

American Association of Equine Practitioners
Bureau of Land Management (BLM)
Wild Horse and Burro Program
BLM Task Force Report
August 2011



American Association of Equine Practitioners
4075 Iron Works Parkway
Lexington, KY 40511
(859) 233-0147 • www.aaep.org

AAEP BLM Task Force Report

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EXECUTIVE SUMMARY

The AAEP BLM Task Force evaluated horses in the Bureau of Land Management (BLM) Wild Horse and Burro Program through several visits to wild horse gathers, and short- and long-term holding facilities. The task force concluded that the care, handling and management practices utilized by the agency are appropriate for this population of horses and generally support the safety, health status and welfare of the animals.

The task force noted many areas of quality care and management in the program, which are documented throughout the report. The AAEP's core recommendations for the improvement of care, handling and management of the nation's wild horse and burro population are as follows:

- While the task force thought the use of helicopters as observed during the gathers of horses from the range was humane, all contract helicopter pilots should adopt conservative flying patterns that allow a safe buffer distance between the helicopter and the horses, and between the helicopter and the ground.
- All capture pens for the temporary holding of animals that have just been captured should be constructed so that chute configurations include wider corral pen sections instead of narrow rectangular pens. This configuration gives passive animals a circular escape from the aggressive animals. In addition, the traps should be constructed with solid side panels in the final capture pen to prevent horses from getting their heads or legs outside of the pen and to discourage horses from attempting to climb out of the enclosure.
- Areas of solid footing should always be provided in short-term holding facilities to allow the horses a place to lie down. This issue was particularly a concern at the Salt Lake Regional Wild Horse and Burro Center in Herriman, Utah.
- A uniform surgical anesthesia protocol should be in place and reviewed with all contract veterinarians concerning surgical procedures performed at all BLM horse management sites.
- Resident horse numbers should be adjusted as needed seasonally within short-term holding facilities to avoid overcrowding when extreme weather is expected or present. The welfare of the horses should be the determining factor for population density.
- Biosecurity standards and protocols should be adopted at short-term holding facilities in order to reduce the spread of the bacteria *Streptococcus equi* subspecies *equi*, commonly known as strangles, and minimize outbreaks of this and other infectious diseases.
- The task force encourages current efforts by the BLM to produce a centralized database to track the history of all horses in the BLM program. The records should include positive or negative trends in adoption programs and outcomes of socially productive programs like those in place at certain prisons.

The task force also reflected upon the evolution of the Wild Horse and Burro Program from an adoption program into a welfare program for these animals. While a significant number of wild horses have found homes through the BLM's innovative adoption and placement programs, statistics show that the number of wild horse adoptions has declined significantly over the past five years. Many wild horses now live out their lives at government-supported long-term holding facilities.

Clearly the mission of the BLM Program – Healthy Ranges, Healthy Horses – is not a simple one. A central issue for all discussions involving the care and management of the wild horse population is controlling the reproductive rate of the wild horses on the range. The AAEP encourages the BLM to prioritize research and application of effective fertility control methods in order to reduce the foaling rate in wild herds.

Introduction

The American Association of Equine Practitioners (AAEP) was founded in 1954. The mission of the AAEP is to improve the health and welfare of the horse, to further the professional development of its members, and to provide resources and leadership for the benefit of the equine industry. As the world's largest professional organization dedicated to equine veterinary medicine, with a membership of nearly 10,000 veterinarians and veterinary students who dedicate their life's work to caring for the horse, the AAEP is a world leader in equine veterinary medical education and very active in horse welfare and equine industry programs.

In June 2010, the AAEP received a letter from Don Glenn, Division Chief of the Wild Horse and Burro Program of the Bureau of Land Management (BLM). Mr. Glenn's letter invited a small team of veterinarians from the AAEP to visit the BLM operations and facilities, spend time on wild horse and burro gathers and evaluate the management of the wild equids. Specifically the letter from the BLM requested the AAEP "review animal care and handling within the Wild Horse and Burro Program, and make whatever recommendations, if any, the Association feels may be indicated, and if possible, issue a public statement regarding the care and welfare of animals under BLM management."

In July 2010 the AAEP Board of Directors created the AAEP BLM Task Force and approved the following charge for the project:

Charge of the AAEP task force:

The Bureau of Land Management (BLM) has requested that the American Association of Equine Practitioners (AAEP) evaluate the handling, health care, and welfare of the horses and burros (equids) at their wild equid gathers and holding facilities. The AAEP BLM Task Force will visit multiple BLM sites to observe gathers and evaluate conditions at short-term holding and long term pasture facilities. The task force data collection will be limited to the safety, health status, health management, care, handling and welfare of equids in the BLM program.

The Task Force will provide a report to the AAEP Board of Directors (BOD) before the summer 2011 BOD meeting. Once reviewed by the BOD, a written report of the BLM Task Force findings and any related recommendations will be supplied to the BLM. It is not the charge of the Task Force to evaluate the BLM program with regard to moral, ethical or economic issues.

Methodology

Methodology of investigation:

A task force of 10 AAEP member veterinarians was selected. The task force included veterinarians from private practice, universities and industry and their veterinary work was in various parts of the country. Task force members represented a range of experience in different facets of equine medicine and surgery. Most of the veterinarians had no prior experience with the BLM program. One had visited a BLM facility previously and one veterinarian is a member of a group practice that does contract work for a BLM short-term facility.

Site visits:

Teams of three to four members from the task force visited multiple BLM facilities and operations during a 6-month period between October 2010 and March 2011. Trips to observe gathers and short-term holding sites occurred in October, November and February. Timing of these visits was based on the BLM gather schedule and team member availability. The long-term pasture sites were visited in March near the close of winter. The task force members that participated at the first gather site served as experienced anchors for the subsequent visits, which incorporated other task force members for a fresh perspective.

The BLM provided each site visit team with a BLM employee as a guide and source of information. Task force members were introduced to all the BLM, APHIS (US Animal and Plant Health Inspection Service) and contract employees at each site. These employees included BLM executive and administrative staff, BLM horse specialists, BLM employees who worked at short-term holding facilities, veterinarians who worked under BLM contracts, APHIS veterinarians and others. The team also met many of the gather contract employees including pilots, wranglers and owners of the contract businesses. The task force team had unrestricted opportunity to discuss the BLM program and procedures with any person at any site.

Evaluation of the BLM Wild Horse and Burro program included observations of three gathers in southwest Wyoming, west/central Nevada, and northeast Nevada. The trips to observe the gathers also included visits to four short-term holding facilities in Wyoming, Nevada and Utah. Two long-term holding pastures were visited in Oklahoma.

Teams of three task force members attended each gather day; a total of seven different task force members participated in gather observations. Each observer independently completed an evaluation form for each day, generating 15 independent evaluation forms.

Task force team members observed horses being gathered off the range by herding via helicopter into temporary collection corrals. They observed many of these horses being transported by stock trailer from the capture corral to temporary holding pens near the gather. They also visited several short-term holding facilities where recently gathered horses are housed for several months to a year after being gathered. At all these sites they observed the condition and management of the horses. They assessed the fencing, footing, management and animal density within the pens and corrals, and inspected feed and water arrangements for the horses. At some of these sites they observed

movement of small groups of horses through the chutes designed to restrain the horses for brief periods while receiving basic medical treatment. Observed procedures included identification, age estimation, freeze branding, deworming, vaccination and blood sample collection. One team observed castration of a group of mature stallions at a short-term holding facility. Information gathered by interviews with individuals involved with the collection, handling and care of the horses and burros supplemented the direct observations of the team members on the trips.

At the two long-term holding sites, observers were escorted over the ranches by truck and/or ATV. Between 40-70% of the total population of horses at the sites were observed. Fencing, gates, water (streams and ponds) and hay were evaluated directly. Handling facilities at the long-term sites were observed but were not in use during the visits.

Evaluation forms:

The task force created forms to record observations and data collected during the visits to the horse gathers, short-term holding facilities and long-term holding pastures. Separate evaluation forms were designed for each of the three types of sites. Body condition scores as determined by the Henneke Body Score Scale, based on a nine-point scoring system, were noted for horses at each site. The safety of all handling procedures was assessed. Horses at the gathers and holding facilities were observed for signs of stress or clinical disease, which were assessed by evaluating their alertness and demeanor, skin and hoof condition, respiratory rate and depth, quality of manure, and presence or absence of nasal and/or ocular discharge.

Tabulation of the data:

Following each site visit, task force members filled out report forms independently. Reports were tabulated by a task force member who did not participate in the data collection. Data from each evaluation form was collated and recorded on a spreadsheet for each evaluation form item:

1) gathers, 2) short-term holding facilities and 3) long-term holding pastures. Numerical data was summed where appropriate and averaged if a single data point was recorded slightly differently by each observer. Ranges of values were also recorded in the spreadsheet. Comments provided by each observer were combined if similar. All comments by each observer were given equal weight in the results and discussion section.

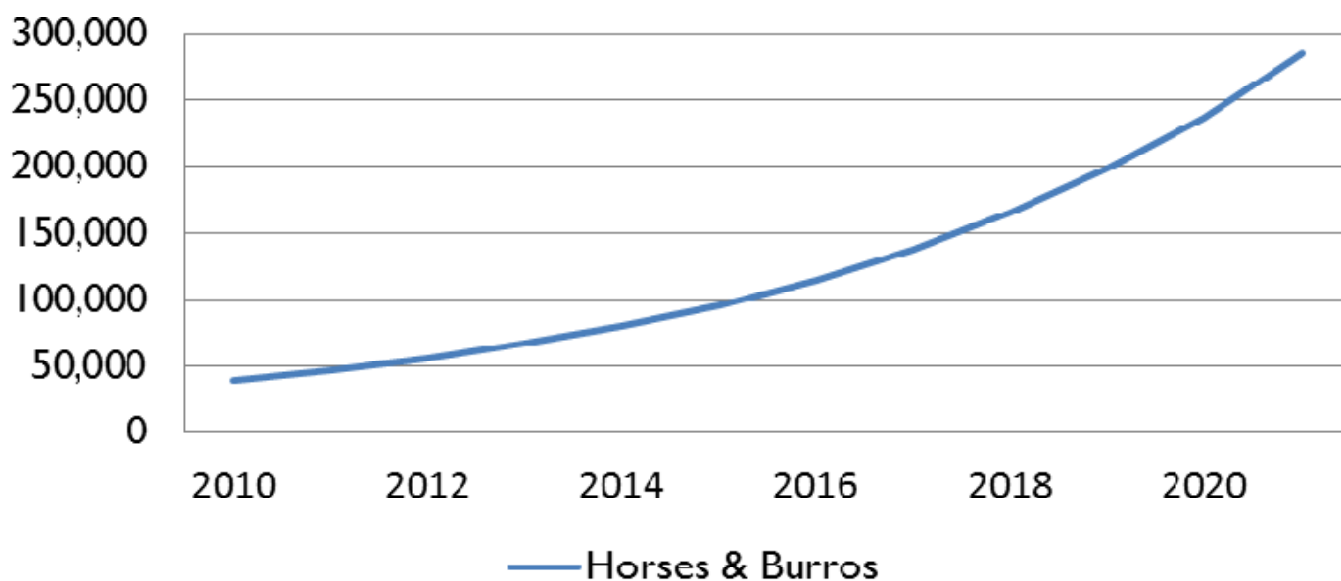
The AAEP task force members were not paid as they donated their time and expertise for their work on this project. The BLM reimbursed the task force teams for travel expenses.

Observations and Results

Background information on the horses on the range: "Given the protection afforded by the Wild Free-Roaming Horses and Burros Act of 1971 and a general lack of natural predators, wild horse populations increase at an average rate of 20 percent a year and can quickly exceed the carrying capacity of their ranges." Source: 6-30-2011

http://www.blm.gov/wo/st/en/info/newsroom/2011/april/NR_04_26_2011.html

Estimated Horse and Burro Population Growth Without Gathers or Other Control Measures



Source : 6-30-2011

<http://www.doioig.gov/images/stories/reports/pdf/BLM%20Wild%20Horse%20and%20Burro%20Program%20Public.pdf>

The task force team members were told by the BLM horse specialists that the amount of range forage material is often limited and weather dependent. Water is limited in some range areas and also weather dependent. Some herds travel many miles a day from forage areas and back to obtain water.

Current estimated numbers of horses on the range as reported on the BLM web site:

Wild Horse and Burro Populations by State

State Totals 2011 Population Statistics

State	Horses	Burros	Total
AZ	434	2,761	3,195
CA	2,872	1,171	4,043
CO	984	0	984
ID	500	0	500
MT	165	0	165
NV	17,710	1,347	19,057
NM	63	0	63
OR	2,456	15	2,471
UT	2,497	189	2,686
WY	5,333	0	5,333
TOTAL	33,014	5,483	38,497

Source: 6-30-2011

http://www.blm.gov/wo/st/en/prog/wild_horse_and_burro/wh_b_information_center/statistics_and_maps/Populations_by_State.html

Sequence of capture and holding facilities observed by the task force:

Horses brought in off the range were herded towards a gather trap by helicopter as described below. Horses were herded into the wings of the trap (a funnel shaped structure usually a few hundred yards long made of jute fabric hung on t-posts), then captured in temporary capture pens which were small gated pens that had been built at the narrow end of the wings of the trap. These pens provided short-term confinement for groups of horses that had just come in off the range. Shortly after capture, these small bands were moved from the trap to temporary holding corrals by stock trailer. The temporary holding corrals were larger corrals that had been constructed a few miles away from the capture site for the purpose of housing newly gathered horses for several days. The temporary holding corrals had a single file alleyway and manual squeeze chute for close examination of the horses and for sorting into various pens by age and gender. The alleyway included a loading ramp with solid sides for loading horses into semi tractor trailers. Traps and temporary holding corrals were dismantled by the contractors once a gather was complete, and panels, gates, chutes and other elements were transported to the next gather area and reassembled.

When suitable transport was available, gathered horses were transported from the temporary holding corrals to permanent facilities known as short-term holding facilities. These sites all had large permanent corrals with automatic waters that were designed to house horses. The short-term holding sites all had padded hydraulic chutes suitable for restraining horses for medical procedures, and multiple pens to segregate horses by age and gender.

Gathered horses that had received basic identification and medical procedures in the short-term holding facilities moved on to a variety of different destinations after two to twelve months. Some of the facilities had adoption programs on site; others shipped young horses to BLM-sponsored adoption events. Selected groups of horses were transported to special training programs sponsored by prisons or by the Mustang Heritage Foundation. The majority of older horses were eventually shipped to long-term holding pastures in the Midwest. These pastures serve as permanent homes for many horses brought in off the range.

The AAEP task force observed traps and temporary holding corrals at each of the three gathers they attended. They visited four short-term holding facilities and two long-term holding pastures.

Gather sites:

Gather sites included the Adobe Town/Salt Wells Creek Complex Herd Management Area (HMA) in southern Wyoming, the Pine Nuts HMA south of Reno, Nevada and the Antelope Complex HMA near Wendover, in northeast Nevada. Five gather days were observed: one day at Adobe Town/Salt Wells Creek, two days at Pine Nuts, and two days at Antelope Complex.

Weather conditions experienced during gathers were mild (40-60 degrees F) to cold (2-30 degrees F). Light snow fell during one gather, while a ground cover of 4 inches of snow was present at another. Wind speed was variable, from no wind to wind that escalated to an excess of 40 mph. High winds on two days resulted in early cessation of the gather.

The Adobe Town/Salt Wells trap site used a natural rock formation consisting of a series of tall buttes to form one wall of the trap. Horses approaching the gather site from the west could not see the trap until they turned the corner around the butte. The Pine Nuts trap site was placed in a flat valley at the base of a series of low mountains. An existing barbed wire fence that ran up one mountainside was used as a stage for part of the jute (burlap) wings. The Antelope Complex trap was also placed in a flat valley adjacent to surrounding mountains. An existing post and wire corral was used to support part of the jute fence that framed the trap.

Gather personnel at all gathers included an APHIS veterinarian, one or more BLM horse specialists, and a private contract team of supervisors, wranglers and pilots who were responsible for finding and capturing the horses in the area. The task force teams witnessed gather operations performed by two different independent contractors, Cattoor Livestock Roundup Inc. of Nephi, Utah and Sun J Livestock Inc. of Vernal, Utah.

The role of the APHIS veterinarian was to tend to the safety and welfare of the wild horses. The BLM horse specialists oversaw the gathered herds and made decisions on issues such as gender ratio adjustment and selecting horses slated for release back to the range. The AAEP task force members who attended gathers interviewed the on-site APHIS veterinarians and horse specialists, and observed their activities during gather operations. They observed the work of the contract company wranglers as horses were brought into the traps and transported to the temporary holding corrals. At the Adobe Town/Salt Wells complex, they observed the wranglers load horses into tractor trailers for transport to short-term holding.

Gather process:

The search for bands of horses in the selected range area was done by helicopter, and selected groups were herded to the trap site by helicopter. As the horses were brought in from the range, the helicopter was usually about 100 to 300 yards distance behind the group, flying at an altitude well above the herd. The helicopter made loop-like passes to encourage herd movement in the desired direction. The horses appeared to be easily driven in the intended direction with the helicopter in this flying pattern.

As the horses approached the wings of the trap (the funnel shaped area that led to the capture pens), the helicopter flew closer to the horses to encourage steady movement into the trap. The wings of the trap were fenced by a visual barrier made of jute or plastic mesh fabric strung along existing fencing or between metal T posts that served as fence posts. The fabric was about 4 feet high and was stretched so that it touched the ground. Actual capture of the horses was achieved when the selected group (generally 4-12 horses) was herded through the wings into the capture pens of the trap. These pens were made out of heavy gauge corral panels tethered to posts in the ground.

The horses usually entered the wings at a canter. Some horses trotted down the entry to the trap. No horses came in at a fast gallop. Groups of incoming horses were encouraged to enter the trap by the release of a “decoy horse”—a domestic horse that was held near the mouth of the wings until the herd approached, then released. The horse had been trained to canter into the trap, and the wild horses tended to follow it.

Horses that entered the capture pens were captured as the wranglers closed entry gates behind them. A total of 167 horses were gathered during the task force observations from a total number of 23 “drives.” The number of “drives” per day observed by the task force members ranged from two to twelve. The average number of horses gathered per drive was seven.

On the Pine Nuts gather, a barbed wire fence that ran up the side of a mountain was used as a support for some of the jute fencing in the wings. The jute had been strung part way up the mountain but there was exposed barbed wire fence that ran up the mountain slope above the wings. Several horses being herded escaped by jumping the barbed wire fence that had no jute strung on it. (*See gather recommendation section.*) These individuals were herded and captured later the same day after the wire fence had been more completely covered by jute. All horses that jumped the fence were observed in the trap and no serious injuries were noted.

At the Adobe Town/Salt Wells Complex gather, a few straggler horses did not enter the trap, or turned when they entered the wings of the trap and escaped. These individuals were roped close to the trap by wranglers mounted on saddle horses and brought into the corral to join the horses there. The roping process was done in a calm, efficient, and humane manner and was effective in gathering the odd horse that did not enter the wings with its herd mates.

At the Antelope Complex gather site a group of horses refused to enter the wings several times and were allowed to return to the range when high wind forced suspension of the gather operation for the day. One elderly gray mare was released at the capture site at the direction of the BLM horse specialist. Two other horses on the second day at Antelope were deemed too hard to drive with the helicopter and they were left on the range a long distance from the trap.

On one of the gather days at the Pine Nuts HMA and one day at the Antelope Complex HMA, high winds forced the operation to be suspended mid way through the day, but successful drives occurred at each of these sites before the gathers were suspended.

Temporary holding corrals:

Temporary holding corrals, made of commercial pipe corral panels, had been built at each gather site to serve as the initial sorting and holding area. Various pen configurations were observed at the three temporary holding corrals. Some corrals were a series of small round pens which were about twenty feet wide at the broadest diameter. These pens were linked bracelet fashion by connecting gates. Others were a series of narrow alleys eight to ten feet wide, with parallel sides divided by gates. All corrals and chutes at the gather sites were effective; those that were built with wider diameters allowed submissive horses to position themselves away from dominant individuals. These corrals with round pen configurations were large enough to allow horses to organize into circular groups rather than line up head to tail (*see gather recommendation section*).

The horses were grouped with the herd mates they were gathered with in the corrals. All groups stood relatively quietly, but in the groups where they were held in a narrow alleyway, one or two aggressive stallions kicked at other horses in the group frequently. At the Antelope Complex, several horses attempted to climb the panels and several tried to push through the panels with their heads between the rails (*see gather recommendation section*).

Trailer transport from the traps:

Recently captured horses stayed in the capture pens of the traps for 30 to 90 minutes before they were loaded into stock trailers and moved to the temporary holding corrals. The loading process occurred after the wranglers opened a gate that separated the final capture pen and the rear entrance of a stock trailer that had been backed up to the trap. Horses then stepped up into the trailer. Horses that did not follow the horse in front of them were urged to step into the trailer by contract company wranglers who waved a "wild rag" (a plastic grocery bag tied to a long stick) in the vicinity of the hindquarters of the horse. The rattling noise that the bag made encouraged the horses to step up into the trailer.

Minimal sorting observed at the trap site at the Adobe Town/Salt Wells complex assured that foals were loaded on the same trailer as their dams for the short trip to the temporary holding area. Adult horses were loaded before foals. To reduce the chance of injury, the foals were positioned behind a partition that separated them from the mature horses. The trailer drove off as soon as it was loaded, transporting the horses a few miles to the temporary holding/sorting corrals. The loading and trailering processes observed were safe and efficient.

Condition of the horses after gather:

Horses entering the trap were in good condition and did not display signs of distress or exhaustion. On entry into the capture pens, all horses exhibited increased respiratory rates consistent with the exercise of the roundup. Most horses showed mild to moderate hair coat sweat that was weather and travel-distance dependent. None of the horses observed was judged to be in any worse condition from the exercise than domestic horses after a workout or a competition. They appeared to physically recover quickly from being brought in off the range, as evidenced by a reduction in their respiratory rate and coat sweat. Horse behavior during loading and transport did not suggest fatigue, medical compromise or excessive apprehension.

Observed injuries at the three gathers were minor. Approximately 5% of horses experienced superficial abrasions or small nonsuturable lacerations during the gather process. All the injuries observed by the task force team and the APHIS veterinarian would be expected to heal without treatment.

One horse on one gather day at Adobe Town/Salt Wells Creek Complex collapsed just before entering the jute wings during the drive towards the trap. The owner of the contract company was closest to the horse and attempted resuscitation. The horse did not respond to the resuscitation efforts and died very soon after he collapsed with no struggle. The collapse occurred in full view of the AAEP Task Force observers and the APHIS veterinarian. A full necropsy was performed by the APHIS veterinarian at the site within 90 minutes. The necropsy was observed by the three AAEP Task Force members in attendance. The cause of death of this young male, approximately 18 months of age, was not determined during necropsy. The process for investigating the death was thorough and transparent.

Temporary holding/sorting corrals near the gather site:

The contractor team erected temporary holding/sorting corrals near the gather site on well drained land that was accessible to large tractor trailers and other vehicles. These vehicles hauled panels, gates, chutes, water tanks, hay and other items needed to create and manage the complex of holding pens and chutes erected just for the gather. The corrals were configured to allow the sorting of gathered horses into individual groups.

The corrals were constructed of commercial panels secured to posts. Many panel sections were covered with rolls of plastic snow fence that created a visual barrier. Gates were used as partitions at various intervals. The architecture included alleys and a manual squeeze chute or stocks that allowed brief assessment of individual horses prior to sorting, as well as an alleyway that led to a loading chute designed to load horses onto semi tractor trailers. The corral configuration was such that the horses could be sorted into several different groups by gender and age; all gathered horses that were unloaded after the gather were sent through an inner chute that had several exit routes that led to separate pens designated for stallions, young horses, and mares with and without foals. Wranglers opened up the desired exit gate once the horse's gender and approximate age were confirmed, and the horse was directed into a pen with horses of similar gender and age.

The sorting process was performed soon after the horses arrived in the stock trailers from the trap site. The sorting observed was safe and efficient and done with respect for the horses' welfare. Personnel were skilled, experienced and efficient.

The temporary holding corrals were well constructed and safe. The pens were of a sufficient size for temporary confinement of the sorted groups of horses. One stallion jumped out of the corral at the Pine Nuts gather, even though the fence was 6 feet high. The horse did not appear to suffer any injury when he jumped out, and was allowed to return to the range. Access to food and water in all pens was within the acceptable standards for horse health, and horses were observed eating hay and drinking water soon after they were introduced to the corrals.

Record keeping by both the contractor representative and the BLM personnel appeared adequate. Skilled oversight was in place with the presence of BLM and APHIS personnel, including BLM horse specialists and an APHIS veterinarian at every gather. At the Antelope Complex, a Nevada state brand inspector was present to certify that no privately owned horses were collected and shipped with the BLM horses. The interaction between the contractor team, the on-site APHIS veterinarian and the on-site BLM team was positive, respectful and productive.

The BLM personnel informed the task force teams that horses stayed in the temporary corrals for a short interval, usually from several hours to several days. If weather conditions did not allow safe travel, horses occasionally stayed for a few weeks. The horses were kept at the temporary corrals until appropriate loads of sorted horses were accumulated and travel arrangements finalized. At that point, they were loaded into large semi-tractor trailers and transported to a permanent short-term holding facility. After all horses from a gather had vacated the sorting corrals, the pens were dissembled by the contract team.

Condition of horses in temporary holding/sorting corrals:

The health status of horses brought in off the range could be assessed in more detail in the temporary holding corrals. The observed horses appeared healthy without evidence of chronic injuries, disease or congenital defects other than a small number with a unilateral club foot (about 1% noted at Adobe Town/Salt Wells Complex). Overall hoof condition of the captured horses was judged good. No horses were judged to show signs of systemic disease as determined by the criteria listed in the methodology section of this report. Horses averaged a body condition score of 4/9, with 3-15% at each gather scoring 3/9. Wet mares (those nursing foals) tended to be thinner than their herd mates. The average body condition of the Nevada horses was thinner than those in Wyoming.

At the Antelope Complex HMA gather, 2-5% horses had minor skin abrasions, which appeared to be related to the gather process. In the opinion of the APHIS veterinarian and the task force, these minor injuries did not require veterinary attention. One horse at the Pine Nuts HMA gather was observed to have suffered a small wire laceration during one of the drives on the second day. Chronic or pre-existing injuries were limited to two horses: one mare at Adobe Town/Salt Wells Complex appeared to have a healed carpal fracture which resulted in leg deviation but she was not lame. Another horse was noted with a cheek laceration at the Pine Nuts gather. At the Antelope Complex gather, one branded horse was captured.

The task force was told that the contractors refer any animals with serious injuries to the on-site APHIS veterinarian for assessment. That veterinarian may choose to administer simple treatment at the temporary holding corrals if the facility affords safe restraint. If the injury is extensive, the APHIS veterinarian may direct the horse to be examined at the short-term holding facility by the veterinarian on contract with the BLM. If the APHIS veterinarian judges the injury to be life threatening, that veterinarian may advise euthanasia either on site or at the nearest holding site. The AAEP task force did not observe any serious injuries that required veterinary intervention during their visits.

At the Adobe Town/Salt Wells Creek Complex HMA in southern Wyoming, the BLM horse specialist sorted out a small percentage of the mature stallions. These individuals were kept in a separate pen to be released back onto the range after the gather in that area was completed. One uniquely colored mare and foal were also retained at the sorting pen site for release. The strategy, as reported by the BLM staff, was to adjust gender ratio of the wild horses in that Complex by selecting 60% male horses and 40% female horses for release. At the Antelope Complex gather, the BLM horse specialist released an older gray mare that he felt was too old for the sorting and shipping process. The decisions of the BLM horse specialist pertaining to the selection of individual horses for release were honored by the contractor without any controversy.

Trailer loading for transport to short-term holding:

Trailer loading for transport from the temporary holding/sorting corrals, where the recently gathered horses are kept for 2-14 days, to a short-term holding facility where they will stay for a longer period, was observed at the Adobe Town (Wyoming) and Antelope (Nevada) gather sites. The loading was done safely and efficiently by herding the horses up a ramp into the large semi tractor trailer one at a time. All horses had been sorted by sex and age prior to loading. They were loaded by gender in up to four partitioned areas in the tractor trailer. Foals were loaded in a separate partitioned area on the same trailer as their mothers.

Less than 10% of the horses on the large trailers had minor superficial abrasions. These were an accumulation of the gather process, transport to the holding area, the sorting process and time with other wild horses in the sorting pens. These injuries appeared superficial and would be expected to heal without treatment.

Short-Term Holding Facilities

The number of horses in BLM-controlled holding facilities reported as of June 2011:

PREPARATION FACILITIES	2,440
MAINTENANCE FACILITIES	8,167
CONTRACT HOLDING FACILITIES	29,341
Grand Total	39,948

Source: 6-30-2011

http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/wild_horses_and_burros/statistics_and_maps/transparency_page.Par.57230.File.dat/FacRpt0611.pdf

The horses listed in **Preparation Facilities and Maintenance Facilities (10,607)** are the population that includes the horses discussed under short-term holding in this report.

The task force visited four short-term holding facilities: Rock Springs (Wyoming) in October, Broken Arrow-Fallon (Nevada) in November, Palomino Valley (Nevada) in November and Salt Lake Regional Wild Horse & Burro Center (Utah) in February.

Three teams of three AAEP task force members visited these four sites. Twelve separate evaluation forms were completed by the teams. A total of seven different task force members participated in short-term holding evaluation, with each observer independently filling out an evaluation form for each holding facility.

Three holding facilities were government owned/operated (Rock Springs, Palomino Valley and Salt Lake Regional Wild Horse & Burro Center) and one was a privately owned facility (Broken Arrow) operated under contract with BLM. Palomino Valley was the oldest holding site and Broken Arrow was the newest. All four sites were well constructed. The layout was different at each site, reflecting the evolution of design concepts.

The newest facility (Broken Arrow) was the most efficient as it required the fewest personnel for caretaking, and the logistics of moving, feeding and working on large groups of horses was streamlined by the feedlot style design of the site.

Facilities at Rock Springs, Broken Arrow and Palomino Valley were all on level areas with excellent soil drainage. The Salt Lake facility was built on a steep hillside and the layout, although functional, was compromised by the constant grade. When the horses came out of the restraining chute at Salt

Lake they had to immediately climb a fairly steep grade in the alley before they entered the first pens or traveled either way along the hillside to the other holding pens. The task force members toured the handling chutes at the Salt Lake facility but no horses were worked through the handling facilities that day.

Facility capacity at the four sites was variable with the largest facility (Broken Arrow) constructed to hold over 2,000 horses. Existing horse populations at the time of the visits varied from small (150-175) to large numbers (1,600-1,800).

Horse pen construction and management:

The fences at the newer facilities were made of metal pipe; the oldest facility was fenced with wire mesh fence framed with a top board. All fences were strong, effective, designed for low maintenance and well maintained. The feeding areas were clean and safe. Footing was level and well drained at the three facilities that had sandy footing (Rock Springs, Broken Arrow and Palomino Valley). The Salt Lake Regional Wild Horse & Burro Center in Utah was located in a very hilly area that was not well drained as the pens were constructed on the sides of the hills. At the time of the site visit, the ground was very muddy due to recent snowfall. All pens were very muddy with no covered shelter, no firm ground for the horses to stand or lie on, and the horses were standing in 4 to 8 inches of a mud/manure mixture (*see short-term holding facility recommendation section*).

Manure management was adequate at Rock Springs, Broken Arrow and Palomino Valley. Manure at the Salt Lake facility mixed with mud and standing water, creating unacceptable footing for the horses in pens. Any form of manure management would have been impossible in the muddy conditions. The Salt Lake facility had overcrowding of the pens, especially for the muddy footing (*see short-term holding facility recommendation section*).

Hay feeder design varied from long trough bunks to round feeders or V-shaped mangers positioned in the center of pens to hay fed on the ground. The feedlot style pens (Broken Arrow) had long trough bunks that extended along the entire fence line adjacent to the access road. A concrete apron existed at ground level along the horse side of the trough, allowing the horses secure, dry footing in all weather. The trough had vertical metal struts that flanked a broad concrete bunk that held hay. Horses could stick their heads through the struts to access the hay. This was an efficient design, as only a few staff were needed to feed up to 2,500 horses, and each horse had good access to hay at a site along the long trough. Pens that were designed with manger type central feeders required more personnel to do the feeding (Palomino Valley and Salt Lake Regional Wild Horse & Burro Center). Pens that used ground feeding (Rock Springs) had a truck drive through each pen once a day. Large sections of hay were rolled off the truck and spread on the ground every few feet. Automatic watering troughs were present at all sites. Water supply appeared clean and adequate at all facilities visited. Horses were observed eating the hay offered at all sites, and drinking from the available watering units.

Condition of horses at the short-term holding facilities:

The majority of the horses observed at the various facilities visited were in good body condition with Henneke scores ranging from 4/9 to 6/9. Horses were fed well, sometimes to excess, with many of the longer term residents exhibiting body condition scores that would be termed fat (7/9).

Horse herd behavior among the groups at each facility was similar to herd behavior normally observed in similar sized groups of domestic horses.

At Broken Arrow, the newest facility, an allowance of 700 square feet of space per horse was used in determining the holding capacity of the pens. None of the pens at Broken Arrow, Palomino Valley or Rock Springs appeared crowded. The Salt Lake City facility pens, however, contained too many horses for the winter weather conditions (*see short-term holding facility recommendation section*).

The feedlot trough design at Broken Arrow was associated with a few medical issues. Approximately 10% of the horses displayed minor shoulder abrasions that were secondary to pushing against the trough partitions to reach hay. Other horses displayed chronic ocular discharge that appeared related to sticking their heads in loose hay in the troughs. Many young horses showed a focal patchy alopecia (hair loss) of the facial region—this condition may reflect a communicable disease caused by a skin pathogen that is spread in the close quarters of the feed troughs, though a diagnosis of the condition was not made or reported. These conditions would be expected to resolve when animals were moved to an adopted home, training program or long-term pasture and members of the task force did not consider these to be a risk to the horses' health.

Observed injuries were uncommon other than a few minor abrasions. The abrasions that were noted were similar to those commonly seen in domestic horses that are confined together in a pasture.

A small number of horses at the holding sites appeared thin. At the Broken Arrow site in Nevada, some of the thin animals appeared to be aged. About 10 geldings who were recent castrates appeared to be experiencing castration complications as evidenced by swollen prepuces. At the Palomino Valley facility in Nevada there were a small number (about 10) of thin horses who either showed outward signs of strangles, a bacterial respiratory infection, or were reported to be recovering from strangles (*see short-term holding facility recommendation section*). Most horses that had conditions of medical concern (primarily strangles or castration complications) were housed in corrals designated for observation. These corrals had close access to chutes where treatment could be performed if deemed necessary.

The task force teams were told that the average length of stay at the short-term holding facilities often exceeds 200 days, with a range of 90 to 300 days. Over this confinement period horses do not move enough to wear their feet to a healthy condition as they do on the range. Most horses undergo foot trimming during their stay in short-term holding. The AAEP teams did not observe any hoof trimming but made close inspection of several padded hydraulic squeeze chutes that were used for this purpose. When a trim is scheduled, the horse is herded through an alleyway or chute into the squeeze chute. The entry door, sides, floor and exit door of the squeeze chute are hydraulically controlled. Once the horse is enclosed in and restrained with the padded squeeze panels, the chute is rotated 90 degrees onto its side with a separate hydraulic system. The foot trimmer accesses the feet through the floor which opens once the horse is in lateral recumbency. Foot trimming is reported to be a quick procedure, accomplished either with hand tools or a special hoof trimming disc on a hand grinder. The squeeze chutes the task force examined were well designed and appeared safe for restraint.

The foot condition of most horses was good. Less than 5% of the horses at Broken Arrow had long feet in need of trimming. The staff at the sites acknowledged this, saying these individuals were slated for the trimming process soon (*see short-term holding facility recommendation section*). The feet were not deemed to be an immediate health risk to the horses.

Chutes and tubs:

All four facilities had well designed, sturdy alleyways, chutes, tubs and squeeze chutes for a variety of procedures that are done once horses arrive at the facility including identification, branding, vaccination, Coggins testing, neck strap placement, castration, occasional veterinary treatment of individual conditions, and foot trimming. The AAEP team that visited the site in Rock Springs, Wyoming observed a number of horses moved through the chute for identification, freeze branding, vaccination, collection of blood for Coggins testing and neck rope placement. Another AAEP team observed 12 stallions moved through the chute for castration at Palomino Valley in Nevada. At other facilities, where identification and medical procedures were not done during the team visit, observers walked over all the catwalks and inspected the chutes and hydraulics closely.

Medical procedures observed:

The AAEP team at Rock Springs observed several horses undergoing identification and medical procedures for the first time. The handling team was composed of several BLM employees and a veterinarian who did contract work for the BLM. The handling team was skilled and efficient. No horse was in the chute for more than a few minutes. The horses accepted restraint from the hydraulic squeeze panels which were adjusted to each horse as needed by an operator who was skilled and quick. There was minimal resistance to the procedures that involved needles or freeze branding.

During the health and identification procedures the horses were identified with neck ropes and a freeze brand. The neck ropes were necessary for initial visual identification and are removed when animals are adopted or prepared for shipment to long-term holding pastures. The horses were freeze branded with an assigned number on the upper left side of the neck using the international horse Alpha Angle Freeze Mark Identification system developed by Kryo Kinetics. The horses were then immunized with several vaccines as outlined by the BLM program protocols and dewormed with an oral ivermectin drench. A blood sample was taken for testing from each horse for screening for Equine Infectious Anemia (Coggins test). No injuries were observed during the medical procedures. Dental age estimation, gender and color with markings were recorded for each horse along with their neck rope number and freeze brand number. Medical procedures were also recorded with each horse's record.

The side panels of the entry chute were designed with visual barriers leading up to a lighter area. The animals were motivated to move towards the light and thus advance towards the squeeze chute. Horses awaiting entrance to the chute appeared relatively calm and often voluntarily moved to the next section when a gate was released. A flag made of a plastic grocery bag secured to a long stick ("wild rag") was occasionally used to encourage forward movement. When the flag was used it was shaken at the rear of the animal to encourage forward movement in a manner similar to encouragement that is commonly used for moving domesticated horses.

The designs of all chutes and alleys were circular so that horses looped back to the destination pen. Once the medical and identification procedures were completed on a given horse, it was released into

the exit alley, and all animals trotted away without exhibiting stress or ill effects. The Salt Lake facility was located on a hillside and the chute and paddock system was mildly compromised by the unlevel terrain. The chutes were examined but no animals were observed in the chute system. The prevailing muddy conditions that were present during the team visit would have made footing and movement unacceptable.

At Palomino Valley in Nevada, the AAEP team observed the castration of 12 mature stallions. The operations were performed by a veterinarian who contracts with the BLM, assisted by several BLM staffers. Each stallion slated for castration was moved into the squeeze chute and induced to lateral recumbency with an intravenous short-term paralytic agent (succinyl choline). After the horse was recumbent, an intravenous combination of a sedative (xylazine hydrochloride) and a dissociative general anesthetic (ketamine hydrochloride) was administered. The horse was then rolled on its back and all four legs were secured to overhead beams to assure that the horse stayed in dorsal recumbency. The scrotum was incised over each testicle and both testicles were then removed by standard surgical technique. Once castration was complete each gelding was transported to a recovery pen on a hydraulic lift platform. Recovery from the general anesthetic occurred in about 15 minutes for all horses. After recovery each gelding rose to his feet and joined the herd of newly gelded horses.

One horse did not resume strong spontaneous breaths right after becoming recumbent. The upper airway was stimulated by the surgical team and the horse then resumed an adequate breathing cycle and the operation proceeded uneventfully. A few horses did not appear to be in a full plane of surgical anesthesia when the scrotum was incised for the castration. This was evidenced by leg movement against the ropes that tied the hind legs to the overhead beams (*see short-term holding facility recommendation section*).

All horses stood up without incident after they regained consciousness. Behavior after the operation was as expected after administration of a dissociative anesthetic: horses were a little wobbly and unsteady for a few minutes, then regained normal body control. Observed hemorrhage was minimal and considered normal for this surgery.

The AAEP team did not observe any cryptorchid castrations (castration of horses with a retained testis) during their visit. Interviews with the BLM contract veterinarian revealed that the incidence of cryptorchidism is about 3% in wild horses.

Feed and water protocols:

Hay and water were plentiful and of excellent quality. Water sources were clean and full. All horses had hay in front of them at all times during the AAEP team visits and were observed to be eating and drinking.

The teams did not observe any thin or emaciated horses being introduced from the range to short-term holding, but interviews with BLM staff indicate that this situation sometimes occurs. It was reported that caution is used on "refeeding" thin horses new to a holding facility: grass hay and oat hay are fed to these animals until it is safe to introduce the richer alfalfa mix that is the normal diet.

Vaccination and anthelmintic protocols:

Interviews with BLM personnel and contract veterinarians indicated that the vaccination protocol that is in place is administered consistently and records are kept to assure that each horse is covered with the same antigens delivered on the same schedule. A single rabies vaccine dose is administered to all horses on the first day of medical inspection and management. A series of two doses of vaccine given a month apart is administered to induce immunity against West Nile virus, Eastern and Western Equine Encephalitis viruses, tetanus, equine herpes virus, strangles and equine influenza virus. Horses that stay in short-term holding longer than 6 months are given an additional dose of strangles, equine herpes virus and influenza virus vaccines. Anthelmintic treatment involves an oral drench with ivermectin that is given every four months as long as the horse remains in short-term holding.

The care of horses that are adopted through the BLM is in the hands of the new owners, but all horses are assured to have received an initial vaccine series as described above. The regimen we observed is practical, cost effective and humane. It is within an acceptable standard of medical care and presents no risk to horses' health.

The BLM Wild Horse and Burro Program does not administer additional vaccinations or anthelmintics to wild horses once they are moved to long-term holding pastures.

Biosecurity:

The task force did observe a small number (approximately 15 horses, or about 0.5%) of horses at Broken Arrow and Palomino Valley that were underweight with body scores of 2/9 and 3/9. These horses were housed in separate observation pens and it was reported by BLM employees that these were horses under observation or treatment for disease. There was little or no isolation of these horses from the other horses in the short-term holding facility (*see short-term holding facility recommendation section*). It was reported that adoption returns were readmitted to the facility at Rock Springs. This activity was considered by the task force as a potential biosecurity risk (*see short-term holding facility recommendation section*).

Long-Term Holding Pastures

The number of horses reported in BLM controlled long term holding facilities as of June 2011:

PREPARATION FACILITIES	2,440
MAINTENANCE FACILITIES	8,167
CONTRACT HOLDING FACILITIES	29,341
Grand Total	39,948

Source: 6-30-2011

[http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning and Renewable Resources/wild horses and burros/statistics and maps/transparency page.Par.57230.File.dat/FacRpt0611.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/wild_horses_and_burros/statistics_and_maps/transparency_page.Par.57230.File.dat/FacRpt0611.pdf)

The number of horses listed in **Contract Holding Facilities (29,341)** are the population of horses that includes the horses discussed under long-term holding in this report.

Horses that are older or for which there is no immediate adoption demand are sent to long-term holding facilities to live out their lives in natural conditions. The ranches that provide the long-term pastures are privately owned. Ranch owners contract with the BLM and are paid a daily sum for each horse housed at those facilities.

Four task force members visited long-term holding pastures at two different ranches in Oklahoma. The two facilities were the Two Mounds Ranch and the Hughes Ranch near Bartlesville, Oklahoma. Each observer independently filled out an evaluation form for each site, thus eight evaluation forms were obtained for long-term holding facilities.

Transport, arrival and release:

Horses are shipped to these two facilities from short-term holding facilities in California, Nevada, Wyoming, Colorado and Oregon. While the task force members did not observe transport, both ranch owners reported satisfaction with the job the truckers and hauling companies perform transporting the horses. The ranch owners commented that horses are not crowded in the trailers and arrive in good condition. Injuries during transportation were reported to be very rare, with only one injury observed for both ranches during the last year. Records of arriving horses and their condition are kept in duplicate, with one copy kept at the ranch and the other sent to the BLM on a monthly basis.

Horse pens/pastures:

Both ranches utilized 5- or 6-strand wire fencing with flags and pipe gates for the pasture boundary. Natural terrain provides windbreaks and shade. Horses graze on native grasses or improved pasture from April 15 until October 15. During late fall, winter and early spring horses are fed 6.5 pounds of alfalfa hay per horse per day. This hay is distributed three times per week so that each horse receives 45.5 pounds of hay per week. Water sources consist of streams and ponds, which are plentiful and clean.

Horses are observed and counted three times per week when fed during the winter and once a week in the summer by the ranch staff. BLM personnel observe and count horses once a year. Horses are not vaccinated or dewormed after they are turned out in these pastures. They live out their natural life span without medical intervention. Many horses live on BLM contract holding facilities for 10-25 years.

APHIS veterinarians have educated the ranch owners in evaluation of horses to determine when advanced age, serious injury or debilitation indicates euthanasia. Euthanasia is by gunshot and carcass disposal is in approved pits. Most deaths (either natural or by euthanasia) occur in the winter and early spring.

Condition of horses:

Two Mounds Ranch, in Bartlesville, Oklahoma, is a mare-only facility that began to care for BLM horses in January 2010. The ranch supports 1,011 horses at a stocking density of 7 acres per horse. No breeding occurs on the ranches, but mares that are pregnant on arrival are segregated and kept in smaller enclosures close to the residence of the owners. When visited, Two Mounds Ranch had 120 foals, weaned and newborn, on site. The weaned foals are sent back to short-term holding facilities for medical treatment and entry into the adoption programs.

After arrival mares are kept in a large pipe fence corral to let them settle and adapt to the hay diet. They are then acclimated to wire fenced pastures of about 10 acres before they are moved to the large wire fenced pastures. Facilities for moving and observing individual horses are available if needed and were determined to be safe, efficient and in excellent condition.

The AAEP task force members traveled over 30% of the pasture land and observed approximately 40% of the horse population at the Two Mounds Ranch. The grassland was evaluated as excellent as was the hay being fed. Body condition score of observed horses averaged 5/9, and ranged from 4/9 to 6/9. No disease or injuries were observed and hoof condition was good. The ranch owners reported strangles in some of the weaned foals, but had observed no recurrence of infection in any individuals who had recovered from the initial episode. Twenty deaths (approximately 2% of the population) had occurred in the mature horse population in the previous year from old age and debilitation. Seventeen horses died naturally and three were euthanized.

Hughes Ranch, in Bartlesville, OK, only houses geldings and has been caring for BLM horses for approximately twenty years. This ranch consists of 2 facilities: the home ranch, which includes 12,000 acres with 1,500 horses, and Candy Creek, which includes 7,000 acres and 750 horses. Stocking density is 8-11 acres per horse on native grass and 2 acres per horse in improved pastures. Smaller improved pastures have constructed shade and house newly arrived horses. The natural attrition rate of horses lost to old age and debilitation varies between 7-11% per year. Of the horses lost to old age or debilitation, 25% die naturally, and 75% are euthanized. The larger percentage of loss of horses at the Hughes Ranch is attributed to the fact that horses have been in residence for many years at this ranch and the population includes many aged individuals. Horses have only been housed for 14 months at Two Mounds ranch so the accumulated attrition rate is much lower.

There were many roads throughout the property, so approximately 70% of the pasture land and 65% of the horses were observed. Body condition scores ranged from 4/9 to 6/9, with an average of 4/9. Injuries were reported to be very rare. The owners could name all of the injuries over the years the ranch has contracted with the BLM. No disease or injuries among any resident horses were observed by the AAEP task force members. The media are allowed periodic access to the long-term holding facilities by appointment with BLM, and the public can visit the facilities during an annual tour that began in 2011.

Discussion and Conclusions

Horses on the range:

Projections based on the population growth suggest long-term or permanent damage will occur to the range when the wild horse populations are allowed to exceed the estimated carrying capacity of Herd Management Areas (HMA). Herd numbers over the HMA carrying capacity also expose the horses to suffering and death from insufficient natural water and forage. These conditions are magnified when natural weather extremes occur. It is the opinion of the BLM Task Force that limiting the number of horses on the HMAs is in the best interest of the health and welfare of the horses (*see range recommendation section*).

Gather sites:

Gather sites were well chosen by experienced contractors who knew the topography of the specific HMA range. Natural features were used to create effective trap boundaries whenever possible. The footing at all the trap sites was good. In some sites horses negotiated small natural obstacles like gullies without incident.

The construction of the jute wings and trap was simple and effective at the three sites observed. The jute at the Antelope Complex gather was worn and was not well secured for a windy day on the first gather day. The jute had been replaced for the second day with new jute and it performed well in no-wind conditions. At the Pine Nuts gather some horses jumped uncovered barbed wire fences and additional jute had to be used to cover the fences for successful capture. To protect the welfare of the horses, the use of existing barbed wire fences as a boundary for gather drives should be avoided. If it becomes necessary to use an existing barbed wire fence it should be adequately covered for an appropriate distance for the geography of each gather site to prevent injury (*see gather recommendation section*).

Gather process:

Based on observations of five gather days in the high desert country in Wyoming and Nevada, the use of helicopters to herd horses to a trap was judged humane, efficient and effective.

On some drives during the Adobe Town/Salt Wells Creek Complex gather, the helicopter flew in a close horizontal plane to the trailing horses as the group approached the trap. The helicopter was also close to the ground in a vertical plane on some of these final trap drives. Flying patterns observed during the Pine Nuts HMA and Antelope Complex gathers were more conservative: the helicopter maintained a longer distance away from the trailing horses and flew higher above the ground as the horses were herded into the trap. Effectiveness of the herding drives was similar at all the observed gathers.

Close proximity of the helicopter skids, rotors, body or tail to the horses and/or ground poses a safety risk for the horses. Conservative flying patterns that allow a reasonable buffer distance between the helicopter and the horses, and the helicopter and the ground are recommended at all times (*see gather recommendation section*).

The gather process was well organized, implemented in a quiet and efficient manner, and the equipment appeared to be in good condition and effective. The two gather contractors operated in a similar manner and had similar equipment. The horses were handled in a respectful and humane manner.

The AAEP task force teams met three different APHIS veterinarians and several horse specialists who worked for the BLM at the gathers. All these individuals were highly qualified, well trained and articulate. All were motivated to act in the best interest of the horses and the best interest of the rangeland. Many of the horse specialists had advanced degrees in range management, wildlife ecology or other related scientific fields. The APHIS veterinarians had advanced training in procedures like field necropsy. Cooperation between individuals representing the two government agencies was smooth. The various jobs they carried out were done efficiently and skillfully. The AAEP

recommends maintaining the qualified individuals in the current areas of expertise to provide careful horse management during gathers.

Traps, capture pens, chutes at gather sites:

The traps served their purpose and the capture pens were of sturdy construction. The corrals that were built with wider rounded pens linked together appeared safer for the horses than the capture pens that were built as narrow rectangular alleys. The horses were only in these pens and alleys for a very brief period, but a few young animals at one gather in Nevada were traumatized by an aggressive stud that kicked repeatedly. The young horses in the alley next to the stud had no room to get away and suffered several kicks. They would have been able to take defensive action by getting inside a ring of other horses in a wider corral (*see gather recommendation section*).

Wild equids who are confined appear to exhibit calmer behavior when fenced with a visual barrier that reduces stimulation from outside the corral. Some of the capture pen panels were lined with a visual barrier (plastic snow fencing) while others had no barrier. The addition of solid panels or consistent use of visual barriers might be helpful in capture pen construction (*see gather recommendation section*).

The AAEP recommends solid side panels in the final capture pen panels to minimize the pushing of heads between the rails and to keep legs from going between the rails if horses attempt to climb the panels. Solid panels may lessen the chance for injuries that could occur in this area.

Trailer transport from the traps:

Trailer transport of horses from the traps to the temporary holding corrals was humane, efficient and effective. The AAEP teams watched the horses as they were driven off in the slatted stock trailers. They were impressed by the calm behavior that the horses displayed when loaded in a vehicle and transported in a trailer for the first time.

Condition of the horses after the gather:

The condition of the horses immediately after capture was judged to be good, with the exception of the one horse that collapsed and died right before entering the trap. There was no sign of exhaustion or medical compromise in the other horses that were observed being gathered. The gathered horses had elevated respiratory rates as expected for any exercised horse, and some had mild to moderate body coat sweat which was dependent on the weather and distance traveled. All horses recovered quickly from the exercise of the gather once in the capture pens and were observed eating hay soon after transport to the temporary holding corrals.

Temporary holding/sorting corrals near the gather sites:

The temporary holding corrals and chutes were solidly constructed and well designed for the purpose of sorting newly gathered horses and housing them for several days. Each corral design observed was different, reflecting the topography of the region and the elements and materials that the individual contractor used to construct the site. All were effective and safe.

It was remarkable that one stallion was able to leap over a corral fence that was about six feet tall at the holding site in Nevada. The corral panels were not deemed low; the individual horse was exceptionally athletic. The fences contained the rest of the horses well.

Hay and water were plentiful for all horses. Hay was distributed along the fences so that it did not get trampled underfoot. All horses were able to access the hay without difficulty. The AAEP recommends continuing this system of feeding and watering, as it is a basic necessity for maintaining the health and welfare of the horses.

Condition of the horses in temporary holding and sorting corrals:

The horses observed were considered to be healthy. Close inspection of horses that had recently been brought in off the range revealed most of them to be in a good nutritional plane though some wet mares were a little leaner than their herd mates. Nursing domestic mares often become lean as their foals mature due to the demands of lactation so this was judged normal and not a risk to horse health or welfare. Horses gathered in the winter in Nevada were thinner than horses gathered in the fall in Wyoming—this was also considered a normal variation as the winter season would reduce the amount of forage available and increase weather related stresses on herd activity. As half the wild horses in the U.S. reside in the state of Nevada, competition for available forage may also have been more intense for horses in the Nevada HMAs.

Gather-related injuries were judged to be minimal and all those observed would have been expected to heal without treatment. Horses adapted to the conditions of the temporary corrals quickly. Feed and water were plentiful and accessible to all horses.

Trailer loading for transport to short-term holding facilities:

Observed loading procedures were judged to be humane and effective. Some horses sustained minor skin scrapes or small nonsuturable lacerations during loading or within the transport trailer. This was not surprising given the close proximity of horses on the trailer. Observed injuries were judged to be minor and would have been expected to heal without treatment. Ventilation on the trailer was judged to be adequate.

The practice of hauling foals at the rear of the trailer separated by a partition caused minor distress due to the separation of the foals from their mothers. This temporary distress was outweighed by the safety benefits of avoiding injury to the foals by keeping them away from the larger mature animals in the trailer.

The large semi-tractor trailers appeared safe and well ventilated. All semi-tractor trailer transport observed was in single level trailers. Personnel participating in the gather process were professional, knowledgeable, quiet and efficient. Horses were moved primarily by quiet hand and arm gestures, much as domesticated horses are moved. If necessary, flags were used to encourage forward movement. Transport by large single level semi-tractor trailers does not pose a health or welfare risk for horses.

Short-term holding facilities

The short-term holding facilities varied significantly by site. The Salt Lake Regional facility had significant challenges relating to footing, drainage and manure management because of the hillside construction. The AAEP was of the opinion that, at the time of our task force visit, the wet muddy conditions at this site posed a risk to horse health (*see short-term holding facility recommendation*

section). The other three short-term holding facilities that were inspected had excellent footing and good drainage and manure management.

Horse pen construction and management at the short-term holding facilities:

The facilities were all in good repair. The newer facilities appeared most efficient in operation but all were deemed functional. The design of the Salt Lake Regional facility on a hillside was less than ideal but the handling facilities for medical inspection and procedures were adequate. The pens at the Salt Lake facility had serious challenges with the wet weather, creating adverse conditions for confined herds (*see short-term holding facility recommendation section*).

The task force site visit at the Salt Lake Regional facility was the day following a snow storm and there was still some snow on the ground. For the weather conditions observed, there was overpopulation of the horses in the pens. It was too muddy for any equipment to get into the pens to scrape or move the mud/manure mixture. There were no areas of solid footing observed for horses to have a place to lie down. The visiting task force team was of the opinion that the housing of the horses in the muddy pens and the overcrowding was unacceptable for the weather conditions observed and posed a health risk for horses at the site (*see short-term holding facility recommendation section*).

Condition of horses at the short-term holding facilities:

Most of the horses at the short-term holding facilities were in good body condition. Their behavior was calm and relaxed. Horses behaved much as a group of domestic horses would when confined to pens of similar size, they congregated in groups and spent much of the day resting or eating. Foals and young horses displayed the most curiosity about humans.

No serious injuries were observed among the horses at the short-term holding facilities.

Horses were observed with active cases of strangles at the Palomino Facility. A small number of other horses at this site appeared unthrifty and were withdrawn from the rest of their pen herd—these individuals were reportedly recovering from strangles infection. Strangles appears to be the most serious health risk for wild horses that have been gathered. Strangles is a very difficult disease to control as normal appearing horses may be asymptomatic carriers. The disease may be endemic in certain wild herds out on the range, but the housing conditions of the holding facilities aid in concentration of fomites, and thus outbreaks of infection occur with regularity at some holding sites.

The task force recommends that the BLM consult with experts on biosecurity and adopt best practices for controlling the outbreaks and spread of strangles and other infectious diseases. Written biosecurity guidelines should be enforced at all holding facilities (*see short-term holding facility recommendation section*).

A few horses had long feet in need of trimming. The BLM staff explained that trimming is done on a rotation and that all horses that have long feet are on a waiting list for the trimmer. The AAEP recommends scheduling of hoof trimming on a rotation that avoids excessive hoof length (*see short-term holding facility recommendation section*).

A few other horses in the medical observation pens showed signs of castration complications (preputial edema and stiffness). Castration complications are common in domestic horses and the

incidence of complications in the wild horses appeared similar. Some of these horses were in an unthrifty physical state, suggesting serious complications. Given the fact that 3% of the castrations involved cryptorchid colts, complications are to be expected. The AAEP advises devising a protocol to manage these complications, but recognizes that practical considerations involved when handling wild equids limits therapy options.

Chutes and tubs:

Construction of the chutes and tubs and foot trimming squeeze chutes were well planned and well built with minimal hazards. The design of the alleys and chutes reflected modern principles of animal handling that have been popularized by Dr. Temple Grandin.

The task force could not make any suggestions on improving or changing the chute design at any of these facilities. They have been designed and constructed with the safety and welfare of the horse as a high priority during essential handling functions. Like the pens, the chute design has evolved over time, and is most advanced at the newer facilities, but all of the chute setups were judged exceptional.

Medical procedures observed:

The initial management for identification, freeze branding, immunization, deworming and Coggins testing of horses through the chute was handled with efficiency and skill. The travel process through the alley appeared to induce minimal stress. Horses that lagged in the chutes were coaxed to move forward in a humane fashion. The squeeze chute operators were skilled and worked quickly to safely restrain each horse in the chute. The veterinarian and BLM staff who handled the brand and needle procedures worked quickly and efficiently. Each horse observed was in the chute for less than 2-3 minutes. All horses exited the chute calmly and trotted off in the alley leading to the sorting pens. Their behavior after the procedures was reflective of the humane handling methods.

Stallions that were restrained in the squeeze chute in preparation for castration were handled in a similar efficient and safe manner. Intravenous injection of the short-term paralytic agent, succinylcholine, was accomplished with quick accuracy in all observed cases. Subsequent assumption of recumbency occurred quickly for all stallions; none of the horses were harmed when they were released from the chute panels just prior to dropping to the ground in lateral recumbency. One horse was observed to have minor apnea after assuming recumbency but he resumed deep breathing after some stimulation.

Some of the stallions did not appear to be in a full plane of surgical anesthesia when the scrotum was incised for the castration. This was evidenced by leg movement against the ropes that tied the hind legs to the overhead beams.

The AAEP recommends establishing a written anesthetic protocol for contract veterinarians to make sure all horses have reached a surgical plane of anesthesia before castrations begin (*see short-term holding facility recommendation section*). This is especially important when the paralytic drug succinylcholine is used for initial restraint as it has no analgesic or anesthetic effect.

Feed and water protocols:

Horses were allowed access to large amounts of hay, which appeared to be of excellent quality, on a daily basis. During all inspections all groups had fresh clean water to drink. The AAEP task force was of the opinion that some horses were fed to excess as evidenced by body condition scores that reflected a substantial amount of body fat.

Vaccination and anthelmintic protocols:

The vaccination protocol that the BLM uses for wild equids is not as complete as that described in the official published AAEP guidelines for vaccination. The AAEP guidelines advise that a series of three injections be given to induce maximum protection for most initial immunizations. A series of two injections is recommended for rabies immunization. The BLM horses are given two injections for most vaccines and one injection for rabies protection.

Even though the vaccination schedule that is used by the BLM does not mirror the published AAEP guidelines, the BLM schedule is acceptable and similar to protocols commonly practiced in domestic horses before the AAEP guidelines were released.

The anthelmintic protocol that is in use is adequate and would be expected to control of intestinal parasites in a group housing environment.

Biosecurity:

The AAEP recommends that the BLM develop biosecurity guidelines for each facility in an attempt to avoid adding diseased horses to the short-term holding facilities and to prevent spread of disease. The guidelines should address practices to avoid new cases of strangles and the proper handling of known cases. The AAEP recommends inclusion of biosecurity guidelines regarding return of previously adopted horses to the facility, travel of local working horses on and off the property, and possible infection from wildlife (*see short-term holding facility recommendation section*).

Long-term pasture facilities:

There are no stallions at either facility and the only foals born are from mares shipped pregnant to the facility. Weanlings from these mares are returned to short-term holding facilities for medical treatment and to enter the adoption programs. Thus the number of horses is consistent. The two long-term facilities evaluated are well maintained as excellent range/ranch type environments for unadopted horses to live out their lives.

Transport, arrival and release at long-term pasture facilities:

The task force team did not observe the arrival or release of any horses at the long-term pasture facilities. All reports from interviews indicated the transport system is working well.

Horse pens/pastures:

The fences and the horse handling facilities at both ranches visited were in good condition and safe for the horses. The pasture, food supplies, and water were sufficient to maintain the health and welfare of the horses. Horses had plenty of space to simulate conditions on the range with much better food and water than found on the range.

Condition of horses at long-term pasture facilities:

The lack of disease and injury as well as the long life span indicates the horses are well cared for. Minimal to no intervention (handling and medical procedures) reflects life as it would be in the wild, with the exception that the horses will never suffer from lack of food or water, natural conditions that periodically stress wild herds that live on the rangeland managed by the BLM.

Supplemental Information on BLM Wild Horse and Burro Adoption Programs

Burros: BLM staffers reported that presently there is a ready adoption market for burros as pets. This is due to the fact that burros have a wide popular appeal and are cheaper to keep and house than horses. The task force only viewed a few wild burros (less than 15) at one short-term holding facility, and all these animals were expected to find adoption homes.

Horses: In contrast to wild burros, the current adoption market for wild horses gathered from the range is very limited.

Some of the wild horses that were seen by the task force at short-term holding facilities were slated for later transport to a variety of government sponsored programs linked to adoption promotion. Current programs include regional **BLM supported adoption events, Extreme Mustang Makeover training programs/competitions** sponsored by the Mustang Heritage Foundation, and **state prison projects**.

Horses that enter BLM-supported adoption events are offered for adoption to the public untrained. Horses judged to be older than 11 years are occasionally offered for sale in groups, untrained. Horses that go through the Mustang Makeovers or the prison projects are offered for sale or adoption after a period of training.

While a significant number of wild horses have found homes through these programs since they were created, statistics show that the number of wild horse adoptions has declined significantly over the past several years.

WILD FREE-ROAMING HORSE AND BURRO REMOVAL AND ADOPTION, FISCAL YEAR 2010

Total Adopted, Fiscal Years 1971 through 2009/a/:	224,309
Total Adopted, Fiscal Year 2010:	3,074
Total Removed, Fiscal Year 2010/c/:	10,255

Source : 6-30-2011

[http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning and Renewable Resources/wild hors es and burros/statistics and maps/transparency page.Par.5661.File.dat/10pls5-13Template.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/wild_hors_es_and_burros/statistics_and_maps/transparency_page.Par.5661.File.dat/10pls5-13Template.pdf)

Wild horse population and adoption numbers: Contrast between 2004 and 2010:

Adoption numbers (decrease of 3,864)	<u>FY 2004</u> 6,644	<u>FY 2010</u> 2,960
Projected Population (Increase of 199,635)	<u>FY 2010</u> 38,365	<u>FY 2020</u> 238,000
Horses and Burros in Holding Facilities (Increase of 15,800)	<u>FY 2004</u> 22,000	<u>FY 2010</u> 37,800
Program Funding (Increase of 29.4 Million)	<u>FY 2004</u> \$36.7 Million	<u>FY 2010</u> \$66.1 Million

Source: 6-30-2011

<http://www.doioig.gov/images/stories/reports/pdf/BLM%20Wild%20Horse%20and%20Burro%20Program%20Public.pdf>

Comments on adoption of wild horses, the Unwanted Horse, and the AAEP

Changes in popular culture, a shift away from agrarian interests and recent strains in the global and national economy have led to a declining interest in horse ownership in general among the American public. There are more horses in this country, both domestic and wild, than there are homes to care for them. The challenges related to this reality, termed “**the unwanted horse**,” are significant. The welfare issues relating to this growing equine population is the focus of a broad coalition of equine organizations known as the Unwanted Horse Coalition. <http://www.unwantedhorsecoalition.org/>

As a founding organization of this coalition, the AAEP has broad familiarity with the economic, social and welfare issues associated with unwanted horses. The task force does not predict that the adoption market for wild horses will expand in years to come, and may actually continue to decline. Government expense on adoption or training projects may not increase the number of horses that are placed in homes, simply because the demand for horses in general has decreased in the past several years.

The Wild Horse and Burro program started out as an adoption program and has evolved into a welfare program. The work of the AAEP BLM Task Force in observing wild horse gathers and holding facilities has heightened our organization’s awareness of the complex issues relating to management of the growing population of wild equids that populate the open range in the western United States. Clearly the mission of the BLM program - **Healthy Ranges, Healthy Horses** – is not a simple one.

Education of the AAEP membership on the Wild Horse and Burro Program will evolve from the work of the Task Force. Publication of the Task Force findings and recommendations will enhance overall awareness in the veterinary profession of issues relating to wild horses.

The purpose of the AAEP is concisely stated in the organization's mission statement: "To improve the health and welfare of the horse, to further the professional development of its members, and to provide resources and leadership for the benefit of the equine industry." As such, the AAEP is a resource for equine medical expertise to the BLM Wild Horse and Burro program at a variety of levels.

AAEP RECOMMENDATIONS

Overall, the AAEP is of the opinion that the care, handling and management of the horses in the BLM Wild Horse and Burro program are appropriate. The management practices observed by the task force at gathers and at various holding facilities generally supported the safety, health status and welfare of the wild horses.

The AAEP task force offers the following recommendations to strengthen the practices currently in place and assist in supporting the handling, health care, and welfare of the horses and burros (equids) at BLM gathers and holding facilities.

HORSES ON THE RANGE

- The BLM should utilize the best science available to obtain accurate herd management area census information in order to determine the healthy sustainable equid numbers for each area.
- The BLM should prioritize research and application of effective methods to reduce the foaling rate in wild herds.

WILD HORSE GATHERS

- The contract helicopter pilots should always maintain a safe distance between the helicopter and any horses that are being gathered, and between the helicopter and the ground.
- The capture pens should be constructed so that pen configurations include wider sections instead of narrow lanes for temporary holding of animals that have just been captured. This configuration gives passive animals a circular escape from aggressive animals.
- The trap should be constructed with solid side panels in the final capture pen to prevent horses from getting their heads or legs outside of the pen and to discourage horses from attempting to climb out of the enclosure
- The use of existing barb wire fence as a stage for a jute wing should be discouraged. If barb wire fence must be used, any areas where the horses will be actively driven should be covered with jute to prevent injury.

SHORT-TERM HOLDING FACILITIES

- Areas of solid footing should always be provided in short-term holding corrals to allow animals a place to lie down. The overcrowded and wet muddy conditions throughout the pens at Salt Lake Regional Wild Horse and Burro Center in Herriman, Utah, were unacceptable. The conditions posed a health risk for the horses, and did not meet the standard for horse welfare at the time of the task force team visit.
- When equids undergo any procedure that requires general anesthesia, a surgical plane of anesthesia should be present before the skin is incised to insure a pain-free surgery. Additional anesthetic medications should be administered as necessary to achieve and maintain a surgical plane of anesthesia. A uniform surgical anesthesia protocol should be in place and reviewed with all contract veterinarians concerning medical procedures at all BLM horse management sites.
- Foot trimming schedules should be created and customized for each facility in accordance with environmental conditions and periodic inspections to reduce the likelihood of excessively long hooves.
- Horse population numbers in short-term holding facilities should be matched with the capacity of the pens at the facility. Population numbers should be adjusted as needed seasonally to avoid overcrowding when extreme weather is expected or present. The AAEP recommends the BLM utilize the facility manager, the contract veterinarian for the facility, and an APHIS veterinarian familiar with the site to create guidelines and limits for total horse numbers for each site. The Salt Lake Regional facility had an overpopulation of horses for the weather conditions at the time of the task force visit.
- The BLM and its facility managers should consult with experts on biosecurity and adopt best practices for controlling outbreaks and spread of the bacteria *Streptococcus equi*, var. *equi*, commonly known as strangles, and other infectious diseases.

RECORDS

- The task force encourages current efforts to produce a centralized database to track the history of all horses in the BLM program. The records should include positive or negative trends in adoption programs and socially productive programs like those in place at certain prisons.

**Prepared by:
AAEP BLM Task Force Members**

Mitchell, John S. DVM – Chair – AAEP Executive Committee Member
 Moyer, William A. DVM - AAEP Executive Committee Member
 Dwyer, Ann E. DVM – AAEP Executive Committee Member
 Bigbie, Rocky DVM
 Cook, Jacy DVM
 Carter, G. Kent DVM
 Rees, Roger E. DVM
 Shoemaker, R. Stuart DVM, DACVS
 Whitaker, Beau David DVM
 White, Susan L. DVM, DACVIM

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<http://www.unwantedhorsecoalition.org/>

Unwanted Horse Coalition

<http://www.mustangheritagefoundation.org/>

Mustang Heritage Foundation

Extreme Mustang Makeover

<https://www.blm.gov/adoptahorse/>

Wild Horse & Burro

Bureau of Land Management

Internet Adoption Program