

STATUS REPORT

Bureau of Land Management

Tactical Plan for Managing Wild Free-Roaming Horses and Burros in Nevada

December 2001

| GOAL: GBRI – ACHIEVE HEALTHY RANGELANDS | | | | | | | | |
|---|---|---|--|--|--|---|---|---------------------------------------|
| Program Specific Goal: Reach Appropriate Management Levels (AMLs) by 2005. | | | | | | | | |
| Nevada Tactical Plan Objectives | Action Items | Accomplishments to Date | | | Projected Accomplishment | | | |
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| <input type="checkbox"/> Set AMLs by 2003. | <ul style="list-style-type: none"> • Set AMLs through Multiple Use Decisions. | 54/103 | 65/103 | 67/103 | 87/103 (+20) | 98/103 (+11) | 101/103 (+3) | Note: 2 HMAs jointly managed w/ USFS. |
| <input type="checkbox"/> Reach AMLs by 2005. | <ul style="list-style-type: none"> • Number HMAs @ AML • Remove sufficient numbers (6500 head minimum/yr). • Population #'s • Consider cooperative bait and water trapping. | No info. 4,581 hd Ongoing | No info. 4,131 hd 25,000 -----> | 45/103 6,300 hd 21,500 -----> | 60/103 (+15) 7,700 hd 19,600 (projected) -----> | 83/103 (+23) 7,300 hd -----> | 109/103 (+26) 5,800 hd 14,500 (estimated) -----> | |
| <input type="checkbox"/> Slow reproduction rates for mares. | <ul style="list-style-type: none"> • Administer immuno-contraceptives to mares. • Obtain authorization for use of PZP. | <ul style="list-style-type: none"> * Ongoing on an optional basis. * Multi-year drug needs to be developed to be most effective over long-term. | | | | | | |

| | | | | | |
|---|--|--|--------|--------|--|
| <input type="checkbox"/> Provide for health and welfare of adopted horses. | <ul style="list-style-type: none"> • Complete compliance checks. • Commit to long-term care of unadoptable horses. • Develop short-term holding facilities. • Develop forage banks. | <ul style="list-style-type: none"> * Meet or exceed mandatory number (100+/year). * Nevada is utilizing national long-term holding facilities in mid-west as needed. * Nevada has contracted with Gary Snow in Fallon for additional short-term holding capacity and is working with NDOC to develop a holding facility. * Initial stages underway for Spring Valley acquisition which could be used as a forage bank. | | | |
| <input type="checkbox"/> Provide for health and welfare of animals left on the range. | <ul style="list-style-type: none"> • Achieve AML. • Census 40 HMAs/yr. • Develop population management plans. | <ul style="list-style-type: none"> * Anticipate achieving AML in 2004. * Meet or exceed annual target. * Population data being collected during gathers and census; this information will be utilized to develop population management plans once AML is reached. | | | |
| <input type="checkbox"/> Expand the adoption program. | <p>Increase adoptions in Nevada from less than 100 yearly.</p> <ul style="list-style-type: none"> • Form adoption teams. • Reinstate trap site adoptions. • Utilize satellite adoptions (2/yr). • Partner with DOC to develop a wild horse training program. • Implement reduced adoption fees. | 146 hd | 139 hd | 145 hd | <ul style="list-style-type: none"> * Adoption teams utilized as needed. * Trap site adoptions ongoing. * Working with NDOC to develop a holding facility initially, with opportunity to move into a training program once holding facility is operational. * Reduced adoption fees optional as needed. <p><i>Note: Nevada prepared 1303 head for adoption in FY2001.</i></p> |
| <input type="checkbox"/> Increase awareness of the WH&B Program. | <ul style="list-style-type: none"> • Increase public's access for viewing. • Public education. | <ul style="list-style-type: none"> * Brochure published in FY2000. Will be updated/re-published in 2003. * Ongoing. | | | |
| <input type="checkbox"/> Develop a National WH&B Center in Nevada. | <p>Construct and operate a visitor center and an adoption/holding facility in Nevada.</p> | <ul style="list-style-type: none"> * FY2002 – feasibility analysis/site selection. * FY2003 – planning and design. * FY2004 – finalizing design/contracting the construction. * FY2005 – begin facility construction. | | | |

STATUS REPORT

Bureau of Land Management

Tactical Plan for Managing Wild Free-Roaming Horses and Burros in Nevada

December 2001

| GOAL: GBRI – ACHIEVE HEALTHY RANGELANDS | | | | | | | | |
|--|---|---|--|--|--|---|---|---------------------------------------|
| Program Specific Goal: Reach Appropriate Management Levels (AMLs) by 2005. | | | | | | | | |
| Nevada Tactical Plan Objectives | Action Items | Accomplishments to Date | | | Projected Accomplishment | | | |
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| <input type="checkbox"/> Set AMLs by 2003. | <ul style="list-style-type: none"> Set AMLs through Multiple Use Decisions. | 54/103 | 65/103 | 67/103 | 87/103 (+20) | 98/103 (+11) | 101/103 (+3) | Note: 2 HMAs jointly managed w/ USFS. |
| <input type="checkbox"/> Reach AMLs by 2005. | <ul style="list-style-type: none"> Number HMAs @ AML Remove sufficient numbers (6500 head minimum/yr). Population #'s Consider cooperative bait and water trapping. | No info. 4,581 hd Ongoing | No info. 4,131 hd 25,000 -----> | 45/103 6,300 hd 21,500 -----> | 60/103 (+15) 7,700 hd 19,600 (projected) -----> | 83/103 (+23) 7,300 hd -----> | 109/103 (+26) 5,800 hd 14,500 (estimated) -----> | |
| <input type="checkbox"/> Slow reproduction rates for mares. | <ul style="list-style-type: none"> Administer immuno-contraceptives to mares. Obtain authorization for use of PZP. | <ul style="list-style-type: none"> * Ongoing on an optional basis. * Multi-year drug needs to be developed to be most effective over long-term. | | | | | | |

| | | | | | |
|---|--|---|--------|--------|--|
| <input type="checkbox"/> Provide for health and welfare of adopted horses. | <ul style="list-style-type: none"> • Complete compliance checks. • Commit to long-term care of unadoptable horses. • Develop short-term holding facilities. • Develop forage banks. | <ul style="list-style-type: none"> * Meet or exceed mandatory number (100+/-year). * Nevada is utilizing national long-term holding facilities in mid-west as needed. * Nevada has contracted with Gary Snow in Fallon for additional short-term holding capacity and is working with NDOC to develop a holding facility. * Initial stages underway for Spring Valley acquisition which could be used as a forage bank. | | | |
| <input type="checkbox"/> Provide for health and welfare of animals left on the range. | <ul style="list-style-type: none"> • Achieve AML. • Census 40 HMAs/yr. • Develop population management plans. | <ul style="list-style-type: none"> * Anticipate achieving AML in 2004. * Meet or exceed annual target. * Population data being collected during gathers and census; this information will be utilized to develop population management plans once AML is reached. | | | |
| <input type="checkbox"/> Expand the adoption program. | <p>Increase adoptions in Nevada from less than 100 yearly.</p> <ul style="list-style-type: none"> • Form adoption teams. • Reinstate trap site adoptions. • Utilize satellite adoptions (2/yr). • Partner with DOC to develop a wild horse training program. • Implement reduced adoption fees. | 146 hd | 139 hd | 145 hd | <ul style="list-style-type: none"> * Adoption teams utilized as needed. * Trap site adoptions ongoing. * Working with NDOC to develop a holding facility initially, with opportunity to move into a training program once holding facility is operational. * Reduced adoption fees optional as needed. <p><i>Note: Nevada prepared 1303 head for adoption in FY2001.</i></p> |
| <input type="checkbox"/> Increase awareness of the WH&B Program. | <ul style="list-style-type: none"> • Increase public's access for viewing. • Public education. | <ul style="list-style-type: none"> * Brochure published in FY2000. Will be updated/re-published in 2003. * Ongoing. | | | |
| <input type="checkbox"/> Develop a National WH&B Center in Nevada. | <p>Construct and operate a visitor center and an adoption/holding facility in Nevada.</p> | <ul style="list-style-type: none"> * FY2002 – feasibility analysis/site selection. * FY2003 – planning and design. * FY2004 – finalizing design/contracting the construction. * FY2005 – begin facility construction. | | | |



01



Wild Free-Roaming Horses and Burros

Ensuring the Legend Lives Free

**Revised Tactical Plan
Bureau of Land Management, Nevada**

2001



Bob Goodman

Horses in Lahontan Herd Management Area near Carson City.

Development of this Tactical Plan has been a collaborative effort among BLM Nevada managers and specialists from throughout the state. The Office of Communications, Nevada State Office, edited and produced the document.

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 while maintaining a thriving natural ecological balance among 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. This document addresses plans for carrying out Nevada's responsibilities for the National Wild Horse and Burro strategy to reach AML by 2005. A history of the wild horse and burro program and background information on Nevada's work to manage the program are included.

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.

Summary

Herd management areas (HMAs) were established in Nevada 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 in these HMAs.

This tactical plan identifies several objectives of the BLM Nevada and the actions required to achieve healthy rangelands to fulfill the Nation's responsibility to wild horses and burros. The following objectives and actions must occur to successfully meet the challenge.

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

- Complete interdisciplinary evaluations and multiple use decisions.

- Fully utilize current and future technology.

II. Reach AMLs by the year 2005. With a high rate of recruitment and the present population of 25,000, 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 numbers to reach and maintain AML.
- Consider the use of cooperative water and bait trapping.

III. Slow reproduction rates for mares by the use of contraception. 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. Expand the adoption program to maximize the number adopted. Traditional methods of adoption still have merit, but BLM needs to test new methods of



Bob Goodman

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

finding suitable homes. We will:

- Form a Nevada adoption team to conduct zone adoptions.
- Carefully select adoption sites within Nevada.
- Reinstate adoptions at the trap site.
- Promote appointments at the National Wild Horse and Burro Center at Palomino Valley.
- Increase the number of adoption events each year utilizing satellite downlink technology and video.
- Explore home delivery to adopters.
- Consider a partnership with the State of Nevada Department of Corrections to develop a wild horse training program.
- Explore a Nevada, Western states or national mobile adoption program.
- Implement reduced adoption fees.

V. Provide for the health and welfare of horses adopted or removed from the range. To do this, we will:

- Complete compliance checks.

- Commit to long-term care of horses removed from the range and not adopted.
- Commit to short-term holding of fire and drought horses.
- Commit to developing the Spring Valley short-term holding and adoption facility.
- Commit to developing Nevada forage banks for wild horses and burros.
- Track progress of the Wyoming Wild Horse project as a possible model for BLM Nevada's use.

VI. Provide for the health and welfare of horses left on the range. The primary focus in the past has been to reduce the populations to the AML and maintain at those levels for the health of the rangeland resources and the herds. To achieve those goals, the emphasis was placed on the type of animals removed to assure the large numbers removed were adoptable. Once AML is achieved, BLM's focus will change to managing for the desired characteristics of herds within each HMA, age structures, sex ratios, and the health of those herds. To do this we will develop population management plans for each HMA, or complexes of HMAs, to identify the management objectives and actions planned to meet the objectives.

VII. Increase awareness of the wild horse and burro program, both on the range and in adopters' homes. 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.
- Seek the release of an updated wild horse and burro videotape/CD.

VIII. Develop a National Wild Horse and Burro Center in Nevada. 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. To do this, we must construct and operate a visitor center and an adoption holding-facility in Nevada.

BLM Nevada was not funded at a level sufficient to implement this tactical plan starting in fiscal year 1999 (FY 1999). Delays in implementing this plan result in larger numbers of animals needing to be removed each year to reach AML by FY 2005, heightened impacts from drought or wildfires, and increased costs.

Steps BLM Nevada must continue to take to be successful include:

- Being proactive in securing additional funds to gather and hold additional animals until they can be integrated into the adoption program or placed in a long-term holding facility.

- Working with the national program office to increase the preparation and holding capabilities within the state.
- Working with neighboring states to increase adoption capabilities.
- Making experienced Nevada staff available on a national level to ensure the success of the national strategy.

Summary of Accomplishments since May 1999

Following are some of the accomplishments made since the Tactical Plan of 1999 was completed.

AMLs Established - AMLs have been established for 11 additional HMAs bringing the total to 65. By the end of FY 2001, it is anticipated AMLs will be established on an additional 15 HMAs bringing the total to 80.

Horses Removed - In 1999, a total of 4,581 horses and burros were removed from Nevada HMAs and 4,131 were removed in 2000. The numbers were slightly below the recruitment rate for the year and the population at the end of the fiscal year was approximately 25,500. With the increased funding under the BLM national strategy developed in 2000, Nevada expects to remove about 6,400 animals in FY 2001 and about 7,500 in fy 2002.

Horses Adopted - Nevada has a limited adoption demand, primarily because of the small population, with less than 100 animals per year adopted in the state. To increase Nevada's contribution to the adoption program, several pilot efforts have been implemented. First, televised adoptions were pioneered in 1999. Animals are offered for adoption through a process similar to televised livestock auctions. A total of 86 animals was adopted through the first event bringing the total adopted in Nevada in 1999 to 146. The second adoption event was in 2000, with the 87 animals adopted bringing the total adopted through Nevada's effort for the year to 139.

Trap site adoptions were also reinstated in 2001 to increase the number of animals adopted in Nevada. Instructions on conducting trap site adoptions were issued in June 2001, and the first event was held in July 2001 in conjunction with the Roberts Mountain gather. Thirty-six horses were adopted.



Horses awaiting adoption at Fallon, Nevada.

GOAL: Achieve Rangeland Health

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.

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.

The Great Basin Restoration Initiative is a broad-based, long-term effort to restore ecosystem health throughout the landscapes of the Great Basin. Wild horse and burro populations within HMAs are an integral part of these landscapes. Managing all of Nevada's HMAs at the AML is critical to the restoration and maintenance of rangeland health.

BLM interdisciplinary teams analyze monitoring data on an allotment or a "watershed" 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.

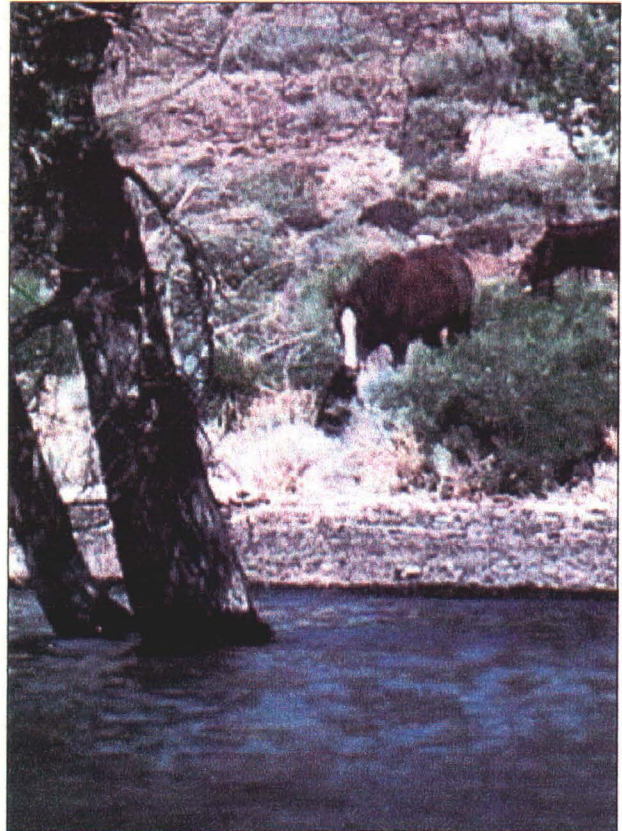
Public involvement is an integral part of the evaluation process. Consultation, cooperation and coordination means interaction with various groups and individuals for the purpose of obtaining advice or exchanging opinions on issues, plans, or management actions. The public is asked to provide information to help BLM develop the best possible decisions. 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, and
- the objectives of the Great Basin Restoration Initiative will not be realized.



Bob Goodman

Wild horses seek water in Lahontan Reservoir, Churchill County.

Pay Me Now or Pay Me Later

While this strategy is aimed at healthy herds and healthy rangelands, the challenge cannot be met without funding. Maintaining or restoring large portions of the Great Basin from the expansion of cheatgrass and the encroachment of invasive plants and/or noxious weeds will not be successful if we are unable to reach AMLs in our HMAs. The cost to set AMLs, to reach AMLs, to slow reproduction rates, to expand the adoption program, and to provide long-term care of animals removed from the range is provided below.

Projected Costs to Accomplish Objectives

Costs associated with some of these objectives would come from base funding for labor from various programs that play an integral role in the wild horse and burro program. Specific projects needed to accomplish the goals would need to be identified along with the implementation cost. (All values are stated in FY 2000 dollars.)

Objective: Set AMLs by 2003

AMLs are set through the multiple-use-decision process which involves collecting base line data, evaluating existing resource conditions and management, establishing carrying capacities, and developing management actions that correct improper use. Through this process, AMLs are established, terms and conditions for permits are set and any changes needed in wildlife management are identified. The anticipated costs to complete this work were obtained from FY 2000 Activity Based Costing (ABC) information. The BLM in Nevada has been spending approximately \$8,175,000 per year in completing multiple-use-decisions; establishing the AML is a part of that process and cost.

The wild horse and burro specialists are involved in this process, but because of their workloads, most of the process is completed by the range staff and the cost reflected in the range program. The cost to the horse program has been about \$220,000 per year to establish AMLs, or \$27,500 per AML. With the emphasis on completing the process of establishing AML, the cost can be anticipated to be considerably

higher for the program, especially in areas where horses are the predominant user of the forage. In these situations, most of the costs of establishing AMLs should be charged against the Wild Horse and Burro Program. The cost charged to the program can be expected to be at least \$50,000 to establish an AML for an HMA. To complete the process in three years, an average of 13 HMAs must be completed annually for a cost of \$650,000 per year.

Total cost to meet this objective by 2003 is \$1,950,000. The annual cost of \$650,000 is \$430,000 less than was received in FY 2001 to meet the objective.

Objective: Reach AMLs By 2005

- Removing a minimum of 6,500 animals per year through 2004 will require approximately 7,500 animals to be captured.
- Gather costs per year— including capture, feed costs at trap site, transportation to a preparation center like Palomino Valley, BLM labor, and other associated cost— will total approximately \$2,550,000. (ABC cost per head in Nevada is \$340.)

Total cost to meet this objective is \$7,650,000. The annual cost is \$725,900 less than was received in FY 2001 to conduct gathers.

Objective: Slow Reproduction Rates

It would require six work months (\$39,000) per year to administer immunocontraception to mares during gather operations. One additional BLM person is needed per gather.

Cost per shot is \$60 (plus \$10 for the adjuvant and delivery dart) on approximately 600 mares each year for a total cost of \$42,000. The Washington Office has been and will continue to purchase the vaccine for use by the states.

Total cost for the additional labor required on a gather totals \$117,000 for three years. An increase of \$39,000 is needed annually to cover the cost associated with delivering the contraceptive.

Objective: Expand the Adoption Program

Note: The annual cost to meet this objective is \$220,000 totaling \$660,000 for three years. The

\$220,000 annual cost is \$95,260 more than was allocated to Nevada for adoptions in fy2001.

Expand adoptions within Nevada using a Nevada adoption team.

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

Total costs for four adoptions per year within Nevada is \$54,000.

Conduct adoptions outside Nevada using a Nevada adoption team.

- To conduct four adoptions per year would require approximately 12 work months for a cost of \$72,000.
- Per diem and vehicle costs per year would be approximately \$24,000.

Total costs for four adoptions outside Nevada is \$96,000.

Conduct Two Televised Adoptions Using Satellite Technology

- The cost to conduct one event is approximately \$35,000. Total cost to conduct two per year is \$70,000.

Trap Site Adoptions

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

Trap site adoptions will be held at gathers where availability of horses, accom and other factors make such adoptions feasible.

Objective: Provide for health and welfare of adopted animals or animals removed from the range

- To complete compliance checks in Nevada on approximately 125 animals each year will require seven work months at a cost of \$42,000.
- Cost to care for fire and drought horses is \$2.80/animal/per day, plus about \$.10 per day for miscellaneous costs for a total of \$359,000 per year. The animals are scheduled to be released back into their HMAs at the end of the three-year recovery period which ends in 2002.
- The contractual cost to maintain animals at the

holding facility in Fallon is \$2.89/animal/day, plus about \$.10 per day for miscellaneous costs. With the additional facilities coming on line, Nevada should need to hold no more than 1,000 animals at any time.

The annual cost to hold 1,000 animals would be \$1,091,350.

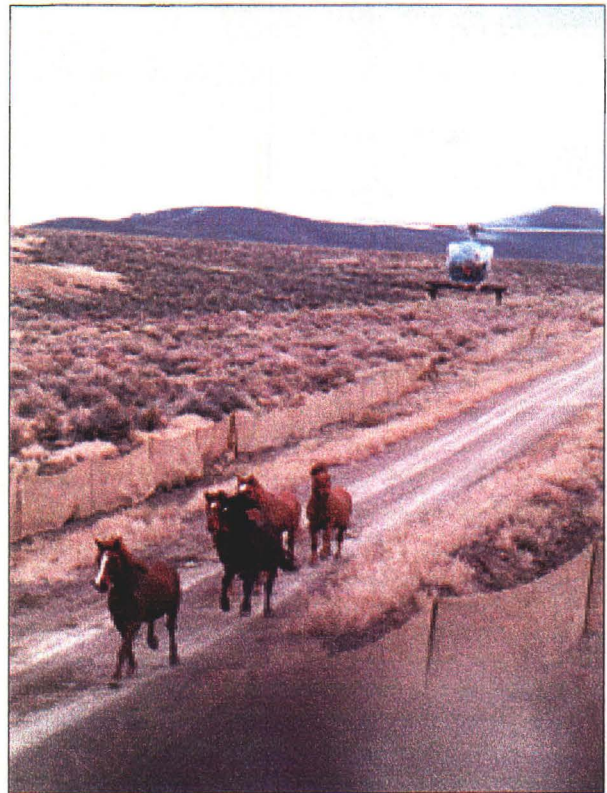
The total cost to conduct compliance inspections and hold the horses at Fallon for three years, and to hold the horses from fires and drought for one year are:

FY 2002 = \$1,492,350

FY 2003 = \$1,133,350

FY 2004 = \$1,133,350

Beginning in FY 2005 AML will have been reached in Nevada, so the need to place additional animals in a long-term holding facility or other contract facilities will no longer be needed. The costs associated with keeping animals in a long-term holding facility will begin to be reduced through natural attrition. Areas in which fire and drought horses were removed



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

will have been rehabilitated and those animals will be returned to their respective HMAs. Total cost for this objective is \$3,759,050. An increase of \$1,046,960 in the Nevada budget for FY 2002 is needed to meet the objective.

Objective: Provide for health and welfare Of animals left on the range

- BLM Nevada conducts a census of 40 HMAs per year. The cost to census these HMAs, including BLM labor, contract helicopter, and support vehicles, is \$183,200. The accuracy of cost calculation in Nevada through ABC to conduct census work should provide adequate funding to meet the objective.

Conclusions

The BLM Nevada was provided \$4,200,000 to implement the program in FY 2001. The total expenditures for the state are expected to be about \$5,300,000, which equates to a deficit of approximately \$1,100,000 for the year. The total expenditures needed to meet the objectives outlined above for FY 2002-2004 are projected to be similar to those experienced in FY 2001. The total funding needed to achieve the objectives above for each of the following three years would be:

FY 2002 = \$ 5,076,000

FY 2003 = \$ 4,723,000

FY 2004 = \$ 4,723,000

Starting in FY 2005, 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 only a few additional animals would need to be placed in a long-term holding facility.

While BLM Nevada will not be responsible for or funded for the preparation, adoptions and long-term holding of the animals removed from Nevada rangelands, the cost will be substantial. If 30 percent of the animals removed in Nevada are unadoptable, 4,550 of the 6,500 removed will be placed in the adoption program and 1,950 will be placed in long-term holding facilities. The cost of preparing the animals for shipping is about \$450 per head totaling \$2,925,000 per year. The average cost to adopt a



Dorothy Harvey

Wild horses going into trap during Fish Creek gather in northeastern Nevada, August 2000.

horse or burro is \$788 per animal totaling \$3,585,400 annually to adopt 4,550 head. The holding cost on long-term facilities is \$1.22 per day for an annual cost of \$690,215 to hold 1,550 animals. The annual cost for the preparation, adoption, and holding of the horses and burros planned for removal for the next three years of the initiative, will total \$7,100,615.

The bottom line is: BLM Nevada was not funded at a level sufficient to implement the tactical plan starting in fy 1999. BLM Nevada's budget in the Wild Horse and Burro Program for FY 2000 was \$2,616,000 and for FY 2001 it was \$3,216,000. In FY 2001, BLM Nevada redirected funds from other programs in order to meet objectives. To meet the objectives listed above, BLM Nevada would need to receive in FY 2002, \$2,513,000 more than was allocated in FY 2001.

The cost to develop a new National Wild Horse and Burro Center in Nevada was not addressed in this section because of the cost for the new center and the need for the money to come from a variety of sources.

Nevada's Role in the Wild Horse and Burro Program and the Great Basin Restoration Initiative

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 five goals from the document *Blueprint for the Future* developed in 1993. Two of those 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 in high priority watersheds with high riparian values, threatened or endangered species, and 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:

1. Perpetuate and protect viable wild horse and burro populations and their habitat in accordance with the principles of multiple-use management.
2. Ensure humane care and treatment of excess wild horses and burros, including a national adoption program.
3. Establish and maintain partnerships and cooperative relationships to benefit wild horses and burros.
4. Increase and maintain wild horse and burro professional capability, leadership and service ethics within the BLM, and credibility with the public.
5. Integrate and incorporate research, science, and technical development into the overall wild horse and burro program.

The Strategic Plan was reviewed and updated in 2000. The goals were refined slightly to reflect current priorities and philosophies. The first goal in the original plan addressed the management of both the populations and the habitats. The plan has been modified with a goal for each of those subjects. In addition, a goal was added regarding public awareness of the program. The new goals are:

Goal 1: Achieve and maintain a healthy environment

to support viable wild horse and burro populations within the concepts of multiple-use management.

Goal 2: Manage for healthy populations of wild free-roaming horses and burros.

Goal 3: Expand public awareness of the unique values, cultural attributes, and historic characteristics of wild horses and burros.

The other four goals remained unchanged.

National Wild Horse and Burro Plan to Achieve AML

Attaining AML on HMAs is the most critical need of the Wild Horse and Burro program. With the funding level in FY 2000 and in prior years, the BLM was unable to remove sufficient wild horses and burros to make progress toward AML or even to maintain a static population. BLM developed an initiative in 2000 to achieve AML within the next four years. Populations are increasing at approximately 18 to 20 percent per year. At the end of FY 2000, the population was 48,600 animals, or 22,300 animals over the estimated AML of 26,300.

Wild horse and burro populations are exceeding the capability of the land to support them. If the BLM does not reduce populations, irreparable damage will occur to riparian zones and watersheds, water quality, threatened and endangered species such as the Lahontan cutthroat trout and desert tortoise, and special status species such as sage grouse. In addition, degradation of native vegetation communities accelerates the establishment and spread of invasive

weeds.

An increase in the FY 2001 budget of \$9 million was requested and was received to allow the BLM to implement a strategy to bring all HMAs to AML in four years. The funds were provided in the FY 2001 budget to begin plan implementation with 12,855 animals scheduled for removal during the year. By the sixth year, only 4,500 animals will need to be removed to maintain AML. The additional funding allows the BLM to improve its marketing events and of animals for adoption; to implement techniques to enhance the adoption prospects of older animals; and to provide long-term care and holding (pasturing) for the oldest, least adoptable animals.

With consistent funding through FY 2005, the BLM can achieve AML on all HMAs. In FY 2006 and beyond, the BLM will need to gather and adopt only 4,500 animals annually, which is below the current and anticipated long-term adoption demand. The savings from reduced gathers, holding and adoption costs will greatly offset the increased cost of long-term care and holding. As the number of animals in long-term care and holding declines through natural attrition and adoptions, the BLM will realize lower costs for maintaining "a thriving, natural ecological balance and multiple-use relationship on the range."

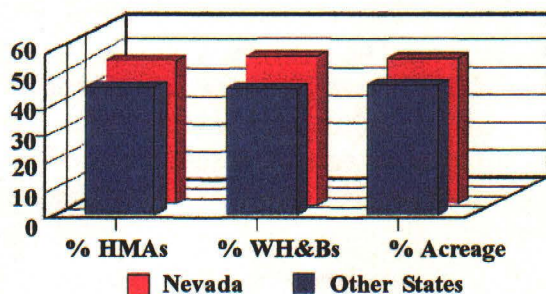
A separate strategy was developed for burros. The plan is to achieve AML for burros by 2003.

Great Basin Restoration Initiative

In late August 1999, a team met to assess the deteriorating ecological condition of the Great Basin. The second report *THE GREAT BASIN: Healing the Land* was issued in April 2000. The objectives for this initiative are:

- Resolve the problems of the Great Basin from an ecosystem perspective rather than a programmatic or issue basis.
- Protect healthy, functioning ecosystems consisting of native plant communities; restore degraded landscapes with high potential; and restore decadent shrub lands.
- Develop a common basis for an approach to problem identification and resolution.
- Develop criteria for prioritizing restoration work and funding.

Nevada's Role in the WH&B Program



- Leverage limited current capability by combining funding sources on priority areas identified through the restoration criteria.
- Capitalize on external partnerships to maximize restoration capability and success.
- Promote scientific research and studies.

Implementation of this tactical plan for wild horses and burros is essential to the success of the Great Basin Restoration Initiative in Nevada.

Nevada's Plan for Success

Streamlining preparation time and rapid movement of animals out of the National Wild Horse and Burro Center at Palomino Valley (PVC) will best help BLM Nevada make progress on achieving AML. Several alternatives are possible to streamline the preparation process at PVC, where 95 percent of Nevada's wild horses are prepared for adoption.

- Acquire the use of additional facilities to prepare the animals removed in excess of the numbers that can be prepared at PVC.
- Ship all gathered animals to PVC where they would be vaccinated, freeze marked and blood would be drawn for the Coggins test. Move animals to a nearby facility for boosters, gelding of older stallions and temporary holding until they could be put into the adoption program or other short-term or long-term holding.
- Ship all gathered animals to PVC where they would be prepared and given medical treatment. Move animals to a nearby facility where they would be held on a temporary basis until they could be placed into the adoption program or other short-term or long-term holding.
- Acquire a facility to hold gathered horses until space became available at PVC. Ship horses to PVC for preparation for the adoption program or short-term or long-term holding.

A number of programs will benefit from achieving AML. Funding by these programs for additional facility space is an appropriate use of those funds. With the excessive numbers of wild horses in most of Nevada's HMAs, range conditions cannot be expected to improve until the populations are maintained at AML.



Bob Goodman

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

Nevada must also increase the number of adoptions. The low adoption rate, especially in the East has contributed to the lack of space at existing facilities to accommodate all the wild horses that need to be taken off the range. Nevada will increase the number of televised adoptions each year and take advantage of the trap site adoption policy to reduce the number of wild horses and burros going to preparation facilities.

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 direc-

tor. In Nevada, standards and guidelines (S&Gs) for livestock grazing were developed by the RACs, in a public forum, and approved by the Secretary of the Interior in 1997.

After approval of the S&Gs for livestock grazing, the three RACs considered the need for additional S&Gs to address the health of wild horses and burros and the health of the land. Two of the RACs--the Mojave-Southern Great Basin and the Northeastern Great Basin--drafted S&Gs specifically for wild horses and burros. The Sierra Front-Northwestern Great Basin RAC decided the livestock grazing S&Gs were adequate and no further S&Gs were needed for the management of wild horses and burros.

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.

Program Objectives:

Objective I: Set AML by Year 2003

Action I-2: Fully Utilize Current and Future Technology

BLM 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 FY 2003. There are 40 HMAs that still need AML set. AML must be set on 13 HMAs each year to achieve this objective. Reductions in budget and permanent, full-time employees in the field offices contribute to the difficulty in completing this objective at an earlier date.

The fires in 1999 and 2000 and the droughts of 2000 and 2001 diverted work from establishing AMLs. The goal for FY 2001 is to establish AMLs on 15 additional HMAs. This will bring the total number of established HMAs in Nevada to 78.

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 convened to formulate the issues, to analyze the data and to recommend appropriate courses of action to meet standards for rangeland health.

Action I-1: Complete Interdisciplinary 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 20 percent 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 exist. Typically, areas with riparian habitat, threatened and endangered species and wild horses and burros are completed first. Many of the 21 HMAs with no AMLs established are in areas with fewer resource conflicts.

The following table summarizes progress in Nevada in setting AMLs.

Table 1. Established Statewide AML Progress

| # HMAs | # HMAs with AML established | # HMAs with no AML estab. | # HMAs with AML partially established |
|--------|-----------------------------|---------------------------|---------------------------------------|
| 103 | 63 | 21 | 19 |

Note: As HMAs are examined through the interdisciplinary 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 in order to provide accurate information. The model also needs modification 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 include verifying sex ratios at birth, mortality, and foaling rates for representative HMAs. Currently, the BLM relies on data sets from herds where some studies on populations have been conducted, such as the Pryor Mountains HMA in Montana, and the Granite Range and Garfield Flats HMAs in Nevada. The studies on the two HMAs in Nevada are not current and were not adequate for comprehensive modeling efforts. Selection 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.

Objective II: Reach AMLs by Fiscal Year 2005

Current Status

The population of wild horses and burros in Nevada at the end of FY 1997 was about 23,000 animals, and the recruitment rate for the year was calculated to be 24 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. At the end of FY 1998, the population was 22,500, with a recruitment rate of 18 percent. Low gather numbers for FYs 1999 and 2000 resulted in a population increase to 25,000 animals at the end of 2000. The summer of 1999 saw approximately 1.6 million acres of Nevada burn, and an additional 650,000 acres burned in 2000. Many parts of Nevada also experienced severe drought conditions. Herd management areas were affected by these fires and drought which resulted in wild horses being removed.

The FY 2000 removal target for Nevada was 2,500 animals. BLM Nevada gathered 2,070 animals as a result of the devastating wildland fires of 1999 and 2000, and 1,980 animals as a result of the droughts of 2000. Only 81 animals were gathered under normal gather operations. In FY 2001 the national ini-

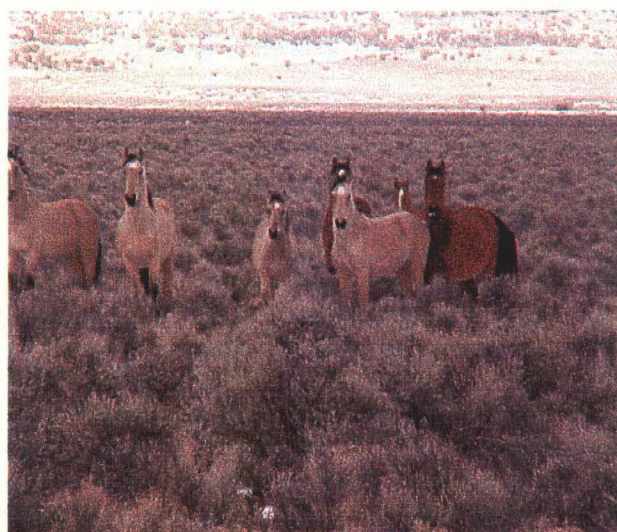
tiative calls for Nevada to remove 5,222 animals. Under this scenario Nevada's wild horse and burro population will be 23,762 at the end of 2001, based on the results of modeling work. BLM Nevada will have to remove 6,500 animals per year starting in FY 2002 to reach AML by 2005.

The BLM Nevada removed an average of 5,862 animals during the FYs 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 6,389 were removed. For the year 2000, Nevada removed 4,131 animals. In 2001, Nevada planned to remove 6,500 animals, but facility space and funding will limit removals to about 5,600 animals. Several states removing animals are near their AML, so they are removing to keep a portion of their HMA within AML or to respond to court orders.

Population Trends

Since 1999 when the first BLM Nevada Wild Horse and Burro Tactical Plan was completed, the population of wild horses in Nevada has increased by 2,500. If recruitment rates for horses continue to range from 18 to 24 percent, about 5,250 horses must be gathered annually just to keep the population at the current figure which is 25,000.

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



Horses on the range in the Roberts Mountain HMA near Battle Mountain.

Based on the average recruitment range of 21 percent, if only 3,000 horses and burros are gathered and removed annually there would be about 33,000 animals in Nevada by the year 2005. If 5,000 animals are gathered annually there would be 26,000 animals by the year 2005, still well over the projected AML for Nevada which is approximately 14,000 to 15,000.

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

Although multiple use decisions have not been made throughout Nevada, estimates are that the final AML in Nevada will be about 14,000-15,000 animals. To achieve AML by 2005, an average of 6,500 animals must be removed annually beginning in fy

2002. Once AML is reached, an estimated 3,000 to 3,500 horses would have to be gathered annually to maintain Nevada's AML.

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.

The tables on this and the following page are from the national initiative titled "Strategy to Achieve Healthy Lands and Healthy Herds," March 2000, and displays the gather numbers planned and the resulting populations anticipated at that time for Nevada. These numbers were derived from the use of Jenkins' model during development of the initiative.

POPULATIONS BASED ON REMOVING 6,500 ANNUALLY

| Recruitment | 20 Percent Recruitment | 18 Percent |
|----------------------------------|------------------------|------------|
| Population Beginning FY 2001 | 25,000 | 25,000 |
| Winter gathers | 3,600 | 3,600 |
| Population Spring FY 2001 | 21,400 | 21,400 |
| Increase from recruitment | 4,280 | 3,852 |
| Summer gathers | 2,165 | 2,165 |
| Winter gathers | 3,500 | 3,500 |
| Population Spring FY 2002 | 20,015 | 19,587 |
| Increase from annual recruitment | 4,003 | 3,526 |
| Summer gathers | 3,000 | 3,000 |
| Winter Gathers | 3,500 | 3,500 |
| Population Spring FY 2003 | 17,518 | 16,613 |
| Increase from recruitment | 3,507 | 2,990 |
| Summer gathers | 3,000 | 3,000 |
| Winter Gathers | 3,500 | 3,500 |
| Population Spring FY 2004 | 14,525 | 13,103 |
| Increase from recruitment | 2,905 | 2,359 |
| Summer Gathers | 3,000 | 3,000 |
| Population Beginning FY 2005 | 14,430 | 12,462 |

This table shows the effects of removing 6,500 animals per year and the annual recruitment on the Nevada wild horse population over the next four years. The table indicates the AML will be achieved in four years with both an 18 and 20 percent recruitment rate.

National Horse Gather Strategy - Nevada

| Year | AML Low* | AML High* | Removals | Population |
|------|----------|-----------|----------|------------|
| 2000 | 8875 | 14467 | 2694 | 25055 |
| 2001 | 8875 | 14467 | 5222 | 23762 |
| 2002 | 8875 | 14467 | 5322 | 20657 |
| 2003 | 8875 | 14467 | 5973 | 17912 |
| 2004 | 8875 | 14467 | 6035 | 14437 |
| 2005 | 8875 | 14467 | 3365 | 13396 |
| 2006 | 8875 | 14467 | 1667 | 14003 |
| 2007 | 8875 | 14467 | 2881 | 13380 |
| 2008 | 8875 | 14467 | 2167 | 13316 |
| 2009 | 8875 | 14467 | 2517 | 13062 |
| 2010 | 8875 | 14467 | 1497 | 13555 |

Note: These numbers were assigned in the National Wild Horse Strategic Plan, and differ from those in the Nevada Strategic Plan.

*Includes projected numbers for HMAs without established AML.

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 AMLs

If BLM Nevada gathers less than 6,500 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 droughts of 2000 brought attention to the devastating affects that over population of wild horses in an HMA has on the rangeland and the wild horses. Emergency gathers in drought stricken areas were necessary only in areas that were over AML.

The standards for rangeland health developed by the Resource Advisory Councils and approved by the Secretary of the Interior will not be met if AML is not achieved.

Objective III: Slow Reproduction Rates

Slowing Population Growth

An alternative to removing large numbers of animals, which may be 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 are con-

sumed 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 its associates which has developed and is perfecting the immuno-contraceptive 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 two-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 November and the end of the gather season in late 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.

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 in a research stage. Use of the vaccine on a widespread, long-term basis will need approval by the Food and 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.

Objective IV: Expand the Adoption Program to Maximize the 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 pro-



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

gram has remained the primary tool for placing excess animals removed from the range.

The first adoption occurred in 1973, when 23 animals were adopted. The number adopted nationwide in fiscal year 2000 was 6,202. Since the inception of the program, more than 178,000 wild horses and burros have been placed in private homes.

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 the BLM's current presentation, outreach and communication tools in use at that time.

In September 1999, BLM public affairs specialists who specialize in the wild horse and burro program



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

and some wild horse and burro specialists met in Denver to form teams which have implemented some of the Dougherty ideas and other needs identified by the group.

Fleishman-Hillard was retained by BLM to produce a National Marketing Plan which was presented in January 2001. Nevada was one of the first places the team members visited. They talked with individuals involved in the program in Reno, toured the National Wild Horse and Burro Center at Palomino Valley, and attended an adoption in Las Vegas.

This report states: "BLM must develop new markets for wild horses and show progress toward achieving AML, or face the loss of political support and funding for the program."

The marketing plan focus is on adoption event logistics and promotional activities, both local and national. The plan also recommends centralization of operations and marketing. Fleishman-Hillard said the program "... will be best served by a centralized team dedicated to executing certain scheduling, marketing and advertising functions on a national level."

The marketing plan is packaged into adoption support, post-adoption support, educational outreach, and national program awareness and public affairs.

A contract was issued in FY 2000 to implement a number of the recommendations from the marketing plan. Some of the items to be implemented from the plan are the marketing of ten selected adoption events that have the potential for higher adoption numbers, developing a centralized adoption schedule for FY 2002 using data that shows the areas with the highest adoption potential, implementing a national toll-free number that will be answered by the contractor, developing promotional materials using similar and recognizable themes, and promoting the 30th Anniversary of the Wild Free-Roaming Horse and Burro Act of 1971.

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 addi-

tion, a roving team would be formed of specialists from certain states to conduct additional events now beyond the capability of individual states and the 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 FYs 1992 and 1997, the average number of animals adopted in this state was 192. In FY 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 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 for all offices to give to local media to promote adoption. The NTC also has extensive "B roll" footage available for use by television reporters in feature stories.

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

BLM Nevada could form its own adoption team to place additional animals. The team roles and approximate number of members would be:

- pre-adoption media team, 2 members
- pre-approval team, 2
- adoption event team, 8 to 10 (manager, public contact, clerks, wranglers, wild horse specialists)
- follow-up or compliance team, 2-3

The team, in cooperation with other states and utilizing the marketing studies 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 a central location in the geographic area where the adoption would be held. 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. 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 could be identified to assist adjoining states holding adoptions.

Action IV-2: Carefully Select Nevada Adoption Sites

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



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

Action IV-3: Trap Site Adoptions

Adoptions at trap sites were allowed until 1996. When variations from standard practice occurred, the resultant concerns led to elimination of trap site adoptions.

Clear guidelines have been 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, were addressed in June, 2001.

The first trapsite adoption was conducted at Robert Mountain, near Eureka, in July, 2001.

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 IV-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 advertise-

ments, newspaper and magazine articles and television clips to media should be implemented.

Action IV-5: Increase Adoptions using Satellite Downlink Technology and Video

The use of satellite downlink technology has increased awareness of the wild horse and burro program in all states. It introduces the wild horse and burro program to a new audience, and it gives that public an opportunity to adopt from their homes. This shop-at-home technique draws on some of the methods already utilized in the Internet adoptions sponsored by the Eastern States. Initially, the BLM is using the services of a company which specializes in satellite auctions. A multi-year contract has been developed so that Nevada can increase the number of animals adopted.

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

The animals at the Palomino Valley facility are videotaped for broadcast.

There is considerable emphasis on pre-approving adopters. Delivery is at identified, strategic locations in the United States.

BLM Nevada has completed three satellite downlink adoptions. These adoptions have been well received, based on the interest they have generated. BLM used the second event to highlight fire and drought horses. Riverton, Wyoming's saddle-ready wild horses have been offered in two of the three events.

The first two television adoptions resulted in 175 wild horses or burros being adopted at an average of \$200 per animal. The high bid for the first adoption was \$1,000 and the second adoption was \$950.

The Battle Mountain Field Office received about 500 calls requesting information on the adoption program following the second satellite broadcast

Action IV-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 2001 or 2002 should test home delivery service. Delivery to certain pre-determined geographic locations could be offered as part of the pre-adoption outreach to determine if the service increases adoption numbers.

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. Before a horse trailer firm is approached, however, appropriate review by contract specialists at the national level would be required.

Action IV-7: Training of Wild Horses

The BLM has several training programs in place in conjunction with various state correctional facilities. Those programs that have been in place for several years have proved to be a benefit to BLM and the prisons involved. The Nevada Department of Corrections has proposed to build a holding facility and develop a training program at the Carson City facility. BLM is also interested in developing a training program in Nevada and will work with the State of Nevada to design a program that meets both agencies' objectives. The Department of Corrections is planning to construct the facility in late 2001 and begin development of the training program in 2002.

Action IV-8: Develop a Mobile Adoption Program

A concept that has been advanced is a mobile adoption program which would take animals into pre-selected areas.

Where the unit would go depends on information provided by utilizing current Geographic Information System (GIS) data, but the target would be new locations where adoptions have never been held.

The unit could have three permanent staff members and three to five temporary or seasonal employees, possibly working out of the National Wild Horse and Burro Center near Reno, Nevada, or out of the Moore, Oklahoma, office. A team coordinator with public affairs skills would supervise the operation. An administrative officer would oversee accounting, the computer data



Contractors at a trap site in Eureka County.

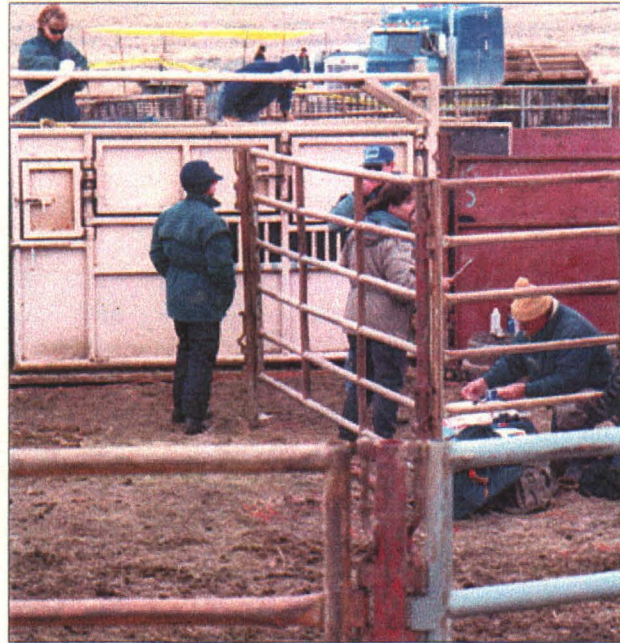
Bob Goodman

base, and private maintenance and care agreements. The lead wrangler would be in charge of facilities, transportation, horse care and delivery. The temporary employees would primarily assist the wrangler. The mobile unit would require a variety of equipment, such as an office travel trailer, trucks, trailers, panels, chutes, etc.

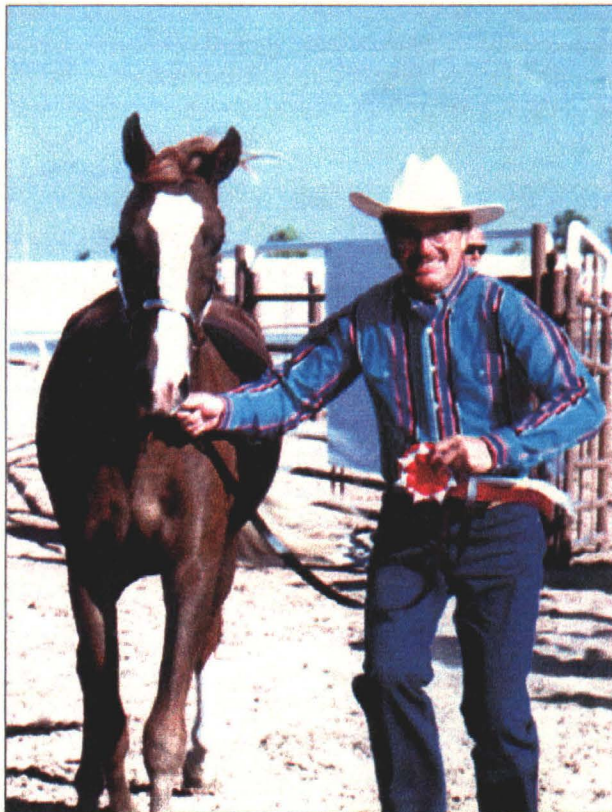
Animals offered for adoption would start under the competitive bidding rules, \$125, but subsequent rounds would let the public set the bid until all animals were adopted.

Action IV-9: Reduction of Adoption Fees

The regulations allow for the BLM director to reduce or waive the fee when wild horses or burros are "unadoptable" at the base fee of \$125. The authority to reduce the fee to \$25 per animal has been delegated to state directors. Adoption fees may be waived only if the recipient is willing to comply with



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



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

all regulations. The most common use of this authority has been for horses or burros which have been to many adoptions, the so-called "frequent flyers". This should be considered for animals that are unadoptable under current policy.

Objective V: Provide for the Health and Welfare of Horses Adopted or Removed from the Range

BLM's responsibility does not end when a wild horse or burro is adopted or placed in short- or long-term holding facilities. We must continue to take the necessary steps to ensure that these animals are properly cared for until the adopter receives title, or in the case of holding facilities when the animals are released back into the HMA or die of old age.

Action V-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. A total of 200 compliance inspections were made in Nevada in FY 2000.

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

If Nevada gathers 7,500 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. Addi-



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

tional resources will be necessary to feed and care for them.

Nationally, the BLM has three long-term holding facilities, each with a 2,000 head capacity. Bartlesville, Oklahoma, has been in existence the longest. Older mares, gelded stallions and animals which are unsuitable for adoption for a variety of reasons are on pasture at a rate of \$1.20 per animal per day.

Two additional facilities were opened in 2000. One facility is located at Catoosa, Oklahoma, and the other at Cassoday, Kansas. Both will pasture animals for \$1.22 per animal per day. The Catoosa pastures will be for male animals more than seven years old. The Cassoday facility is for mares or pairs. It is anticipated younger mares, pairs or foals will be removed from the facility and entered in the adoption program at a later date. Two additional facilities are scheduled to open in October 2001. These facilities would be used first to hold adoptable animals until space is available in the adoption program. They may be used later for long-term holding.

Action V-3: Short-Term Holding of Fire and Drought Horses

Nevada rangelands which are habitat for wild horses suffered both in 1999 and in 2000. In the fall of 1999, wildfire spread across Nevada, destroying vegetation in several HMAs. Scanty moisture in the winter of 1999-2000 meant springs did not recharge, reservoirs were dry, and vegetation was sparse or went into early dormancy.

BLM Nevada removed 2,070 wild horses from fire-devastated areas in 1999. Some of these were total removals so the rangelands could be reseeded and rehabilitated. Two to three grazing seasons are required for the lands to recover, during which BLM will not allow domestic livestock or wild horses on the areas. Drought conditions have persisted through 2000 and 2001 which may delay the wild horses return to their HMAs.

To preserve the gene pool of horses from the Flanigan, New Pass-Ravenswood, Rocky Hills and Clan Alpine HMAs, about 350 animals were selected

to be held for re-introduction. After receiving freeze marks and inoculations at the National Wild Horse and Burro Center at Palomino Valley, the animals were temporarily held at a contract facility in Fallon, Nevada. In October 2000, the wild horses destined for re-introduction were transported to Goicoechea Ranches near Jiggs, Nevada. The ranch, on the western slope of the Ruby Mountains, will allow the animals to re-adapt to rangeland vegetation in anticipation of returning to their homelands. Cost of this contract is \$2.80 per head per day.

BLM Nevada removed about 1,980 wild horses in drought stricken areas during 2000. Younger animals were placed in the adoption program; older animals were transported to long-term holding facilities.

Action V-4: Spring Valley Short Term Holding and Adoption Facility

The Ely Field Office is currently pursuing a land exchange with the Nevada Lands and Resource Company that will place the 9,000 acre Spring Valley Ranch into BLM administration. The property includes facilities for hay storage, veterinary care, and offices for on-site staff as well as pasture and forage, all of which could be used as a short-term holding facility (four to five years) for wild horses and burros.

The benefits of using the Spring Valley Ranch as a holding and preparation facility include:

- Reduces stress to animals and improves health by reducing travel time from gather to preparation center. Animals removed from the Elko, Ely and Battle Mountain Field Office areas as well as animals removed from Las Vegas and parts of Utah could be housed and prepared at the facility.
- Facilitates Nevada achieving AMLs by providing holding facilities in addition to the National Wild Horse and Burro Center at Palomino Valley.
- Reduces the number of animals originally anticipated for holding at a proposed National Wild Horse and Burro Center.
- Provides an economical, efficient solution to Nevada's horse holding facility issue.

The initial proposal includes holding facilities for 3,000 animals. The BLM's partners in this effort include the National Mustang Association and the Ne-

vada Lands and Resources Company. They are interested in participating in the management or ownership of the facilities through a cooperative agreement which would reduce BLM's commitment to owning or maintaining the facilities.

Both the National Mustang Association and the Nevada Lands and Resources Company have expressed an interest in exploring the possibility of constructing the additional fencing and holding pens required to use this base property effectively.

Action V-5: Nevada Forage Banks

Another possibility for the care of animals not adopted is to investigate the acquisition of one or more allotments or to convert allotments that are vacant into holding areas for wild horses or burros. This option would require the construction or maintenance of fences and water sources to provide for the health and welfare of the animals placed on these pastures.

Tonopah is conducting assessments of allotments and HMAs where livestock and wild horses and burros were removed because of severe drought conditions in 1996. Once the areas have recovered from the effects of the severe drought conditions a determination will be made on relocating wild horses or burros to those areas and the feasibility of using those areas as forage banks.

Action V-6: Wyoming Wild Horse Pilot Project

Nevada will monitor the progress of a pilot project proposed in Wyoming, which is designed to place unadoptable wild horses on private lands. To initiate the project, three parties have proposed a Memorandum of Understanding (MOU) to reduce wild horse populations to AML, which is about 3,000 animals. The parties feel too many wild horses are contributing to rangeland resource

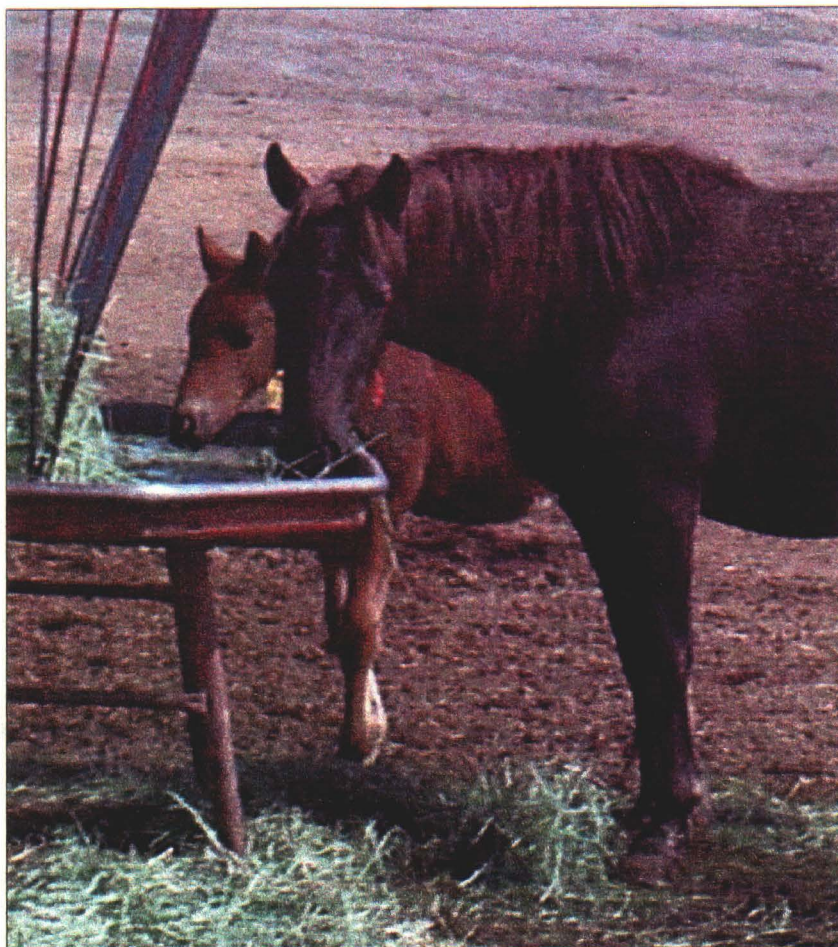
damage, declining wildlife species and a loss in carrying capacity for wild horses and livestock. One result could be a decline in horse health. Thus, the Wyoming State Grazing Board, the Wyoming Department of Agriculture and the BLM in Wyoming have proposed a MOU regarding horse management.

Four main responsibilities are addressed in the MOU:

- Inventory of existing wild horses;
- Removal to reduce wild horses to AML;
- Finding homes (including adoption and sanctuaries) for wild horses in excess of AML;
- Long-term maintenance of wild horses at AML.

Briefly, the major actions of each party would be:

- Wyoming State Grazing Board will consider the feasibility of private adoption or long-term sanctuary for up to 60 horses per location in Wyoming of "unadoptable" animals. Compensation would be sought to fund pasture owners. As many



Mare and foal at Wild Horse and Burro Center, Palomino Valley.

as 2,000 animals might be placed in this "public service" or "pasture program." Public education and wild horse viewing areas might be developed.

- Wyoming Department of Agriculture is to do a feasibility study on whether there is a demand in Wyoming for older, unadoptable horses for private long-term adoption or pasture. Some provisions for temporary housing at a state fairgrounds would also be investigated.
- BLM in Wyoming would agree to reduce horse numbers in every HMA to the lower level prescribed in the AML for four years. BLM conveys the number of horses to other parties in the MOU. BLM Wyoming would ask for a proportionate share of the national BLM base horse budget and funds from the 2001 initiative. The Bureau would need to determine the eligibility of applicants for adoption or for a "public service program" and would also need to develop a humane treatment compliance program for these animals.

Objective VI: Provide for the Health and Welfare of Horses and Burros Left on the Range

Determining Where Horses are Managed

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 those exhibited by the Baskir Curly horses, are not lost from a HMA and that adequate habitat is provided to maintain healthy herds.

Action VI-1: 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 focus on the management of the remaining animals. This will include such actions as: developing 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 30 years since passage of the Act, the BLM has gained considerable knowledge about herd dynamics, location of water, and seasonal use patterns. Drought and winter effects on herds have been identified and noted.

It is appropriate that the experiences of the past 30 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. Baseline blood work could be conducted for each herd within Nevada to obtain the data, and the Washington Office is preparing directions on conducting the baseline work. The baseline data would 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.

To ensure long-term viability, herd management plans need to address herd dynamics, reproduction, mortality, herd health and habitat requirements.

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 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.

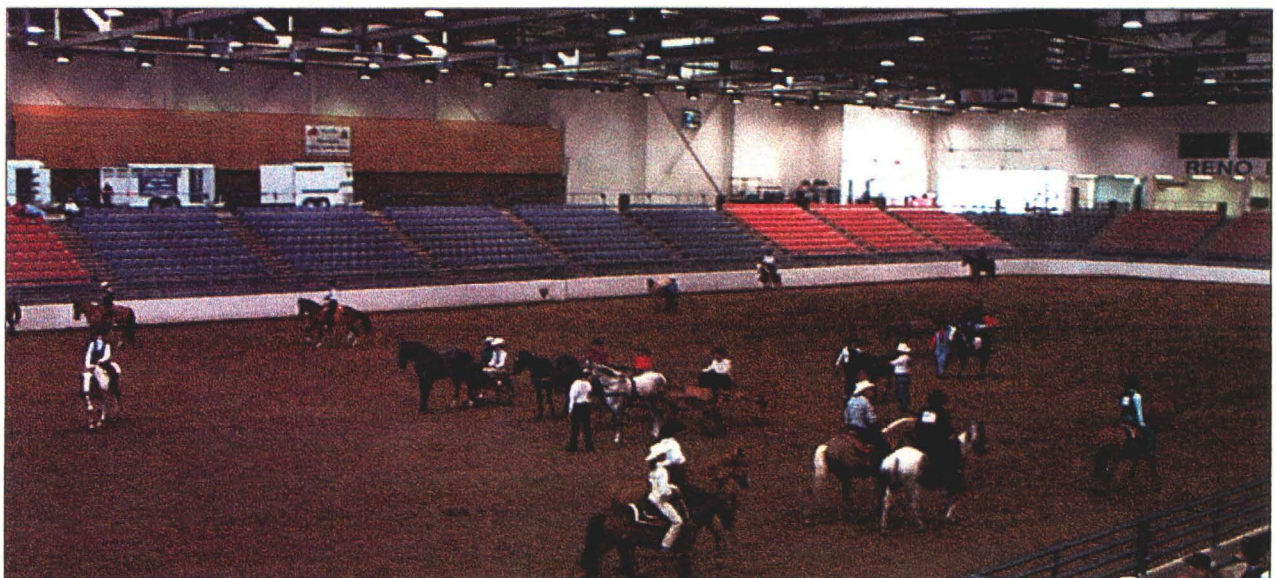
Wild horses are social creatures. The young males find one another and form temporary bands. They stay with the other males until they find a lone mare and form a new band, or are able to challenge an older stallion and take his mares.

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, annual population increases range 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.



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



Viewing wild horses offered for adoption at Fallon, Nevada.

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, severe winters and severe droughts. The largest percentage of mortality occurs during years of extreme winter conditions

There are verified cases of mountain lions killing foals within HMAs in the western part of the state. A 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 ge-

netically 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.

Objective VII: Increase Awareness on the Range and in Adopters' Homes

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 fully 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 to gain the support needed to reach and maintain AMLs.

Action VII-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 about where to drive to see horses in the wild. With the exception of the Marietta Wild Burro Range and the burros and horse herds near Red Rock Canyon National Conservation Area in the Las Vegas Valley, the BLM has had little printed material to direct the public to viewing areas in the state. Nevada has recently taken the following actions:

- 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 resulted in the publication of a brochure, *See the Living Legends*.
- BLM Nevada has written descriptions of each HMA, including maps, and posting material describing each HMA on the Internet. This material will educate the public about the wild horse and



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

burro program and support the adoption program by providing adopters information on their horse's origins. Descriptions of each area are now available to preparation centers for distribution along with the individual animal's health card to inform adopters about their horse or burro's native range.

- Each Nevada field office was contacted when *See the Living Legends* was produced, and areas where wild horses and burros might be seen from reasonably good roads were identified. This brochure will require periodic revision as drought, wildfires and similar occurrences can change the likelihood of seeing animals.
- Each Nevada field office should identify one HMA where wild horses or burros can be seen with some regularity and post interpretive signs. Printed materials could be developed for those sites.

Action VII-2: Emphasize Public Education for Students

Public education must be an on-going program, which ties to Nevada's management plan for wild horses and burros and BLM's overall adoption strategies.

BLM 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 students. Some of that material is now posted on the Internet. This activity brochure and the handouts should be revised and refreshed as part of the outreach, recognizing the passage of the Wild Free-Roaming Horse and Burro Act of 1971.
- 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.
- A PowerPoint presentation on Nevada's 1999 wild horse and burro tactical plan was developed. A future presentation should be developed for use by Nevada employees who make

presentations to school and civic groups. Develop and revise handouts, such as bookmarks and book covers.

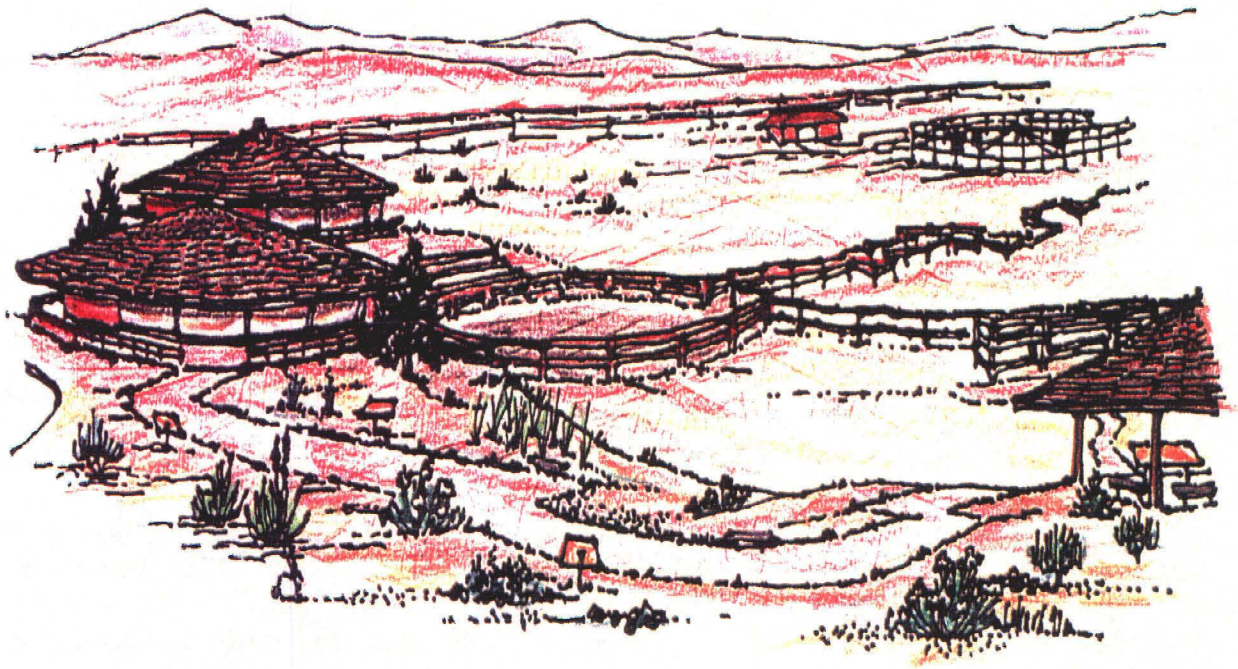
- A Junior Wrangler program could be developed for those students interested in learning more about the program. Local youth groups, such as Boy Scouts or Girl Scouts, could be approached to develop such a program as part of a project.
- An interactive CD-ROM developed by the BLM's Jackson Field Office is being used in BLM's wild horse and burro efforts in Nevada. Junior high schools in the state will all receive a copy to emphasize the 30th anniversary of the Act.

Action VII-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, although some need revision. These include: *Welcome Home, Wild One; Choose a Friend; Cactus Jack; and Mustang Troop*.

Other existing materials include::

- A short overview pamphlet, *Spirit of the American West*, was developed in Nevada. The pamphlet has a brief historical overview of the program, a description of Nevada's wild horse and burro program, herd management areas, an overview of adoption, and answers to some commonly asked questions. This information also is posted on Nevada's Internet.
- Photographs are posted on the BLM Nevada Internet which illustrate what takes place on a wild horse and burro gather in Nevada. Current Nevada BLM horse news is posted there, as well as in the news release section.
- Two new wild horse and burro exhibits and some individual posters are now available for indoor shows. No outdoor exhibit exists, but one could



Concept drawing

Diane Colcord

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.

Objective VIII: Construct and Operate A Visitor Center and Adoption-Holding Facility

As the leader in the wild horse and burro program, BLM Nevada proposes to construct a National Wild Horse and Burro Visitor Center and adoption-handling facility located in northern Nevada. The facility will make a significant contribution toward solving major issues faced by Nevada and the nation relative to the wild horse program. These include increasing the total number of adoptions, increasing temporary holding capacity, and informing the public about wild horses and the environment. It would also replace the aging facilities at Palomino Valley.

The Center will provide 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

Commission on Tourism, the Reno Sparks Convention & Visitors Authority, corporate sponsors, livestock producers and wild horse enthusiasts.

It would be an important component of a state-wide effort to encourage visitors to learn more about wild horses and to promote visits to outlying areas to see HMAs.

We propose funding the Center using a combination of federal and state monies, and donations from corporate sponsors and the general public. The estimated cost to develop and construct this facility is \$11,396,000. This 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 (NARSC) 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.

Descriptions of the elements of the Center and the preliminary cost estimates are outlined below.

Center Objectives

- Provide opportunities for the public to see wild horses and burros and to learn about them, their habitat, and the Bureau's efforts to manage both.
- Expand 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 televised adoption via 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.

Location

The facility location criteria considers the needs of the animals to be housed, the publics to be served and our goals of increasing adoptions and awareness of the program .

A site near Reno, Nevada, is proposed because:

- Nevada is home to a majority of the wild horses and burros managed by the Bureau;
- 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. 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

The purpose of this proposed National Wild Horse and Burro Center is to assist in reaching AML in Nevada by providing a facility to hold large numbers of horses removed from the range, and to increase their rate of adoption through on-site adoptions or increased interest in satellite adoptions. Holding pens, corrals and chutes are important for 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: \$4 million

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 are 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.

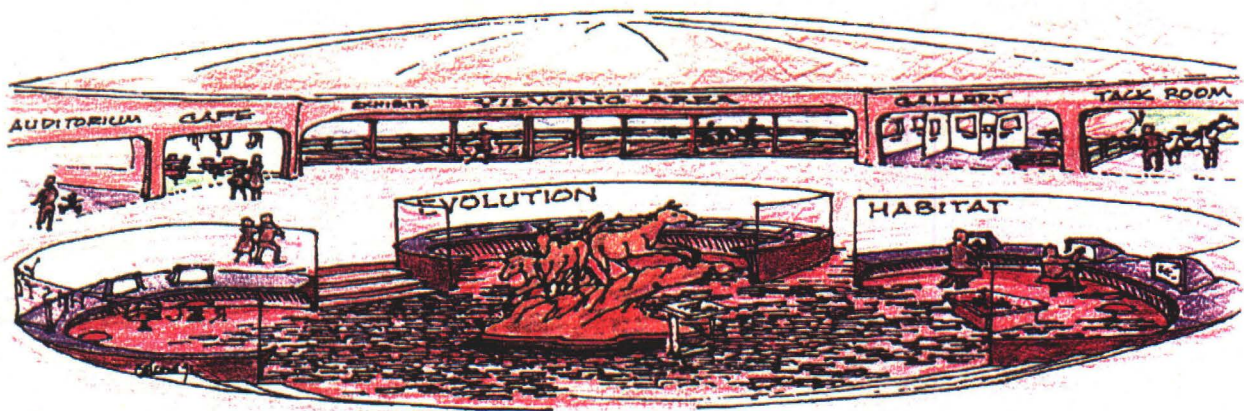
The proposed National Wild Horse and Burro Center preparation, holding and training facilities would include:

Holding pens for up to 3,500 horses

Estimated Cost: \$2 million

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 minimum 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, secu-



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)

city 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 portion of the facility could 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 understanding 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.

Maintenance Facilities

Estimated Cost: \$1 million

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.

Palomino Valley Facility Faces Limited Lifespan

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.

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.

Visitor/Interpretive Center

Total Estimated Cost: \$5.6 million

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: \$4.6 million

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 million

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

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

Volunteers are a key element for this project to be a success. We would follow 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.

Project Development Steps Full Proposal Development

Because of BLM's limited funding level for the program and the numerous priorities, most work on the center concept has been curtailed. The targets will be adjusted once funding is assured and more accurate target dates can be established.

Architectural Concept

Estimated Cost: (Covered by NARSC)

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 and Communications Plan

Estimated Cost: \$ 10,000

Identify our themes, goals and objectives and compile sketches. These materials will be a critical part

Facility Location Criteria Considerations Affecting Animals

The facility should be as close as possible to a large concentration of wild horses or 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 available from nearby sources.

of discussing this project with our partners and ensuring their comfort with our messages.

A communications plan will be developed.

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. BLM and the State of Nevada are establishing a national Wild Horse and Burro Foundation, described earlier in the document, which would fill this need.

Site Location and Acquisition Process

Estimated Cost: \$250,000

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

Architectural and Interpretive design would not begin until funding for the project is established. It would be funded in part through State and local partnerships.

Architectural Pre-Design and Site Analysis

Estimated Cost: \$ 500,000

Typically, pre-design services, site selection, and conceptual design are equal to about 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: \$1 million

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: BLM, 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, materials selected, and the site.

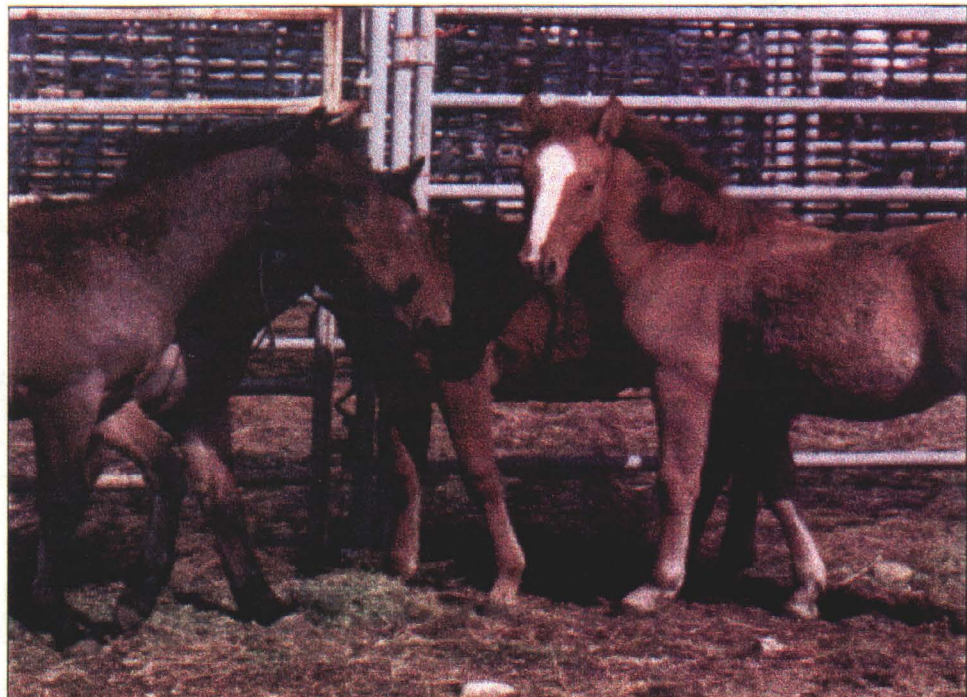
Facility Maintenance Considerations

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.



Wild horses awaiting adoption at Fallon, Nevada.

Operations - Animal Facilities
Funding Source: BLM

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 approximately \$400,000 per year in operating dollars, in a relatively remote area. As a tourist-oriented location, Reno attracts a far greater number of visitors each year. 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.



David and Virginia Freeman, BLM volunteers from Willow, California, with their adopted wild burros. National Wild Horse and Burro Show, Reno, Nevada, June 2000.

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 HMA: An agreement was signed with Eureka County through which the county will, with full opportunity for public involvement, collect monitoring data and write an evaluation using approved BLM methods and procedures. This evaluation will



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

set an *interim* AML for the Fish Creek HMA and establish *short-term* appropriate livestock grazing practices on four allotments in this HMA.

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 area, 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.

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.

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. The Commission is involved in managing the National Wild Horse and Burro Show. The Commission is a partner in developing a foundation in support of the Wild Horse and Burro program.

The 1997 State 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."

One recommendation in the state plan was development of a National Wild Horse and Burro Foundation. The BLM and the Commission participated and funded a feasibility study of establishing such a foundation. With a favorable report on the feasibility of establishing a foundation and the high probability of success, the Commission submitted to the 2001 Nevada Legislature a brief report which recommends the State of Nevada join in co-sponsoring a National Wild Horse and Burro Foundation.

The projected costs for forming and maintaining the Foundation for two years would be in the range of \$800,000, and would be funded jointly between the BLM and the State of Nevada. The State of Nevada and BLM have retained a legal firm to assist with the legal formation of the foundation. This work consists primarily of preparing the Articles of Incorporation and the Bylaws, and filing the required materials with the Secretary of State in Nevada. The filing of these materials is expected to occur in September 2001.

A coalition of interest groups has submitted a proposal to pasture up to 10,000 wild horses on private lands in the central valley of California. The animals would be held in perpetuity with title to the horses passing to the coalition after five years. The proposal has been submitted to Congress for consideration because approval would be needed to pass titles to the animals after five years and additional funding would be needed to implement the program until titles are passed. While the program is not a Nevada initiative, BLM Nevada would be the primary beneficiary with the number of animals scheduled for removal from the state.

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. For example, in the Elko Field Office a Boy Scout in pursuit of his Eagle badge organized a group of Scouts to restore a defunct water project.

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. For example, in the Elko Field Office 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.



Library of Congress "Buckaroos in Paradise" collection

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

Historical and Legal Perspectives

Pre-Act Management

Nevada is 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. Wild horse 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 the Wild Horse Annie Act of 1959 (P.L. 86-234) and the Wild and Free Roaming Horse and Burro Act of 1971 (P.L. 92-195) 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."

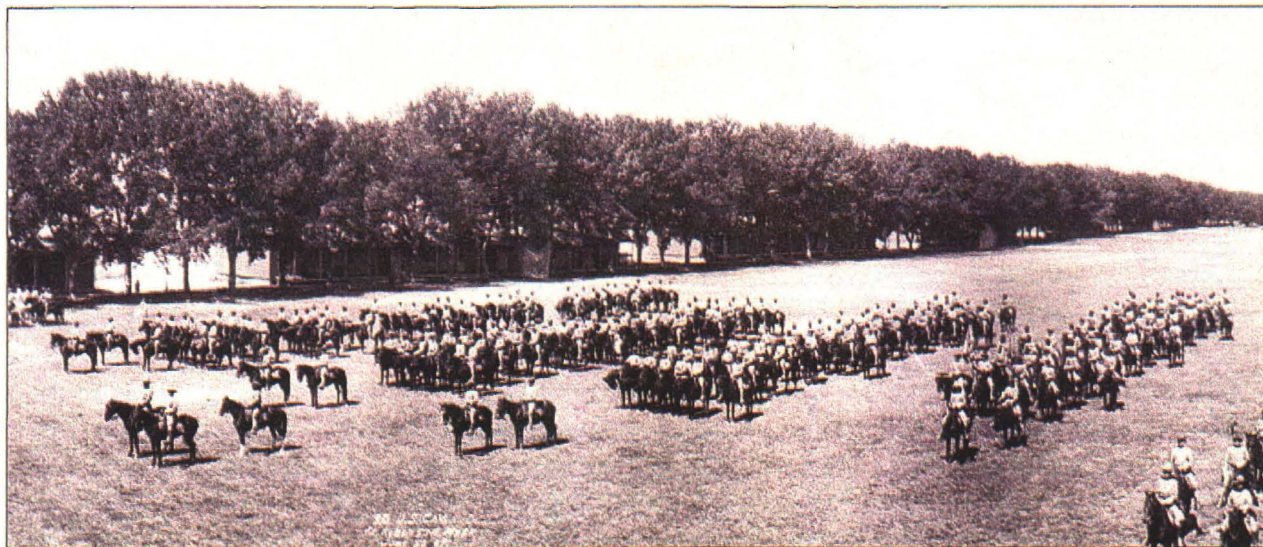
After passage of the Act, ranchers were allowed to claim horses roaming at large on the public lands, provided they could reasonably assert that the animals were private stock and not wild as defined by

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 and Free Roaming 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



Library of Congress

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 years the cavalry horse bloodlines were seen in wild horses around those ranches.



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

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 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 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, Intervener 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 national advisory board for wild horses and burros was chartered in 1998 and is continuing to meet regularly. Two Nevadans sit 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 proce-

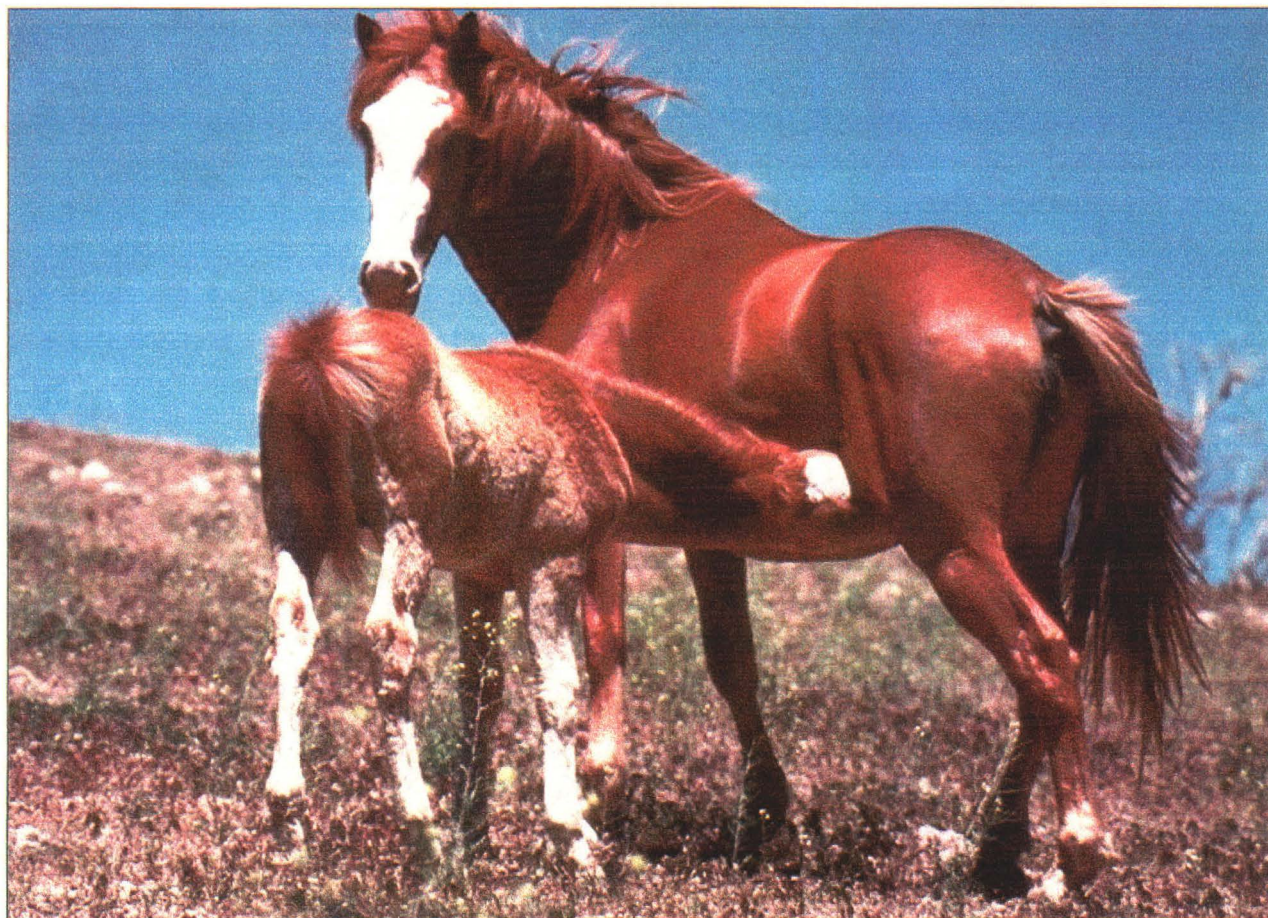
dures were made implementing nearly all of the panels' recommendations.

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 (immuno-contraception) have gained momentum and are being researched solely in Nevada with the assistance of wild horse and burro specialists in the field offices.



Mare and foal on the range near Carson City, Nevada.

Emerson Wells