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Photo by Bob Goodman

Wild Free-Roaming Horses and Burros

Ensuring the Legend Lives Free

Tactical Plan

**Bureau of Land Management, Nevada
Home of the Nation's Wild Horses**

May 1999

The Challenge

The Bureau of Land Management (BLM) in Nevada has a challenge no other BLM office faces: Managing the majority of the Nation's wild horses and burros on the range, maintaining thriving natural ecological balance between the vegetative community and wild horses and burros, wildlife, and livestock. Nevada must meet Appropriate Management Levels (AMLs) for wild horses and burros to protect the land, to ensure healthy herds, to allow other species to thrive, and to keep faith with our employer, the American public.

The purpose of this tactical plan is to document this challenge and identify a course of action toward a solution. The history of the wild horse and burro program and background information on Nevada's considerable efforts to manage the program is included.

Summary

BLM Nevada's goal is to achieve rangeland health. Healthy rangelands are the result of good resource management. Wild horses and burros are to be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat.

Herd management areas (HMAs) were established in the 1970s-1980s with public involvement through the Land Use Planning process. This agency is evaluating both the state of the rangelands and the health of the herds.

The following are the objectives of the BLM and the actions which must occur if the agency is to successfully meet its challenge for achieving rangeland health in Nevada.

I. Set AMLs by the year 2003. BLM interdisciplinary teams are analyzing monitoring data on an allotment or landscape basis to determine the capacity of the individual HMA. The forage is allocated among wild horses and burros, wildlife and livestock. To continue the progress toward this objective we must:

- Complete interdisciplinary evaluations and multiple use decisions.
- Fully utilize current and future technology.

II. Reach AML by the year 2005. With a high rate of recruitment and the present population of 22,500, steps must be taken to routinely remove the

number of horses required to meet resource objectives. The consequences of not reaching AML are exceeding the carrying capacity of the land and risking the health of the rangelands and the health of horse and burro herds. We must:

- Remove wild horses and burros in sufficient number to reach AML.
- Consider the use of cooperative water and bait trapping.

III. Slowing reproduction rates for mares by the use of contraception will be necessary, in addition to gathering and removing large numbers of animals. The use of this tool requires that we:

- Administer immunocontraceptive drugs to mares.
- Complete development/obtain authorization for use of the drug PZP (*porcine zona pellucida*).

IV. Provide for the health and welfare of horses adopted and those left on the range. Once AML is achieved, BLM's focus must change from reducing numbers to management. To do this, we will:

- Complete compliance checks.
- Commit to long-term care of horses removed from the range and not adopted.
- Address long-term management of herds on the range.



Wrangler John Neill saddles up at the National Wild Horse and Burro Center at Palomino Valley

(Bob Goodman photo)

V. Expand the adoption program to maximize the number adopted. Traditional methods of adoption still have merit, but BLM needs to test new methods of finding suitable homes for our animals. We will:

- Form a Nevada adoption team to conduct zone adoptions.
- Carefully select the adoption sites within Nevada.
- Reinstate adoptions at the trap site.
- Promote appointments at the National Wild Horse and Burro Center at Palomino Valley
- Pilot an adoption utilizing satellite downlink technology and video.
- Explore home delivery to adopters.

VI. Increase awareness of the wild horse and burro program, both on the range and in the adopter's home. These living legends are a great asset in this state which is home to the majority of the Nation's wild, free-roaming horses and burros. We must tell the American public about these animals, our management, and the public rangelands which provide habitat to a wide variety of wildlife. To do this we must:

- Increase the public's access to wild horses and burros in their natural habitat.
- Emphasize public education for students.
- Develop materials for educating adults.
- Construct and operate a visitor center and an adoption holding facility in Nevada.
- Seek the release of an updated wild horse and burro videotape/CD.

Pay Me Now or Pay Me Later

While this strategy is aimed at healthy herds and healthy rangelands, this challenge cannot be met without funding. A detailed description of the cost to set AMLs, to reach AMLs, to slow reproduction rates, to expand the adoption program, and to provide long-term care is provided in the Projected Cost section of this document.

The bottom line is: If BLM expends the necessary dollars starting in fiscal year 1999 to reach AML by fiscal year 2005, it will save the American taxpayer \$1.68 for every dollar it spends.

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Nevada's Role in the Wild Horse and Burro Program

Background

BLM Nevada's goal is to achieve rangeland health, following the principles of multiple-use and sustained yield. Decisions are made using established principles and standards for resource management. Demands by user groups and Congressional acts, that at times might be in conflict, affect the decision-making process.

Congress establishes the laws which the Department of the Interior applies as it administers the public lands. The Department and the BLM subsequently set policy and procedures to carry out these laws.

BLM Strategic Plan

The BLM's national strategic plan builds on the *Blueprint for the Future* and is organized around five goals presented in that document. Two of these goals apply to the wild horse and burro program:

Strategic goal: "Preserve natural and cultural heritage." This goal identifies the need for BLM to ensure a healthy, viable population of wild horses and burros within the limits of available public land resources. The BLM's current emphasis is on determining appropriate wild horse and burro population levels and implementing on-the-ground herd management.

Strategic goal: "Restore and maintain the health of the land via three broad strategic goals." These goals are to establish and implement rangeland standards and guidelines, identify resources at risk, and restore public lands to a healthy condition.

BLM Nevada priorities for these Blueprint goals are:

- Emphasize evaluations and decisions on allotments with high riparian values, threatened or endangered species and on HMAs where no AMLs have been set.
- Manage wild horses and burros on those HMAs where AMLs have been set.

Strategic Plan for the Management of Wild Horses And Burros on Public Lands

The *BLM's Strategic Plan for the Management of Wild Horses and Burros on Public Lands* was adopted in June 1992. The plan identifies goals and proposed actions to ensure that wild horses and burros are recognized and maintained as a part of the natural ecosystem. The five goals are as follows:

Perpetuate and protect viable wild horse and burro populations and their habitat in accordance with the principles of multiple-use management.

Ensure humane care and treatment of excess wild horses and burros, including a national adoption program.

Establish and maintain partnerships and cooperative relationships to benefit wild horses and burros.

Increase and maintain wild horse and burro professional capability, leadership and service ethics within the BLM, and credibility with the public.

Integrate and incorporate research, science, and technical development into the overall wild horse and burro program.

BLM Nevada Policy

In Nevada, the BLM implements multiple use management on nearly 48 million acres of public land. Direction is provided by 14 existing Land Use Plans developed by the six field offices within the state.

The grazing regulations provide direction for the development of standards and guidelines to accomplish four fundamentals for rangeland health:

- Watersheds are properly functioning.
- Ecological processes are in order.
- Water quality complies with state standards.

- Habitats of protected species are maintained or restored.

Three Resource Advisory Councils (RACs) provide advice to the field managers and the state director. In Nevada, standards and guidelines for livestock grazing were developed by the RACs, in a public forum, and approved by the Secretary of the Interior on February 12, 1997.

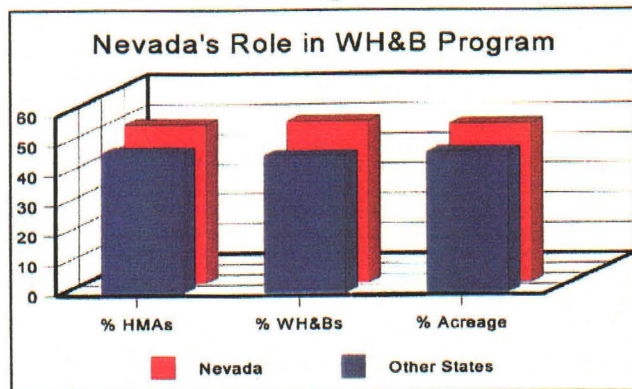
BLM Nevada's Leadership Role

Nevada has, from the beginning, been the leader in the effort to preserve the natural beauty of wild horses and burros on public lands.

Today Nevada has the distinction of having 53 percent of the HMAs, 54 percent of the wild horses and burros, and 53 percent of the acreage identified to be managed as HMAs.

In 1962, through a collaborative effort, BLM in Nevada established the Nation's first wild horse range, nearly 10 years before passage of the Wild Free-Roaming Horse and Burro Act. To meet its responsibilities, BLM Nevada was first to establish wild horse and burro specialists as full time positions.

Section 3(b)(2) of the Act mandates that "the Secretary shall maintain a current inventory of wild free-roaming horses and burros on given areas of the public lands." Under this guidance, Nevada and other states initiated a process to determine the distribution and abundance of wild horses and burros. Nevada led the way through collaborative efforts with the state wildlife agency, grazing advisory boards, and other entities. This collaborative effort was a precursor to the



consultation, cooperation and coordination process which is used today.

At the conclusion of its first inventory, the BLM's First Report to Congress said Nevada had identified 20,000 horses and 1,000 burros.

Herd Dynamics

Horses and burros may live in the hot, dry desert or in the cool environment found near 10,000 feet. HMAs range in size from as few as 5,000 acres to approximately 700,000 acres. "Bands" of horses make up the "herd" of horses in a HMA.

The typical band of horses is comprised of mares, foals, yearlings, and dominant and subordinate stallions. The band size can range from two to 20



Burros at the Marietta Wild Burro Range, Carson City Field Office.

(Bob Goodman photo)

animals. Bachelor bands are formed when young stallions are ejected from their family unit by the dominant stallion. This occurs when the young stallions are approximately two years old.

Wild horses are social creatures. The young males find one another and form temporary bands. They stay with the other males until they find a lone mare and form a new band, or are able to challenge an older stallion and take his mares.

Older mares play an integral part in the survival of the bands. These mares often take the lead in moving the band when a threat occurs. The dominant stallion will usually remain some distance behind to ensure the band escapes safely.

The older mares also hold the knowledge of the reliable water sources and good foraging grounds.

Reproduction

Reproduction within the bands is predominately associated with mares between the ages of five and nine, according to studies conducted by the BLM. Mares have been documented to foal as early as age two, and may continue to produce foals until age 22 or older. There is no specific data on the percentage of mares that foal within a band in any given year. On average, foaling rates can vary from as low as 13 percent under stressful conditions, to as high as 20 to 25 percent in very good conditions. In Nevada it has been documented that even under the most severe conditions, mares will continue to foal.

A stallion may begin to impregnate mares at age two, but continuous successful reproduction does not occur until he acquires his own band of mares. Reproduction continues until a stallion loses his band or dies.

The sex ratio at birth is approximately 50-50. After six months to about age eight, there are proportionally more mares than stallions. After age nine there are more stallions in the population.

Historically, more older stallions were returned to the HMAs than older mares. This may have an adverse effect on the reproductive rates, the sex ratio, and the overall health of the herds.

Mortality

With few exceptions, adult wild horses in Nevada have virtually no natural predators. Mortality occurs in the form of old age, being hit by vehicles, illegal shootings, and severe winters.

There are verified cases of mountain lions killing foals within HMAs in the western part of the state. An HMA where predators keep the horse numbers in check is the exception. The overall lack of natural population control agents emphasize the need for removals and fertility control to maintain healthy horses and ecosystems.

Herd Health

The health of horses within the herds in Nevada is directly related to the health of the rangelands. Most situations where animals are in poor health are correlated to poor range condition. As range condition improves, the health of the herd also improves. There are low incidences of disease or genetic deformities.

Baseline data with regard to herd genetics is being collected at several sites around Nevada. The data will be analyzed to determine if any problems exist and if prevention measures are needed.

Genetic studies conducted by the Winnemucca field office have shown that wild horse populations are genetically unique and distinctly different from populations of domestic equine breeds.

Habitat Requirements

Ideal wild horse habitat includes water, forage, shelter and space. Home range for a typical wild horse band can vary from seven to 10 square miles. Information on territorial habits comes from studies conducted in areas with good water distribution and ample forage.

Goal: Achieve Rangeland Health

Healthy rangelands are the end product of good resource management. A healthy rangeland provides sufficient quantities and quality of forage and water for grazing animals, as well as habitat for wildlife. Rangeland health can be defined as sustaining the structure and functional attributes of the soil and the ecological processes of rangeland ecosystems.

BLM interdisciplinary teams analyze monitoring data on an allotment or a "landscape" basis to evaluate the nature of all types of grazing and to measure the effectiveness of that grazing in meeting, or making significant progress toward meeting, approved standards and land use plan objectives.

Public involvement is an integral part of the evaluation process. Consultation, cooperation and coordination means interaction with various groups and individuals for the purpose of obtaining advice or exchanging opinions on issues, plans, or management actions. The public is asked to provide information to help BLM develop the best possible technical recommendations. Nevada policy establishes procedures to provide the opportunity for a permittee(s) or lessee(s) and other interested public to become involved in the allotment evaluation process as well as being informed of the conclusion of that process.

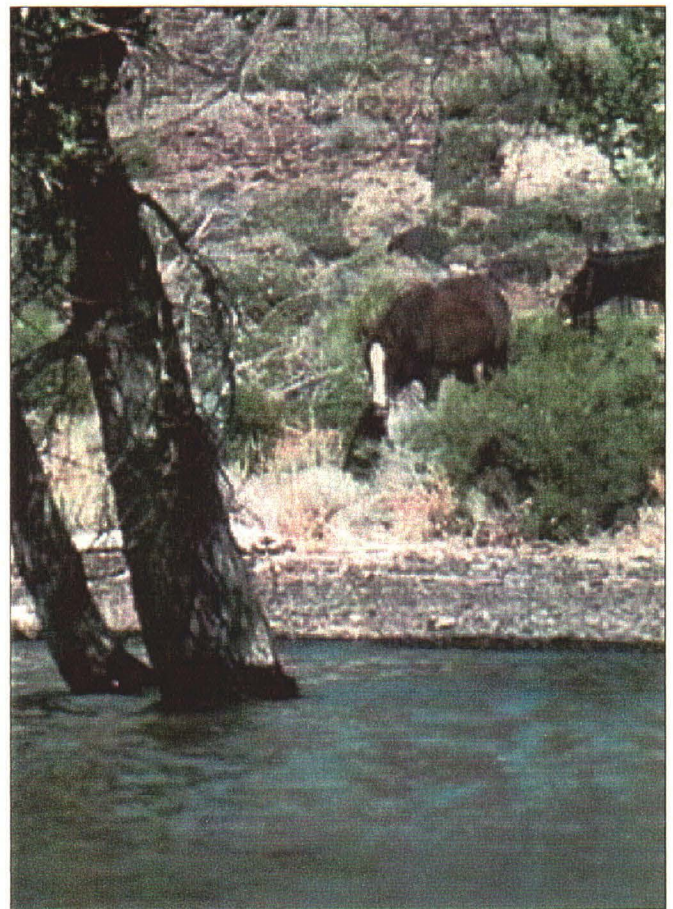
Before appropriate population levels are determined, monitoring data must be collected and analyzed to determine the capacity of the HMA. A portion of the available forage is allocated for wild horse and burro use. The allotment evaluation includes grazing capacities established for wildlife, livestock and wild horses and burros in a single document. The evaluation is carried forward in a multiple use decision setting the AML, setting the terms and conditions for livestock permits and recommending changes in wildlife management.

Setting and maintaining healthy wild horse and burro populations, which depend on these rangelands, is a balancing act. If wild horse and burro numbers exceed the AMLs of the rangelands:

- Resources will be degraded on both public and private lands.

- Livestock operations within HMAs may be adversely affected.
- Wildlife habitat will be degraded which will cause wildlife to suffer.
- Recreational opportunities will be lost.
- Rangeland health cannot be sustained.

This tactical plan identifies several objectives of the BLM Nevada* and the actions that the agency needs to implement to achieve healthy rangelands to fulfill the Nation's responsibility to wild horses and burros.



Wild horses seek water in Lahontan Reservoir, Churchill County.

(Bob Goodman photo)

*The discussions which follow apply to the six field offices which are administered by the Nevada State Office of BLM: Elko, Winnemucca, Carson City, Ely, Las Vegas and Battle Mountain. Herds on Nevada lands administered by the California State Office of the BLM are not discussed in this document.

Program Objectives

Objective I: Set AML by Year 2003

Nevada's field offices continue to complete interdisciplinary evaluations and issue multiple use decisions that not only identify terms and conditions for livestock grazing permits, but also set the AMLs for HMAs. The current schedule for completing this task is fiscal year 2003. Reductions in budget and permanent, full-time employees in the field offices contribute to the difficulty in completing this objective at an earlier date.

While temporary employees or personnel from other field offices may help in data collection, field office employees familiar with the geographic area, and the resource issues can best analyze data, meet with interested and affected parties, write the evaluations and develop technical recommendations.

Interdisciplinary teams made up of rangeland management specialists, wild horse and burro specialists, wildlife biologists and specialists from other disciplines are formed to array the issues, to analyze the data and to recommend appropriate courses of action to meet standards for rangeland health.

Action I-1: Complete Inter-disciplinary Evaluations/Multiple Use Decisions

BLM Nevada has made progress in completing evaluations and issuing multiple-use decisions. More than half of the HMAs have established AMLs, and another quarter of the HMAs have AMLs partially established. Many of the HMAs include all or part of several grazing allotments. Until all of the allotments have been evaluated, the AML cannot be established for the entire HMA.

Field offices set the priorities for completing evaluations based upon where the most conflicts existed. Typically, areas with riparian habitat, threatened and endangered species and wild horses and burros are completed first. Many of the 23

HMAs with no AMLs established are in areas with fewer resource conflicts.

The following table summarizes progress in Nevada in setting AMLs.

Note: As HMAs are examined through the interdisciplinary

Table 1. Established Statewide AML Progress

# HMAs	# HMAs with AML established	# HMAs with no AML estab.	# HMAs with AML partially established
98	52	23	23

evaluation process or through land use planning, they may be retained, modified or returned to Herd Area status based on factors such as vegetative types and water present in the particular geographic location.

Action I-2: Fully Utilize Current and Future Technology

Currently, the BLM conducts wild horse herd census using a B-1 helicopter, with one or two Bureau personnel as observers.

The agency will explore alternative census techniques, such as remote sensing. Remote sensing could involve the use of infrared photography or live images by satellites similar to those used by the military. This method could provide data not only on numbers of horses within the herd, but also distribution patterns within the HMA. The data could be downloaded to the BLM's Geographic Information System (GIS) and correlated with digitized information on the HMAs.

For the BLM's current population model to work, more data is required to provide accurate information. The model also needs to be modified to allow for a broader range of scenarios to be assessed, and to provide for assessing those scenarios with a change in only one variable. Data needs to include verifying sex ratios at birth, mortality, and foaling rates for representative HMAs. Currently, the BLM relies on data sets from intensively studied herds, such as those at the Pryor Mountains, Montana. The Pryor Mountains do not represent some conditions found in Nevada. Selec-

tion of representative herds within Nevada for intensive research would establish the baseline data for the BLM to use in population modeling. This work could be done in conjunction with a chip implantation and a remote sensing demonstration project.

Projected Costs

Approximately \$2,178,000 is needed over the next five years for workmonths to fund wild horse and burro specialist participation in the interdisciplinary evaluation process. This will allow AMLs to be set for all HMAs in Nevada by the target date of 2003.

Objective II: Reach AML by Year 2005

Current Status

The population of wild horses and burros in Nevada at the end of fiscal year 1997 was about 23,000 animals, and the recruitment rate for the year was calculated to be 24 percent. At the end of fiscal year 1998, the population was 22,500, with a recruitment rate of 18 percent. The recruitment rate is calculated by adding the number of current year foals to the existing population and deducting the number of animals that died during the year.

The BLM in Nevada removed an average of 5,862 animals during the fiscal years 1992-1997. Nationally the average number of animals removed for the same fiscal years is 9,101. In 1998, Nevada removed 4,581 animals, while nationally there were 6,389 removed. Keep in mind that most other states removing animals are already at AML, so they are removing to keep AML in check or to respond to court orders.

Population Trends

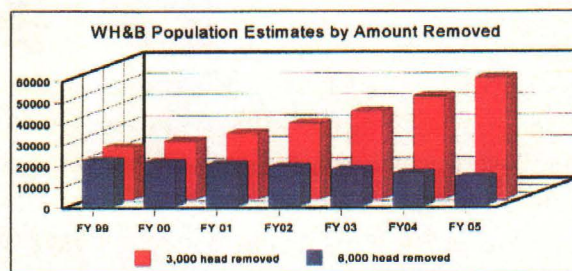
Given the current rate of recruitment and the present population, the herds could increase by approximately 5,400 animals per year. If recruitment rates for horses continue to range from 18 to 24 percent, about 5,400 horses must be gathered annually just to keep the population at the current figure which is 22,500.

It is important to recognize the importance of these numbers as they impact the health of the land.

Based on a 24 percent recruitment rate, if only 3,000 horses and burros are gathered and removed annually, there would be about 58,000 animals in Nevada by the year 2005. If 5,000 animals are gathered annually, there would be 28,000 horses and burros in Nevada by 2005, still well over the projected AML which is approximately 14,000 to 15,000.

Action II-1: Gather Wild Horses and Burros at Sufficient Numbers to Reach AML

Although multiple use decisions have not been made throughout Nevada, estimates are that the final AML in Nevada will total about 14,000 to



15,000 animals. Once AML is reached, an estimated 3,000 to 3,500 horses would have to be gathered annually to maintain AML.

To achieve AML in about seven years, an average of 6,000 animals must be removed annually. The 6,000 animals per year is greater than what BLM in Nevada is funded to remove in fiscal year 1999, which is only 3,500 animals.

Goal 1 of the Strategic Plan identifies an objective to adjust population levels to reach AML within six years. The plan also identifies an action step to gather one-third of all herd units each year. Funding has not been provided to reach these objectives.

Action II-2: Cooperative Water and Bait Trapping

With the large numbers of animals that need to be removed, helicopter gathering is the only means to efficiently and effectively conduct removals. As the population reaches AML, it may be possible to use other less costly means of capturing and removing at least a portion of the excess animals.

Water and bait trapping operations would require people to monitor the traps and to feed and water animals until they are sorted and shipped. Partnerships with permittees and interest groups may provide the BLM with opportunities to implement cooperative efforts. Such an effort could achieve the objectives of the cooperating parties. In this manner, the BLM may be able to maintain AMLs on those HMAs at a lower cost than through traditional capture methods.

Consequences of Not Meeting AML

If, in fact, BLM in Nevada gathers less than 6,000 animals per year, we will exceed the carrying capacity of the land. Horses and burros on the range will be at constant risk of death by starvation and lack of water. The environmental impacts on some lands will be devastating. Other public land users -- from wildlife to livestock -- will be significantly impacted. BLM will not meet its mandate of achieving healthy rangelands. The standards for rangeland health developed by the Resource Advisory Councils and approved by the Secretary of the Interior will not be met.

Projected Costs to Reach AML

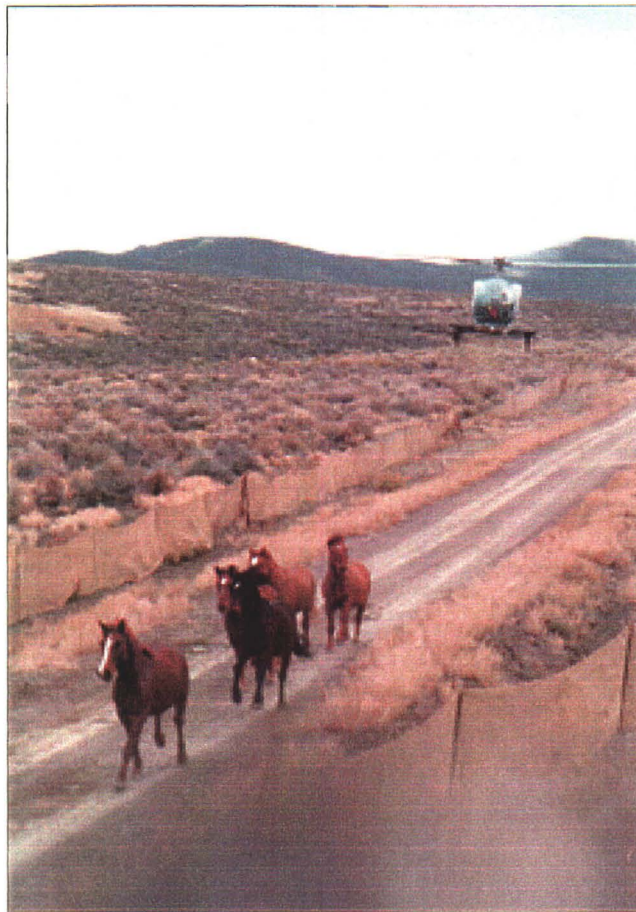
Nevada's funding allocation for the past several years has been between \$3.2 million and \$3.4 million, which is about 20 percent of the BLM's total national wild horse and burro budget. The priority since the mid or late 1970s has been to reach desired animal levels. Roughly one-third of the allocation of funds to the BLM in Nevada has been devoted to gathering excess animals. Total costs would begin at about \$8 million annually to remove 6,000 animals and then drop to around \$4 million annually to maintain AML.

It is important to note that Nevada's budget does not include care for the animal once it is removed from the range and transported to the adoption preparation facility. The National Program Office budget or the budget allocated to other states covers the cost of preparation and adoption, as well as compliance in the area where the animal ultimately resides.

Objective III: Slow Down Reproduction Rates

An alternative to removing large numbers of animals, which likely is more cost-effective, is the use of contraceptives for mares. Contraceptives for mares have been researched and tested in Nevada since the 1980s. Sterilizing stallions on the range was also studied, but has not been pursued because of the invasive nature of the surgical process and because of the horses' social structure which means any stallion could at some point slip into a band and impregnate a mare.

Today the most acceptable birth control method is "immunocontraception" which utilizes a pig protein (*porcine zona pellucida*, known as "PZP") to prevent fertilization of the mare's egg. The drug is natural so if a mare dies, no artificial chemicals



Wild horse gather in the Kamma Mountains, in northwestern Nevada, near Winnemucca.

(BLM photo)

are consumed by scavengers. Additionally, if the mare is already pregnant when the vaccine enters the body, the fetus is not affected.

Immunocontraception appears to be cost effective and among the easiest methods to administer in field situations.

BLM has been working with the Medical College of Ohio and associated universities which have developed and are perfecting the immunocontraceptive vaccine. The pilot project for wild horses on large ranges began in Nevada in 1992 as the researchers sought to develop a vaccine that would be effective through a time release process.

The work is conducted in three stages:

- First, vaccines are tested on penned animals in a controlled situation.
- Second, tests are conducted on individual horses in the wild.
- Third, tests are conducted on an entire population in the wild.

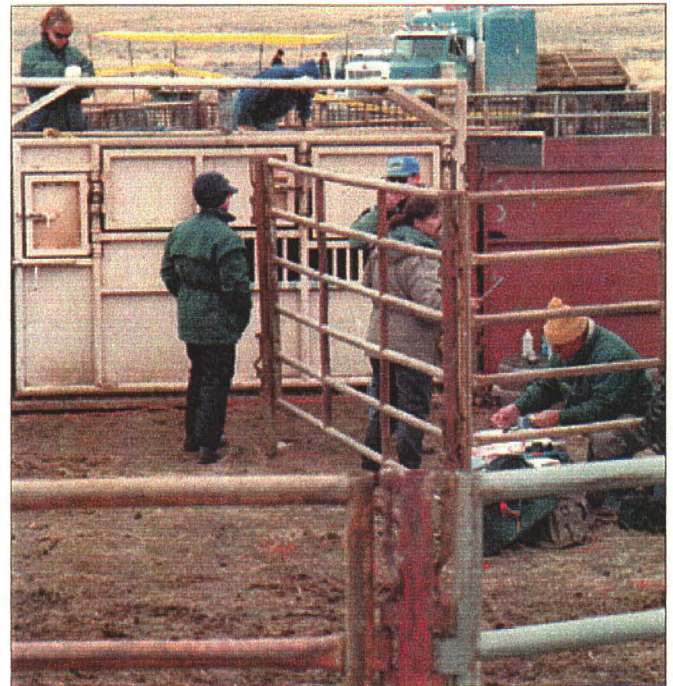
Action III-1: Administer Immunocontraception to Mares

The field testing of a one shot vaccine that is effective for one year was completed during the winter of 1998-99, and testing of a multi-year formula began in 1999 on penned wild horses.

The multi-year vaccine is essential to implementation because the current single year vaccine is only effective when administered between late November and the end of February. This means that gathers which take place during July, August, September and October are not eligible for fertility control research. Unless an emergency situation exists, no gathers are conducted during the spring foaling season, from March through June.

With further perfection of the vaccine, it may be possible to reduce the recruitment rate (24 percent in 1997, 18 percent in 1998) to a more desirable level.

Using the existing population, it may be possible to reduce the recruitment rate from the present 5,400 animals annually to about 1,500 animals annually.



A researcher and BLM staff from the Winnemucca Field Office administer immunocontraception during a gather in the Kamma Mountains.

(BLM photo)

Implementation of a fertility control program could result in removal of fewer animals during gathers or increase the length of time between gathers in an HMA.

Action III-2: Complete Development/Obtain Authorization for Use of PZP

The present vaccine is a "research method." Use of the vaccine on a widespread, long-term basis will need approval by the Federal Drug Administration (FDA) before its use can be considered a management tool. Continued funding must be provided to develop a drug which lasts more than one year. Once a reliable drug is developed, Congressional support may be needed to allow BLM to administer the drug prior to or in place of FDA approval.

Projected Costs

In the one-year vaccine, three doses are administered with each shot. The first dose is the initial treatment which is then followed by time-released boosters at three and six months. The cost per shot is \$60, plus \$2 for the delivery dart.

At gathers, there are usually two BLM employees to oversee the operation, one at the trap site and

one at the pens where animals are aged, sexed and sorted. To administer the contraceptive, an additional person is needed, adding to the cost of the gather.

The equipment needed to mix and administer the vaccine costs about \$2,000. The life of that equipment is expected to be several years.

Objective IV: Provide for Health and Welfare of Horses Adopted and of Those Left on the Range

Shortly after Congress passed the Wild Free-Roaming Horse and Burro Act, the BLM began to identify areas where wild horses and burros roamed freely. The geographic areas identified were called Herd Areas. Through planning, which included significant public participation, Herd Management Areas (HMAs) were designated. The designation of these HMAs was based on criteria for good management. When lands are intermingled (private and public land ownership), it is very difficult to manage wild horses and burros. Over the short-term, interdisciplinary evaluations serve to identify appropriate numbers of wild horses and burros as well as habitat improvements needed in HMAs. In the long-term, herd management plans will need to be developed to ensure that unique characteristics, such as the Baskir Curly horses, are not lost from a HMA and that adequate habitat is provided to maintain healthy herds.

Action IV-1: Adoptions - Complete Compliance Checks

A critical element of the adoption program is monitoring adopter compliance with the terms of the Private Maintenance and Care Agreement (PMACA). Compliance checks are conducted through site visits and telephone calls as required by BLM policy. In addition to detecting violations, the compliance checks also serve to assist adopters that may be having problems with animals. Future problems or violations of the Act can be avoided through education.

The requirements for compliance checks are:

- Each adopter is to be contacted by telephone within six months of the adoption. These calls serve to check on progress the adopter is having with the animal, to avert potential problems, and to reinforce the rules stipulated in the regulations and the agreement.
- Site visits are made within the adoption year to assure adopters are meeting the terms of the PMACA. The sites to be visited are randomly selected by computer with a design to assure that a 95 percent confidence level is achieved. The site visits are most often completed more than six months after the adoption and can be used to approve titling of the animal. The requirement for Nevada in fiscal year 1998 was to conduct compliance checks on 127 specific animals.



Mares and their foals at the National Wild Horse and Burro Center, Palomino Valley.

(BLM photo)

- All complaints received on animal treatment or facility condition will result in a compliance check to validate the complaint and take corrective action on any violation.

Volunteers can be of great assistance in this program when properly trained. They can make phone calls, complete site visits and bring potential problems to the attention of BLM wild horse specialists.

Action IV-2: Commit to the Long-Term Care of Horses Removed from Range and Unadopted

If Nevada gathers 6,000 animals per year, it is possible the adoption program would be overwhelmed or some animals could simply be unsuitable for adoption. The adoption rate has slowed in the past two years, so it is not unrealistic to assume as many as 2,000 animals per year may not be adopted; thus, additional resources would be necessary to feed and care for them.

Caring for these animals would constitute a major commitment of funds and oversight. Contracts to feed and house the animals, similar to the Oklahoma sanctuary, are possibilities. The present sanctuary costs are about \$460 per year to humanely care for an older horse or one unsuitable for adoption. Many of these horses can be expected to live to age 30 in a sanctuary.

Another possibility for the care of animals not adopted is to investigate the acquisition of one or more allotments for horses or burros.

The National Wild Horse and Burro Program Office is exploring a proposal to provide a site to temporarily hold and train excess wild horses. (Site considerations include the nature and quality of feed, opportunities for observation to ensure proper care, ease and safety

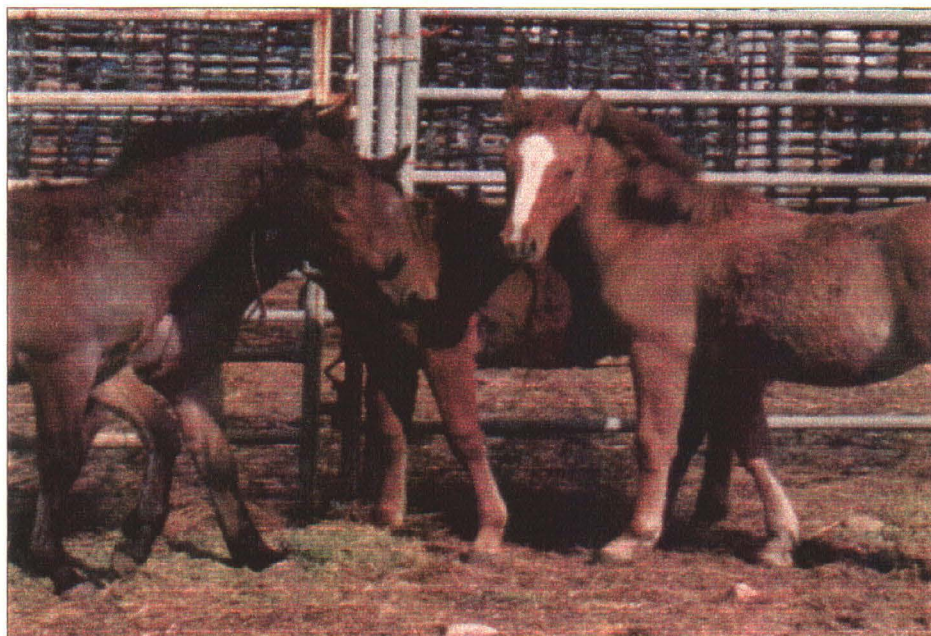
of re-gather to provide medical attention, ease and safety of re-gather for shipping to adoption, proximity to transportation routes and adoption markets, security from predators and inappropriate human intrusion, environmental factors such as weather extremes and cost.) The option may also include holding older, unadoptable wild horses found to be in excess of the AML. BLM Nevada supports both options and encourages the National Program Office to develop and adopt this proposal.

Because this concept is of such vital importance for reaching AML, if the National Program Office does not pursue the proposal described above, BLM Nevada will investigate similar training and holding facilities which could assist the agency in meeting state program objectives.

Action IV-3: Address Long-term Management of Herds On-the-Range

The priority in Nevada since passage of the Act has been to monitor animal numbers and to remove excess animals. The management of the animals remaining on the range has received less attention.

Once AML is achieved, priorities must be altered to stress the management of the remaining animals. This will include such actions as: devel-



Wild horses awaiting adoption at Fallon, Nevada.

(BLM photo)



National Wild Horse and Burro Show at the Reno Livestock Events Center.

(BLM photo)

oping herd management plans, monitoring habitat conditions and herd health, implementing habitat improvements, and developing an educational awareness program to provide the public the enjoyment of the resource for which the Act was passed. This change in priorities will require a continued level of funding similar to what is required today.

More partnerships need to be pursued with volunteers who can perform habitat improvement projects. Partnerships can benefit the BLM, the wild horses and burros and the members of the public who want to participate in the management of this resource.

In the 27 years since passage of the Act, the BLM has gained considerable knowledge about herd dynamics, location of water, and seasonal migration. Drought and winter effects on herds have been identified and noted.

It is appropriate that the experiences of the past 27 years, the scientific knowledge and record of weather patterns, and other factors be evaluated with today's technology to determine

if the HMAs on record are meeting the standards for healthy rangelands and healthy herds.

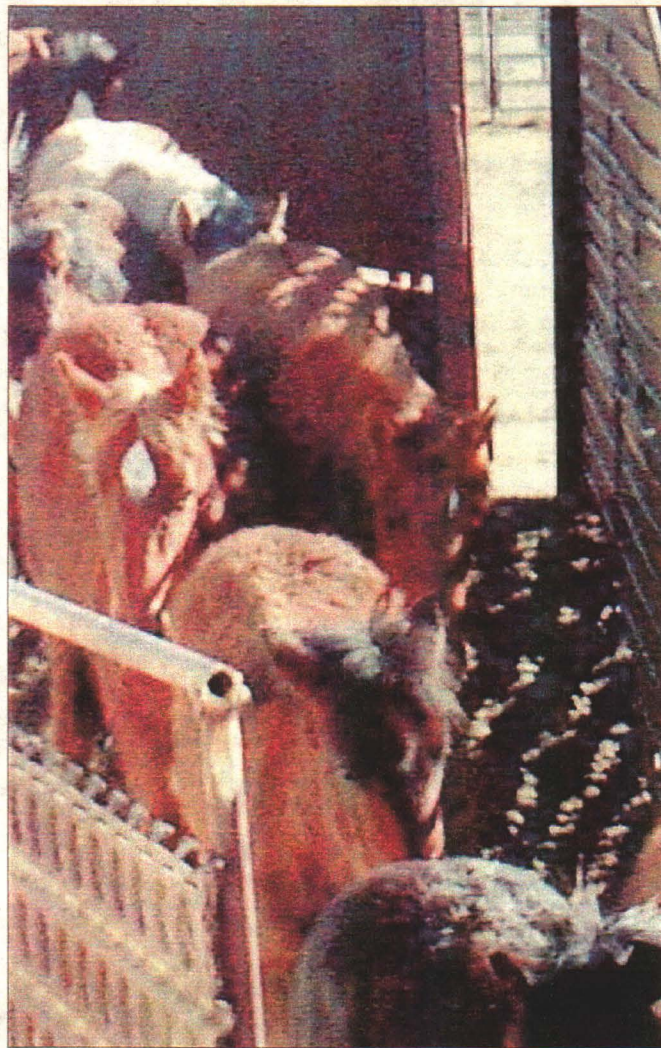
As AMLs are reached within Nevada, funding should be redirected to provide basic research concerning genetic issues. At a minimum, baseline blood work should be conducted for each herd within Nevada. These baseline data enable the BLM to identify the historical characteristics of each herd and to ensure these traits are preserved or returned to the herd. Work is also needed for the development of the individual history of each HMA. Research could determine the first appearance of horses in the area, and development of the herd from that point.

Several technologies could be assets to the BLM law enforcement program which strives to assure the animals are not harassed or illegally removed from the range. For example, genetic blood work could aid law enforcement in presenting a stronger case when it is suspected a wild horse or burro was removed from the

range for private gain. Should implanted chips or some similar census technique lend itself to tracking individual horses, this technique could also augment rangeland rustling investigations.

Projected Costs for Long-term Care

To meet this objective, the BLM must commit to spending several million dollars over several years to care for those horses removed from the range and not adopted. This is necessary if we are to achieve AML and have healthy rangelands.



Unloading wild horses at the National Wild Horse and Burro Center at Palomino Valley.

(BLM photo)

Objective V: Expand Adoption Program to Maximize Number Adopted

Adoption Background

In 1976, BLM initiated the national Adopt-A-Horse or -Burro program. Initially, these animals, placed in private adoptive care, were to remain federal property for their lifetime and title could not be passed to the adopter. In 1978 the program was changed to allow an adopter to receive title to an animal after one year of humane care. The adoption program has remained the primary tool for placing excess animals removed from the range.

The average number of animals adopted nationwide between fiscal years 1992 and 1997 was 8,307, with many of the adoptions occurring in the East and Midwest. In fiscal year 1998 there were 7,844 animals adopted.

National Marketing Study

Dougherty and Associates of Alexandria, Virginia, submitted a National Marketing Strategy to BLM in January 1999. The strategy is based on a review of previous studies and reports, an analysis of demographic data and program statistics, an assessment of market opportunities and an evaluation of BLM's current presentation, outreach and communication tools. A brief review of the report's five sections follow.

Market assessment. BLM should follow the lead of other organizations marketing a product or service: identify potential customers and educate them about the product or service. Consumers need to know the requirements for properly maintaining the product. The BLM decentralized operations have hindered this marketing approach. There are opportunities to improve the success of the Adopt-a-Horse or -Burro program by increasing participation of existing adopters and tapping into new markets of potential qualified adopters.

Adopter profile. There is little data on the demographics and preference of current adopters because there are no uniform requirements or guidelines for collecting and maintaining data on

potential adopters and those who request information. A standardized mail list and data base to publicize adoptions and events could also be helpful in coordinating volunteer efforts. The authors suggest BLM tap into networks, publications, events and Internet sites of existing horse and burro organizations and clubs.

Trends and opportunities. BLM should increase awareness through equestrian organizations, schools and installation of kiosks and park centers in its own resource center facilities and those of the National Parks. The marketing study authors say we should do more with veterinary and equine studies programs at universities. They feel the national newsletter should include adoption goals, and that adoption campaigns should begin three months prior to the event. At events, they suggest demonstrations, training clinics, competitions, raffles and concessions. The BLM should seek public and private sector partnerships. National or regional adoption teams could be made up of BLM employees, marketing professionals, horse and burro club members, advocacy groups and successful adopters.

Program presentation and information. BLM needs to present a more polished, professional image with a consistent look and message. The authors suggest a review of existing publications and promotional materials to determine which should be updated and which should be replaced. Identify and produce new informational needs.

Proposal to reach untapped markets. The study details specific initiatives and action items which could be part of a national strategy. Topics include: establishing a national (core) adoption team, forming a "hot shot" team for adoptions and special projects, developing a system for data collection and analysis, developing an education and awareness program, increasing awareness through other agencies and organizations, implementing an educational campaign in the schools, providing training for staff, creating a wild horse and burro foundation, standardizing and expanding the application process, evaluating and improving adoption locations and times, exploring pricing and incentive programs, reviewing and improving

adoption formats, providing support services to increase adoptions, expanding gentling programs, developing a national advertising campaign, increasing participation in special promotions and events, and organizing and expanding the use of volunteers.

Western Adoption Strategy

The western states wild horse and burro program leaders developed a plan to increase the number of animals adopted in the West. The plan included establishing a full time adoption team which would primarily plan and conduct adoption events. In addition, a roving team would be formed of specialists from certain states to conduct additional events now beyond the capability of individual states and the full time adoption team.

The western adoption team strategy proposal has not been institutionalized, but BLM Nevada supports this proposal.

Nevada's Adoption Efforts

Nevada offers a limited adoption market because it has few residents. Between fiscal years 1992 and 1997, the average number of animals adopted in this state was 192. In fiscal year 1998, 146 animals were placed in private care. Most of the Nevada adoptions occurred at the BLM facility in Palomino Valley, 20 miles north of Reno-Sparks.

Nevada has been providing assistance to other states which allows more adoption events to be conducted where the population is greater and the demand for animals for adoption is considerably higher. When possible, the BLM in Nevada sends wranglers and public affairs assistance to other states' adoptions, and Nevada employees assist at the National Center at Palomino Valley.

The BLM Nevada Communications Office, with funding from the National Program Office, assists other states' adoption efforts by arranging for the BLM National Training Center (NTC) to take quality videotape of wild horses and burros on the range, during gathers and at the Palomino Valley facility. This videotape is available from the NTC and is a tool all offices may give local media to promote adoption. The NTC also has extensive "B roll" footage available for use by television reporters in feature stories.

Action V-1: Form Nevada Adoption Team to Conduct Zone Adoptions

BLM Nevada will form its own adoption team to place additional animals. The team roles and approximate number of members would be: preadoption media team, 2 members; pre-approval team, 2; adoption event team, 8 to 10 (manager, public contact, clerks, wranglers, wild horse specialists); and follow-up or compliance team, 2-3.

The team, in cooperation with other states and utilizing the marketing study and other available sources, would identify areas outside of Nevada for adoption. Publicity would be prepared and the area visited about two to three months in advance of the adoption. The animals would be transported to the center of the geographic area. The adoption would be held, then the horse or burro would be transported to the adopter's home. Within three months, a follow-up team would visit or call all adopters to assure the animals were being properly maintained.

At least one national group (National Wild Horse Association) has mentioned its interest in helping

to develop such an approach. In addition to this group, BLM will seek other volunteers to participate in adoptions.

A Nevada adoption team, if formed from existing staff, is a considerable commitment as all wild horse and burro personnel and associated staff would need to forego work on other projects. For example, wild horse and burro specialists who would normally be involved in evaluations and planning documents associated with reaching AMLs or preparing herd management plans or supervising gathers would have to forgo that work for the adoption.

A second group of Nevada employees with appropriate skills will be identified to assist adjoining states holding adoptions, but short on particular abilities.

Action V-2: Carefully Select Nevada Adoption Sites

Adoptions in Nevada communities should be limited to a few each year, to be held where there is a demonstrated market for the animals. It is anticipated the number to be taken to each rural

county or to Las Vegas will be modest, usually under 30.

It is important to allow Nevadans to fully participate in adoption, but we recognize it can take as much time and effort to promote and set up a satellite adoption for 30 animals as it does for 150 animals. The value of adoption within Nevada is in education and information about the program, rather than in numbers placed. Education and information can lead to support for actions which must be taken to achieve healthy rangelands and thriving herds.



Contractors at a trap site in Eureka County.

(Bob Goodman photo)

Action V-3: Reinstate Trap Site Adoptions

Adoptions at trap sites were allowed until about three years ago. When variations from standard practice occurred, the resultant concerns led to elimination of trap site adoptions.

The errors which led to that action can be prevented if clear guidelines are established in writing, laying out the process for trap site adoption. Such concerns as freeze marking, inoculations, and the need for a Coggins test if being transported out of state, can be addressed and resolved and new guidelines issued.

Re-initiating trap site adoptions can meet the needs of some adopters and would place a limited number of animals. Most of the demand will be from local residents who are interested in a particular animal or a particular herd. Each animal adopted at the trap site will save the program \$1,000 and reduce stress on the animal from being transported to a preparation center and eventually to an adoption site.

Action V-4: Promote Adoptions by Appointment at PVC

Support will be given to the National Wild Horse and Burro Center at Palomino Valley to promote adoption by appointment. Two primary advantages of adopting at Palomino Valley are the free gelding service which can be provided by a veterinarian and the greater number of animals from which to make a selection.

A planned effort to target the western United States with public service announcements, paid advertisements, newspaper and magazine articles and television clips to media should be implemented.



Trainer Bryan Neubert at the National Wild Horse and Burro Show in Reno, Nevada.

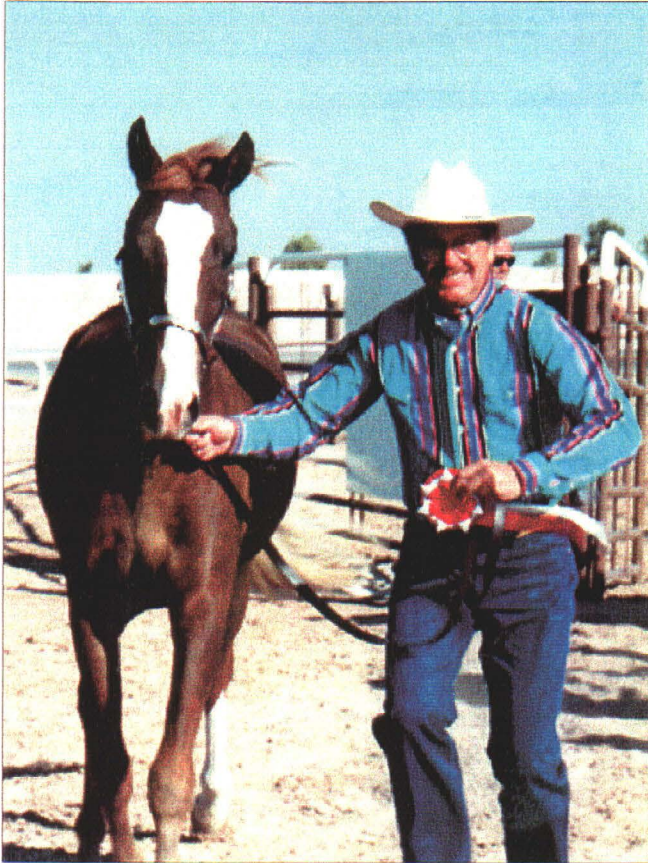
(BLM photo)

Action V-5: Pilot an Adoption Using Satellite Video

The use of satellite auction techniques has the potential to increase awareness of the wild horse and burro program in all states. It will introduce the wild horse and burro program to a new audience, and it could give that public an opportunity to adopt from their homes. This shop-at-home technique will draw on some of the methods already utilized in the Internet adoptions sponsored by the Eastern States. Initially, the BLM proposes to use the services of a company which specializes in satellite auctions.

A team will carefully "script" the filming effort to be recorded on video for broadcast to minimize costly satellite time.

The Palomino Valley facility will be the site where animals are videotaped for broadcast by an existing satellite marketing firm.



An exhibitor at the National Wild Horse Association Show in Las Vegas, Nevada.

(BLM photo)

There will be considerable emphasis on pre-approving adopters. Delivery will be to identified, strategic locations in the United States.

Action V-6: Home Delivery

BLM Nevada will pursue identification of volunteers or vendors who could deliver animals to an adopter's home, using approved trailers. Potential adopters, especially first-time adopters, often do not have the investment in a suitable trailer or are unsure how to arrange for transportation.

One Nevada event in 1999 should test home delivery service. We will advertise the event and offer delivery to certain pre-determined geographic locations to determine if it increases adoption.

In Las Vegas, one of the interest groups currently provides transportation to adopters at the annual adoption event. We should pursue making similar arrangements with other interest groups or past adopters whose trailers pass inspection.

The transportation of wild horses and burros from an event to an adopter's home could provide an opportunity for a corporate partnership similar to what occurred with Isuzu and the Back Country Byways Program. Before a horse trailer firm is approached, appropriate review by contract specialists at the national level would be required.

Action V-7: Training of Wild Horses

BLM will consider being a partner with the State of Nevada Department of Corrections if it desires to develop a training program or with a state educational institution which might be interested in developing an equine program. Current horse training prison programs provide opportunities for either the BLM or the adopter to enroll a wild horse in the program. Wild horses enrolled by the BLM would be offered for adoption through a competitive process. Adopted wild horses enrolled by the adopter would be a private matter between the adopter and the facility.

Consideration should be given to having a modest training program for demonstration or promotional purposes such as at the proposed Nevada Wild Horse and Burro Center (see Action VI-4).

Projected Costs

Approximately \$135,000 will be needed annually for BLM Nevada to conduct four in-state adoptions and to coordinate and conduct four out-of-state adoptions. Costs for a training program would need to be developed if BLM becomes a partner with the State of Nevada Department of Corrections or an educational institution.

Objective VI: Increase Awareness on the Range and in Adopter's Home

The Wild Free-Roaming Horse and Burro Act was passed because the American people attach different attributes to horses and burros than they do to other mammals, including most wildlife and farm animals. A major factor in the passage of the Act was the "pencil war" in which thousands of school children wrote letters and sent pennies to save these symbols of the West. These children are now adults

who remember reading *Misty of Chincoteague* or *The Black Stallion* mysteries.

Nevada and BLM have not taken advantage of the abundance of wild horses and burros on its rangelands which could attract these publics to a tourist oriented state. Instead, the agency finds itself on the defensive instead of the offensive as it attempts to manage this living resource so the herds will be vigorous and will live on healthy rangelands.

Ironically the adoption program, which was developed to find a humane home for "excess" range animals, has overshadowed the purpose of the Act and receives a good share of the budget. BLM Nevada must refocus its energy on educating the public about the animals' life and management on the range if it is ever to gain the support it needs to reach and maintain AMLs.

Action VI-1: Increase Public Access to Wild Horses and Burros in Their Natural Habitat

BLM Nevada employees and State of Nevada tourism officials have frequent requests as to where to drive to see horses in the wild. With the exception of the Marietta Wild Burro Range (Carson City Field Office) and the burros and horse herd near Red Rock Canyon National Conservation Area (Las Vegas Field Office), the BLM has no printed material to direct the public to viewing areas in the state. Here are three endeavors to be initiated:

- An effort is underway to identify all HMAs utilizing Geographic Information Systems (GIS). A related promotional effort to inform visitors about where they can see horses and burros will be undertaken. BLM Nevada will produce printed material describing each of the HMAs, including maps.
- This same information will be posted on the Internet to educate the public about the wild horse and burro program and to support the adoption program by providing adopters information on their horse's origins.

- Each Nevada field office will identify at least one HMA where wild horses or burros can be seen with some regularity. A small team shall be convened by the wild horse and burro lead, with assistance from Nevada State Office of Communications, to identify the criteria for site selection and the type of information needed to produce interpretive signs, printed material, maps, etc. The team will consider ties to recreation, law enforcement, and other BLM programs; needs for illustrative talent; consistency in signs, etc.

Action VI-2: Emphasize Public Education for students

Public education needs to be an on-going program which ties to Nevada's management plan for wild horses and burros and BLM's overall adoption strategies. This is an area where managers and staff can exercise creativity. The intent is to have understanding of the program among the younger generations. Grade and junior high school level teachers and pupils seem most eager for information.

The BLM in Nevada can refer to and refine previous educational efforts. Some specific actions are:

- In 1990 a group of BLM Nevada employees and a volunteer developed an activity book and five-day lesson plan/workbook for fourth grade. Revise and refresh the handouts for use in schools, at fairs and with exhibits. This material is currently being posted on the Internet.
- Evaluate the value of reprinting the 1994 Wonder Series book on Wild Horses. The Denver Museum of Natural History and Roberts Rinehart Publishers would need to be approached on reprinting.
- Develop a Power Point presentation on the wild horse and burro program for use by Nevada employees who make presentations to school and civic groups. Develop and revise handouts, such as bookmarks and book covers.

- A Junior Wrangler program could be developed for those students interested in learning more about the program. A Boy Scout or Girl Scout could be approached to develop such a program as part of a project.
- An interactive CD-ROM developed by the BLM's Jackson Field Office will be utilized in BLM's wild horse and burro efforts in Nevada.

Action VI-3: Develop Materials for Educating Adults

Many of the requests for information are from adults who are animal lovers, who are potential adopters or who presently have an adopted animal. The only handouts currently available are *So You'd Like to Adopt*; *Adopt a Living Legend*, *A Caretaker's Guide* and the *Reports to Congress*. There are also a limited number of videos which have been produced, but may need revision. These include: *Welcome Home, Wild One*; *Choose a Friend*; *Cactus Jack*; and *Mustang Troop*.

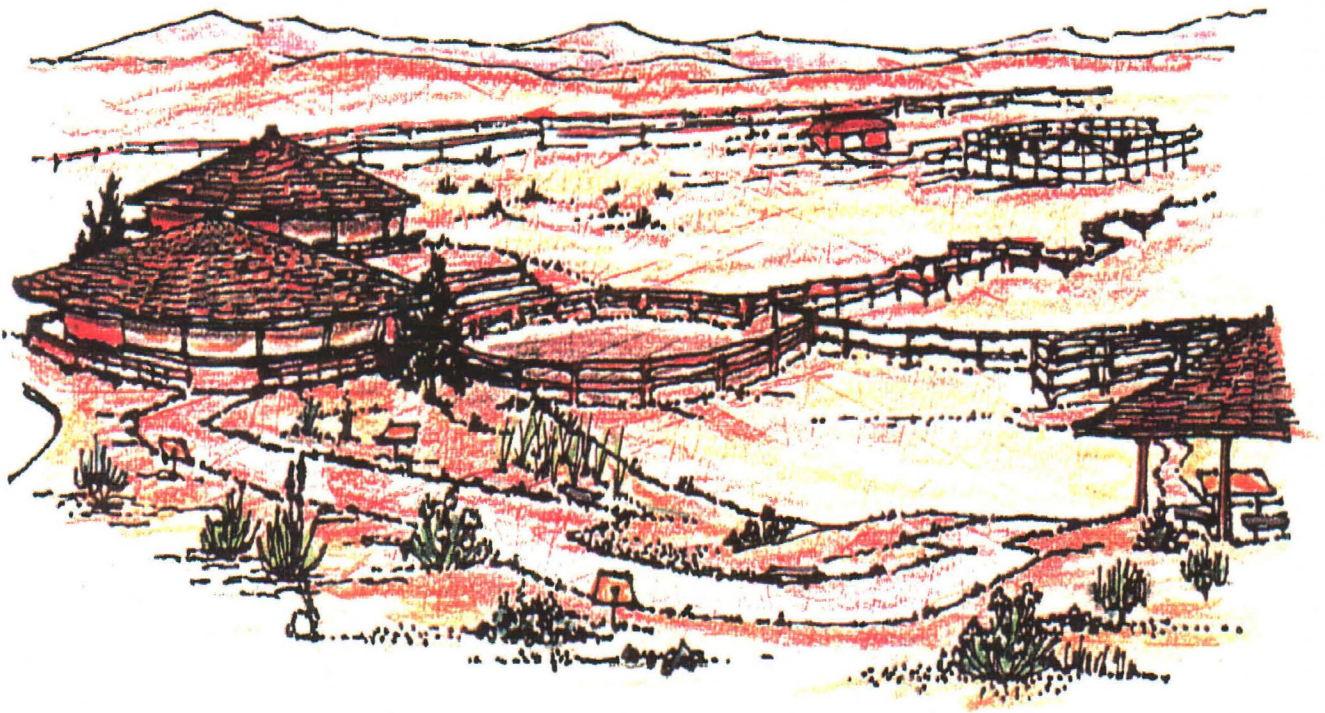
A short overview pamphlet will be developed in Nevada for handout. This pamphlet will have a brief historical overview of the program, a description of Nevada's horse and burro program/herds, an overview of adoption, and answers to some commonly asked questions. This same information can be posted on the Internet.

Photographs will be posted on the Internet which will illustrate what takes place on a wild horse and burro gather in Nevada.

A new wild horse and burro exhibit should be developed. Both a tabletop version and a full size exhibit should be available.

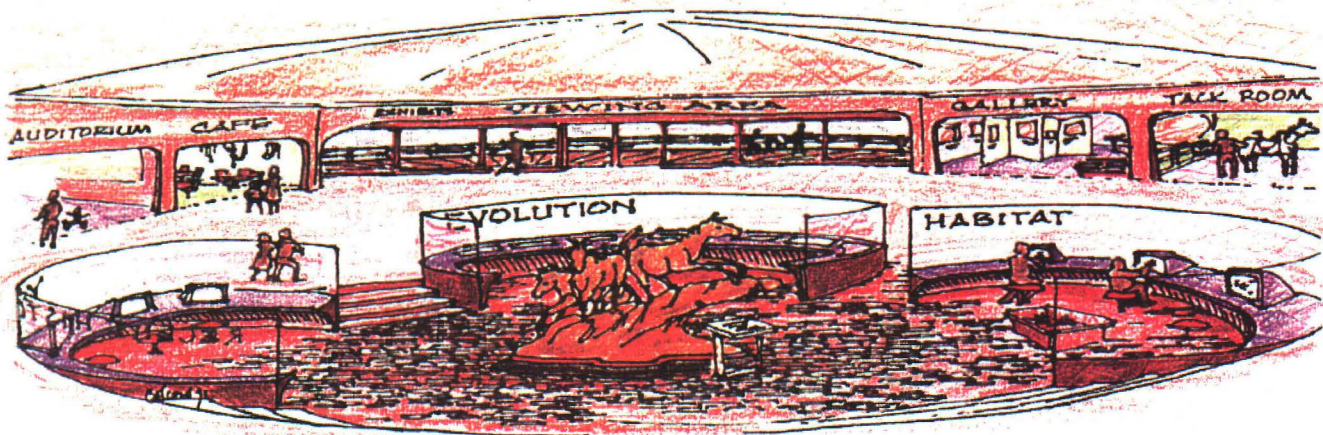
Because there are so many items which should be created for student and adult audiences, a phased schedule for completing these products could be achieved between 1999 and 2001.

There are already many requests from adopters which are directed to field offices asking for information about the geographic area from which an



Architectural design of a new Wild Horse and Burro Center, as in this conceptual sketch, would incorporate visual appeal to visitors while meeting the needs of those planning to adopt a horse or burro.

(Artist's concept by Diane Colcord)



An exhibit hall at a new Wild Horse and Burro Center can help BLM tell the story of public lands and range management.

(Artist's concept by Diane Colcord)

adopted animal originates. The descriptions for each HMA will be completed and available for handout and posting on the Internet.

Action VI-4: Construct and Operate a Visitor Center and Adoption-Holding Facility

As the leader in the wild horse and burro program, the BLM in Nevada proposes to construct a National Wild Horse and Burro Visitor Center and adoption-handling facility located in northern Nevada. The facility will significantly contribute to solving major issues Nevada and the nation face with the wild horse program, including the replacement of aging facilities, increasing the total number of adoptions, increasing temporary holding capacity, and informing the public about wild horses and the environment. A detailed proposal with cost estimates is available and is included as an appendix of this tactical plan.

Center Objectives

- Provide opportunities for our constituents to see wild horses and burros and to learn about them, their habitat, and the Bureau's efforts to manage both.
- Expand our marketing efforts and increase the number of adoptions taking place in Nevada and nationwide.

- Reduce population pressure on sensitive rangelands by providing an area where large numbers of horses can be held pending their adoption.
- Enhance public understanding of wild herd dynamics and animal fertility and advance the science in these areas to ensure both healthy herds and rangelands.
- Demonstrate and promote understanding of how state-of-the-art techniques can be used to create environmentally friendly wild horse and burro adoption and preparation and feeding facilities.

Center Features

- A state-of-the-art preparation and holding facility for as many as 3,500 horses which would also provide for sterilization and training of older horses.
- An adoption facility that would provide for satellite, Internet, or on-the-spot, daily adoptions for pre-approved individuals, and which would act as a hub for marketing adoptions nationwide.
- A visitor/interpretive center with exhibits, an auditorium/classroom, a viewing platform, and self-guided tour around the facility's perimeter.

The Center Would be Funded in Partnership with Others

The Center construction and operations would rely on using a combination of federal and state monies, and donations from corporate sponsors and the general public, including volunteers. These funding partnerships will result from the Center's positive impacts to local tourism and because of interests shared with the State of Nevada regarding wild horse and burro management and concerns for rangeland health.

Bureau support would be in the form of funding for full proposal development (architectural and interpretive concepts) and staff to facilitate partnership development. Ongoing development would continue using a team of BLM staff and volunteers.

Funding may be available through a variety of federal or corporate sources.

Support will also be solicited from the State of Nevada through the Heil Fund and partnerships with the Department of Agriculture, State Prisons, University of Nevada and others.

The remainder of the necessary funding would be solicited from a variety of sources including the local visitors and convention bureaus, local hotels and resorts, wild horse organizations and livestock associations and interested volunteers.

Action VI-5 Seek Release of Updated Wild Horse and Burro Videotape/CD

There are no current films or videotapes which objectively tell the story of the wild horse and burro program to the public. The Washington Office of Communications will be consulted about

updating or approving a new product or adapting the Mississippi CD ROM.

Primary audiences for a quality film are: students, primarily in grades 1-8; adults visiting the Palomino Valley facility; adults in service groups; adopters, especially those taking home a horse or a burro for the first time. A shortened video overview for use at fairs, exhibits and adoption events would also be useful.

Projected Costs

Costs associated with most of these action items would come from dollars received for workmonths for wild horse and burro specialists and support staff. Specific projects would need to identify costs associated with those projects.



Palomino Valley pair.

(BLM photo)

Projected Costs to Accomplish Goals

Objective: Set AMLs by 2003

Workmonth dollars needed by year to set AML for the remaining HMAs (All values stated in 1999 dollars.)

FY1999: \$700,000

FY2000: \$640,000

FY2001: \$472,000

FY2002: \$310,000

FY2003: \$ 56,000

Objective: Reach AML by 2005

- Gather 7,200 and remove 6,000 animals per year through 2005.
- It will require 28 workmonths (approximately \$132,000) per year to gather 6,000 animals.
- Per diem and vehicle costs per year are approximately \$85,000.
- Contract gather costs per year are approximately \$1,930,000.
- Feed costs at trap site at \$7.00/head/day are approximately \$177,000.
- Transportation costs to Palomino Valley (PVC) for 6,000 animals are approximately \$14,000.
- Preparation costs at PVC are \$43.00 per animal.
- Feed costs at PVC are \$1.56 per animal per day.
- Average length of stay at PVC is 120 days per animal.

Total costs per year to meet this objective are approximately \$3,719,000.

Objective: Slow Reproduction Rates

- It would require 14 workmonths (\$66,000) per year to administer immunocontraception to mares during gather operations. One additional BLM person is needed per gather.
- Cost per shot is \$60.00 (plus \$2 for the delivery dart) on approximately 600 mares each year for a total cost of \$37,000.

Total costs per year for this objective are approximately \$103,000.

Objective: Expand the Adoption Program*

Expand Within Nevada (using Nevada adoption team)

- To conduct four adoptions per year would require approximately 9 workmonths at a cost of \$42,000.
- Per diem and vehicle costs per year would be approximately \$12,000.

Total costs for four adoptions within Nevada are approximately \$54,000.

Expand Outside Nevada (using Nevada adoption team)

- To conduct four adoptions per year will require approximately 12 workmonths for a cost of \$57,000.
- Per diem and vehicle costs per year will be approximately \$24,000.

Total costs for four adoptions outside Nevada are approximately \$81,000.

Trap Site Adoptions

- Trap site adoptions save the program approximately \$1,000 per animal.

Objective: Provide Long Term Care and Compliance

- To complete compliance checks on 127 animals, plus any animals adopted in fiscal year 1999, will require approximately 7 workmonths at a cost of \$33,000.

On the Range

- To census 33 HMAs (one third) per year will require approximately 18 workmonths for a cost of \$85,000.

* Costs associated with providing Nevada employees to help other states with their adoptions need to be provided out of the Washington Office budget.

- To contract a helicopter to complete 33 censuses will cost approximately \$132,000.

Sanctuary

- Removing 6,000 animals per year will require caring for approximately 2,000 animals each year that are potentially unadoptable. Current costs for keeping an animal in a sanctuary are \$460.00/animal/year.
- This would cost \$920,000 the first year, \$1,748,000 in year two, \$2,535,000 in year three, \$3,282,000 in year four, \$3,992,000 in year five, \$4,660,000 in year six, and \$5,301,000 in year seven at which time BLM Nevada would reach AML. This final figure would decrease over time as animals died at the sanctuary.

Summary

Total costs to reach the objectives outlined in the previous section starting in FY1999 would be:

FY1999 = \$ 6,747,000
 FY2000 = \$ 8,435,000
 FY2001 = \$ 9,974,000
 FY2002 = \$11,479,000
 FY2003 = \$12,855,000
 FY2004 = \$14,387,000
 FY2005 = \$15,948,000
 FY2006 = \$11,016,000

Starting in FY2006 gathers would be reduced to approximately 3,000 animals per year to maintain AML. This would reduce overall program costs as less animals would need to be adopted and no

additional animals would need to be placed in a sanctuary.

If BLM continues on the current course and does not meet these goals and wild horse and burro populations continue to increase, there will be approximately 58,000 wild horses and burros on Nevada's rangelands in the year 2005. To reach AML over the same seven year period starting in fiscal year 2005 will require the removal of 11,000 animals per year to reach the projected AML of 14,000 to 15,000 by fiscal year 2012.

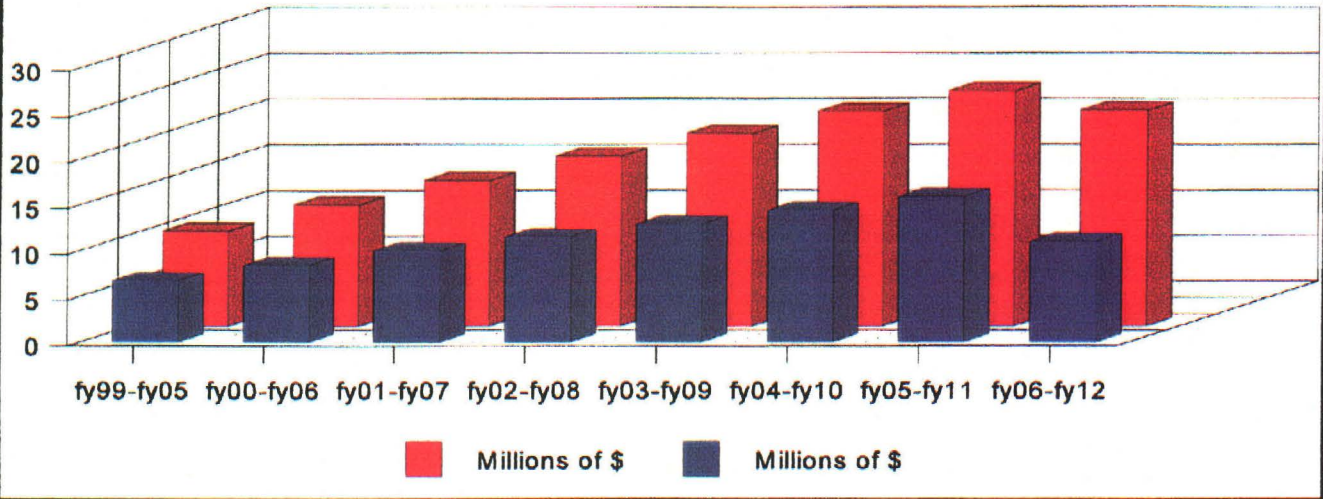
The projected costs starting in FY2005 to accomplish these same objectives would be:

FY2005 = \$10,381,000
 FY2006 = \$13,279,000
 FY2007 = \$16,032,000
 FY2008 = \$18,648,000
 FY2009 = \$21,132,000
 FY2010 = \$23,492,000
 FY2011 = \$25,735,000
 FY2012 = \$23,624,000

Starting in fiscal year 2012, gathers would be reduced to approximately 3,000 animals per year to maintain AML. This would reduce the overall costs to the program as less animals would need to be adopted and no additional animals would need to be placed in a sanctuary.

If we expend the necessary dollars starting in fiscal year 1999 to reach AML by fiscal year 2005, we will save the American taxpayer \$1.68 for every dollar that we spend.

Cost Comparison



If the BLM starts removing wild horses at a sufficient level in fiscal year 1999 to reach AML in fiscal year 2005, the costs incurred are identified in blue. The costs identified in red reflect costs that would be incurred if BLM Nevada waits until fiscal year 2005 to begin removals to reach AML.

Partnerships and Collaboration

BLM Nevada uses collaborative partnerships to accomplish its management objectives. Some examples of these partnerships are:

Diamond Mountain Complex: This effort involved three BLM field offices, two state agencies, two county governments, and several private groups and individuals. Standards for rangeland health were assessed and changes in livestock grazing practices were implemented on an allotment basis. AMLs for wild horses were set for three HMAs with a subsequent gather completed to reach AMLs.

Fish Creek Complex: An agreement was signed with Eureka County through which the county will,



Costume class participant at the National Wild Horse Association Show in Las Vegas, Nevada.

(BLM photo)

with full opportunity for public involvement, collect monitoring data and write an evaluation using approved BLM methods and procedures. This evaluation will set an *interim* AML for the Fish Creek HMA and establish *short-term* appropriate livestock grazing practices on four allotments in this complex.

The National Mustang Association in the late 1980s helped develop several springs in various HMAs. Early in 1998 it helped reconstruct one of the original water developments in the Ely Field Office. The group is concentrating on the Haypress Allotment in the Caliente field station, and on wild horse projects in western Utah. In the summer of 1998 the group evaluated wells already installed in the Tonopah area with a view toward future maintenance needs.

Life Savers Incorporated, led by Judy Slayton of Palmdale, Calif., is a non-profit group. They buy previously adopted wild horses at auctions and find homes for them. Individual members of the group have adopted wild horses. The members are interested in learning more about on-the-ground management. In the summer of 1998, members toured HMAs outside Tonopah.

Members of the **National Wild Horse Association**, based in Las Vegas, often volunteer to care for and adopt orphan foals, or animals that need special care. Members of the group assisted with care of foals in Utah which were possibly infected with equine infectious anemia. The group annually sponsors a local wild horse show and assists with adoption compliance.

Wild Horse Organized Assistance (WHOA), based in Reno, was involved with the BLM during development of the regulations to implement the Act. Prior to 1975, the group pioneered work in adoptions. After group founder Velma Johnston died, her successor, Dawn Lappin, changed the primary focus of the organization from adoption to land use planning and wild horse and burro habitat. In 1998, Mrs. Lappin was selected as a member of the BLM's National Wild Horse and Burro Advi-

sory Board. WHOA is involved in the annual National Wild Horse and Burro Show in Reno.

The **Nevada Commission for the Preservation of Wild Horses** is a unit of state government within the Department of Conservation and Natural Resources. Although it has a limited budget, it has contributed funds to the BLM for various wild horse projects. Along with WHOA, the Commission is involved in managing the National Wild Horse and Burro Show.

The 1997 Legislature tasked the Commission with development of a State Wild Horse Management Plan. The final plan calls for: supporting the establishment and maintenance of AML, assisting with an effective adoption program, promoting

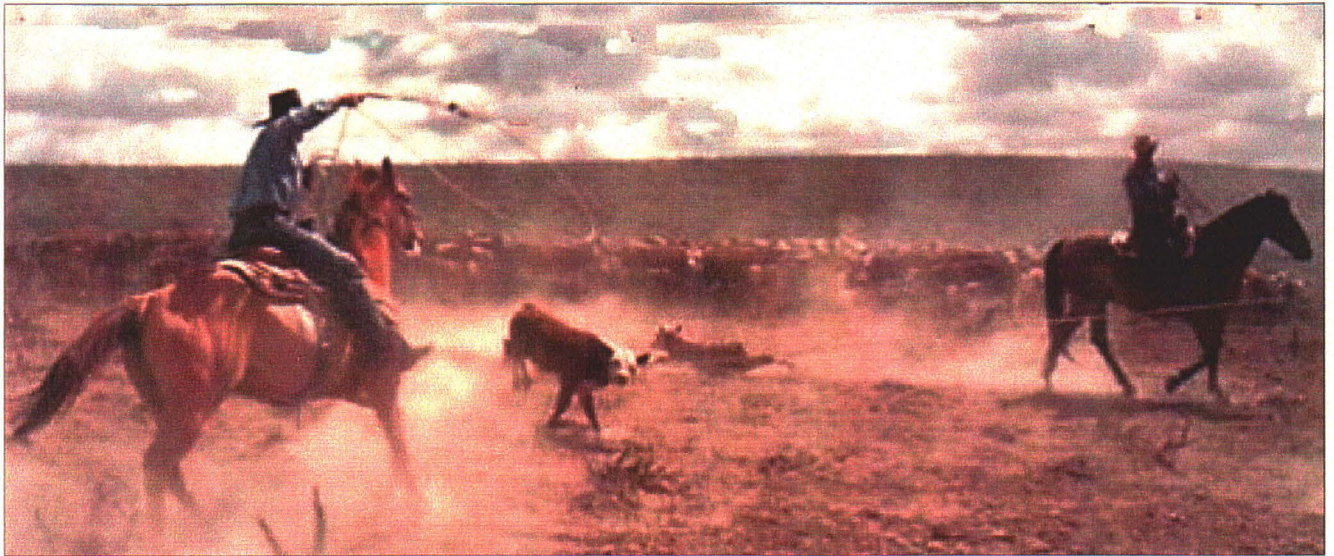
tourism and education and improving cooperation among Federal and State of Nevada agencies and interest groups. The Commission Plan is "advice and counsel to the Nevada Legislature as to how best to preserve and protect the wild horses, under a multiple use concept, in the best interests of the citizens of the State of Nevada."

Individual Volunteers: While many groups provide labor, materials or money to develop projects which will benefit wild horses or burros, others have agreed to maintain projects already installed. An example in the Elko Field Office is a Boy Scout, in pursuit of his Eagle badge, organized a group of Scouts to restore a defunct water project.



Sharon Kipping, right foreground, manager of the National Wild Horse and Burro Center at Palomino Valley, conducts a tour for the National Wild Horse and Burro Advisory Board.

(BLM photo)



Wranglers on horseback during a cattle roundup in Paradise Valley, Nevada.

(Photo from Library of Congress "Buckaroos in Paradise" collection)

Historical and Legal Perspectives

Pre-Act Management

Being the driest state in the Nation, with little surface water or rain, farmers did not settle land in Nevada as they did in the Midwest. Permanent settlement by emigrants did not occur until the discovery of precious metals in the mid-1800s.

The first horse sightings documented in Nevada occurred in the late 1820s and 1840s. Members of emigrant trains to California reported sighting horses along the Humboldt River, a main corridor for westward travel (Amaral, 1977). Many livestock were lost along the route west to California, including horses which were left to fend for themselves on the range.

From April 1860, until October 1861, the fabled Pony Express carried the U.S. mail through Nevada. In May 1860, the Paiute Indian war erupted. Several Pony Express stations were attacked and 17 employees were killed along a 300-mile portion of the route in the Great Basin (Wooley, 1993). Doubtless, numerous horses escaped as a result of these raids.

By 1864 open range livestock grazing was firmly established in northern and eastern Nevada. A strong demand for horses arose as mining camps

and towns were established. Many of the horses were the heavy boned animals such as Shires and Percherons, capable of pulling ore wagons from the mines to the mill. Later, many of these horses were turned out to mix with wild mares (Amaral, 1977).

Prior to the introduction of gasoline powered tractors and vehicles, Nevada ranchers and farmers managed Nevada wild horses by turning out stallions and mares with desirable physical traits and periodically gathering the offspring. Many free-roaming stallions with less desirable characteristics were shot. As late as 1920, light saddle horses were not in favor as ranch horses in Nevada.

In recent history, Nevada's periodic droughts resulted in the release of horses because ranchers could not feed them (Amaral, 1977).

Grazing on the public rangelands of Nevada was limited during World War II. The onset of the war caused a general abandonment of Nevada rangelands as men went off to war. Herds expanded greatly.

Following the war, an influx of men seeking employment and needing money, together with the establishment of the canned pet food industry, resulted in a return to intensive range horse management. These demands lead to inhumane trapping

techniques and cruelties. Eventually this triggered the campaign which led to passage of acts in 1959 and 1971 to protect wild horses and burros.

The Wild Horse and Burro Act

The Wild Free-Roaming Horse and Burro Act (Act) stands out in American politics as one of very few laws to receive unanimous approval by both the House and Senate. Even the induction of the United States into World War II was not passed unanimously. This fact serves to emphasize the emotional energy associated with wild horse and burro issues. With passage of the Act, the BLM and the U.S. Forest Service were charged with ensuring that “the living symbols of the historic and pioneer spirit of the West” were managed “in a manner designed to achieve and maintain a thriving natural ecological balance on the public lands.”

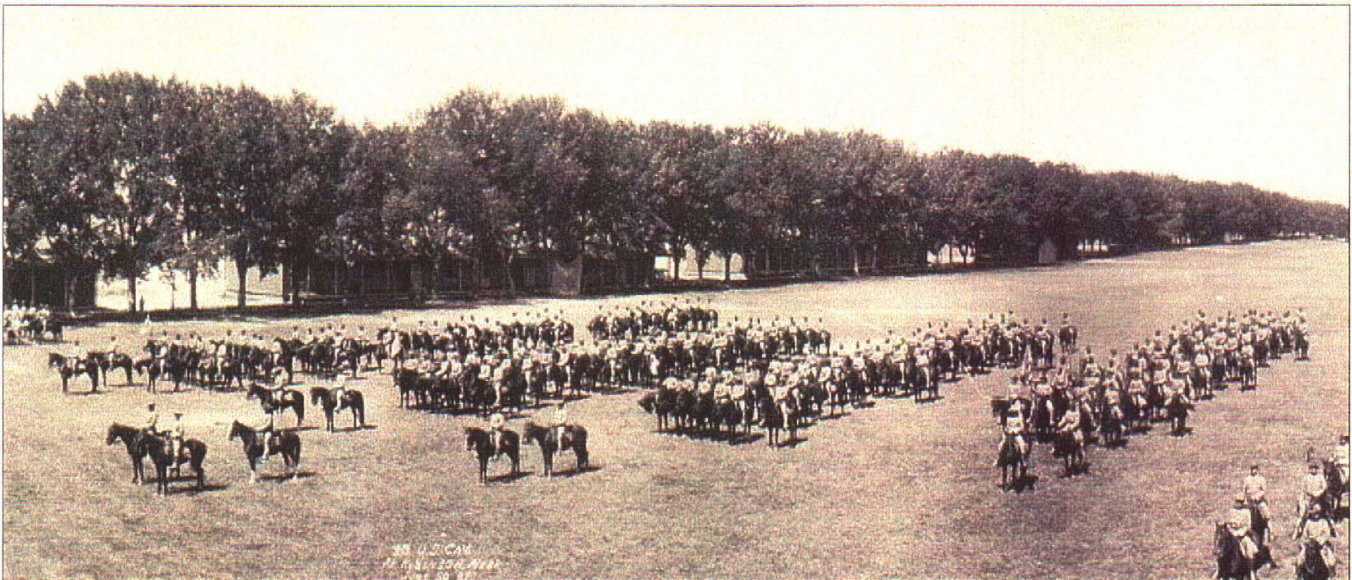
After passage of the Act, ranchers were allowed to claim horses roaming at large on the public lands, provided they could reasonably assert that the animals were private stock and not wild as defined by the Act. These claims had to be filed between August 15, 1973, and November 15, 1973. The claiming period covered years 1973 - 1976. Claims were filed on more than 29 percent of the animals

on lands administered by the Forest Service and the BLM.

Amendments to the Act

The Federal Land Policy and Management Act (FLPMA) of 1976 was the first law amending the Wild Horse and Burro Act. FLPMA requires that the agencies keep a current inventory of wild horse and burro populations, requires land use planning and public involvement, authorizes the collection of adoption fees, and authorizes the use of helicopters to capture excess wild horses and burros and the use of motorized vehicles to transport the animals. It also requires a public meeting to be conducted with respect to the use of helicopters and motorized vehicles in horse and burro operations.

The Public Rangelands Improvement Act (PRIA) of 1978 also amends the Act. It defines what constitutes excess animals, mandates research to be conducted by the National Academy of Sciences, and provides for passing title for adopted wild horses and burros. This amendment also provides that horses and burros lose their status as wild animals, under the Act, when one of the following occurs: title passes to the adopter, the animal dies of natural causes or euthanasia is authorized after adoption, the animal dies on the



U.S. Cavalry on parade at Ft. Robinson, Nebraska, in 1909. Following World War I the Cavalry Remount Service placed studs on many Nevada ranches. Within a few year, the cavalry horse bloodlines were seen in wild horses around those ranches.

(From a panoramic photo in the Library of Congress)

range or is euthanized before adoption. PRIA prohibits the sale of wild horses or burros or their remains for commercial purposes.

Court Cases

The program was founded in an effort to end the uncontrolled slaughter and abuse of the animals. Almost every major policy and management decision since inception of the program has been challenged in the courts. Many cases originated in Nevada.

Landmark court cases include the following:

In *Kleppe vs New Mexico*, the court affirmed the constitutionality of the Act, maintaining that wild horses and burros are not wildlife owned by the states; therefore, the BLM and Forest Service have the authority to manage the animals.

The *Dahl vs. Clark* case denied the argument that the BLM must manage wild horses at 1971 population levels. It determined that horses are to be



Pair at the National Wild Horse and Burro Center, Palomino Valley.

(BLM photo)

managed at a thriving natural ecological balance and that studies must be conducted to determine proper numbers.

A 1990 *Animal Protection Institute of America* case was decided by the Interior Board of Land Appeals. Removals must be predicated on monitoring data that establishes the need for a reduction in the population, based on a determination of the optimum number of wild horses which would maintain the range in a thriving natural ecological balance and avoid range deterioration. A range need not be deteriorated prior to a removal, if based on monitoring data. The Board affirmed removals based on numbers designed to maintain horses below AML; this allows intervals between removals.

In *Fallini and the State of Nevada, Intervenor vs. Hodel et al.*, it was reaffirmed that wild horses must be limited to areas occupied on Dec. 15, 1971. It expressly denied the relocation of wild horses or burros to areas of the public land where they did not exist in 1971. The case reaffirmed that numbers shall be maintained at a level which will sustain a thriving natural ecological balance under the multiple use concept.

No fewer than 20 Supreme Court and District Court decisions helped shape the wild horse and burro program. These decisions assist the BLM in defining its role and responsibility in managing the wild horse and burro resource.

Advisory Groups

Throughout the history of the wild horse and burro program, the public has maintained a presence and provided crucial input into the development of national policy. Some of the most notable public input was received through three wild horse and burro advisory groups, convened in 1972, 1986, and 1992. (Two members of the first advisory board were Nevada residents.) A new national advisory board for wild horses and burros was chartered in 1998 and has already affected national policy. One Nevadan sits on that board.

The public was involved in two other wild horse and burro program evaluations in 1997. At the conclusion of each of these processes, important changes in wild horse and burro program policies

and procedures were made implementing nearly all of the panels' recommendations.

Other "Firsts"

The first Congressionally approved gather of wild horses was conducted in the Stone Cabin Herd Area in southern Nevada. The gather operation was on lands administered by the BLM and Forest Service.

The first projects to study the effectiveness of fertility control on wild horses were conducted in

Nevada in the 1980s. Although the initial fertility control project became enmeshed in controversy, it set in motion the possibility of reducing the reproductive rates of wild horses with cost effective fertility control drugs that are safe and acceptable to the public. Current fertility control studies (immunocontraception) have gained momentum and are being researched solely in Nevada with the assistance of wild horse and burro specialists in the field offices.



Horses awaiting adoption at Fallon, Nevada.

(BLM photo)

Appendix 1

Proposal for a National Wild Horse and Burro Center Near Reno Nevada

Among the challenges the wild horse and burro program currently faces are: aging holding facilities, difficulties in managing the flow of animals removed from the range and offered for adoption, and public opinion that is often based on an incomplete understanding of the animals and their habitat. To assist in improving this situation, BLM Nevada is proposing the development of a new National Wild Horse and Burro Center.

The purpose of the Center is to:

- Provide opportunities for our constituents to see wild horses and burros; and to learn about them, their habitat, and the Bureau's efforts to manage both;
- Expand our marketing efforts and increase the number of adoptions taking place in Nevada and nationwide;
- Reduce population pressure on sensitive rangelands by providing an area where large numbers of horses can be held pending their adoption;
- Enhance public understanding of wild herd dynamics and animal fertility, and advance the science in these areas to ensure both healthy herds and rangelands; and
- Demonstrate and promote understanding of how state-of-the-art techniques can be used to create environmentally friendly wild horse and burro adoption, preparation and feeding facilities.

Equally as important, the Center is an opportunity to bring together local residents, communities and organizations with differing viewpoints to create positive relationships, and to improve our management of wild herds and the adoption program. As proposed here, the Center would be

developed as a cooperative effort among the Bureau, the State of Nevada, the University of Nevada, the Nevada Tourism Division, the Reno Sparks Convention & Visitors Authority, corporate sponsors, livestock producers and wild horse enthusiasts. It would be an important component of a statewide effort to encourage visitors to learn more about wild horses and to promote visits to outlying areas to see actual Herd Management Areas.

The Center would include:

- A state-of-the-art preparation and holding facility for as many as 3,500 horses which would also provide facilities for sterilization and training of older horses;
- An adoption facility which would provide for satellite, Internet, or on-the-spot,* daily adoptions, and which would act as a hub for marketing adoptions nationwide; and
- A visitor/interpretive center with exhibits, an auditorium/classroom, a viewing platform, and a self-guided tour around the facility's perimeter.

We propose funding the Center using a combination of federal and state monies, and donations from corporate sponsors and the general public. Descriptions of the elements of the Center and the preliminary cost estimates are outlined here. If this pre-proposal meets with Bureau approval, we would like to prepare preliminary architectural and interpretive plans to share with potential partners and corporate sponsors as we discuss development of the project. Estimated costs for this step follow, as well as a timetable for completing the proposal. The timetable is designed to coincide with the ongoing Nevada State legislative session.

* Subject to preapproval

Location

The facility location criteria considers the needs of the animals we will be housing, the publics we will be serving and our goals of increasing adoptions and awareness of the program.

A site near Reno, Nevada, is indicated because:

- Nevada is home to about 54 percent of the wild horses and burros managed by the BLM;
- The area's climate is relatively mild with little winter snowfall in the lower elevations; and
- Interstate highways provide access from all directions.

Approximately 5.2 million tourists visit Reno annually. Seventy percent drive in. The rest take advantage of the fact that Reno's airport offers some of the lowest airfares in the country. In addition to visits to casinos, and participation in conventions and conferences, tourists are drawn by a variety of western theme attractions including the Pony Express and Emigrant Trails, the Reno Buck and Ball, the National Senior Finals Rodeo, and the Snaffle Bit Futurity.

The wild horse and burro program began in Nevada with Reno's Velma (Wild Horse Annie) Johnston. Interest in the program remains high here and includes the state's Wild Horse Commission and national interest groups including Wild Horse Organized Assistance (WHOA), the National Wild Horse Association, the National Mustang Association, and Wild Horse Spirit.

A variety of sites are available that provide both easy access and rural surroundings. An area near the Patrick exit, 12 miles east of Reno along the north side of Interstate 80, is a good example of a potentially suitable site. Approximately 600 to 800 acres are available in the southern foothills of the Pah Rah Mountains, an area of checkerboard public and private land.

The site overlooks the Truckee River to the south of the highway. Interstate 80 is a major artery for visitors traveling to or from California, and would provide excellent visibility for the proposed center. While this site is close to Reno and provides easy access, little residential development is expected

here in the future due to the high percentage of public land. Initial soil surveys indicate that the site would meet the criteria.

Facilities

Managing wild horse and burro numbers is an enormous challenge. Given current wild horse populations, the Bureau would need to identify suitable homes to place 50 horses per day for an entire year just to bring herds to the appropriate

Facility Location Criteria

Considerations Affecting Animals

The facility should be as close as possible to a large concentration of wild horses/burros.

It should be close to similar facilities which could act as overflow holding areas.

Areas with extreme weather conditions or temperature extremes should be avoided.

Soils should be well-drained and not prone to muddy conditions.

Veterinary facilities should be in close proximity.

Adequate supplies of clean, potable water should be available.

Large supplies of good quality alfalfa and grass hay should be nearby.

Facility Maintenance Considerations

The facility should not be in a flood plain or an area of alkaline soils.

The area surrounding the facility should be rural and expected to remain so.

The site should be close to a major population center with a large, drive-in based tourist economy as well as a moderately sized airport.

Access to the site should be easy for both large tractor trailer rigs and visitors and include access to a major interstate highway.

Management Levels (AMLs). The longer we delay removing animals from the range, the more our need to increase daily adoption numbers. Given an annual recruitment rate of 18 to 24 percent, the number of adoptions per day could double in four years should we fail to reach AML, or level off at a more manageable 13 per day once we achieve AML.

Palomino Valley Facility Issues Preventing Expansion or Long Term Use

At 150 acres with 90 of that already in pens and corrals, the site is too small to house any additional horses and provide for improved adoption facilities and visitor services.

Past discussions with homeowners indicate that they are unwilling to see the center enlarged.

The water supply in the area is not suitable for humans, although it meets minimum standards for livestock water.

The facility is located in a drainage area which gives rise to concerns about the long-term ability to protect water quality.

It is in an area in which residential development is continuing, making PVC an increasingly incompatible use.

The purpose of this proposed National Wild Horse and Burro Center is to assist in solving this problem by providing a facility to, first, hold large numbers of horses removed from the range, and second, increase their rate of adoption through on-site adoptions or increased interest in satellite adoptions. Holding pens, corrals and chutes are important for our horse "customers" but equally important is a facility for potential adopters, or individuals with an interest in wild horses and their habitat. The proposed Visitor/Interpretive Center is

a tool to assist the Bureau in marketing wild horses and burros by sharing information with on-site adopters as well as tourists who may not be ready to adopt, but who may know someone who is.

Preparation, Holding and Training

Total Estimated Cost: \$3,860,000

This facility is designed to replace and improve upon BLM's National Wild Horse and Burro Center at Palomino Valley (PVC). PVC is currently the state's primary holding and preparation facility for wild horses and burros, maintaining an average of 1,300 to 1,400 horses.

All animals are kept for a minimum of 30 days while they receive the inoculations necessary to transport them elsewhere in the country for adoption. Many have been on-site for as long as a year awaiting transportation to adoptions. While housing the animals can be costly, this expense is offset by the benefit of reduced pressure on the rangelands and decreased wild herd population growth.

Though PVC receives some visitors, the facility does not have adequate restroom or interpretive facilities to serve a larger population. About 200 on-site adoptions are done every year; however, limited staff and a complicated corral and pen set-up prevent adopters from easily selecting an animal or from taking it home the day it is chosen.

The proposed National Wild Horse and Burro Center preparation, holding and training facilities would include:

Holding pens for up to 3,500 horses

Estimated Cost: \$ 2,000,000

This facility would increase BLM Nevada's ability to improve rangelands and decrease continued population growth of wild herds. Animals would be separated by sex, and mares with foals would have separate facilities. PVC's current fencing design makes it difficult to separate individual animals from herds, or to move animals from location to location. The new facility would be designed to solve these problems.

Access to the pens would be designed for ease of loading and off-loading animals from large transport vehicles. Off-loading facilities would ensure mini-

mum stress to animals. Preparation and handling chutes and pens would take advantage of state-of-the-art design. The working portion of the pens would be covered and could be closed off in cold weather for the benefit of the horses and those working with them. Security measures for this portion of the facility would include perimeter fencing to prevent visitors from approaching holding pens, security cameras, and on-site staff, possibly including a resident manager.

EPA Water Quality Compliance

Estimated Cost: \$ 750,000

A critical issue when maintaining this many animals is compliance with the Environmental Protection Agency's (EPA's) clean water regulations regarding livestock feeding operations of 1,000 or more animals. To meet these standards our facility would be designed to be "Zero Infiltration" to prevent animal waste from seeping into ground water, and would include plans for waste removal and use. We plan to work with local organizations to use waste product as fertilizer and compost components. Our goal is to exceed existing regulation requirements in order to advance knowledge on how to create environmentally friendly equine facilities.

Veterinary Assistance

Estimated Cost: \$ 300,000

In addition to providing animals with necessary inoculations, tests, and hoof trimmings prior to shipping out for adoption, the new facility would provide for gelding of older stallions. This is a new requirement of the wild horse and burro program. This portion of the facility would be shared with wild horse researchers. Estimates for this facility are based on 1,500 square feet at \$200 per square foot for a completed facility.

Research Capabilities

Estimated Cost: \$ 300,000

Key to successful management of wild herd populations are fertility control solutions, and a better under-

standing of genetics and herd dynamics. The first reduces the over-allocation of rangeland resources and improves our ability to manage wild herds. The second ensures that when animals are removed, we take into account the herd gene pool so that we maintain healthy herds and also have marketable, adoptable animals. As part of our holding facility, we plan to coordinate with the University of Nevada, Reno, and other educational research institutions. To assist researchers we would include nominal office space and additional handling chutes or pens, if necessary. Estimates for this facility are based on 1,500 square feet at \$200 per square foot for a completed facility.

Training

Estimated Cost: (Included Above)

Training wild horses is another effort to increase adoptability of some animals. The State of Nevada currently has a fledgling prison training program for estrays. Great Basin College in Elko, Nevada has also expressed an interest in being a partner in training. Facilities designed into the proposed center would enhance our ability to work with such partners.



Horses at the National Wild Horse and Burro Center, Palomino Valley.

(BLM photo)

Maintenance Facilities

Estimated Cost: \$960,000

This includes a 3,000 square foot building to store and maintain vehicles, motorized equipment and items necessary for the day-to-day operation of the facility, and four 5,000 square foot pole barns for feed storage at \$30 per square foot.

Adoption

Total Estimated Cost: (Included above)

The goal of our adoption facility is to increase the number and ease of adoptions both on-site and nationwide.

On-Site Adoptions: Ideally, a visitor should be able to arrive on-site any day of the week, be shown animals available for adoption, make a selection and leave with the animal of choice all on

the same day, assuming that preapproval has been obtained or can be accomplished on site. To do this, we need separate pens for holding adoptable animals, and corrals and chutes that will allow us to separate and load the selected animal rapidly and with minimal stress. We also need an on-site brand inspector. This could be accomplished through a cooperative agreement with the State of Nevada, providing training for a BLM staffer who would be responsible for inspections and fee collections. Adoption administrative offices would be housed in the Visitor/Interpretive Center.

Off-Site Adoptions: Increasing the current pace of adoptions requires that we understand our market and that we have delivery mechanisms in place to serve that market. Our off-site capabilities would include adoptions via satellite and Internet.



Viewing wild horses offered for adoption at Fallon, Nevada.

(BLM photo)



Access to sources of alfalfa and grass hay is important to a wild horse preparation facility.

(BLM photo)

Visitor/Interpretive Center

Total Estimated Cost: \$5,600,000

The Visitor/Interpretive Center is key to our ability to improve understanding of and participation in the wild horse and burro program.

Building and Parking Facilities

Estimated Cost: \$4,575,000

Based on price per square foot estimates provided by the National Park Service, the building itself would cost approximately \$250 per square foot for a 10,000 square foot building. Based on the Service's experience, this would provide adequate space for administrative offices, a small interpretive association gift shop, an interpretive display/museum area, and a 100 person auditorium where videos could be shown or classes could be held. A viewing platform will allow visitors to see the pens and watch training and handling of the animals. The estimate includes a 250 space parking lot at \$1700 per unit, a main access road, landscaping, utilities, and a road around the facility to allow visitors to tour the operation.

Interpretive Planning and Implementation

Estimated Cost: \$1,025,000

The Visitor Center would include 3,000 square feet of permanent exhibits. Standard cost estimates for this type of space is \$225 per square foot. Before going to our prospective partners with this proposal, we would complete an interpretive plan outlining themes, goals and objectives. This would

enable us to refine our cost estimates, and ensure that our partners are comfortable with our overall messages before going forward.

This portion of the estimate also includes production of an audio/visual program to be shown in the auditorium, wayside exhibits along the road around the facility to explain what visitors are seeing, and development of curriculum, materials and interpretive walks for students and the general public visiting and touring the facility

Land Purchase

Estimated Cost: \$1,200,000

Estimated cost for a 600 to 800 acre private parcel located in the Truckee River corridor east of Reno is between \$900,000 and \$1,200,000 at \$1,500 per acre. Land ownership in the area of the proposed site is in a "checkerboard" pattern of public and private lands originally given to the railroad. Acquisition of the private land through an exchange agreement with the current owners is a possibility.

Total Estimated Cost

\$12,596,000

This total includes architectural and engineering design costs which are a percentage of the total construction cost of the project. A portion of the work can be done by the National Applied Research and Science Center architectural group;

however, given the scope of the project, outside design firms may be involved. The total cost of the project can also be reduced during the pre-design phase as part of the project financing and budget development when designers provide cost/benefit analyses.

Staffing

We anticipate that paid staff members could be a combination of Bureau employees and State of Nevada employees, depending on funding considerations and partnership agreements. Staff should include:

- Center director
- Holding and preparation facility manager, wranglers, animal care takers, maintenance and office staff
- Adoption manager and marketing staff
- Environmental education/Interpretation manager
- Museum staff

We hope to make volunteers a key element in our success, following the models provided by the Red Rock Canyon National Conservation Area, Nevada, and the National Historic Oregon Trail Interpretive Center. At these sites, volunteers assist with the daily operation of the visitor facilities by answering phones and conducting tours. At the National Wild Horse and Burro Center, volunteers could also assist with adoptions. With so many interest groups located in the Reno area, it should be easy to locate volunteers, especially with the Center's close proximity to town.

Funding

- We propose to fund this project through support from the BLM, the State of Nevada, wild horse organizations, livestock associations, chambers of commerce and visitor bureaus, corporate sponsorships and private donations.
- Bureau support would be in the form of funding for full proposal development (architectural and interpretive concepts) and staff to

facilitate partnership development. Estimates for this phase of the project follow. Ongoing development would continue using a team of BLM staff and volunteers.

Funding may also be available through a variety of federal and corporate sources.

Support will also be solicited from the State of Nevada. The State might consider using some of the revenues generated by the Heil Fund, a trust fund established to improve management of wild horses. The State Division of Agriculture is a likely partner, based on its interest in solving the stray issue. As mentioned previously the State Prison and the Great Basin College are interested in partnering on training. We will also be in contact with the University of Nevada, Reno, regarding educational research opportunities.

The remainder of the necessary funding would be solicited from a variety of sources. The local visitor and convention bureaus have already expressed an interest in partnering on visitor/interpretive facilities to promote increased visitation in the area. Local hotels and resorts are also concerned about the potential loss of visitors to gambling nearby in California, and may be interested in supporting new attractions in the area. Both wild horse organizations and livestock associations will be approached to become supporters of and partners in the development of this facility.

Project Development Steps

Full Proposal Development

Funding Source: Our FY 99 funding requests included monies allocated toward these initial phases of proposal development. The purpose of this step is to produce a more specific proposal before approaching potential partners and sponsors.

■ Architectural Concept

Estimated Cost: \$ (Covered by NARSC)

Target Date: 6/1/99

Working with the Architectural Design group at NARSC, we will develop a series of conceptual drawings which can be used as we discuss development and funding needs for this facility with our partners.

■ Interpretive Plan Concept

Estimated Cost: \$ 8,000

Target Date: 6/1/99

The purpose of this stage of our interpretive plan is to identify our themes, goals and objectives and to put together sketches. These materials will be a critical part of discussing this project with our partners and ensuring their comfort with our messages.

■ Communications Plan

Estimated Cost: \$ 2,000

Target Date: 6/1/99

This is a document which will guide us as we work with our partners. It will help us identify partners and schedule meetings and will include flyers and briefing papers to enhance our communications.

■ Foundation Development

We anticipate that as the public becomes aware of this proposal, the general public will want to participate in its funding. This can only be done through a foundation set up to accept private donations and ensure that they are used for the construction and maintenance of the facility.

Site Location and Acquisition

Process

Estimated Cost: \$250,000

This step begins once we have established funding for the project. The estimated cost includes National Environmental Policy Act compliance for acquisition and center development.

Complete Architectural/Interpretive Design

Funding Source: State and local partnerships.

This step would not begin until funding for the project is established.

■ Architectural Pre-Design and Site Analysis

Estimated Cost: \$495,500

Typically pre-design services, site selection, and conceptual design runs five percent of the cost of the project. This portion of the process includes

exploration and development of some initial alternative design concepts, analysis of the site(s), cost studies of materials, utilities (electric vs. gas vs. propane as energy sources), project financing, budgeting and phasing, environmental studies and reports, studies of functional relationships (between parking lots and buildings, roads and corrals) and materials for presentations. This estimate is high. It assumes that the architect will be responsible for and will complete each of these tasks.

■ Architectural Design

Estimated Cost: \$991,000

This is the process of taking the preferred concept and fleshing it out. It includes elevation drawings, landscaping, mechanical, electrical, and interior design and a statement of probable construction costs. Once approval is given, the architect creates actual blueprints for the construction of the facility. Fees for this part of the process can be as low as 10 percent if good planning has been done with little or no changes to the project program. Costs for supplemental services (models, renderings, compliance, value engineering, special studies, etc.) can vary widely depending on the services desired, but NARSC suggested including an additional two percent.

Again, this estimate is based on assumptions of responsibility and number of tasks and could be less depending on the circumstances. This entire process could take two years or more to complete. The schedule hinges on the client's ability to stay on schedule.

Construction

- **Funding Source:** Bureau of Land Management, State and Local Partners

Construction cost estimates as shown earlier in this document are based on NARSC standards. This amount could change depending on inflation, selection of materials, and the site.

Operations

- **Animal Facilities**

Funding Source: Bureau of Land Management. The budget for the Palomino Valley Center is approximately \$2.70 per animal per day. Once

construction is completed on the National Wild Horse and Burro Center, Palomino Valley would be closed and its budget would be transferred to the new Center.

■ **Visitor/Interpretive Center**

Funding Source: Entrance fees, interpretive association sales, Bureau of Land Management, State and local partners and volunteers

We anticipate an annual budget of \$1 million to staff and maintain the Interpretive Center. This

cost could be covered by the agencies providing staff (both BLM and State of Nevada) and through collection of entrance fees and interpretive association sales. Entrance fees and gift shop proceeds provide the National Historic Oregon Trail Interpretive Center with roughly \$400,000 per year in operating dollars in a relatively remote area. Given the number of visitors Reno attracts annually, if only four percent were to visit the proposed Center, it could gross \$624,000 from entrance fees alone. Adopters would be exempt from entrance fees.