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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Las Vegas District Office
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In reply refer to:
4700
(NV-053)

February 14, 1991

MORANDUM

To: Harley Dickensheets, Chief, Facilities Branch
554 Range Group

From: Bob Stager, Las Vegas District Wild Horse and Burro
Specialist

Subject: Wild Horse herd health, water status, vegetation use and
condition, management considerations, and potential trap site
locations within the Nellis AFB Range 2/9 & 10/91

February 9 and 10, 1991, Harley Dickensheets, Derek Welch, and Melissa Batten
from Facilities Branch, 554 Range Group, and Julie Durfee and Bob Stager from the
Las Vegas District, BLM, used helicopters (Bell 206L-1's) with the objective to
collect relative wild horse densities by location; horse herd general
characteristics and health; status and availability of water; vegetation
utilization levels/conditions/trends; identify management considerations; and
locate potential trap sites for a capture.

While horse numbers were counted to get relative densities and distribution, the
sign and objectives of the field exercise were not to complete a census.
Detailed census work has been completed prior to this and would detract from
meeting the actual monitoring objectives stated above. Any numbers noted in this
report are meant to be used only for relative densities and distribution at the
time of the flights.

The data collected are summarized as follows:

Wild horse herd data:

(Data other than relative horse density was not collected for 4809A, EC WEST
EC EAST, 74B, 74A, and PAHUTE. EC WEST had horse health collected.)

Band size:

Range in band sizes were from 1 to 20 horses with a mean of 8 horses
to a band in areas 71N, 71S, 76, and 75E.

Nellis AFB Range Chart
Designations

Herd Band Characteristics

71N	range 1-20 mean 8
71S	range 3-14 mean 9
76	range 1-17 mean 8
75E	only one band of 8 noted

Adult to Young Rough Estimate:

Animals were classified as young if they were small and still attached to a mare. All other horses were considered as adults. This can not take the place of the statistics collected during a capture and is considered a conservative estimate.

The data can be used to judge relative reproductive health in relation to adjacent water and vegetation conditions.

For 71N, 71S, and 76 the population had 11% young with an 8 to 1 adult to young ratio.

71N	8% young	11 to 1	adult to young
71S	9% young	11 to 1	adult to young
76	17% young	6 to 1	adult to young

Relative wild horse density:

Nellis AFB Range Chart Designations	Relative Population Percentage of Sample	Population Sampled
71N	14.6	473
71S	7.2	232
76	7	225
75E	0.2	8
R-4809A	17.1	554
EC WEST	33.3	1078
EC EAST	5.6	181
74K	15	485
75W	0	0
TPECR	0	0
EC SOUTH	0	0
PAHUTE	0	0
74A	0	0
76A	0	0
TOTALS	100	3236

(not to be considered as a total population census)

Overall horse condition:

All the horses sampled in 71N, 71S, 76, 75E, and EC WEST were judged to be in good body condition and vigorous. All but one or two were not showing

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ribs. ran and moved with grace and energy, and had the appearance of having sufficient forage to date.

This is explained by the August/September late season rains stimulating warm season annual and perennial plant growth. This forage apparently carried the horses through the fall/winter and allowed them to regain body reserves and put on weight. (See vegetative summary)

Water availability and general quality status:

Due to time constraints, water flow was not sampled. The perennial and ephemeral water sources were flown over at a low level to view general conditions. Under average climatic conditions, water sources would be expected to flow good at this time. Ephemeral water sources are around the alkali flats where water naturally flows in the spring and were considered to be poor due to their short term availability.

Antelope and Willow springs had two 12 to 20 inch mud holes with horses sucking mud and water out of them. (these are springs I personally viewed.)

This is a general evaluation. It should be noted that even though some of the water sources (ephemeral and perennial) may be considered satisfactory as of February 9 and 10, 1991, it is the professional opinion of this staff (based on this review and the results of previous water flow data collected in 1989 and 1990) that existing horse population water demands will far outstrip the supply as the temperature increases.

Nellis AFB Range Chart Designations	Relative Water Status	
	POOR	SATISFACTORY
71N	100%	0
71S	No known water. They use 71N and 76 waters.	
76	0	100%
75E	No known water available	
R-4809A	0	100%
EC WEST	75%	25%
EC EAST	50%	50%
74B	67%	33%
SUMMARY	62%	38%

Vegetation Status and Conditions:

We completed a general use pattern map for 71N, 71S, and 75E by landing to measure use levels and then flying at a low level over the area to delineate

the extent of a use level zone.

In EC WEST we conducted a cursory utilization map flight estimate the use levels. In this area and the above mentioned ones, horse hooves prints were viewed by us from the helicopter while flying over the areas. Hooves prints were estimated to occur every 12 to 20 inches. This density of tracks in the heavy to severe use areas conferred the impression of a thorough "search" by wild horses to find any and all available forage.

Another field effort should be conducted to get more detailed data for all the primary horse use areas. This could be done in one day with a helicopter and trained personnel.

In all the areas sampled and flown over where wild horses were noted, little to no residual grass was available. Unless there is a spring rain, no measurable perennial or annual herbaceous plant growth is expected to occur. At the estimated and measured use levels identified, the prognosis for forage this spring is not considered good under current weather conditions.

Plant species measured were indian rice grass, winterfat, big galletta, Hilaria jamesii, Stipa sp., Three awn, and Sporobolus sp..

The sites were predominately silty loam, sandy loam and sandy range sites. These sites have the natural potential to be highly productive grass dominate communities.

Nellis AFB Range Chart Designations	Vegetative use status estimated	
	in Square Miles	Acres
71N	31	19,840 SEVERE USE
71S	58	37,120 SEVERE USE
76	Use levels not measured. Area not considered to be improperly grazed.	
75E	18	11,520 SEVERE USE
R-4809A	No data collected	
EC WEST	200	128,000 HEAVY TO SEVERE USE
EC EAST	No data collected.	
74B	No data collected.	
Estimated Totals	307 Square miles	196,480 acres HEAVY TO SEVERE USE LEVELS

MANAGEMENT CONSIDERATIONS:

ISSUES:

1. Water supply vs animal demand is not adequate.
2. Vegetation use levels are excessive over large areas and ecological conditions and trend are estimated to be poor to fair and downward, respectively. With vegetation removed, wind blown soil is more common from the silty and sandy loam range sites. There is not adequate forage to maintain existing wild horse herd levels.
3. Wild horse health appears good as of 2/10/91. Unless snow falls or a spring rain occurs, water and vegetation will not be sufficient to maintain all the horses present.
4. The extent of the large wild horse populations impact on military and other national security activities has not been fully measured for security reasons. However, fugitive dust from horse movements and wind caused soil erosion due to degraded range conditions and excessive vegetative use levels adversely impacts military operations. Wild horses are killed regularly on the numerous roads around the Tonopah Test Range posing a safety hazard to humans, as well as, the horses. Current numbers of wild horses exacerbate the situation.

These are not new issues. We only corroborated earlier findings and confirmed the critical nature of the resource conditions.

The following table showing relative horse levels, vegetative utilization and water status clarifies and supports these issues.

11is AFB Range Chart aa Designations	Relative WH Population Percentage of Sample	Acres use est. Heavy/Severe	% of current Water status POOR
4	14.6	19,840	100%
3	7.2	37,120	No water known.
	7	N/A	0%
5	0.2	11,520	No water known.
4809A	17.1	No data	0%
WEST	33.3	128,000	75%
EAST	5.6	No data	50%
3	15	No data	67%

AFF RECOMMENDATIONS:

1. Initiate a capture sometime between 3/18 to 4/1/91. The current warm weather trends are expected to increase the horse water demands and forage needs as they seek water over greater distances. Unless there is precipitation with cooler temperatures, horses are expected to suffer. The sooner the capture the better our chances of capturing healthier animals.

2. Finalize the Nellis capture plan and EA including use pattern data and these findings/recommendations as they apply no later than 2/15/91. This will facilitate initiating the capture by 3/18 after the public review period.

3. The Military would prefer the use of BLM capture crews for security reasons. Under the time frames and the critical conditions present, BLM capture crews should be used. Wyoming may be available by 4/8/91, Kingman by 3/20/91, Susanville is committed to work in California through May, and Las Vegas wild horse and burro personnel and panels can be available 3/18/91. Livestock trucks are needed to transport the horses.

4. A minimum of 1800 should be removed. We should consider removing approximately 1600 from LC WEST and R-4809A and 200 from 71S/76. If possible, horses should be captured from 74B.

5. California and Arizona BLM capture crews selectively remove healthy and more adoptable animals when possible. Palomino facility suggests this approach. It is recommended that we remove and ship only the healthiest horses and those that could be adopted. Turn the remainder loose to live their lives in the wild and humanely dispose of those that are not able to make it on their own. Palomino facility requests that we only ship from 120 to 250 animals per week to keep from overloading the facility.

6. Train 2 to 4 Nellis personnel on Wild Horse and Burro regulations/policies, monitoring techniques, management objectives, management issues etc, by February 21, 1991. This will help them to understand and better relate conditions and management to the BLM, interest groups, and the media, as needed.

7. Nellis has kindly agreed to resume hauling water by 2/15/91 to Silverbow Springs until the capture this year is completed.

8. A supervised tour near Silverbow and Willow Springs should occur by March 10, 1991 for interest groups. As a minimum, it should include WHOA, Nevada Commission for The Protection of Wild Horses, National Wild Horse Association (in Las Vegas), Becky Boroques (Group in Southern California 30,000 members), Karen Sussman of Arizona, and Bob Hillman of APF. I have the names phone numbers and addresses of these groups, if needed.

9. It is recommended that the media be afforded the same tour with whatever security constraints that are needed.

10. The Las Vegas District should work with Nellis to collect by helicopter detailed use maps in critical horse use areas, trend and ecological data at the key areas, and trend and ecological data based on professional judgement over most of the higher density horse use areas. This should be done before 3/8/91 so it will be available to share with the interest groups.

Nellis personnel helping us should be commended for their sincere resource management concerns and invaluable assistance to us in assessing the situation. Thank you.

LVDD
CRA, NSD, Publics