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IMPROVING THE ADOPTABILITY OF WILD HORSES THROUGH MANAGEMENT

Preliminary Report
January 30, 1990

by
Tracey Irons, Bill Phillips¹

On December 15, 1971, with the passage of Public Law 92-195, Congress obligated the Secretary of Interior and the Secretary of Agriculture with the protection, management and control of wild horses and burros on public lands. The general concept of the law was to preserve healthy, thriving populations of wild horses and burros for future generations to enjoy.

If there are to be healthy, viable populations of wild horses in the absence of effective predators, then it is essential that populations be controlled. If removal of excess numbers is to be the method of control, then having an acceptable method of disposition of the excess animals is critical.

Since wild burros adopt in the Regular Adoption Program with ease, disposition of burros is not a problem. However, the story is much different for horses. Placement of horses in the Regular Adoption Program has been a major problem during the last 18 years from the beginning of the Wild Horse and Burros Act. Several methods of disposing of wild horses have been tried through the years, but all have been plagued by controversy. Currently the Regular Adoption Program is the only method that is being used to place horses in private ownership. Those horses not adopting remain in the care of the federal government in sanctuaries or holding facilities.

This preliminary report discusses a way to solve the problem of unadoptable horses. The discussion concerns wild horse management in the Bureau of Land Management's Susanville District.

The District is located in northeastern California and northwestern Nevada. There are 13 herds with approximately 1400 horse total for the District.

In 1982 the Modoc/Washoe Experimental Stewardship Program, which encompasses part of the Susanville District, initiated a Wild Horse Experiment. The challenge Stewardship felt was that there must be some better method of management of wild horses than the traditional method of the "gate cut" removal. Gate cut removal involves gathering only excess horses and offering them for adoption, those that do not adopt are sent to feeding centers. Since it was very obvious that the cost and management of unadoptable horses was soon going to consume much of the budget

¹ Authors are Range Conservationist for Bureau of Land Management, Surprise Resource Area, Cedarville, Ca. and Bureau of Land Management District Range Conservationist and Wild Horse Specialist, Susanville District, Susanville, Ca.

and management effort of the Bureau of Land Management, a priority for the experiment was to solve the problem of unadoptable horses.

The experiment focused on two methods of management. One method is Gate Cut Management or the traditional method. The other is a Structured Herd Management, where the age and genetic make up of each herd is managed.

Using information from this experiment along with other data gathered over the years in the Wild Horse and Burros Program in the Susanville District, several things have become apparent.

Gate Cut Management is the most common method of removing horses from the public range. This type of management involves capturing and removing those horses in excess of the management level.

Some features about this type of removal area as follows;

1. It is somewhat selective in that those horses easiest to gather, i.e. those horses closest to the trap are captured and removed. It is neither a random or a natural selection process. However, natural selection continues for those animals left in the herd.
2. It removes entire family groups from the genic pool.
3. It is haphazard with no thought for the future of the herd or what is to become of those horses gathered and removed from the herd.
4. There is no management of the breeding herd except to keep populations at management levels.
5. Data from Gate Cut removal of horses indicates that about 65% of the horses will be four years of age and younger and that about 35% will be 5 years of age and older. Supporting data follows in Table 1.

Table 1.

Age Of Horses Gathered with Gate Cut Management
9 Horse Gathers in Susanville District from 1981
to 1989

| <u>4 Years and Less</u> | <u>%</u> | <u>5 Years and Older</u> | <u>%</u> | <u>Total</u> |
|-------------------------|----------|--------------------------|----------|--------------|
| 786 horses | 64% | 444 horses | 36% | 1230 horses |

6. Data indicates that 50% or less of the horses gathered by Gate Cut can be expected to be adopted in the Regular Adoption Program. Supporting data follows in Table 2. and Table 3.

Table 2.

Gate Cut Disposition
Total Gather 169 Horses
Gathered July 1986
Little High Rock (CA-264) and Fox Hog (CA-263) Herds

| <u>Action</u> | <u>Number</u> | <u>Percentage</u> |
|------------------|---------------|-------------------|
| Regular Adoption | 71 | 42% |
| Fee Waiver | 59 | 35% |
| Dead | 14 | 8% |
| In Holding | 25 | 15% |
| Total Gathered | 169 | 100% |

Disposition as of August 1988, 25 months after gathering.

Table 3.

Gate Cut Disposition
Total Gather 61 Horses
Gathered September 1987
Devils Garden (CA-252) Herd

| <u>Action</u> | <u>Number</u> | <u>Percentage</u> |
|------------------|---------------|-------------------|
| Regular Adoption | 28 | 46% |
| Fee Waiver | 19 | 31% |
| Dead | 7 | 12% |
| In Holding | 2 | 3% |
| Sanctuary | 5 | 8% |
| Total Gathered | 61 | 100% |

Disposition as of December 1989, 27 months after gathering.

Note: The Fee Waiver Program has been discontinued. While it did reduce the number of horses in Holding Facilities it was not an acceptable method for the disposition of wild horses.

7. Data shows clearly that age is a very important factor in placing horses in the Regular Adoption Program. Horses 4

years of age and younger are much more adoptable in the Regular Adoption Program than are horses 5 years of age and older. Supporting data follows in Table 4. and 5.

Table 4.

Gate Cut Disposition

Gathered July 1986 From the Same Gather Shown in Table 2.
Little High Rock (CA-264) and Fox Hog (CA-263) Herds

| <u>Action</u> | <u>4 Yrs. and Younger</u> | | <u>5 Yrs. and Older</u> | |
|------------------|---------------------------|----------|-------------------------|----------|
| | <u>Number</u> | <u>%</u> | <u>Number</u> | <u>%</u> |
| Regular Adoption | 69 | 66% | 1 | 1% |
| Fee Waiver | 18 | 17% | 41 | 64% |
| Dead | 4 | 4% | 10 | 16% |
| Holding | 14 | 13% | 12 | 19% |
| Total Captured | 105 | 100% | 64 | 100% |

Disposition as of August 1988, 25 months after gathering.

Table 5.

Gate Cut Disposition

Gathered September 1981
From the Same Gather Shown in Table 3.
Devils Garden (CA-252)

| <u>Action</u> | <u>4 Yrs. and Younger</u> | | <u>5 Yrs. and Older</u> | |
|------------------|---------------------------|----------|-------------------------|----------|
| | <u>Number</u> | <u>%</u> | <u>Number</u> | <u>%</u> |
| Regular Adoption | 27 | 79% | 1 | 4% |
| Fee Waiver | 2 | 6% | 17 | 63% |
| Dead | 1 | 3% | 6 | 22% |
| Holding | 1 | 3% | 1 | 4% |
| Sanctuaries | 3 | 9% | 2 | 7% |
| Total Captured | 34 | 100% | 27 | 100% |

Disposition as of December 1987, 27 months after gathering.

Note: When the adoption success, in the Regular Adoption Program, is compared for the group 4 years of age and younger with the groups 5 years of age and older it becomes very

apparent that horses 4 years of age and younger are by far the most adoptable. For horses 4 years and younger, 66% were adoptable from Little High Rock and Fox Hog herds and 79% were adopted from Devils Garden herd. From the same gather for horses 5 and over, only 1% and 4% were adopted from Little High Rock and Fox Hog, and Devils Garden, respectively.

8. Gate Cut Management is the least expensive method of gathering and removing horses from the range (see Appendix A).
9. However, when the entire Wild Horse program is considered, it costs more and requires a higher level of management activity than does Structured Herd Management, as practiced in the Susanville District (see Appendix A).
10. Data further indicates that more than age is involved in obtaining a very high rate of adoption in the Regular Adoption Program. Data indicate that from 18% to 30% of the horses 4 years of age and younger are not adoptable. Those horses that were unadoptable either went into the Fee Waiver Program or were still in holding facilities, 25 months after being gathered.

The discussion above has concerned Gate Cut Management of wild horses. There is another type of management of wild horses that is referred to as Structured Herd Management. This involves selecting which horses are removed from public land and which horses remain.

Structured Herd Management as practiced in the Susanville District involves the following:

1. Selecting from an existing population of a herd, those individual horses that are to be retained in the Breeding Herd. This selection process is extremely important and must be done by an individual or group of people that are knowledgeable about horses. The primary consideration is to select horses that have good conformation and are well adapted to their environment while also being capable of producing adoptable off-spring. Selection is based on objectives in the individual Herd Management Plans. Objectives in the plans may specify conformation, height, type and color while also maintaining the integrity of herd. If a good job of selection is accomplished all or nearly all of the off-spring will be adoptable, provided they are offered for adoption before they reach 5 years of age.
2. After initial structuring, those horses removed from the herd when the population is above management level are horses 4 years of age and younger.

3. The selected Breeding Herd remains on the range their entire life. These horses may be captured each time there is a gather, but they are soon released on their home range.
4. The death loss in the Breeding Herd is replaced with horses 4 years of age and younger, either selected from the increases of the herd, or from other wild horse herds. It is very important to be very critical of the replacement horses selected for the herd. This will assure that in the future that off-spring from the herd will remain highly adoptable.

Some features of Structured Herd Management are as follows;

1. Structured Herd Management is neither a random or natural selection process. However, the natural selection process continues for those animals left in the Breeding Herd.
2. Structured Herd Management is a selective removal method based on age and meeting objectives in a Herd Management Area Plan. Objectives may include preserving characteristic such as height, type, or color. These type of objectives are included along with other resource objectives, such as forage allocation and habitat management.
3. Structured Herd Management requires a higher level of management activity for each Breeding Herd. This means gathering as close to 100% of the horses as practical, sorting Breeding Stock, selecting Breeding Stock replacements and returning Breeding Stock to the range.
4. It appears that nearly all of the horses removed from a well structured herd will be adoptable in the Adopt a Wild Horse or Burro Program.
5. Structured Herd Management results in much less total horse handling. Older horses do not under go processing, including castration of older studs prior to shipping to a sanctuary.
6. Structured Herd Management costs more than Gate Cut Management for the time the horses are gathered to the time they are released.
7. However, when the entire program is considered, from gathering to final disposition i.e. adoption or sanctuaries, Structured Herd Management is cheaper and results in less total management activity than does Gate Cut Management. The reason is that almost 100% of the horses removed from a well structured herd will be adoptable in the Regular Adoption Program, as compared to about 50% or less in a Gate Cut Herd (see Appendix A).
8. Of course it is not always possible to completely structure

all horse herds. This is mainly due to the habitat that the horses are found in and how easy it is for them to be captured. Partial selection can be done when additional horses beyond the removal number are captured.

In the last several years the Sanctuary Program has replaced the Feed Lot Holding and Fee Waiver Program. The sanctuary Program has several features as follows:

1. It shifts horses from public land to private lands under contracted management. These horses are still wild horses and continue to be the responsibility of the federal government.
2. It is cheaper than a Feeding Center. However, it is still costly. About 20% of the 1990 F.Y. budget for wild horses and burros will be used to pay for sanctuaries. If Gate Cut Management continues, the cost of the Sanctuary Program will continue to increase, as horses are added each year. It is difficult to analyze when this will stabilize.
3. If the population of wild horses is to be maintained at 30,000 horses and if these horses have an annual increase of 15%, then 4500 horses will need to be removed each year to control the populations. If half of these go into sanctuaries then sanctuary space will be needed for 2250 new horses each year. At this rate a new sanctuary is needed every year. Until the appropriate management level is reached the problem will even be greater. One way to figure needed Sanctuary space is as follows:

If there is 7% death loss in sanctuaries and 2250 new horses are added each year then it will take 32,130 head sanctuary space to stabilize the sanctuary population.
4. The sanctuary is a much more natural place for horses as compared to feeding centers.
5. Sanctuaries are set up on the assumption that they will be self supporting in three years. However, there is no guarantee that after the three years that all of them will be self supporting.
6. There is a need for the Sanctuary Program to absorb unadoptable horses while herds are being structured. However, with Structured Herd Management this need will decrease in a few years. Only very limited Sanctuary space will be needed in the future if Structured Herd Management is used to replace Gate Cut Management.

But wild horse management in the federal agencies is not all gathering and placement. Part of the management involves allocating sufficient forage to support planned populations numbers while

being in balance with other uses. The follow through to this is that herds and other grazing animals also be controlled at planned levels. This provides adequate forage for horses to develop at their genetic potential for their habitat. Horse management is a part of total management, not just a program that stands alone.

It is essential that horses be gathered in a safe and minimal stress manner, and that they be handled, transported and processed in manner to protect them from injury and disease. Regardless of the placement of each horse, this is required, and also gives each animal an opportunity to be adopted in the Regular Adoption Program, to a Sanctuary or go somewhere else on its own merits rather than being rejected because of injury or disease.

It is essential to provide proper nutrition to keep horses in top condition while at BLM holding facilities. This is required, and also gives each horse an opportunity to be adopted in the Regular Adoption Program on its own merits rather than being rejected because of being in poor condition.

DISCUSSION

In the fall of 1989, three herds were gathered that were part of the Stewardship experiment. One was a Gate Cut Herd and two were Structured Herds. The Breeding Stock for the two Structured Herds was selected and released three years ago. This year was the first group of young horses removed from a Structured Herd. Of those horses captured, all the older Breeding Herd animals were released along with a few young horses to replace the death loss. Those horses removed for adoption were four years of age and younger. From the appearance of these young horses it is reasonable to assume that nearly all of these young horses will adopt in the Regular Adoption Program.

Present data and information indicate that Structured Management works. It is less expensive over the long run, because it reduces the number of horses that have to be maintained off the public land. It requires less total management activity, And it is a humane way to treat horses. Older horses do not domesticate well and it is more humane to leave them in the wild, while young horses domesticate well and can be put to productive use.

Selective Management results in a high adoptability rate in the Regular Adoption Program for horses excessed from the herds. Most importantly, it provides for healthy, thriving populations for wild horses for future generation to enjoy.

Appendix A.

Annual District Costs Gate Cut Herds and Structured Herds 50 Head Base Herd

The following costs are based on information gathered in the Susanville District and on certain assumptions and expectations. These are as follows:

1. Data is based on a 50 head Base Herd. Increase expected as follows:
 - a. It is expected that the Gate Cut Herd will increase from 50 horses to 94 horses in 4 foal crops. This is 44 excess horses every 4 years.
 - b. It is expected that the Structured Herd will increase from 50 horses to 103 horses in 4 foal crops. This is 53 excess horses every 4 years.
2. Every 4 years the herd will be gathered and brought back to the 50 head Base Herd level.
3. It is expected that the adoptability rates will be as follows:
 - a. It is expected that 22 head of the excess horses gathered from the Gate Cut Herd will be adoptable in the Regular Adoption Program and that 22 head will be unadoptable and will go to a Sanctuary.
 - b. It is expected that 50 head of the excess horses gathered from the Structured Herd will be adoptable in the Regular Adoption Program and that 3 head will be unadoptable and will go to a sanctuary.
4. It is assumed that Sanctuaries will be self-supporting after 3 years of operation. This is an unknown at this time. It may well be that no sanctuary will be self-supporting after 3 years or that only some sanctuaries will self supporting after 3 years of operation. If sanctuaries do not become self supporting in 3 years costs shown here for the Gate Cut Herd will be greatly increased.
5. It is assumed that excess horses will be adopted by Satellite Adoptions. California cost did average about \$160 per head. This figure is used. New data is being compiled.

All data presented here is based on the annual cost of each cost factor for managing each 50 head Base Herd Unit. For example, the trap is set up every 4 years at a cost of \$1173 thus giving an annual cost of \$293.00.

Data presented here is based on cost after initial structuring is done. Cost of initial structuring will vary greatly for each herd.

Cost have been divided into District costs and Outside costs. Total net cost is derived by adding District costs and the outside costs and subtracting the adoption fees derived from adopting horses. These costs are as follows:

Table I.

| <u>Cost Factor</u> | <u>Structured Herd</u> | <u>Gate Cut Herd</u> |
|-------------------------------|------------------------|----------------------|
| trap set up | \$293 | \$293 |
| helicopter for gathering | \$1803 | \$770 |
| in district transportation | \$406 | \$117 |
| other vehicle and equipment | \$58 | \$25 |
| labor other than truck driver | \$361 | \$154 |
| miscellaneous | \$39 | \$17 |
| processing supplies | \$505 | \$352 |
| processing labor | \$89 | \$40 |
| vet processing | \$159 | \$132 |
| sorting for herd return | \$50 | \$-0- |
| feeding and care | \$1447 | \$1083 |
| adoption costs | \$2000 | \$880 |
| <hr/> | | |
| Total | \$7210 | \$3863 |

note: labor is scattered through several cost factors

Table II.

Annual Costs
Outside the District

| <u>Cost Factors</u> | <u>Structured Herd</u> | <u>Gate Cut Herd</u> |
|-----------------------------|------------------------|----------------------|
| shipping unadoptable horses | \$54 | \$396 |
| annual sanctuary costs | \$954 | \$6996 |
| <hr/> | | |
| Total Costs | \$1008 | \$7392 |

Table III.

Total Annual Net Cost

| <u>Cost Factors</u> | <u>Structured Herd</u> | <u>Gate Cut Herd</u> |
|---------------------|------------------------|----------------------|
| Total District Cost | \$7210 | \$3863 |
| Total Out Side Cost | \$1008 | \$7392 |
| <hr/> | | |
| Total Gross Cost | \$8218 | \$11255 |
| Less Adoption Fee | \$-1563 | \$-688 |
| <hr/> | | |
| Total Net Cost | \$6655 | \$10,567 |

The Structured Herd costs \$3912 less per 50 he^d Base Herd Unit for each year for management. Structured Herd Management cost 37% less than Gate Cut Management. If sanctuaries do not become self supporting in three years the spread between Gate Cut and Structured Herd Management will be much larger.

SUMMARY OF HERD MANAGEMENT AREAS BY RESOURCE AREA
CHART NO. 2

| RESOURCE AREA | HMAP | HMAP COMPLETED | COMPUTER NUMBER | HORSES BURROS | MANAGEMENT LEVELS | | | ACRES | | | TOTAL |
|---------------|--------------------------------------------------------------------------|----------------|-----------------|---------------|-------------------|--------------------|--------------------|----------------------|---------|-----------------------|-----------|
| | | | | | MINIMUM | MID-POINT | MAXIMUM | BLM | PRIVATE | OTHER | |
| Eagle Lake | Fort Sage (Managed in cooperation with Carson City District - Nevada) | Sept. 1985 | CA-241 | Horses | 30 | 38 | 45 | 12,509 ^{2/} | 160 | | |
| | | | | Burros | | | | 1,986 ^N | 40 | | |
| | Twin Peaks | Sept. 1985 | CA-242 | Horses | 600 | 725 | 850 | 653,905 | 136,729 | 2,998 ^{3/} | 14,695 |
| | | | | Burros | 75 | 93 | 110 | | | 4,295 ^{4/} | |
| New Ravendale | Sept. 1985 | CA-243 | Horses | 8 | 15 | 22 | 653,905 | 136,729 | 7,293 | 797,927 | |
| | | | Burros | | | | 18,500 | 9,060 | | 27,560 | |
| 3 Herds | | | | Horses | 638 | 778 | 917 | | | | |
| | | | | Burros | 75 | 93 | 110 | 686,900 | 145,989 | 7,293 | 840,182 |
| Alturas | Red Rock Lakes | Sept. 1985 | CA-251 | Horses | 16 | 21 | 25 | 12,475 | 4,420 | | 16,895 |
| | Devils Garden (Managed in cooperation with Modoc National Forest) | Sept. 1985 | CA-252 | Horses | 305 | 305+ ^{1/} | 305+ ^{1/} | 8,307 | 193 | 227,500 ^{5/} | 236,000 |
| | 2 Herds | | | Horses | 321 | 326+ | 330+ | 20,782 | 4,613 | 227,500 | 252,895 |
| Surprise | Coppersmith | July 1984 | CA-261 | Horses | 50 | 63 | 75 | 63,020 | 7,740 | | 70,760 |
| | Buckhorn | July 1984 | CA-262 | Horses | 50 | 63 | 75 | 62,320 | 3,320 | | 65,640 |
| | Fox Hog | July 1984 | CA-263 | Horses | 50 | 63 | 75 | 113,800 | 5,480 | | 119,280 |
| | High Rock | Sept. 1985 | CA-264 | Horses | 70 | 85 | 100 | 114,447 | 653 | | 115,100 |
| | Wall Canyon | Sept. 1985 | CA-265 | Horses | 15 | 20 | 25 | 47,877 | 1,400 | | 49,277 |
| | Nut Mountain | Sept. 1985 | CA-266 | Horses | 30 | 43 | 55 | 38,840 | 1,840 | | 40,680 |
| | Bitner | Sept. 1985 | CA-267 | Horses | 15 | 20 | 25 | 43,550 | 7,110 | | 50,660 |
| | Massacre Lakes | Sept. 1985 | CA-268 | Horses | 10 | 15 | 20 | 39,959 | 471 | 300 ^{6/} | 40,730 |
| | Carter Reservoir | Sept. 1985 | CA-269 | Horses | 20 | 25 | 30 | 21,880 | 1,320 | | 23,200 |
| 9 Herds | | | | Horses | 310 | 397 | 480 | 545,693 | 29,334 | 300 | 575,327 |
| Total | 14 Herds | | | Horses | 1269 | 1501+ | 1727+ | 1,253,375 | 179,936 | 235,093 | 1,668,404 |
| | | | | Burros | 75 | 93 | 110 | | | | |
| | | | | Animals | 1344 | 1594+ | 1837+ | | | | |

^{1/} Maximum management level has not been set for the Devils Garden, managed in cooperation with the Modoc National Forest. Maximum level is expressed as 305+. Also, note that acreage in the Modoc includes both Forest Service and private land.

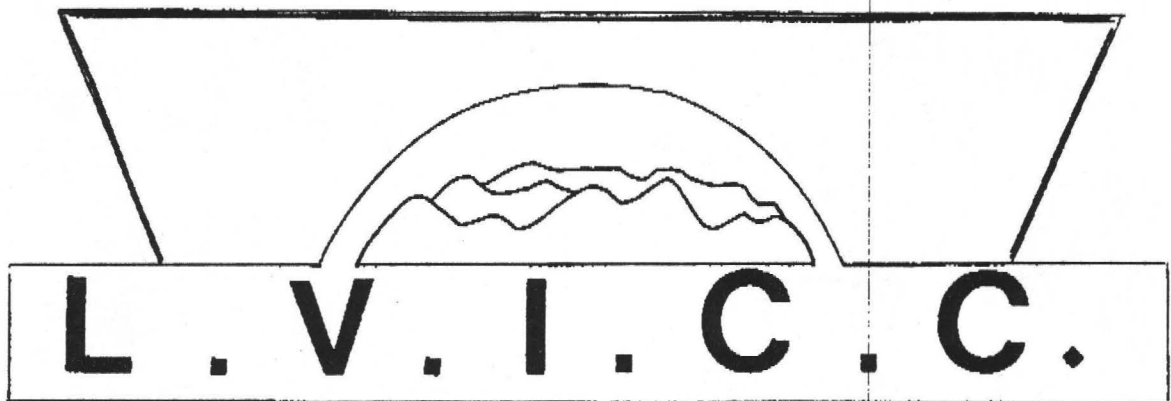
^{2/} C = California, N = Nevada

^{3/} State

^{4/} Department of Defence

^{5/} Modoc National Forest and private land in the Modoc

^{6/} County



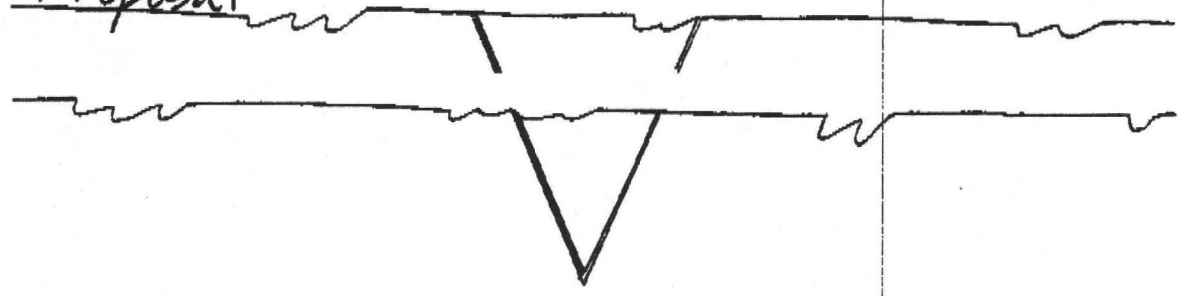
To: Dave Goicoechea Office: NV-950

→ Fax Number: (702) 785-6411

From: James McCreary Office: NV-952

→ Fax Number: (702) 648-2551

Subject: Productivity Enhancement
Proposal



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United States Department of the Interior
Productivity Enhancement Funding (PEF) Project Proposal

Title of Project Proposal
Pine Creek Fire Ecology Interpretive Trail

Date Form Prepared
July 27, 1990

Bureau or Office/Region
Bureau of Land Management
Las Vegas District Office

Project Initiator(s) (Name, Title, Phone)
James McCray (FTS) 598-6463
Fuels Mgmt Specialist (702) 647-6463

Office/Division/Location
Las Vegas District
Div. Resources, Las Vegas, NV

Project Manager (Name, Title, Phone)
Mason Hall (FTS) 598-5011
Administrative Officer (702) 647-5011

Project Starting Date (mo/yr)
October 15, 1990

Project Ending Date (mo/yr)
September, 1991

Estimated Costs (\$000)

Estimated Savings (\$000)

| | FY 91 | FY 92 | | FY 91 | FY 92 | FY 93 |
|--------------------------------|----------|-------|-----------------------|----------|----------|----------|
| a. Currently Budgeted | \$ 0 | \$ 0 | d. Tangible Savings | \$ 4,500 | \$ 0 | \$ 0 |
| b. Amount Requested | \$32,000 | \$ 0 | e. Cost Avoidance | \$ 0 | \$ 0 | \$ 0 |
| c. Total Costs | \$32,000 | \$ 0 | f. Increased Revenue | \$ 0 | \$ 0 | \$ 0 |
| | | | e. Efficiency Savings | \$ 6,000 | \$ 2,100 | \$ 2,225 |
| a. Benefit/Cost Ratio Budgeted | 0.46 | | d. Total Savings | \$10,500 | \$ 2,100 | \$ 2,225 |

Project Summary: (Include What is proposed, what will be accomplished, procedures to be used, how success will be measured, , schedule, costs, and benefits.)

The Pine Creek fire ecology and interpretive trail is proposed to be constructed through a prescribed burn to demonstrate the rejuvenation of plant and animal species after a fire. Signs and interpretive displays would be used to describe and illustrate this process and educate the public to the beneficial uses of fire as a management tool.

A temporary NTE, Fire Ecologist, (GS-5), \$10,000.00 would be hired for 5 work months to implement and develop the trail plan. This position would be needed to design the interpretive displays and to generally act as an advisor on the project.

Signing and interpretive displays, approximately \$10,000 would be designed and installed at various points along the approximately 1/4 mile trail. The signs would be placed describing the vegetation and the effects the recent fire had on plant damage, growth and reproduction potential. Signs would be

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small in size (approximately 12 inches high), made of metal, approximately 12 to 15 signs at a cost of \$150 each. An introductory sign would be placed at the trailhead junction with the Pine Creek trail. This sign would be larger (approximately 6' tall by 4' wide). This sign would introduce the trail and explain it's history and purpose. Near the base of this sign, or mounted on an adjacent post, would be a questionnaire box with pockets attached holding Fire Interpretive Trail brochures and questionnaires. The purpose of the questionnaire is to elicit public response to the trail and to solicit suggestions for improvement of the Bureau's fire prevention and interpretive programs. The introductory sign and questionnaire box is estimated to cost \$800.00.

Approximately \$5,000 is needed to fund our fire crews and Nevada Division of Forestry (NDF) inmate crews during the construction of the trail itself. The trail will be approximately $\frac{1}{4}$ mile long and approximately 3' wide, cleared to mineral soil. Costs are estimated for labor time only as crews come furnished with tools.

Design and printing costs, approximately \$7,000, for approximately 10,000 brochures and 10,000 questionnaires. Brochures would be color 8" x 10" four fold. Questionnaires would be 5" x 7" unfolded card stock.

Benefits would be measurable in increased public awareness of fire ecology in the Great Basin mixed conifer ecosystems and in heightened awareness of BLM prescribed burning goals and results. This will result in reduced future expenditures for public outreach programs regarding prescribed burns and allow us to utilize funding in other efforts in the local communities. This will lead to greater acceptance of prescribed burning as a management tool by the public at large. This educational trail will reduce expensive outlays for other forms of advertising such as; newspaper, radio, and television. Saving will be realized over a two year period, and beyond. ← Also, the program would be combined with a fire prevention message purveying the idea that while fire plays a useful roll in certain ecosystems, prescribed fire should only be undertaken by agencies charged with managing the public land and having the expertise to conduct such activities. In cooperation with the Nevada Natural Resource Education Council, BLM employees currently track environmental education policies, programs and procedures for Clark County school teachers. Many teachers and educators then bring classes to the Red Rock Canyon Recreation Lands for environmental education experiences. This program and trail will greatly expand the scope of the current program by providing additional educational experience and materials and will reach students in their formative years through a formalized Bureau program as well as making available an opportunity for the thousands of public visitors that annually visit the area.

Concurrence of Immediate Supervisor (Name, Title, Signature)

Gary M. [Signature] District FIRE Mgmt officer Date 07.30.90

DI-1941
(New 6/88)

930
Bill Phillips - Susanville

STRUCTURED HERD MANAGEMENT

STRUCTURED HERD MANAGEMENT RESULTS IN VERY SIGNIFICANT "LONG TERM COST SAVING" TO THE WILD HORSE AND BURRO PROGRAM, AS COMPARED TO GATE CUT MANAGEMENT.

STRUCTURED HERD MANAGEMENT (IN THE LONG RUN) REQUIRES LESS TOTAL MANAGEMENT EFFORT THAN GATE CUT MANAGEMENT.

STRUCTURED HERD MANAGEMENT IS MORE HUMANE THAN GATE CUT MANAGEMENT.

STRUCTURED HERD MANAGEMENT BUILDS A MORE POSITIVE IMAGE FOR THE WILD HORSE AND BURRO PROGRAM THAN DOES GATE CUT MANAGEMENT.

STRUCTURED HERD MANAGEMENT IMPLEMENTATION REQUIRES EMPLOYEES THAT ARE KNOWLEDGEABLE ABOUT HORSES AND THAT ARE CONCERNED ABOUT THE WELL BEING AND THE FUTURE OF THE WILD HORSE HERDS USING THE PUBLIC LANDS.

Milt —
Info Fred
brought back
from Kentucky

AGE STRUCTURE SUMMARY

GATE CUT GATHER

930
 Calif. Bill Phillips
 Susanville

| Herd | No | Gather | 0 - 4 | | 5 - 10 | | 11 + | |
|----------------------------------------------------------------|-------------|---------------------|-------------|-------------|------------|-------------|------------|-------------|
| | | | CALIFORNIA | % | | % | | % |
| 5 Herds Susanville | 913 | FY-81 FY-82 | 587 | 64.3 | 219 | 24.0 | 107 | 11.7 |
| CA-252 Devils Garden | 184 | FY-86 & FY-90 | 127 | 69.0 | 46 | 25.0 | 11 | 6.0 |
| CA-263 Foxhog | 101 | FY-89 | 62 | 61.4 | 25 | 24.9 | 14 | 13.7 |
| CA-263 Foxhog & CA-264 High Rock | 159 | FY-86 | 103 | 64.8 | 44 | 27.7 | 12 | 7.5 |
| SUB-TOTAL | 1357 | - | 879 | 64.8 | 334 | 24.6 | 144 | 10.6 |
| Horses (4 and younger 64.8%) (5 and older 35.2%) in California | | | | | | | | |
| NEVADA | | | | | | | | |
| NV-305 Pine Nut | 215 | FY-87 | 122 | 56.7 | 52 | 24.2 | 41 | 19.1 |
| NV-209 Black Rock East | 416 | FY-88 | 228 | 54.8 | 152 | 36.5 | 36 | 8.7 |
| NV-511 Amarogsa | 20 | FY-89 | 11 | 55.0 | 7 | 35.0 | 2 | 10.0 |
| NV-508 Mt. Stirling | 8 | FY-89 | 4 | 50.0 | 3 | 37.5 | 1 | 12.5 |
| SUB-TOTAL | 659 | - | 365 | 55.4 | 214 | 32.5 | 80 | 12.1 |
| Horses (4 and younger 55.4%) (5 and older 44.6%) in Nevada | | | | | | | | |
| TOTAL | 2016 | - | 1244 | 61.7 | 548 | 27.2 | 224 | 11.1 |

Horses (4 and younger 61.7%) (5 and older 38.3%) in Nevada and California