All material used will be flush at the top and bottom, no protrusions, sharp areas.

3 - No barbed wire material shall be used in the construction of any traps.
4 - All loading alleys shall be a minimum of 6 feet high for horses and 5 feet high for burros and shall be fully covered on the sides with, tarps, plywood, etc.
5 - All crowding pens including the gates leading to the alleyways shall be covered with a material which serves as a visual barrier,(plywood, burlap, plastic snow fence, tarps 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. Perimeter panels on the staging corrals shall be covered to a minimum height of 5 feet for burros and 6 feet for horses.
6 - Self-latching gates will be used on all pens and alleyways for the movement and handling of wild horses and burros.
7 - 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.
8 - Wild horses and burros trapped at trap sites may need to be sorted into small sorting pens determined by age or sex in order to safely transport them to a BLM preparation facility or a staging area.
9 - Sick and injured wild horses and burros, and strays will be separated as needed. Segregation will be at the discretion of the COR.
10 - Wild horses and burros will not be held in the trap for more than 24 hours.
11 - A staging area will be required away from the trap site for any wild horses and burros that are being held for more than 24 hours.
12 - The contractor shall assure that wet mares and their foal shall not be separated.
13 - Finger gates may be constructed of materials such as, juniper poles, pipe, etc., only with the prior approval and direction of the COR. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc. that may be injurious to wild horses and burros.
14 - All trigger and/or trip gate devices must be approved by the COR prior to capture of wild horses and burros.
15 - Traps shall be checked a minimum of once every 24 hours when traps are “set” to capture wild horses and burros.
16 - Contractor will report any injuries that resulted from trapping operations as well as pre-existing injuries to the COR and BLM preparation facility.
17 - The COR/PI may assist with the handling of wild horses and burros.
e. At the discretion of the COR/PI the Contractor may be required to delay shipment of horses until the COR/PI inspects the wild horses and burros at the trap site prior to transporting them to the BLM preparation facility.

C. Temporary Holding and Animal Care

The temporary holding facility area will only be used when approved by the COR

a) Sorting pens shall be of sufficient size to minimize (minimal 100 square feet per adult horse and or burro with only having a maximum of 25 wild horses or burros being held at any other time), to the extent possible, injury due to fighting and trampling as well as to allow wild horses and burros to move easily and have adequate access to water and feed.
b) All pens will be capable of expansion on request of the COR. Alternate pens, within the staging facility shall be furnished by the Contractor to separate mares or Jennies with small foals, sick and injured wild horses and burros, and estrays from the other wild horses and burros.
c) The Contractor shall provide wild horses and burros held in the staging area with a supply of fresh clean water at a minimum rate of 10 gallons per animal per day.
d) Wild horses and burros approved to be held by the COR will be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. If the task order notes that weed free hay is to be used for this bait trap gather the contractor will provide certified weed free hay in the amounts stated above. The contractor will have to have documentation that the hay is certified weed free.
e) It is the responsibility of the Contractor to provide security to prevent loss, injury or death of captured wild horses and burros until delivery to final destination. Animals lost from traps shall not be included in payment schedule.
f) It is the responsibility of the Contractor to provide for the safety of the wild horses and burros and personnel working at the trap locations and staging area.
g) The Contractor shall restrain sick or injured wild horses and burros if treatment is necessary in consultation with the COR and/or veterinarian. The contractor in consultation with the COR will determine if injured wild horses and burros must be destroyed and provide for destruction of such wild horses and burros in accordance with the BLM Euthanasia policy. (Section J) The Contractor will have the ability to humanely eu-

thanize wild horses and burros in the field and to dispose of the carcasses in accordance with state and local laws.

h) Separate water troughs shall be provided for each pen where wild horses and burros are being held. Water troughs shall be constructed of such material (e.g., rubber, plastic, fiberglass, galvanized metal with rolled edges, and rubber over metal) so as to avoid injury to the wild horses and burros.
i) The use of solid covered panels or visual barriers in the alley ways keeps the animals from kicking thru the panels.
j) All gates and panels are covered with snow fence for the safety of wild horses and burros.
k) Wild horses and burros will be fed twice a day per a schedule determined by the COR/PI and will have water in every pen.

D. Transportation and Animal Care

a) Wild horses and burros shall be transported to BLM preparation facilities within 24 hours after capture unless prior approval is granted by the COR/PI for unusual circumstances.
b) The Contractor shall schedule shipments of wild horses and burros to arrive at BLM preparation facilities between 7:00 a.m. and 4:00 p.m. unless prior approval has been obtained by the COR. No shipments shall be scheduled to arrive at BLM preparation facilities on Sunday and Federal holidays; unless prior approval has been obtained by the COR.
c) Wild horses and burros shall not be allowed to remain standing on gooseneck or semi-trailers while not in transport for a combined period of greater than three (3) hours.
d) Total drive time from the trap site or staging area to the BLM preparation facilities will not exceed 8 hours.
e) All motorized equipment employed in the transportation of captured wild horses and burros shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of wild horses and burros.
f) All equipment used to transport wild horses and burros will be inspected and accepted by the COR/PI prior to use to avoid any injury to wild horses and burros and shall be in good mechanical condition, of adequate rated capacity, and operated so as to ensure that captured wild horses and burros are transported without undue risk.
g) No open stock trailers shall be allowed for transporting wild horses and burros from trap site(s) or staging area to the BLM preparation facilities.
h) Sides or stock racks of all trailers used for transporting wild horses and burros shall be a minimum height of 6 feet 6 inches from the floor. A minimum of one partition is required in each stock trailer.
i) The rear door(s) of the stock trailers must be capable of opening the full width of the trailer. All partitions and panels the inside of all trailers must be free of sharp edges or holes that could cause injury to the wild horses and burros. The material facing the inside of all trailers must be strong enough so that the wild horses and burros cannot push their hooves through the side.
j) All surfaces of the stock trailers shall be cleaned and a disinfectant used to eliminate the possibility of disease transmittal from domesticated horses to wild horses and burros (WH&B's) prior to the WH&B's under this contract being transported.
k) Floors of stock trailers and loading chutes shall be covered and maintained with anti-slip materials (mats, wood shavings, sand etc.) to prevent wild horses and burros from slipping.
l) Wild horses and burros to be loaded and transported in any size trailer shall be as directed by the COR and may include limitations on numbers according to age, sex, size, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers

1. 12.6 square feet per adult horse (1.8 linear foot in a 7 foot wide trailer)
2. 8.0 square feet per adult burro (1.15 linear foot in a 7 foot wide trailer)
3. 6.0 square feet per horse foal (0.85 linear foot in a 7 foot wide trailer)
4. 4.0 square feet per burro foal (0.57 linear feet in a 7 foot wide trailer)

m) The COR shall consider the condition and size of the wild horses and burros, weather conditions, distance to be transported, or other factors when planning for the movement of captured wild horses and burros. The COR shall provide for any brand and/or inspection services required for the captured wild horses and burros. If wild horses and burros are to be transported over state lines the

COR will be responsible work with the receiving state veterinarian to get permission to transport the wild horses and burros without a health certificate or coggins test. If the receiving state does not allow wild horses or burros in their state without a current health certificate or coggins test the COR/PI will obtain them through a local veterinarian prior to shipment.

n) An electric prod, paddle or wild rag may be humanely used to work wild horses and burros during sorting and loading operations.
o) Flagging will be used strategically so not to desensitize the animal(s).
p) When transporting wild horses and burros, drivers shall check for downed animals.
q) The contractor will separate the animals in trailer compartments so animals do not pile up in the rear of the trailer during transport from trap site to staging area/BLM preparation facility. Separation of animals helps prevent animals from falling down and being trampled.
r) All sorting, loading or unloading wild horses and burros will be performed during daylight hours unless supplemental light is provided in the area to facilitate visibility.
s) Provide a visual barrier on panels in the area where the loading is accomplished at the trap site and at the staging area to eliminate holes, gaps, or openings where horses can be injured.
t) The contractor may dig holes at the end of the loading alley so that trailer floor is at ground level to ease the loading horses or burros at the trap site
u) Hot shots should not be used routinely or excessively on wild horses or burros. Use of hot shots should be limited to instances of trying to protect or preserve human or animal safety (such as with animals that are down and reluctant to get up on trailers and in chutes) or as a near final resort for animals that refuse to move or load. Hot shots should only be used as follows:
v) Hotshots should never be applied to 3 areas: the head (defined as everything above the throat-latch), anus and genitals (this includes the vulva, penis, and scrotum as well as the anogenital area which includes the anal recess, underside of the tail and the perineum which is the area between the anus and the vulva)
w) Only unmodified, commercially available hotshots that use DC battery power may be used, batteries should be maintained fresh at all times to avoid the overuse of apparently ineffective devices
x) A hot shot should only be used after 3 other stimuli have failed to successfully encourage forward movement (other options include use of body position and movement, use of voice or whistle, use of a wild rag to flag an animal, use of a shaker paddle as a visual and auditory stimulus, tapping animal with flag or shaker paddle, use of plastic tarp or bag, and returning animal to the point of origin and starting over.
y) A hot shot should be used to shock an animal not more than 3 times on any single occasion
z) A hot shot should only be used when a path of escape or movement away from the stimulus is available (animals should not be encouraged to “push-up” with or without a hotshot – this too often leads to trampling)

E. Safety and Communication

The BLM/FS reserves the right to remove from service immediately any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or COR 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

a) The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the capture of wild horses and burros utilizing a cell/satellite phone at all times during the trapping operations.
b) Contractor will contact the COR/PI prior to loading horses to be delivered to BLM preparation facility.
c) Contractor will contact BLM facility manager to schedule delivery and relay information of wild horses and burros trapped (number of wild horses and burros trapped, sex, approximate age, number of pairs, etc.)
d) Contractor will photo document all horses trapped in a digital image format and digital photos will be delivered to the COR.
e) Contractor will be required to provide State or National Rifle Association certification or equivalent (conceal carry, hunter safety, etc.) for firearm safety.

f) All accidents involving wild horses and burros or people that occur during the performance of any task order shall be immediately reported to the COR/PI.
g) All domestic stock used for or around the bait trap or staging area will have current Coggins documentation and a health certificate. Trailers will be cleaned and have a disinfectant applied after any domestic horses have been hauled in it and before any WH&B's are loaded. This will help prevent transmission of disease into our populations at a BLM Preparation Facility

F. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI 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 captured 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 two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing 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.
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 captured animals. The COR/PI shall provide for any brand and/or inspection services required for the captured 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.

G. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the capture of wild horses and burros 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 are 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.

H. Public and Media

Due to heightened public interest in wild horse and burro gathers, the BLM/Contractor may expect an increasing number of requests from the public and media to view the operation.

a) Due to this type of operation (luring wild horses and burros to bait) spectators and viewers will be prohibited as it will have impacts on the ability to capture wild horses and burros. Only essential personnel (COR/PI, veterinarian, contractor, contractor employees, etc.) will be allowed at the trap site during operations.
b) Public viewing of the wild horses and burros trapped may be provided at the staging area and/or the BLM preparation facility by appointment.
c) The Contractor agrees that there shall be no release of information to the news media regarding the removal or remedial activities conducted under this contract.
d) All information will be released to the news media by the assigned government public affairs officer.
e) If the public or media interfere in any way with the trapping operation, such that the health and wellbeing of the crew, horses and burros is threatened, the trapping operation will be suspended until the situation is resolved.

I. COR/PI Responsibilities

a) In emergency situations, the COR/PI will implement procedures to protect animals as rehab is initiated, ie. Rationed feeding and watering at trap and or staging area.
b) The COR/PI will authorize the contractor to euthanize any wild horse or burros as an act of mercy.
c) The COR/PI will ensure wild horses or burros with pre-existing conditions are euthanized in the field according to BLM policy.
d) Prior to setting up a trap or staging area on public land, the BLM and/or Forest Service will conduct all necessary clearances (archaeological, T&E, etc.). All proposed sites must be inspected by a government archaeologist or equivalent. Once archaeological clearance has been obtained, the trap or staging area may be set up. Said clearances shall be arranged for by the COR/PI.
e) The COR/PI will provide the contractor with all pertinent information on the areas and wild horses and burros to be trapped.
f) The COR/PI will be responsible to establish the frequency of communicating with the contractor.
g) The COR/PI shall inspect trap operation prior to Contractor initiating trapping.
h) The Contractor shall make all efforts to allow the COR/PI to observe a minimum of at least 25% of the trapping activity.
i) The COR/PI is responsible to arrange for a brand inspector and/or veterinarian to inspect all wild horses and burros prior to transporting to a BLM preparation facility when legally required.
j) The COR/PI will be responsible for the establishing a holding area for administering PZP, gelding of stallions, holding animals in poor condition until they are ready of shipment, holding for EIA testing, etc.
k) The COR/PI will ensure the trailers are cleaned and disinfected before WH&B's are transported. This will help prevent transmission of disease into our populations at a BLM Preparation Facility.

J. Responsibility and Lines of Communication

The Ely Wild Horse Specialist (COTR) or delegate has direct responsibility to ensure human and animal safety. The Wells or Egan Field Managers will take an active role to ensure that appropriate lines of communication are established between the field, field office, state office, national program office, and BLM holding facility offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.
All publicity and public contact and inquiries will be handled through the Elko District Office and Nevada State Office of Communications. These individuals will be the primary contact and will coordinate with the COR on any inquiries.

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

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

K. Resource Protection

Gather sites and holding facilities would be located in previously disturbed areas whenever possible to minimize potential damage to the natural and cultural resources.

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

Prior to implementation of gather operations, gather sites and temporary holding facilities would be evaluated to determine their potential for containing cultural resources. All gather facilities (including gather sites, gather runways, blinds, holding facilities, camp locations, parking areas, staging areas, etc.) that would be located partially or totally in new locations (i.e. not at previously used gather locations) or in previously undisturbed areas would be inventoried by a BLM archaeologist or district archaeological technician before initiation of the gather. A buffer of at least 50 meters would be maintained between gather facilities and any identified cultural resources.

Gather sites and holding facilities would not be placed in known areas of Native American concern.

The contractor would not disturb, alter, injure or destroy any scientifically important paleontological remains; any historical or archaeological site, structure, building, grave, object or artifact; or any location having Native American traditional or spiritual significance within the project area or surrounding lands. The contractor would be responsible for ensuring that its employees, subcontractors or any others associated with the project do not collect artifacts and fossils, or damage or vandalize archaeological, historical or paleontological sites or the artifacts within them. Should damage to cultural or paleontological resources occur during the period of gather due to the unauthorized, inadvertent or negligent actions of the contractor or any other project personnel, the contractor would be responsible for costs of rehabilitation or mitigation. Individuals involved in illegal activities may be subject to penalties under the Archaeological Resources Protection Act (16 U.S.C 470ii), the Federal Land Management Policy Act (43 U.S.C 1701), the Native American Graves and Repatriation Act (16 U.S.C. 1170) and other applicable statutes.

Appendix II
RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS
Water Canyon Wild Horse Growth Suppression Pilot Program
White Pine County, Nevada

Proposed Action–The proposed action would be to take a portion of the Antelope Herd Management Area (HMA) and use contraceptive or surgical procedures to slow the growth rate of the wild horse herd in the area.

The current population estimate of the entire Antelope HMA is 616 wild horses, the Appropriate Management Level (AML) for the HMA is 150-324.

Due to last year's fires, a fence will be installed on the north end of water canyon on the edge of the Lages Fire along HWY 93. This fence will slow the movement of the horses in the area from north to south, however there is expected to be some interchange with horses from the east which will almost isolate this portion of the HMA from the rest of the HMA.

We will start with bait and water trapping this portion of the Antelope HMA. There is an estimated 50 wild horses in the proposed area. It is expected that during trapping some of the horses may leave the area and return at a later time, therefore not being trapped or treated. The approximate 25 wild horses removed would go to a trap site adoption for an opportunity to be adopted out before going to any long term holding facility. It is also expected we would need to trap these horses when the population exceeds 40 head in this area to pull off excess horses so the horses in the pilot program area would have sufficient resources to sustain them year around. An estimated 25- 30 wild horses would reside in the area following the trapping and release. There would be an approximate 50/50 ratio of studs to mares in the area.

The mares that would be released would be given a shot of PZP, PZP 22 or other population growth suppression, to prevent the animals from getting pregnant the following year. The goal of the pilot program we are trying would be to determine if a reduction in foaling rates could be achieved with the use of the pellet formulation the first breeding season after inoculation. All treated mares would be monitored to determine effectiveness of the treatments.

If a gather occurs through the rest of Antelope HMA this portion would not be gathered due to research of this pilot program. As part of the identification process, the mares that have been treated, will also be branded and photographed.

Any wild horses older than ten years will be released back on to public lands.

Horses between ages 0-3 not identified for release back into the area will be prepped for a trap site adoption to be hosted by volunteers shortly after the gather. All horses not adopted or too old for the adoption will be transported to a holding facility where they will have more opportunities for adoption or be put into long term holding.

The adoptable wild horses will have a website for adoptions and Jeanne Nations will run the web site and advertise them to good home only, through a BLM adopter approval process.

BLM will provide the corrals for the wild horses that are being kept for adoption. The corrals will be

temporary, the same used at a gather site or any holding facility. Any horses not adopted will go to a holding facility and go through the BLM holding process.

Gathering of horses that fit the proposed action will occur as necessary for the next 10 years following the date of the decision (approximately July 2015).

Field weed surveys were completed for this project during multiple site visits between August 2014 and March 2015. In addition, the Ely District weed inventory data were consulted. The following species are documented within or adjacent to the project area:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress

The project area was last inventoried for noxious weeds in 2003. Below is a list of non-native, invasive species found within or adjacent to the project area:

Bromus tectorum	Cheatgrass
Erodium circutarium	Filaree
Kochia scoparia	Kochia
Halogeton glomeratus	Halogeton
Salsola kali	Russian thistle
Sysimbrium altissimum	Tumble mustard

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

The rating for Factor 1 is Moderate (6). Noxious and invasive species are present throughout the area. Ground-disturbing activities during baiting, trapping and transportation could potentially spread weed propagules.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

The rating for Factor 2 is Moderate (5). The area already contains moderate to high levels of noxious and invasive species, and this project will not likely result in significant infestation growth.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

The Risk Rating is Moderate (30). This indicates that the project can proceed as planned as long as the following measures are followed:

- Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles.

Attached is a map of the known noxious weeds within or adjacent to the project area.

Reviewed by: _____ _____ 3/10/2015

Chris McVicars Date

Ely District Noxious & Invasive Weeds Coordinator

Appendix III

Visitation Protocol and Ground Rules for Helicopter WH&B Gathers within Nevada

BLM recognizes and respects the right of interested members of the public and the press to observe the wild horse and burro gathers. 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 and burros.

The BLM and the contractor's helicopter pilot must comply with 14 CFR Part 91 of the Federal Aviation Regulations, which determines the minimum safe altitudes and distance people must be from the aircraft. To be in compliance with these regulations, the viewing location at the gather site and holding corrals must be approximately 500 feet from the operating location of the helicopter at all times. The viewing locations may vary depending on topography, terrain and other factors.

General Daily Protocol

- A Wild Horse Gather Info Phone Line will be set up prior to the gather so the public can call for daily updates on gather information and statistics. Visitors are strongly encouraged to check the phone line the evening before they plan to attend the gather to confirm the gather and their tour of it is indeed taking place the next day as scheduled (weather, mechanical or other issues may affect the ability to gather on a given day) and to confirm the meeting location.

- Visitors must direct their questions/comments to either their designated BLM representative or the BLM spokesperson on site, and not seek to engage with other BLM/contractor staff as this can disrupt their gather duties/responsibilities and ability to operate safely. Professional and respectful behavior is expected of all. BLM may make the BLM staff available during down times for a Q&A session on public-observation days. However, the contractor and its staff will not be available to answer questions or interact with visitors.

- Observers must provide their own 4-wheel drive high clearance vehicle, appropriate shoes, winter clothing, food and water. Federal rules prohibit observers from riding in

government and contractor vehicles and equipment.

- Gather operations may be suspended if bad weather conditions create unsafe flying conditions.

- BLM will identify a public/media viewing location that allows the public the best vantage point from which to see the helicopter gather operations and captured wild horses or burros based on the specific geographic and physical characteristics of the trap site and safety. The observation area will be delineated with marking tape or screening materials. This viewing location would be as close and as unobstructed as possible to the trap pens while taking into account gather efficiency and safety, and BLM will endeavor to find an elevated location for public/media viewing purposes that is not more than a quarter mile from the trap when feasible and as close as 500 feet as feasible. The designation and use of observation areas is necessary due to the use and presence of heavy equipment and aircraft in the gather operation and the critical need to allow BLM personnel and contractors to fully focus on attending to the needs of the wild horses and burros while maintaining a safe environment for all involved. In addition, observation areas will be sited so as to protect the wild horses and burros from being spooked, startled or impacted in a manner that results in increased stress.

- All observers will be advised that proper conduct must be followed including: no movement during capture, speaking will only be permitted in low voices and not at the time of capture, any and all restrictions on movement must be followed. Observers will be advised that failure to follow the rules will result in immediate removal of the non-compliant individual(s) to ensure safety of BLM employees, contractors and the wild horses and burros.

- BLM will identify a public/media viewing location that allows viewers to see the captured wild horses or burros within the temporary holding area. An elevated location (e.g., hill, platform) will be provided, whenever feasible, at no greater than 30 feet from the perimeter of the temporary holding area with a clear view of the processing chute. The expectation is that an elevated viewing location will generally be available. Viewing locations would be as close as possible to the captured horses or burros while taking into account safety, disturbance to the captured animals and sorting operation needs.

- When the number of public/media observers is small in number (e.g., 2-4 observers in total), and with the concurrence of the Incident Commander and contractor, the Contracting Officer's Representative (COR) may when appropriate provide closer viewing opportunities of the trap-site on a case by case basis, after the COR has determined that no helicopter or loading activities will occur for a minimum of 45 minutes or if gather operations have concluded for the day so long as any wild horses or burros remaining in the trap have settled down and such viewing opportunities will not result in increased stress to the gathered horses or burros, interfere with the gather activities, or pose a risk to BLM employee, contractor, or observer safety, and efforts will be made to provide an opportunity to view wild horses or burros in the trap at a range of as close as 30 feet if feasible.

- Visitors will be assigned to a specific BLM representative and must stay with that representative at all times.

- Visitors are NOT permitted to walk around the gather site or temporary holding facility unaccompanied by a BLM representative.

- Observers are prohibited from climbing/trespassing onto or in the trucks, equipment or corrals, which is the private property of the contractor.

- When BLM is using a helicopter or other heavy equipment in close proximity to a designated observation area, members of the public may be asked to stay by their vehicle for some time before being directed to an observation area once the use of the helicopter or the heavy machinery is complete.

- When given the signal that the helicopter is close to the gather site bringing horses in, visitors must sit down in areas specified by BLM representatives and must not move or talk as the horses are guided into the corral.

- Individuals attempting to move outside a designated observation area will be directed to move back to the designated area or to leave the site. Failure to do so may result in citation or arrest. It is important to stay within the designated observation area to safely observe the wild horse gather.

- Observers will be polite, professional and respectful to BLM managers and staff and the contractor/employees. Visitors who do not cooperate and follow the rules will be escorted off the gather site by BLM law enforcement personnel, and will be unable to participate in subsequent observation days during the gather.

- To the extent possible, an opportunity will be provided for the public and media observers to give feedback on the gather via the public affairs officer (PAO) who will route any comments and concerns to the gather's IC or authorized officer (AO) to consider and/or address. As appropriate, the PAO will follow-up with members of the public and media who have made comments or expressed concern to provide a response or resolution.

- BLM reserves the right to modify these rules based on changes in circumstances that may pose a risk to health, public safety or the safety of wild horses (such as weather, lightening, wildfire, etc.).

Appendix IV

Code of Federal Regulations

Part 91 GENERAL OPERATING AND FLIGHT RULES

Subpart B--Flight Rules General

Sec. 91.119

Minimum safe altitudes: General.

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

[(d) Helicopters, powered parachutes, and weight-shift-control aircraft. If the operation is conducted without hazard to persons or property on the surface--

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.]

Amdt. 91-311, Eff. 4/2/10

Appendix V

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

July 22, 2010

In Reply Refer To:
4710 (260) P

EMS TRNASMISSION 07/23/2010
Instruction Memorandum No. 2010-164
Expires: 09/30/2011

To: All Field Officials (except Alaska)

From: Assistant Director, Renewable Resources and Planning

Subject: Public Observation of Wild Horse and Burro Gathers

Program Area: Wild Horse and Burro Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy for public observation of wild horse and burro (WH&B) gathers.

Policy/Action: The Bureau of Land Management's (BLM's) policy is to accommodate public requests to observe a gather primarily through advance appointment, on days and at times scheduled by the authorized officer. Planning for one public observation day per week is suggested.

Specific viewing opportunities will be based on the availability of staff with the necessary expertise to safely and effectively host visitors, as well as other gather-specific considerations (e.g., weather, terrain, road access, landownership). The public should be advised that observation days are tentative and may change due to unforeseen circumstances (e.g., weather, wildfire, trap relocation, equipment repair, etc.). To ensure safety, the number of people allowed per observation day will be determined by the District Manager (DM) and/or Field Office Manager (FM) in consultation with the Contracting Officer's Representative/WH&B Specialist (COR) for the gather.

The DM/FM has the primary responsibility for effectively planning and managing public observation of the gather operation. Advance planning will:

- Ensure that the public have opportunities to safely observe wild horse gathers;
- Minimize the potential for disruption of the gather's execution;
- Maximize the safety of the animals, visitors, and the BLM and contractor personnel;
- Provide for successful management of visitors; and
- Ensure preparedness in the event of unanticipated situations.

The authorized officer will consider the following when planning for public observation of WH&B gather operations. Also see Attachment 1 (Best Practices When Planning for Public Observation at Gathers).

A. Safety Requirements

During WH&B gathers, the safety of the animals, the BLM and contractor personnel, and the public is of paramount importance. Because of the inherent risk involved in working with WH&B, the public will not be allowed inside corrals or pens or be in direct contact with the animals. Viewing opportunities during the gather operation must

always be maintained at a safe distance (e.g., when animals are being herded into or worked at the trap or temporary holding facility, including sorting, loading) to assure the safety of the animals, the BLM and contractor personnel, and the public.

Unless an emergency situation exists, the BLM's policy prohibits the transportation of members of the public in Government or Contractor-owned or leased vehicles or equipment. Therefore, observers are responsible for providing their own transportation to and from the gather site and assume all liability for such transportation.

The helicopter/aircraft is the private property of the gather contractor. Due to liability and safety concerns, Bureau policy prohibits observers from riding in or mounting cameras onto the aircraft. Should observers create unsafe flying and gathering conditions, for example, by hiring an aircraft to film or view a gather, the COR, in consultation with the gather contractor, will immediately cease gather operations.

The COR has the authority to stop the gather operation when the public engage in behavior that has the potential to result in harm or injury to the animals, employees, or other members of the public.

B. Planning for Public Observation at WH&B Gathers

During advance planning for public observation at WH&B gathers, the authorized officer should consult with the State External Affairs Chief or appropriate Public Affairs office. An internal communications plan will be developed for every gather (Attachment 2). It may also be helpful to prepare answers to frequently asked questions (Attachment 3).

C. Law Enforcement Plan

A separate Law Enforcement Plan should be developed if the need for law enforcement support is anticipated. The Law Enforcement Plan must be approved in advance by the Special Agent-In-Charge (SAC) or the State Staff Ranger of the State in which the gather is occurring.

D. Temporary Closure to Public Access

Under the authority of section 303(a) of the Federal Land Management and Policy Act (43 U.S.C. 1733(a)), 43 CFR 8360.0-7, and 43 CFR 8364.1, the authorized officer may temporarily close public lands within all or a portion of the proposed gather area to public access when necessary to protect the health and safety of the animals, the public, contractors and employees. Completion of a site-specific environmental analysis of the environmental impacts associated with the proposed closure and publication of a Federal Register Notice is required.

E. Gather Contract Pre-Work Conference

· Talk to the contractor about how many members of the public are expected and when. Discuss, and reach mutual agreement, about where best to position the public at the individual trap-sites to allow the gather to be observed, while accomplishing the gather objectives and assuring the humane treatment of the animals and the safety of the BLM and contractor personnel, and public.
· No deviation from the selected viewing location(s) should be made, unless the gather operation is being adversely impacted. The COR will consult with the gather contractor prior to making any changes in the selected viewing locations.
· The BLM's policy prohibits it from ferrying observers in the helicopter or any other mode of conveyance unless an emergency situation exists. Review this policy with the contractor during the pre-work conference.

F. Radio Communication

· Assure there is effective radio communication between law enforcement personnel, gather COR or project inspectors (PIs), and other BLM staff.
· Identify the radio frequencies to be used.
· Communication with the gather contractor is through the BLM COR or PI, and from the gather contractor to the helicopter pilot. Direct communication between BLM personnel (other than the COR) and the helicopter pilot is

not permitted, unless agreed upon by the BLM authorized officer and the contractor in advance, or the pilot is requesting information from the COR.

G. Pre- and Post-Action Gather Briefings

· Pre-briefings conducted by knowledgeable and experienced BLM staff can be helpful to the public.
· The pre-gather briefing is an opportunity to explain what individuals will see, why the BLM is conducting the gather, how the animals will be handled, etc.
· Post-action briefings may also be helpful in interpreting and explaining what individuals saw, what happened, why certain actions were taken, etc.

H. Summary of Individual Roles and Responsibilities
1. District and/or Field Office Managers
DMs and/or FMs are responsible for keeping the State Director and State WH&B Lead fully informed about the gather operation. Included is working with State/local public affairs staff to prepare early alerts if needed. An additional responsibility is determining if a law enforcement presence is needed.
2. Public Affairs Staff
The local district/field office public affairs staff is responsible for working with the COR, DM/FM, other appropriate staff, the State WH&B Program Lead, and the State Office of Communications to implement the communications strategy regarding the gather.
3. Law Enforcement
Develop and execute the law enforcement plan in consultation with District/Field Office Managers, the COR/PI, and the State's Special Agent-In-Charge or State Staff Ranger.
4. Contracting Officer's Representative (COR)/Project Inspectors (PIs)
The COR and the PI's primary responsibility is to administer the contract and manage the gather. A key element of this responsibility is to assure the safe and humane handling of WH&B. The COR is also responsible for working closely with the DM/FM and Public Affairs Staff to develop the communication plan, and for maintaining a line of communication with State, District, and Field Office managers, staff and specialists on the progress of, and any issues related to, the gather operation.
Timeframe: This instruction memorandum is effective immediately.

Budget Impact: Higher labor costs will be incurred while accommodating increased interest from the public to attend gather events. The budget impacts of unanticipated situations which can occur during WH&B gathers include substantial unplanned overtime and per diem expense. Through advance planning, necessary support staff can be identified (e.g., law enforcement, public affairs, or other BLM staff) and the cost-effectiveness of various options for providing staff support can be evaluated. In situations where public interest in a gather operation is greater than anticipated, the affected state should coordinate with the national program office and headquarters for assistance with personnel and funding.

Background: Heightened interest from the public to observe WH&B gathers has occurred. Advance planning for public observation of gather operations can minimize the potential for unanticipated situations to occur during WH&B gathers and assure the safety of the animals, the BLM and contractor personnel, and the public.

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

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

Contact: Questions concerning this policy should be directed to Susie Stokke in the Washington Office at (202) 912-7262 or Lili Thomas in the National Program Office at (775) 861-6457.

Signed by:	Authenticated by:
Bud C. Cribley	Robert M. Williams
Acting, Assistant Director	Division of IRM Governance,WO-560
Renewable Resources and Planning	

Appendix VI
Comments and Responses

A preliminary environmental assessment was posted on BLM's National NEPA Registrar web page, http://on.doi.gov/1PKK0Jg , for a 30 day public review and comment period on May 15, 2015 and closed on June 15, 2015. Written or mailed-in comments were received from two individuals and agencies. E-mail comments (majority were form letters) were received from 8,508 individuals and/or organizations. Many of these comments contained overlapping issues/concerns which were consolidated into 82 distinct topics. Below is a detailed summary of the comments received and how BLM used these comments in preparing the final environmental assessment.

No.	Commenter	Comment	BLM Response
1.	Friends of Nevada Wilderness	Supports the BLM to manage the wild horse populations and their associated impacts in the Water Canyon area.	Comment Noted
2.	Dr. Jim Boone Karen Wurdinger	I fully support your proposed action to reduce horse numbers in the Water Canyon Wild Horse Growth Suppression Pilot Program.	Comment Noted
3.	Northeastern Great Basin Resource Advisory Council (NEGBRAC)	The NEGBRAC applauds the efforts of the Ely District to implement larger-scale fertility control through the Water Canyon Wild Horse Growth suppression Pilot Program as we previously recommended (NEGBRAC 2014). We encourage the BLM to fully implement the program and to insure the fertility control techniques are applied over a prolonged period of time.	Comment Noted
4.	NEGBRAC	The Pilot program proposes the use of either PZP-22 or GonaCon under each alternative presented in the E.A. The NEGBRAC recommends a combination of both be applied and utilized in the study.	Comment Noted
5.	NEGBRAC	Though Native PZP is not considered in this trial, the NEGBRAC recommends that the application of Native PZP then be studied at another time either with the Water	Comment Noted

		Canyon Herd Management Area or another where BLM considers the Native PZP to be applicable and effective.	
6.	NEGBRAC	The NEGBRAC, however encourages hair sample analysis be used as we previously recommended (NEGBRAC 2014)	See pg.8 Proposed Action
7.	NEGBRAC	The NEGBRAC is pleased to see the water and feed trapping component of the study as well as the on-site adoption component.	Comment Noted
8.	NEGBRAC	To ensure this opportunity is not lost the NEGBRAC recommends that BLM commit to the long term (more than 10 years) implementation of the Pilot Program with continued application of fertility control, evaluation of effectiveness of each application, monitoring how herd behavior is affected and genetic testing.	Comment Noted
9.	Humane Society of the United States (HSUS)	Supports the efforts of the Schell Field Office in creating a pilot program in which incorporates population growth suppression through the use of fertility control.	Comment Noted
10.	HSUS	Keep Removals to an absolute Minimum While we recognize that this PEA proceeds with the overall goal of reducing the need for removals, the pilot project incorporates an initial removal of approximately 30-40 horses, and allows for additional removals over the course of 10 years.	Comment Noted
11.	HSUS	Replace Helicopter Gathers Whenever Possible While we acknowledge the Schell Field Office's statements, contained within this PEA,	Comment Noted

		that bait and water trapping is the preferable gather method for this Pilot Program, the PEA does acknowledge that helicopter gathers remain an option for future gathers.	
12.	HSUS	If Helicopter Gathers are Used, the BLM Must Ensure Humane Treatment While The HSUS encourages the usage of baiting and opportunistic darting whenever possible, we do recognize that there are certain situations in which the BLM may deem the use of helicopter gathers necessary in order to achieve high gather efficiency. In those cases, we request that the Schell Field Office ensure that gather contractors are held to the highest humane standards possible through the implementation and enforcement of its existing Comprehensive Animal Welfare Program ("CAWP").	See Appendix I Gather Operations Standard Operating Procedures
13.	HSUS	Further, we request that the Schell Field Office increase transparency of its gather by: 1. Requiring the installation and use of real-time cameras on contractor helicopters during helicopter drive trapping gather operations; and, 2. Requiring the installation and use of real-time cameras on traps, corrals, and temporary holding pens.	There are currently no requirements in the contract for the gather contractor to provide these services. Even if possible for real-time video due to the remoteness of the area and lack of service in the area the gather location would preclude the ability to transmit video in real-time. BLM takes photos and video during gather operations that is updated daily to you tube and flicker.
14.	HSUS	While a partial fence was installed in 2014, migration between the Water Canyon area of the HMA, and the remaining HMA is still possible- meaning that treated mares may leave	See Background 1.1 And Affected Environment 3.5

		Water Canyon boundaries, and untreated mares may enter Water Canyon boundaries- increasing the odds that population growth will continue to increase, despite application of fertility control to mares currently residing within Water Canyon boundaries.	
15.	Sherry Oster	Requests the No Action alternative	Comment Noted
16.	John E. Hiatt Red Rock Audubon Society	As referenced in the E.A. there is already twenty years of experience using PZP as a fertility control agent in large animal species, so it is not obvious what is going to be gained by this rather small project with regard to the efficacy of PZP.	The purpose is to determine under a more controlled setting (where interchange between horses is more limited) whether BLM can achieve a goal of minimizing number of excess horses to be removed, and reach some form of equilibrium where numbers over the AML that are being removed can be handled through the adoption program rather than long-term holding.
17.	John E. Hiatt Red Rock Audubon Society	If the purpose of the program is to determine the relative difficulty of successive captures for purposes of administering PZP, then that needs to be stated.	See Purpose and Need
18.	John E. Hiatt Red Rock Audubon Society	Is funding in place for the full 10 years for the program? Without a funding commitment for the duration of the program, the pilot study could be discontinued at any time without the benefit other than the initial reduction of herd size to AML.	Comment Noted
19.	Marybeth Devlin Form Letter 2	This stocking-rate is sparse, especially in light of the 6,000 sheep that Ely District Office (EDO) has allowed to graze at bargain-basement rates subsidized with taxpayer dollars within this ***dedicated wild-horse habitat***.	The Appropriate Management Level (AML) for the Ely District was evaluated through the 2007 Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Table 3.8-2 and

			Page 4.8-2. The 2007 EIS evaluated each herd management area for five essential habitat components and herd characteristics: forage, water, cover, space, and reproductive viability. Through this analysis and the subsequent Final RMP and Record of Decision (ROD), the Appropriate Management levels were reviewed and set that would achieve a thriving natural ecological balance and rangeland health. The target management number of 25-30 wild horses is based on professional opinion of range condition, water availability and acreage comparison to the HMA.
20.	Suzanne Roy Michele Reed Jane Eagle Jennifer Luciferia Karen Winner Sarah Dyson Sherry Oster Janet Lynch Eileen Hennessy Kathy Gregg Jeanne Nations Form Letter 1 Form Letter 2 Michelle Macy	The BLM must not restrict the number of wild horses allowed in the Water Canyon portion of the HMA to 25-30 while at the same time authorizing over 6,000 sheep to graze this same public land area.	See Comment 14. All livestock and wild horses are restricted from the use of the Lages Fire burned area to allow for rehabilitation of the fire.
21.	American Wild Horse Preservation (AWHPC)	No monitoring or Scientific data is Presented to support Establishing a limit of 25-30 horses in this area: The EA states on page 5 that “The target management number is based on profession [SIC] opinion of range condition, water availability and acreage	The Appropriate Management Level (AML) for the Ely District was evaluated through the 2007 Ely Proposed Resource Management Plan/Final Environmental Impact Statement, Table 3.8-2 and Page 4.8-2. The 2007 EIS evaluated each herd management area for five essential habitat

		comparison. The target number also takes into account seasonal movement from the east and west during the summer and drier winter months.”	components and herd characteristics: forage, water, cover, space, and reproductive viability. Through this analysis and the subsequent Final RMP and Record of Decision (ROD), the Appropriate Management levels were reviewed and set that would achieve a thriving natural ecological balance and rangeland health. The target management number of 25-30 wild horses is based on professional opinion of range condition, water availability and acreage available for wild hroses in the Water Canyon area as comparison to the entire HMA.
22.	Marybeth Devlin Kathy Gregg	The concept of "appropriate management level" -- the "AML" -- needs to be reformed. The low levels to which herds are being held are "appropriate" only in the sense of being administratively convenient for BLM. The limits placed on herd-size are unscientific and insufficient for herds to be genetically self-sustaining.	Refer to comment 21
23.	Marybeth Devlin	Because the subject herd's current and projected populations are below MVP, certain lines may die out. EDO must be careful in this regard. BLM generally targets horses four years of age and younger for removal due to their adoption-potential. However, that approach is not what is best for the herd that returns to the range.	A minimum-viable population specific to the Antelope HMA has been established through the 2008 DR/ROD establishing an appropriate management level of 150-324 wild horses. Per WHB Handbook 4700-1: “*A minimum population size of 50 effective breeding animals (i.e., a total population size of about 150-200 animals) is currently recommended to maintain an acceptable*

			level of genetic diversity within reproducing WH&B populations (Cothran, 2009). This number is required to keep the rate of loss of genetic variation at 1 percent per generation. Animal interchange between adjacent HMAs with smaller population sizes may reduce the need for maintaining populations of this size within each individual HMA." As described in Section 1.1. Water Canon project area is part of the Antelope HMA, however wild horse movement has been limited due the Lages fire fence and topography allowing the implementation of growth suppression studies conducted on the wild horse population within the project area.
24.	Marybeth Devlin Connie Brady	Using helicopters to round up horses is inhumane. There is no way to make it humane. Helicopter-roundups are examples of worst management practices. It is a national scandal that they still continue, bringing disgrace to the Agency and reflecting poorly on the Administration.	Opinion Noted
25.	Marybeth Devlin	How easy it would be for a profit-motivated helicopter-pilot to "poach" wild horses from other parts of the HMA by driving them into the target-area	HWY-93 right of way fence, Topography and the lages fire fence limits the wild horse movement to the project area.
26.	Marybeth Devlin Eileen Hennessy	Helicopter-style roundups must be abolished. Roundups in extreme temperatures -- either the summer heat or the winter cold -- must end. Stampeding horses for countless miles -- causing them to	Opinion Noted

		lather with sweat and then bringing them to an abrupt halt -- must be prohibited. Forcing horses to run long distances over rough terrain, thereby wrecking the delicate hooves of the newborns and resulting in lameness and even death -- must not happen.	
27.	Suzanne Roy AWHPC Barbara A. Bessey Janet Lynch Form letter 1 Kathleen Ward	Helicopters must be eliminated as an option for capturing horses. Only bait trapping for the purpose of PZP birth control application, and/or remote darting of horses with PZP should be utilized.	BLM will primarily use water and bait trapping. However helicopter-drive trapping may be needed to meet management objectives to capture the highest percentage of wild horses present.
28.	Suzanne Roy AWHPC Janet Lynch Jeanne Nations Form letter 1	PZP fertility control must be utilized as an ALTERNATIVE TO (and not in addition to) removals of wild horses from the range. All plans to remove wild horses, as part of this fertility control program, should be eliminated. BLM holding facilities are at capacity with nearly 50,000 wild horses stockpiled at a cost to taxpayers of nearly $50 million annually. Over 17,000 of those horses are in short-term holding facilities available for adoption. As a result of this situation, no wild horses should be removed from this public land area and placed in holding facilities.	Opinion Noted See Section 2.4
29.	Suzanne Roy AWHPC Barbara A. Bessey Connie Brady Jane Eagle Sherry Oster Janet Lynch Eileen Hennessy HSUS Form letter 1	Alternative B should be eliminated from consideration. GonaCon is an experimental fertility control vaccine that interferes with the production of reproductive hormones, which drive natural behaviors in wild horses. Therefore, GonaCon will alter natural behaviors. The	2013 NAS Report "No method has yet been developed that does not have some effect on physiology or behavior. However, the effects of not intervening to control or manage population numbers are potentially harsher than contraception;…"

		National Academy of Sciences concluded that "Further studies of its behavioral effects are needed" before GonaCon is used by the BLM.	"Three methods (PZP-22 and SpayVac, GonaCon, and chemical vasectomy) are considered the most promising for managing fertility in free-ranging horses and burros because they have the fewest and least serious effects on those parameters. In addition, although their application requires handling the animals-gathering-that process is no more disruptive than the current method for controlling numbers, and it lacks the further disruption of removal and relocation to long term holding facilities. Considering all the current options, the three methods, either alone or in combination, offer the most acceptable alternative for managing population numbers."
30.	Suzanne Roy AWHPC Sherry Oster Janet Lynch Form letter 1	Does not describe the plan with enough specificity and certainty to allow for adequate analysis of its impacts. It leaves open the possibility of helicopter roundups and use of GonaCon, but the impacts of these actions are not adequately analyzed.	Please see EA 2.0
31.	Suzanne Roy AWHPC Dean Shifflett Jane Eagle Jessica Luciferia Lee Zucker Sherry Oster Friends of Animals (FOA) Janet Lynch Kathy Gregg Form letter 1	Fails to analyze a full range of alternatives, including reduction in livestock grazing levels.	NEPA directs the BLM to "Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involve unresolved conflicts concerning alternative uses of available resources…" (NEPA Handbook 1790-1 page 49) BLM believes that it has included a reasonable range of alternatives (CEQ, Forty Most Asked

			Questions Concerning CEQ's NEPA Regulations, March 23, 1981) Please see EA 2.4
32.	Suzanne Roy AWHPC Sherry Oster Form letter 1	Fails to analyze the economic impact of the plan to continually remove wild horses from this area. The BLM estimates that each horse removed from the range and not adopted costs taxpayers $46,000 over the life of the horse. The full costs of this plan are not disclosed and analyzed.	NEPA does not require an economic cost analysis for the development of EA so this falls outside scope of this document.
33.	Suzanne Roy AWHPC Form letter 1	Instead of representing progress in the efforts to reform the costly and cruel BLM Wild Horse and Burro Program, this plan perpetuates the BLM's "business as usual practices" that the National Academy of Sciences has called "expensive and unproductive for the BLM and the public it serves." As a result, it must be changed to incorporate the suggestions given above, which are in line with the recommendations of the 2013 NAS report, "Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward."	Opinion noted. The proposed action is consistent with the 2013 NAS Report: "…tools already exist for BLM to address many challenges. Given the nature of the situation, a satisfactory resolution will take time, resources, and dedication to a combination of strategies underpinned by science. In the short term, intensive management of free-ranging horses and burros would be expensive, but addressing the problem immediately with a long term view is probably a more affordable and satisfactory answer than continuing to remove animals to long-term holding facilities." Implementing the proposed action will allow BLM to get down to the target management level with a goal of treating and releasing mares with limited future removals in the proposed area.
34.	AWHPC	The BLM has constructed a fence that "almost" isolates the wild horses in this area	The Lages Fire Fence was constructed to allow for rehabilitation of the burned

		from the rest of the HMA, and in particular cuts them off from primary water sources. Instead of taking mitigating actions to ensure that the wild horses have an adequate supply of water to maintain their numbers, the agency is using this fence as an excuse to reduce the number of horses in the area. This is unacceptable and the BLM must take all steps necessary to mitigate the impacts of the fence on the horses, including development of adequate and reliable sources of water to maintain current numbers of horses.	area by protecting it from livestock and wild horse use while the range recovers. The fence was designed to include key water sources allowing access to water by wild horses and wildlife. Also the fence might limit wild horse movement; however it does not prevent movement throughout the HMA.
35.	AWHPC Eileen Hennessy Kathy Gregg	A sustainable AML for the Water Canyon population must be established and livestock grazing must be reduced accordingly in this area pursuant to 43 CRF 2710.5 and BLM's adaptive management policy.	Water Canyon project represents a portion of the Antelope HMA not a distinct HMA in itself so the establishment of an AML is not required. Refer to comment 20. By law, BLM is required to manage wild horses in a thriving natural ecological balance and multiple use relationship on the public lands and to remove excess immediately upon a determination that excess wild horses exist. BLM's Multiple use mandate is further reinforced under the Federal Land Policy and Management Act (FLPMA) and the Taylor Grazing Act (TGA). BLM cannot use regulations at 43 CFR 4710.5 to manage wild horses and livestock in a

			manner that is inconsistent with the RMP or with its other statutory authorities and regulatory requirements. A land-use plan amendment or revision would be necessary to reallocate use in this manner between livestock and wild horses.
36.	AWHPC	Use of native PZP via remote darting or darting in conjunction with bait/water trapping should not be eliminated from consideration.	Comment Noted
37.	AWHPC Sherry Oster	The EA fails to incorporate the findings of the NAS' recent review of the BLM Wild Horse and Burro Program, and its June 2013 report	The EA and associated Proposed Action and Alternative Considered are consistent with the NAS report. NAS report stats "Tools already exist for BLM to use in addressing challenges faced by its wild horse and burro program." "Given the nature of the situation, a satisfactory resolution will take time, resources, and dedication to combination of strategies underpinned by science. In the short term, intensive management of free-ranging horses and burros would be expensive, but addressing the problem immediately with a long-term view is probably a more affordable and satisfactory answer than continuing to remove animals to long-term holding facilities."
38.	AWHPC	No monitoring data is presented to document the impacts of wild horses or to explain how BLM delineates impacts from a relative few wild horses from the impacts of vastly larger numbers of livestock in the area.	See Background, Purpose and Need, and Vegetation

39.	AWHPC	No Valid excess determination made to justify removal of wild horses. Removal of 41 wild horses horses will not restore the thriving natural ecological balance in this area	Refer to EA Section 3.5
40.	AWHPC	Range management measures, including development of stable water sources, to mitigate the installation of a fence that "almost isolates" the wild horses in the Water Canyon area and cuts them off from the northern part of the HMA where important water sources are located. Addressing the water issue would eliminate one of the reasons that BLM is using to justify the reduction of wild horse numbers in the Water Canyon area.	See comment 34
41.	Tammie Brashear	Wild horses are a national treasure and a symbol of the American west and the American spirit. Many of these horses have rare blood-lines that must be preserved.	Comment noted
42.	Therese Cline	How many of these horses will be adopted, and how many will live in captivity for their remaining lifetimes?	It is estimated that at least half of the horses initially removed would be adopted. Potentially over time we expect that most if not all of the horses that are removed when reapplying PZP to be adopted out since we will have fewer foals being born.
43.	Therese Cline	Why is the BLM using an ineffective product, PZP22? PZP22 does not work. Nothing works as well as a primer dose of native PZP, followed by a booster 2 to 6 weeks later, and then annual boosters after that .	See EA section 2.4
44.	Anne Novak	PZP Causes Ovarian Dystrophy, Destroys Oocytes	The Kaur and Prabha (2014) refers to early studies with

		in Growing Follicles, Depletes Resting Follicles Per yet another metaanalysis of the bodyofresearch on Zona Pellucidatype contraceptives, Kaur & Prabha (2014) conclusively determined that the infertility brought on by such products is " ... a consequence of ovarian dystrophy rather than inhibition of spermoocyte interaction." [14] [Emphasis added] They further noted that " ... histological examination of ovaries of immunized animals revealed the presence of atretic follicles with degenerating oocytes." [Atretic follicles are ovarian follicles in an undeveloped state due to immaturity, poor nutrition or systemic disease; manifested by prolonged anestrus.] Thus, PZP "works" by causing ovarian dystrophy, oophoritis (inflammation of the ovaries), destruction of oocytes in all growing follicles, and depletion of resting follicles.	rabbits using huge doses of a PZP prep that was prepared by a method very different from the native PZP or PZP-22.
45.	Anne Novak	PZP Hormonal Disruption from PZP Found 23 Years Ago by ZonaStatH ResearcherProducer In a study published in 1992, the producer of "Native" PZP, along with colleagues, reported that " ... three consecutive years of PZP treatment may interfere with normal ovarian function as shown by markedly depressed oestrogen secretion." [15] [Emphasis added] Thus, despite all the manufacturer's hype about PZP being nonhormonal, he and fellow researchers	(Kirpatrick and Turner, 2002) While the estrogen profiles showed lower estrogen, it was still sufficient to allow estrus behavior in those mares, and the contraceptive effect was reversible. This means that the ovaries of those mares were not significantly compromised.

		knew long ago about ZonaStatH's adverse hormonal effect. One can reasonably conclude that the markedly depressed estrogen secretions result from alterations to ovarian function, oophoritis, and cystformation caused by PZP.	
46.	Carolyn Knoll Jennifer Webb Leslie Wolcott Magaret Lewis Kathleen Ward	A “PZP only” alternative must be presented in the analysis	See section 2.4 of EA
47.	Barbara A. Bessey	Sex ratio skewing, which is artificially manipulating populations is detrimental to the herds and affect genetic viability and herd social behaviors;	Based on past gathers Sex ratio show a 50/50 sex ratio. BLM would just be maintaining the existing sex ratio on the range. See proposed Action 2.0
48.	Barbara A. Bessey	Manage the current Wild Horse population utilizing Catch Treat and Release (CTR) methods for the vaccination of mares with PZP-22 or native PZP fertility control	See proposed Action 2.0
49.	Barbara A. Bessey HSUS	Detailed record keeping is mandatory to document a rotation schedule of mares treated with PZP	Comment Noted See Proposed Action 2.0
50.	Barbara A. Bessey	Conduct and detail an annual census information, both actual counts and projected population numbers, including information about the data on which population projections/estimates are based	BLM is using scientifically accepted inventory methods that have used by wildlife management agencies around the world for surveying wildlife population and implements measures designed to reduce the likelihood of double-counting the same animal. Wild horse inventories are more likely to under count the actual number of horses than to over-count.
51.	Barbara A. Bessey Eileen Hennessy Kathy Gregg	Manage this population at a high AML of 150-200 horses rather than reducing it to 25-30	See Purpose and Need

52.	Barbara A. Bessey Ms. Salley C. Wilson Jeanne Nations	Increase "Allowable" Management Level (AMLs) for Water Canyon Wild Horses. Current AMLs are not based on carrying capacity of the range and genetic viability of the Wild Horse herds	See comment 21
53.	Barbara A. Bessey	Utilize remote darting for PZP contraceptives. It has been successful in other herds in WY, MT, and CO. It is less traumatic to the Wild Horses, especially the very young. Remote darting results in fewer injuries to the Wild Horses;	See Section 2.4
54.	Barbara A. Bessey Georgia Benyk	The herds should be managed by natural attrition and a carefully managed ongoing PZP program that is administered using strict animal welfare protocols.	See 2.4 Alternatives Considered but Dismissed from Detailed Analysis.
55.	Barbara A. Bessey	The BLM should reduce livestock grazing permanently to achieve a more equitable use of land by Wild Horses, other wildlife, livestock, and stakeholders.	See 2.4 Alternatives Considered but Dismissed from Detailed Analysis.
56.	Jennifer Webb Leslie Wolcott Kathleen Ward	The NAS recommendations must be further incorporated into this EA. Including GonaCon as fertility control is not recommended by the NAS.	See comment 29
57.	Karen Winner Jeanne Nations Form Letter 2 Michelle Macy	The proposed use of GonaCon, a fertility drug, is likewise unnecessary and poses dangers to the mares.	See comment 29
58.	Sarah Dyson Karen Winner Kathy Gregg Jeanne Nations Form Letter 2 Michelle Macy	Helicopter roundups are dangerous for the wild horses, cause undue stress and imminent danger to them, including death.	Refer to EA section 2.1, 3.5, and Appendix I Standard Operating Procedures
59.	Janet Lynch	Rather than following the enlightened recommendation of the Northeast Great Basin Resource Advisory Council	See Comment 29

		to initiate a humane pilot fertility control program through the regular and conscientious use of the safe, effective and reversible PZP birth control vaccine, the instant proposal would recklessly use GonaCon, a drug which has not been adequately tested for safety in wild horses.	
60.	Janet Schultz	FENCING has been installed at the north and south of this portion. This fencing should be taken down. Horses are to be given free access to their areas designated by The Act.	See 1.1 Background
61.	Eileen Hennessy	Natural predation is preferable to the reduction of wild horse herds through artificial means such as round ups	See 2.4 Alternatives Considered but Dismissed from Detailed Analysis.
62.	Eileen Hennessy	Range Expansion along with necessary range improvements are also paramount importance.	Comment Noted
63.	FoA	In March 2014, the BLM claimed there were an estimated 413 horses in the Antelope HMA, and now, a year later, it claims that there are an estimated 669 wild horses.	See comment 50. BLM conducted a flight inventory in February 2015 with a direct count of 669 wild horses.
64.	FoA	In addition to the Antelope HMA the Schell Field Office oversees 80 grazing allotments where 121,856 sheep are allowed to graze and 22,696 cattle are allowed to graze.	Outside the scope of the analysis.
65.	FoA	The Environmental Assessment also fails to address the positive impacts of wild horses on the range. Wild horses have a caecal digestive system, meaning they do not decompose the vegetation they ingest as thoroughly as ruminant	Outside the Scope of this analysis.

		grazers, such as cattle or sheep.	
66.	Kathy Gregg Front Range Equine Rescue (FRER)	The BLM may not remove them unless they are deemed “excessive” in relation to the thriving ecological balance	See section 2.1 and 3.5.
67.	Kathy Gregg	What appears to be the most significant vital piece of this decision making process seems to have been omitted and overlooked and dismissed, or perhaps “swept under the carpet” because it is not the agency’s favored theoretical model, but I discovered that per the EA, a large portion of the Becky Peak Wilderness area is within the proposed wild horse capture area, known as the Water Canyon	See Maps 1& 2 in the E.A.
68.	Kathy Gregg	Becky Peak Wilderness area cannot be grazed by domestic livestock if it is shown that the livestock have trampled it	Outside the scope of the analysis.
69.	Kathy Gregg	PZP and GonaCon are NOT vaccines … they are both legally listed by the United States Environmental Protection Agency, Office of Prevention, Pesticides and Toxic Substances as PESTICIDES. By incorrectly describing these pesticides as vaccines,	PZP and GonaCon are vaccines. However, jurisdiction over most wildlife contraception has passed to the Environmental Protection Agency (EPA), which regulates wildlife contraceptives as “pesticides” under the Federal Insecticide, Fungicide, and Rodenticide Act
70.	Kathy Gregg	1) Will the COR/PI be allowed and encouraged to make spontaneous and unannounced inspections at any and all times during the length of the contract for bait and or water trapping and how will these inspection reports be documented and how and when will they be made available to the public?	See Water and Bait trapping Standard Operating Procedures. BLM will continue to use its available methods to communicate with the public, including BLM’s public website, Facebook and Flicker.
71.	Kathy Gregg	2) How does the BLM propose to guarantee to the public that this long term	Appendix I: Standard Operating Procedures for gathers

		plan will be conducted in a safe and humane manner?	
72.	Kathy Gregg	3) How will the public be informed when each and every trapping procedure is to begin and end along with the number of wild horses to be trapped and then will the BLM follow with data of the completed trapping immediately?	See Comment 70.
73.	Kathy Gregg	4) In addition, what are the criteria of the BLM COR that would put a (temporary or permanent) stop to the trapping and/or to reevaluate and possibly dismiss the contractor?	The COR has the authority to stop a gather or trapping operation if acts of abuse or neglect or inhumane treatment is occurring during a gather.
74.	Kathy Gregg	5) How does the BLM propose to follow its own transparency and accountability mission statements when the public will not know what the BLM is doing behind the veil of these proposed trapping plans?	See comment 70.
75.	Kathy Gregg	Thus, an AML established purely for BLM administrative reasons because it was the level of the wild horse and/or burro use at a particular point in time cannot be justified under statute. Where range studies or other quantifiable data have identified a need to begin monitoring studies with a specific number of wild horse [or burros] and those studies demonstrate that ONLY by reducing the number of wild horses or burros will a specific resource problem be corrected, the specified number of animals may be used.	See comment 21.
76.	FRER	BLM cannot arbitrarily establish an AML under an Existing AML and has not	See comment 21. We are not setting AML for the Water Canyon portion of

		provided the detailed analysis required to establish a new AML.	the Antelope HMA. The Water Canyon portion will try to maintain target population size of 25-30 wild horses.
77.	FRER	FRER does not oppose actions that reduce birth rates, such as the application of PZP-22 but FRER strongly opposes management actions that reduce genetic diversity, thereby reducing the chances of survival for the entire herd in the long run.	Comment Noted
78.	FRER	BLM should provide more detail for regarding it's criteria for wild horse removal.	See Proposed Action 2.0
79.	FRER	The plan to artificially maintain a small population in a small area of the HMA is not consistent with the minimum feasible management requirement of the wild horse act	By law, BLM is required to manage wild horses in a thriving natural ecological balance and multiple use relationship on the public lands and to remove excess immediately upon a determination that excess wild horses exist. Refer to regulations, 43 CFR 4710.4.
80.	Jeanne Nations	You cannot have a pilot program and gain any real documentation on how it is working with only 25 30 horses. I have always disagreed on those numbers. I have documented and photographed the horses for many years in the Becky Springs HMA and know the herd behaviors and the numbers of wild horses and family bands.	Due to the size of the area and target size of the population of horses to document, the Water Canyon project is an ideal location to study fertility control to achieve and maintain a targeted population number.
81.	Form Letter 2	I respectfully ask you to reduce livestock grazing on these public lands so that both wild horses and livestock are equally accommodated.	See section 2.4 of EA
82.	Kathleen Ward	Herd migration is not clearly	See Proposed Action 2.0

		documented since the fences were installed post burn. In order to ensure a genetically sound population, accurate data must be present to support any removal of wild horses from the area.	
83.			