

IMPROVING THE ADOPTABILITY OF WILD HORSES THROUGH MANAGEMENT

Preliminary Report
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by
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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

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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 some what 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 only about 50-65% 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 capture 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 objective 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 sanctuaries 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 merit 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 animal 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 exceded 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
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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
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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
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Total Gross Cost	\$8218	\$11255
Less Adoption Fee	\$-1563	\$-688
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Total Net Cost	\$6655	\$10,567

The Structured Herd costs \$3912 less per 50 herd 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 ^C	160		
				Burros				1,986 ^N	40		
	Twin Peaks	Sept. 1985	CA-242	Horses	600	725	850	14,495	200		14,695
				Burros	75	93	110	653,905	136,729	2,998 ^{3/}	4,295 ^{4/}
New Ravendale	Sept. 1985	CA-243	Horses	8	15	22	653,905	136,729	7,293	797,927	
3 Herds			Horses	638	778	917	18,500	9,060		27,560	
			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