

Lucky Strike Canyon Allotment
Wheeler Pass HMA 7-12-90



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
STATELINE RESOURCE AREA
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IN REPLY REFER TO:
4120.2
(NV-054)

JUL 12 1990

Wild Horse Organized Assistance, Inc.
P. O. Box 555
Reno, NV 89504

Dear Sir/Madam:

Enclosed is a draft copy of the Wheeler Wash and Lucky Strike Canyon Allotment Interpretation Evaluations. As an affected interest, please review the evaluations and return within 30 days of receipt with your comments.

If you have any questions on the allotment evaluations, please contact Jeff Steinmetz or Richard Barry of my staff at (702) 647-5096.

Sincerely,

Runore Wycoff
Area Manager

2 Enclosures

1. Wheeler Wash Allotment Documentation Report
2. Lucky Strike Canyon Allotment Documentation Report

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Lucky Strike Canyon Allotment
Evaluation Documentation
Narrative

April 16, 1990

Bureau of Land Management
Las Vegas District
Stateline Resource Area
Las Vegas, Nevada

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Lucky Strike Canyon Allotment
Evaluation Documentation
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growth. Monitoring data will be closely reviewed to assess any changes identifying a need for change in management.

D. Interim management would be as follows:

1. Authorize livestock grazing below 4000 feet in tortoise habitat from October 15 to March 15. Utilization on perennial forage species will be no greater than 55 percent of the previous years growth on perennial grasses and 45 percent on shrubs. This is the dormant time for vegetation and the desert tortoise.

2. Authorize livestock grazing below 4000 feet in desert tortoise habitat from March 16 to October 14 with the following guidelines:

a. A range inspection by the BLM will be conducted prior to the period of use applied for by the permittee, to determine that a minimum of 100 to 150 pounds per acre of annual plant species total air dry weight production is available.

This guideline will allow livestock grazing only during average or better growing conditions for a specific location. This will provide for a rest about 50 percent of the time. No grazing will be authorized during below average growing conditions on a site specific basis. This will reserve all the vegetation produced for the tortoise, improvement of the vegetative community, and the watershed.

b. During the production study or follow-up study, determine whether or not tortoise have emerged from their burrows in the spring. If the climate is unusually cold and tortoise emergence is delayed, use may be permitted for a specified period of time after March 15 until emergence or warmer weather occurs. This would be determined on a case by case basis and use will be closely monitored for short periods of time.

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- c. If production studies determine that 100 to 150 pounds per acre of annual plant species air dry production exists and grazing is authorized, the maximum utilization level of the current years perennial forage species growth allowed will be 50 percent. Less than 50 percent utilization may be stipulated on a case by case basis if management objectives and/or conditions supported by monitoring data warrant it. Monitoring data shows that moderate or lower utilization levels in the Mojave Desert results in static to upward vegetative trend with increases in cover and species diversity (Crescent Peak allotment evaluation and Bulletin 483, March 1971, "Effect of Season and Intensity of Use On Desert Vegetation", C. Wayne Cook).
- d. Where there is a significant perennial forage component and the ecological condition is Late Seral (good condition) or better, use after March 15 may be authorized without considering the production guideline for annual species on a site specific basis. The maximum allowable-use level of the current years perennial forage species growth allowed will be 55 percent on perennial grasses and 45 percent on shrubs. Utilization levels less than specified allowable-use levels may be stipulated on a case by case basis if management objectives and/or conditions supported by monitoring data warrant it.

These management guidelines will maintain or improve objectives AO-1, AO-2, AO-4, AO-6, AO-8, KA-1, W-1, WL-3L, WL-1S, and aid in meeting objectives AO-3 and UP-1.

2. Allow licensed livestock to utilize portions of the allotment below 4000 feet from October 15 to March 15 (Winter/Spring). For the remainder of the year, March 16 through October 14 (Summer/Fall), the livestock will utilize the upper elevations of the allotment or until 55 percent utilization levels are reached at key areas. Movement will be based on availability of forage, phenology and climatic conditions. This will maintain or improve objectives AO-1, AO-2, KA-1, W-1, WL-3L,

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WL-1S at current management levels and meeting objectives RA-1 and UP-1.

3. Range Improvement Projects

The following range improvement projects are recommended to facilitate better livestock, wild horse and burro distribution and to improve habitat conditions for mule deer and Gambel's quail. The projects will also aid in alleviating grazing pressure in crucial desert tortoise habitat and reduce wild horse and burro use in the Lee Canyon recreational area. Water will also be provide during critical times of the year. This recommendation will maintain or improve objectives AO-1, AO-6, AO-10, W-1, WL-1L at current management levels and aid in meeting objectives AO-3, AO-7, WL-2L, and RA-1.

By FY91, complete the following projects:

- a. Fence the Grassy Spring source. Leaving water available at the source, run a pipeline downslope to a water trough. This will provide sufficient water to maintain or improve riparian habitat and provide water for wildlife, livestock, wild horses and wild burros.
 - b. Fence the Grapevine Spring source and establish a float box on the existing pipeline. This will provide sufficient water to maintain or improve riparian habitat, allow control over the flow of water into the established water trough and provide water for livestock, wildlife, wild horses and burros.
4. Manage wild horse and burro populations to achieve a thriving ecological balance by removing excess animals based on monitoring data (use pattern map, key area trend and utilization studies, and water flow rates from springs). This recommendation will aid in maintaining or improving objectives AO-1, AO-6, AO-10, W-1, WL-1L at current management levels and in meeting objectives AO-3, AO-7, WL-2L, and RA-1.
5. In order to better manage the wild horse and burro herds consistent with their actual historic use areas, these HMA's should be modified as indicated on map 5, appendix B upon further review and study. This proposed modification does not result in any reduction in the HMA's outside boundary set in the Clark MFP III

and the Stateline-Esmeralda Resource Management Plan. Monitoring data collected from 1988 through 1990 shows three distinct historic herd areas within the existing Spring Mountain, Mount Stirling, and Last Chance HMA's. Very little data was available and compiled prior to 1988. The suggested names for these revised HMA boundaries are the Red Rock HMA, Lucky Strike HMA, and the Mount Stirling-Wallace Canyon HMA. This is consistent with the 1971 Wild Horse and Burro Act and will meet objectives AO-1, AO-2, AO-8, AO-9, AO-10, W-1, and will aid in meeting objectives AO-3 and UP-1.

6. Continue to manage problem animals around the town of Indian Springs, Kyle and Lee Canyon Roads, Indian Springs prison, and Cold Creek Road on an as needed basis. This will protect private property, possible harm to humans and motor vehicles, and the wild horses and burros themselves. This will aid in maintaining objectives AO-8, AO-9, and AO-10 at current management levels.
7. Establish a frequency trend transect near key area 1 or 2 during the spring of 1991 for livestock, wild horses and burros. Read the transect in the spring of 1991 and 1996, then evaluate the frequency of the key species. The study will aid in evaluating management in relation to objectives AO-1, AO-2, AO-6, AO-8, W-1, and WL-3L.
8. Continue to conduct field inspections prior to the issuance of an ephemeral grazing permit. This will meet objective AO-11.
9. In cooperation with the Stateline Resource Area Soil Scientist, establish studies in which data will be used in the revised Universal Soil Loss Equation at Key Area 1 and 2. Objectives AO-1 and W-1 will be met.

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I. Introduction

- A. Allotment Name: Lucky Strike Canyon
Allotment Number: 15442
- B. Permittee: Vernon Young
- C. Selective Management Category: M (Maintenance)
- D. Kind (Class) of Livestock: Horses
- E. Average AUM's (1977 to 1988): 240 AUM's

II. Livestock and Wildlife

A. Livestock Use

1. Classification and Preference:

In 1969, the Lucky Strike Canyon Allotment was classified as ephemeral range. Grazing preference for ephemeral allotments is expressed in terms of the allotment or area of use and not in terms of animal unit months (AUMs). The existing ten year permit also specifies the area of use for ephemeral allotments. There are no set numbers of livestock. Under the 1969 ephemeral range rule, livestock use is adjusted to the annual capacity available from year to year.

2. Grazing System

Grazing has been yearlong since priority was established in 1940 with domestic horse use patterns determined by seasonal climatic changes. During the late spring and summer, domestic horses are usually found in elevations above 4000 feet. For the remainder of the year, fall and winter, the horses may be found in lower elevations of the allotment depending on the availability of forage and water.

B. Wildlife Use

1. Mule Deer

The Lucky Strike Canyon Allotment is included in Big Game Area E-1. The allotment has 24,605 acres of mule deer habitat. The majority of the deer habitat has been transferred to the U.S. Forest Service due to the recent Nevada Forest Enhancement Act. See map 3, appendix A for mule deer habitat.

2. Desert Tortoise

Category II desert tortoise habitat is present on the Lucky Strike Canyon Allotment (38,300 acres is desert tortoise habitat). Potential desert tortoise habitat is generally below 4000 ft. in elevation and supports a creosote vegetative type. Tortoise density and distribution appears to be associated with soil vegetation characteristics. See map 2, Appendix A for tortoise habitat.

3. Gambel's Quail

The Lucky Strike Canyon Allotment has 74,883 acres of quail habitat, of which 7,882 acres is considered summer crucial habitat. A portion of the quail habitat, including all summer crucial habitat, has been transferred to the U.S. Forest Service due to the recent Nevada Forest Enhancement Act.

C. Wild Horse and Burros

The Lucky Strike Canyon Allotment is located within the proposed historic Lucky Strike Herd Use Area which is part of the existing Spring Mountain Herd Management Area (HMA). The number of wild horses on the allotment according to the September, 1988 census is fifty. The 1988 census identified the number of burros at fifty three. Monitoring data indicates the Lucky Strike herd is considered a distinct because little intermixing and breeding occurs with other herds located within the Spring Mountain HMA due to the rugged terrain of the Spring Mountains and scattered springs. The majority of horses found in the Lucky Strike Herd Use Area are primarily dark colored horses (bays, blacks, sorrels) while 25 percent paints are found in the Mt. Stirling - Wallace Canyon Herd Use Area and 40 percent palomino's in the Red Rock area. See Map 3, 4, and 5, appendix A for wild horse and burro habitat.

III. Allotment Profile

A. Description:

The Lucky Strike Canyon Allotment is 22 miles north of downtown Las Vegas, Nevada. The allotment is bounded to the west by the Toiyabe National Forest and the Wheeler Slope Allotment, and to the north and east by Highway 95. Kyle Canyon Road is the southern boundary. The town of Indian Springs is the allotment's northern boundary. The elevation ranges from 3,000 ft. along Highway 95 to 5,200 ft. in the Spring Mountains (See Allotment

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Map, Appendix A).

Precipitation averages about 5.3" annually at Pahrump, Nevada. The Pahrump area and the Lucky Strike Canyon Allotment are similar in elevation and generally have the same weather and climatic patterns. For the most part, the majority of yearly precipitation falls between November to May during the cool season. These rains are fairly uniformly distributed, low intensity winter storms. The remaining precipitation falls between June and October. These storms are scattered and are of high intensity.

In 1989, the Bureau of Land Management and the U.S. Forest Service exchanged land in accordance with the Nevada Forest Enhancement Act. A total of 40,356 acres in the Lucky Strike Allotment has been transferred to the Toiyabe National Forest in compliance with the act, leaving 98,420 acres under Bureau of Land Management administration.

The following vegetative information from the Clark County Range Survey of 1979 indicates the acreage of vegetative types found in the Lucky Strike Allotment prior to the Enhancement Act:

<u>Vegetation Types and Sub-types</u>	<u>Acreage</u>	<u>%</u>
creosotebush - creosotebush	24,133	17
desert shrub - blackbrush	46,143	33
desert shrub - fourwing saltbrush	3,083	2
desert shrub - White bursage	18,699	14
desert shrub - broom snakeweed	3,282	2
desert shrub - yucca	7,887	6
desert shrub - Joshua tree	35,579	26
	138,776	100

The majority of acreage transferred to the U.S. Forest Service is in the Pinyon Pine - Juniper and Blackbrush types. The remaining areas in the allotment are dominated mostly by perennial shrubs. There are sandy sites and washes dominated by perennial grasses as such big galleta grass and Indian ricegrass. Important year-round perennial forage shrubs include white bursage and range ratany. Winter and summer ephemeral forbs and grasses are produced anywhere soil moisture and temperatures are favorable. Of these annuals, filiree and six-weeks grama can be important livestock forage during the spring and fall.

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B. Allotment Specific Objectives

The following allotment level objectives have been tiered from the Land Use Plan/MFPIII objectives or decisions. If the respective allotment objective(s) are met, the LUP/MFP III objective/decision(s) have been met. The key management area objectives are tiered from the allotment objectives which are identified in parenthesis with each allotment and key management objective identified below. Whether or not an allotment objective is met is determined by the results of the respective key, riparian, or wildlife area evaluation conclusions.

1. (AO-1) Maintain existing ground cover, as defined by the revised Universal Soil Loss Equation (W 3.0 & W 4.0).
2. (AO-2) Maintain static or upward trend on key perennial forage species on key areas (LG 1.0, RM 1.0, RM 1.1, RM 1.2(2), RM 1.2(3), RM 1.10, RM 2.0, & WL 2.0).
3. (AO-3) Maintain utilization levels at the allowable-use levels identified on key/crucial management areas and recorded through use pattern mapping (LG 1.0, RM 1.0, RM 1.1, RM 1.2(2), RM 1.2(3), RM 1.10, RM 2.0, & WL 2.0).
4. (AO-4) Maintain or improve habitat conditions for mule deer (RM 1.10, WL 1.0 & WL 2.0).
5. (AO-5) Maintain or improve habitat conditions for Gambel's Quail (RM 1.2(7), WL 1.0 & WL 1.35).
6. (AO-6) Maintain or improve desert tortoise habitat (RM 1.2(I), & WL 3.0).
7. (AO-7) Maintain or improve riparian vegetative communities for Grassy and Grapevine Springs (WL 1.1, WL1.35, RM 1.2(4)).
8. (AO-8) Maintain or improve wild horse and burro habitat in a thriving ecological balance by providing forage to manage for wild horses and burros yearlong in the Lucky Strike Herd Use Area, if such use is consistent with the attainment of the vegetative objectives (R.M 1.1, WH&R 1.1, HMAP-A).

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- 9. (AO-9) Protect or improve wild horse and burro free roaming behavior by preserving or enhancing home ranges (i.e. prohibit the building of new permanent fences that may restrict movement or encourage removal of existing fences that may increase movement) (RM 1.1, R.M. 2.0, WH&B 1.0, WH&B 1.1, WH&B 2.0, HMAP-A).
- 10. (AO-10) Maintain or improve wild horse and burro habitat by providing water where possible and developing or improving waters (excluding rain water catchments for wildlife) (WH&B 2.0).
- 11. (AO-11) Prior to issuing an ephemeral grazing permit, a field inspection will be made to determine if sufficient forage is available (LG 2.0, RM 1.0, RM 1.9, & RM 2.0).

Key/Crucial Management Area Objectives:

1. Specific Key Area

Long and Short Term Objective (KA-1)

Maintain the utilization levels below for the key species in key areas 1 and 2 (AO-2, AO 3).

Key Area 1

- ≤55% desert needlegrass
- ≤45% Mormon tea

Key Area 2

- ≤55% desert needlegrass
- ≤55% Indian ricegrass
- ≤45% Mormon tea

2. Watershed (W-1)

Long and Short term

Maintain or sustain any increase in the combined perennial vegetative canopy and litter components as measured at key area 1 and 2. All live annual species, persistent and non-persistent litter are considered as litter (AO 1).

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3. Riparian (RA-1)

Long and Short Term

Utilization levels on the following riparian areas will not exceed 55% utilization of the current years growth. When 55% utilization is reached, livestock will be removed.

Grapevine Spring and Grassy Spring

4. Wildlife

Long term Objectives

- a. (WL-1L) Maintain or improve the habitat condition for deer (AO 4).
- b. (WL-2L) Maintain or improve the habitat condition for Gambel's quail by keeping utilization at or below the allowable-use levels of 55% utilization (AO 3 & 5).
- c. (WL-3L) Maintain or improve the ecological status (range condition) on desert tortoise habitat to a minimum of mid seral stage (fair condition) (AO-1, AO-2, AO-3, AO 6).

Short Term

- e. (WL-1S) In Category II Desert Tortoise Habitat authorize grazing between October 15th and March 15th of each year and at use levels not to exceed 55% of the current year's growth on key forage species. Grazing at other times of the year must be in accordance with the intermin management guidelines located in the technical recommendations (AO 6).

5. Use Pattern Mapping

Long and short term (UP-1)

Maintain utilization levels on key species at or below the following use levels for the periods and locations identified (consistent with other utilization objectives) (AO-1, AO-2, AO-3, AO-4, AO-5, AO 6, AO-7).

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Maximum Utilization Level Allowed

	Category II Desert Tortoise Habitat (1)	Remaining Allotment
<u>Key Species</u>	<u>10/15-3/15</u>	<u>Yearlong</u>
Perennial	≤ 55%	≤ 55%
Herbaceous		
Shrubs	≤ 45%	≤ 45%

(1) Through section 7 consultation with the U.S. Fish and Wildlife Service, all impacts to desert tortoise habitat will be mitigated as required by the 1973 Endangered Species Act.

IV. Management Evaluation

A. The purpose of this evaluation is to determine if present management is meeting Land Use Plan allotment level objectives and recommend changes in allotment management or grazing practices necessary to meet those objectives.

B. Summary of studies data:

1. Actual Use

The licenced-use was employed as an estimate of the livestock actual-use due to incomplete records of the latter. Licensed use has averaged 240 AUM's between 1980 to 1988 with 1983 having 254 AUM's and 1984 approximately 280 AUM's. Licensed use for 1989 was 60 AUM's.

The grazing year is from the first of March to the end of the following February.

2. Weather Data

The data from the Pahrump UN Lab, a NOAA weather station, was used as an estimate of the allotment's weather. The elevation of the weather station brackets the elevation of the land that is grazed on the Lucky Strike Canyon Allotment. The following table shows climatatic data for Pahrump from 1970 to 1989.

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Fahrump UN Lab at Fahrump, NV.

Annual ppt. (in.)	5.28
Warm-season ppt. (in.)	1.37
Cool-season ppt. (in.)	3.79
Annual temp. (F°)	62.07
Warm-season temp. (F°)	75.72
Cool-season temp. (F°)	51.98

The annual precipitation and temperature is based on the water year, which is from October to September. The warm-season is from July to October, while the cool-season is from November to May. For a detailed presentation of the weather data, refer to figures 1 to 7 in Appendix B.

3. Utilization

Utilization is an estimation of the total annual growth removed by foraging animals. Using the key forage species method, utilization estimates on key species were conducted along a transect within the key area each year. See Map 1, Appendix A for location of key area.

Allowable-use is the maximum amount of utilization which is desirable on a key species for a given key area. Allowable-use on perennial grasses and forbs are 55% and shrubs are 45%.

Utilization on key species in Key Area 1 was estimated on desert needlegrass and Mormon tea. In the two years of recorded utilization data, the allowable-use on the key species was never exceeded. Use has ranged from slight (1-20%) to light (21-40%). The utilization levels on the key species are as follows:

	<u>Spring</u>	
	<u>1987</u>	<u>1988</u>
desert needlegrass	37	21
Mormon tea	39	19

Utilization on key species in key area 2 was estimated on desert needlegrass, Indian ricegrass, and Mormon tea. In two years of data collection, the allowable use on key species was never exceeded. Overall use has been light. The utilization levels are as follows:

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	Spring	
	1987	1988
desert needlegrass	33	18
Indian ricegrass	40	0
Mormon tea	30	19

Indian ricegrass is found in the key area but the grass is extremely sporadic and grows mostly in washes. When utilization studies for the 1987 grazing season were conducted, six Indian ricegrass plants observed along the transect. For the 1988 grazing season, no Indian ricegrass was recorded on the transect.

Use pattern mapping was completed on the Lucky Strike Allotment in 1988 and 1989. Small areas of heavy use were found at Grapevine and Grassy Springs. Moderate grazing also occurred on the first one and one-half mile of the Lee Canyon Road near Highway 95 because of burros. The remainder of the allotment has slight to light use.

4. Trend and Cover

Vegetational and cover trends are measured by the quadrat frequency method described in the BLM "Rangeland Monitoring - Trend Studies (TR 4400-4)" handbook. These monitoring studies have not been established on the Lucky Strike Canyon Allotment as of this time.

V. Conclusion

A. Allotment Level Objectives:

1. (AO-1) Maintain existing ground cover, as defined by the revised Universal Soil Loss Equation (W 3.0 & W 4.0).

This objective has been met. Refer to Watershed Objective (W-1).

2. (AO-2) Maintain static or upward trend on key perennial forage species on key areas (LB 1.0, RM 1.0, RM 1.1, RM 1.2(2), RM 1.2(3), RM 1.10, RM 2.0, & WL 2.0).

This objective has been met. A trend study has not been established at or near key areas 1 or 2. However, utilization studies and use pattern mapping show that utilization levels at both key areas are below allowable-use levels. Professional

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Judgement indicates that the trend on key species are static at key areas.

3. (AO-3) Maintain utilization levels at the allowable use levels identified on key/crucial management areas and recorded through use pattern mapping (LG 1.0, RM 1.0, RM 1.1, RM 1.2(2), RM 1.2(3), RM 1.10, RM 2.0, & WL 2.0).

This objective has not been met. Refer to Key Area Objective (KA-1). Utilization levels at Key Area 1 and 2 have been slight to light, thus meeting allowable use levels. However, use pattern mapping indicates small areas of heavy use at Grassy and Grapevine Springs.

4. (AO-4) Maintain or improve habitat conditions for mule deer (RM 1.10, WL 1.0 & WL 2.0).

This objective has been met. Refer to Wildlife Objective (WL-1L).

5. (AO-5) Maintain or improve habitat conditions for Gambel's Quail (RM 1.2(7), WL 1.0 & WL 1.35).

This objective has not been met. Refer to Wildlife Objective (WL-2L). No wildlife guzzlers have been established that would service gambel quail. Grassy, Grapevine, and Shumacher Springs have received use greater than 55%.

6. (AO-6) Maintain or improve desert tortoise habitat (RM 1.2(1), & WL 3.0).

This objective has been met. Refer to Wildlife Objectives (WL-3L).

7. (AO-7) Maintain or improve riparian vegetative communities for Grassy and Grapevine Springs (WL 1.1, WL1.35, RM 1.2(4)).

This objective has not been met. Refer to Riparian objective (RA-1). Grapevine and Grassy Springs have exceeded allowable use limits according to use pattern mapping.

8. (AO-8) Maintain or improve wild horse and burro habitat in a thriving ecological balance by providing forage to manage for wild horses and burros yearlong in the Lucky Strike Herd Use Area (R.M 1.1, WH&B 1.1, HMAP-A).

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This objective has been met. According to utilization studies and use pattern mapping, utilization levels throughout the allotment is slight to light thereby providing forage for wild horses and burros..

- 9. (AO-9) Protect or improve wild horse and burro free roaming behavior by preserving or enhancing home ranges (i.e. prohibit new permanent fences that may restrict movement or encourage removal of existing fences that may increase movement) (RM 1.1, R.M. 2.0, WH&B 1.0, WH&B 1.1, WH&B 2.0, HMAP-A).

This objective has been met. Fences which could restrict the movement of wild horses and burros have not been authorized or constructed. Existing fences do not adversely effect the free roaming behavior of wild horses and burros on the allotment.

- 10. (AO-10) Maintain or improve wildhorse and burro habitat by providing water where possible and developing or improving waters (excluding rain water catchments for wildlife) (WH&B 2.0).

This objective has been met. Water is available for wild horses and burros at springs and other water developments within the HMA.

- 11. (AO-11) Prior to issuing an ephemeral grazing permit, a field inspection will be made to determine if sufficient forage is available (LG 2.0, RM 1.0, RM 1.9, & RM 2.0).

This objective has been met. A field inspection is conducted to assure adequate forage is available prior to issuing grazing permits. This is standard operating procedures for issuing grazing authorizations on ephemeral rangeland.

B. Key/Crucial Management Area Objectives:

1. Specific Key Area

Long and Short Term Objective (KA-1)

Maintain the utilization levels below for the key species in key area 1 and 2 (AO 3).

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Key Area 1

≤55% desert needlegrass
≤45% Mormon tea

Key Area 2

≤55% desert needlegrass
≤55% Indian ricegrass
≤45% Mormon tea

This objective has been met. Utilization at or below the prescribed allowable use-levels has been maintained for the key species in key area 1 and 2. (AO 3).

2. Watershed (W-1)

Long and Short Term

Maintain or sustain any increase in the combined perennial vegetative canopy and litter components as measured at key area 1 and 2. All live annual species, persistent and non-persistent litter are considered as litter (AO 1).

This objective has been met. At Key Areas 1 and 2, utilization levels have been below allowable-use levels thus maintaining vegetative canopy.

3. Riparian (RA-1)

Long and Short Term

Utilization by foraging animals on the following riparian areas will not exceed 55% utilization of the current years growth:

Grapevine and Grassy Springs.

This objective has not been met. Utilization at both Grassy and Grapevine Springs have exceeded 55% and both springs are degraded.

4. Long Term Wildlife Objectives

a. Mule Deer (WL-1L)

(WL-1L) Maintain or improve the habitat condition for mule deer (AO 4).

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This objective has been met. Use pattern mapping and utilization studies at key areas indicate that utilization levels are below allowable-use levels throughout the majority of the allotment.

b. Gambel's Quail (WL-2L)

(WL-2L) Maintain or improve the habitat condition for Gambel's quail by keeping utilization at or below the allowable-use levels throughout the allotment (AO 3 & 5).

The objective has not been met. Use at waters and springs used by Gambel's quail has exceeded 55% leading to deterioration of the springs and riparian areas. No guzzlers have been established in the allotment.

c. Desert Tortoise (WL-3L)

(WL-3L) Maintain or improve the range condition on desert tortoise habitat to a minimum of mid seral stage (AO 6). This objective has been met. Utilization levels in tortoise habitat have been \leq 45 percent. Ecological condition has been maintained at mid to late seral based on professional field judgement.

Short Term Wildlife Objectives

a. Desert Tortoise (WL-1S)

(WL-1S) In Category II Desert Tortoise Habitat authorize grazing between October 15th and March 15th of each year and at use levels not to exceed 55% of the current year's growth on key forage species. Grazing at other times of the year must be in accordance with the management guidelines located in the technical recommendations (AO 6).

This objective has been met. Due to present stocking rates of domestic horses, grazing has been below allowable-use levels on key forage species from October 15th to March 15th. For the remainder of the year, domestic horses rarely graze desert tortoise habitat because of the lack of water sources. When grazing does occur, utilization levels does

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not exceed slight (0 - 20%) use.

5. Use Pattern Mapping Objective (UP-1)

Maintain utilization levels on key species by all ungulates at or below the following use levels for the periods and locations identified (AO 6).

Maximum Utilization Level Allowed

	Category II Desert Tortoise Habitat (1)	Remaining Allotment
<u>Key Species</u>	<u>10/15-3/15</u>	<u>YearLong</u>
Perennial	≤ 55%	≤ 55%
Herbaceous		
Shrubs	≤ 45%	≤ 45%

- (1) Through section 7 consultation with the U.S. Fish and Wildlife Service, all impacts to desert tortoise habitat will be mitigated as required by the 1973 Endangered Species Act.

This objective has not been met. Utilization levels in desert tortoise habitat have not exceeded light use (21 to 40%) as determined by use pattern mapping. For the remaining areas of the allotment not in desert tortoise habitat, use has been maintained below allowable-use levels for the most part. However, small areas of heavy use have occurred at Grassy and Grapevine Springs. Both springs are not in desert tortoise habitat.

VI. Technical Recommendations

- 1. Implement the following management guidelines for the Lucky Strike Allotment.

Phase in the following management guidelines for rangeland classified as ephemeral over the next ten (10) years. Conduct intensive monitoring and frequent evaluations to quickly detect the need for changes in management. An interim management approach is identified for the phase-in period.

- A. Authorize livestock grazing below 4000 feet in Category II tortoise habitat from October 15 to March 15. Utilization on perennial forage species will be no greater than 55 percent of the previous

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years growth on perennial grasses and 45 percent on shrubs or as stated in this section of the technical recommendations, part D (interim management), sections 1, 2a, b, c, d, pages iii-iv. This is the time of the year when most tortoises are inactive.

B. After the phase-in period grazing may not be authorized in Category II habitat between March 16 and October 14 if supported by monitoring data as stated in this section of the technical recommendations part D (interim management), sections 1, 2a, b, c, and d, pages iii-iv. This period is during the time desert tortoise are active.

C. Livestock would continue to be authorized for ephemeral allotments in uncategorized habitat areas based upon the availability of forage. Utilization on perennial forage species will be no greater than 55 percent of the current years growth. Monitoring data will be closely reviewed to assess any changes identifying a need for change in management.

D. Interim management would be as follows:

1. Authorize livestock grazing below 4000 feet in tortoise habitat from October 15 to March 15. Utilization on perennial forage species will be no greater than 55 percent of the previous years growth on perennial grasses and 45 percent on shrubs. This is the dormant time for vegetation and the desert tortoise.

2. Authorize livestock grazing below 4000 feet in desert tortoise habitat from March 16 to October 14 with the following guidelines:

a. A range inspection by the BLM will be conducted prior to the period of use, applied for by the permittee, to determine that a minimum of 100 to 150 pounds per acre of annual plant species total air dry weight production is available.

This guideline will allow livestock grazing only during average or better growing conditions for a specific location. This will provide for a rest about 50 percent of the time. No grazing

will be authorized during below average growing conditions on a site specific basis. This will reserve all the vegetation produced for the tortoise, improvement of the vegetative community, and the watershed.

- b. During the production study or follow-up study, determine whether or not tortoise have emerged from their burrows in the spring. If the climate is unusually cold and tortoise emergence is delayed, use may be permitted for a specified period of time after March 15 until emergence or warmer weather occurs. This would be determined on a case by case basis and use will be closely monitored for short periods of time.
- c. If production studies determine that 100 to 150 pounds per acre of annual plant species air dry production exists and grazing is authorized, the maximum utilization level of the current years perennial forage species growth allowed will be 50 percent. Less than 50 percent utilization may be stipulated on a case by case basis if management objectives and/or conditions supported by monitoring data warrant it. Monitoring data shows that moderate or lower utilization levels in the Mojave Desert results in static to upward vegetative trend with increases in cover and species diversity (Crescent Peak allotment evaluation and Bulletin 483, March 1971, "Effect of Season and Intensity of Use On Desert Vegetation", C. Wayne Cook).
- d. Where there is a significant perennial forage component and the ecological condition is Late Seral (good condition) or better, use after March 15 may be authorized without considering the production guideline for annual species on a site specific basis. The maximum allowable-use level of the current years perennial forage species growth allowed will be 55 percent on perennial grasses and 45 percent on shrubs. Utilization levels less then specified allowable-use

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levels may be stipulated on a case by case basis if management objectives and/or conditions supported by monitoring data warrant it.

These management guidelines will maintain or improve objectives AO-1, AO-2, AO-4, AO-6, AO-8, KA-1, W-1, WL-3L, WL-1S, and aid in meeting objectives AO-3 and UP-1.

2. Allow licensed livestock to utilize portions of the allotment below 4000 feet from October 15 to March 15 (Winter/Spring). For the remainder of the year, March 16 through October 14 (Summer/Fall), the livestock will utilize the upper elevations of the allotment or until 55 percent utilization levels are reached at key areas. Movement will be based on availability of forage, phenology and climatic conditions. This will maintain or improve objectives AO-1, AO-2, KA-1, W-1, WL-3L, WL-1S at current management levels and meeting objectives RA-1 and UP-1.

3. Range Improvement Projects

The following range improvement projects are recommended to facilitate better livestock, wild horse and burro distribution and to improve habitat conditions for mule deer and Gambel's quail. The projects will also aid in alleviating grazing pressure in crucial desert tortoise habitat and reduce wild horse and burro use in the Lee Canyon recreational area. Water will also be provide during critical times of the year. This recommendation will maintain or improve objectives AO-1, AO-6, AO-10, W-1, WL-1L at current management levels and aid in meeting objectives AO-3, AO-7, WL-2L, and RA-1.

By FY91, complete the following projects:

- a. Fence the Grassy Spring source. Leaving water available at the source, run a pipeline downslope to a water trough. This will provide sufficient water to maintain or improve riparian habitat and provide water for wildlife, livestock, wild horses and wild burros.
- b. Fence the Grapevine Spring source and establish a float box on the existing pipeline. This will provide sufficient water to maintain or improve riparian habitat, allow control over the flow of water into the

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established water trough and provide water for livestock, wildlife, wild horses and burros.

4. Manage wild horse and burro populations to achieve a thriving ecological balance by removing excess animals based on monitoring data (use pattern map, key area trend and utilization studies, and water flow rates from springs). This recommendation will aid in maintaining or improving objectives AO-1, AO-6, AO-10, W-1, WL-1L at current management levels and in meeting objectives AO-3, AO-7, WL-2L, and RA-1.
5. In order to better manage the wild horse and burro herds consistent with their actual historic use areas, these HMA's should be modified as indicated on map 5, appendix B upon further review and study. This proposed modification does not result in any reduction in the HMA's outside boundary set in the Clark MFP III and the Stateline-Esmeralda Resource Management Plan. Monitoring data collected from 1988 through 1990 shows three distinct historic herd areas within the existing Spring Mountain, Mount Stirling, and Last Chance HMA's. Very little data was available and compiled prior to 1988. The suggested names for these revised HMA boundaries are the Red Rock HMA, Lucky Strike HMA, and the Mount Stirling-Wallace Canyon HMA. This is consistent with the 1971 Wild Horse and Burro Act and will meet objectives AO-1, AO-2, AO-8, AO-9, AO-10, W-1, and will aid in meeting objectives AO-3 and UP-1.
6. Continue to manage problem animals around the town of Indian Springs, Kyle and Lee Canyon Roads, Indian Springs prison, and Cold Creek Road on an as needed basis. This will protect private property, possible harm to humans and motor vehicles, and the wild horses and burros themselves. This will aid in maintaining objectives AO-8, AO-9, and AO-10 at current management levels.
7. Establish a frequency trend transect near key area 1 or 2 during the spring of 1991 for livestock, wild horses and burros. Read the transect in the spring of 1991 and 1996, then evaluate the frequency of the key species. The study will aid in evaluating management in relation to objectives AO-1, AO-2, AO-6, AO-8, W-1, and WL-3L.
8. Continue to conduct field inspections prior to the issuance of an ephemeral grazing permit. This will meet objective AO-11.

9. In cooperation with the Stateline Resource Area Soil Scientist, establish studies in which data will be used in the revised Universal Soil Loss Equation at Key Area 1 and 2. Objectives AO-1 and W-1 will be met.

VII. Consultation

The following specialists provided technical input for this evaluation:

Jeanie Cole, Mark Maley, Sid Sloan, Wildlife Biologists, Bureau of Land Management.

Terry Driver, Las Vegas District Wild Horse and Burro Specialist, Bureau of Land Management.

Bob Stager, Las Vegas District Range Conservationist and Wild Horse and Burro Specialist, Bureau of Land Management

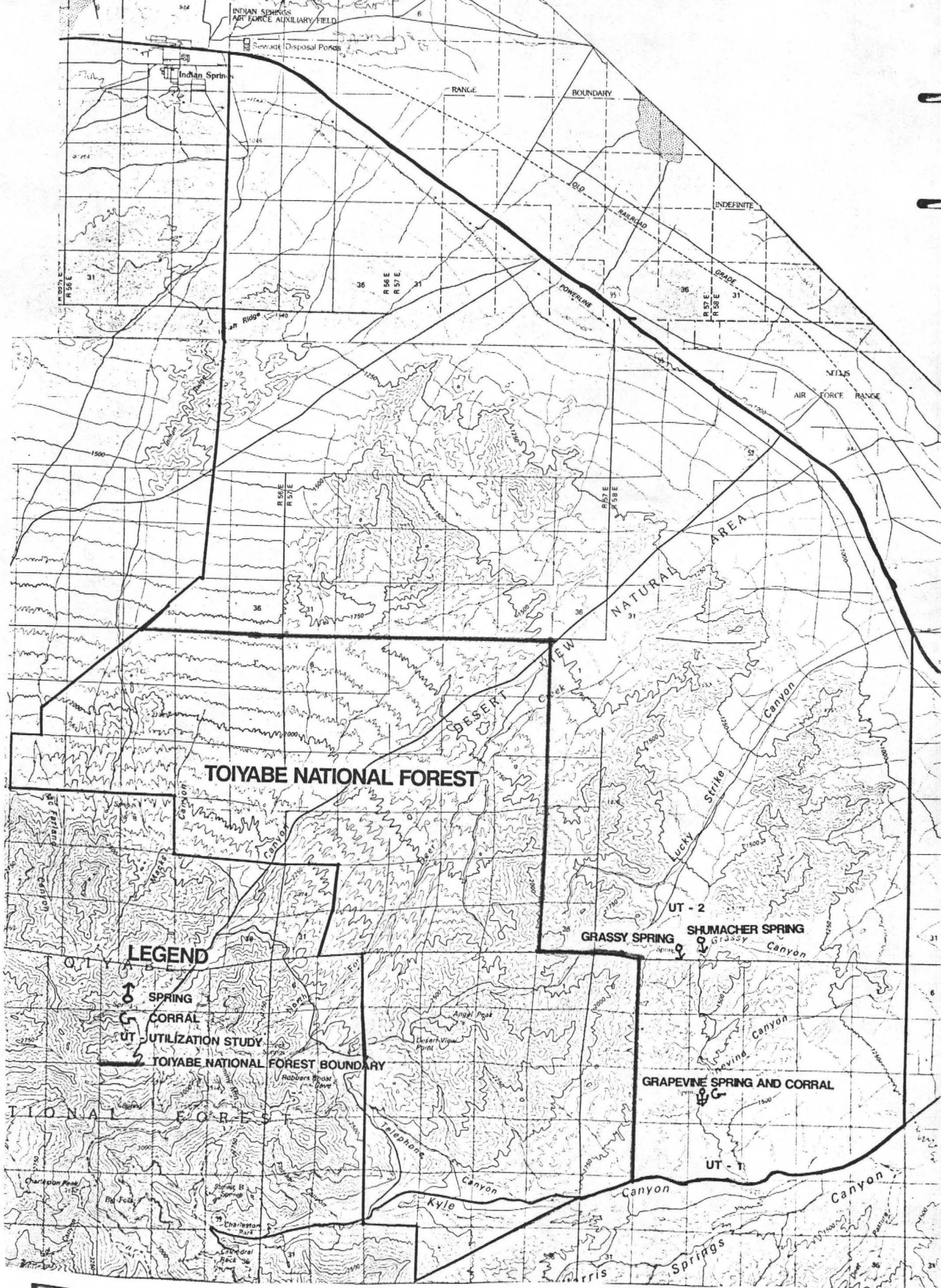
Bruce Sillitoe, Range Conservationist, Stateline Riparian Coordinator, - Bureau of Land Management.

Jeff Steinmetz, Stateline Range Conservationist, Bureau of Land Management.

Tommy Young, Permittee

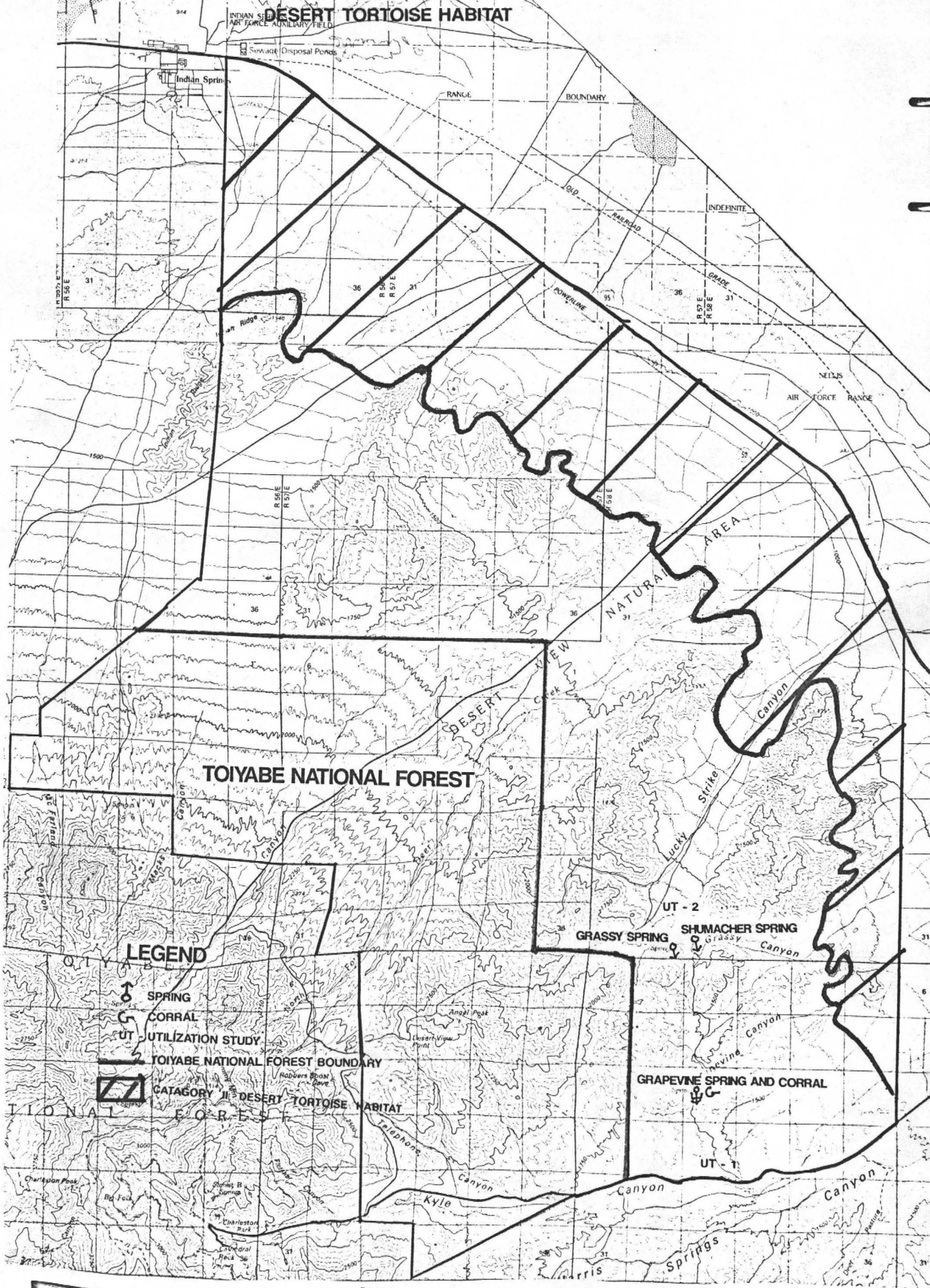
APPENDIX A, MAP 1

LUCKY STRIKE CANYON ALLOTMENT



APPENDIX A, MAP 2

LUCKY STRIKE CANYON ALLOTMENT

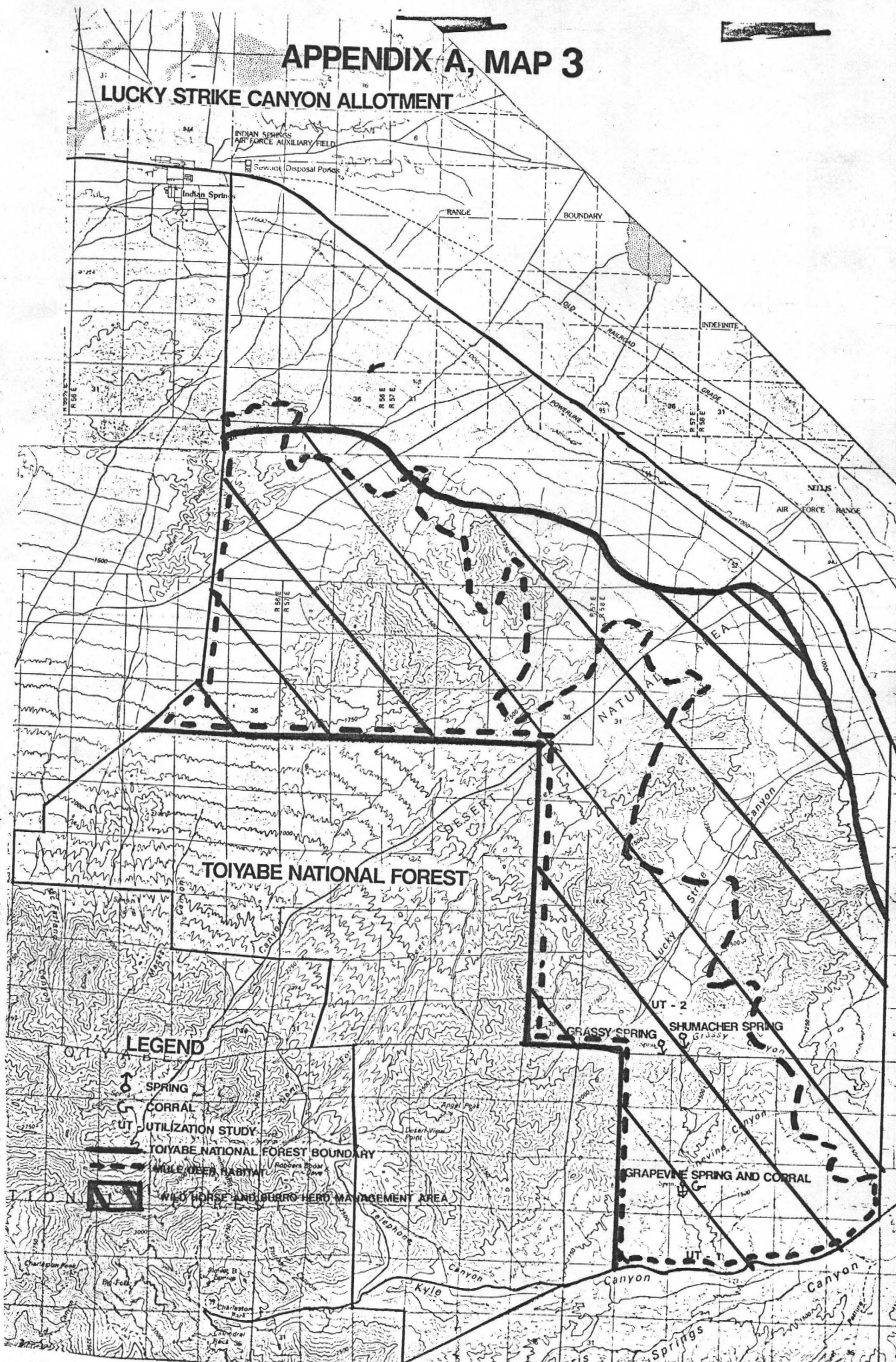


LEGEND

- SPRING
- CORRAL
- UT UTILIZATION STUDY
- TOIYABE NATIONAL FOREST BOUNDARY
- CATEGORY II DESERT TORTOISE HABITAT

APPENDIX A, MAP 3

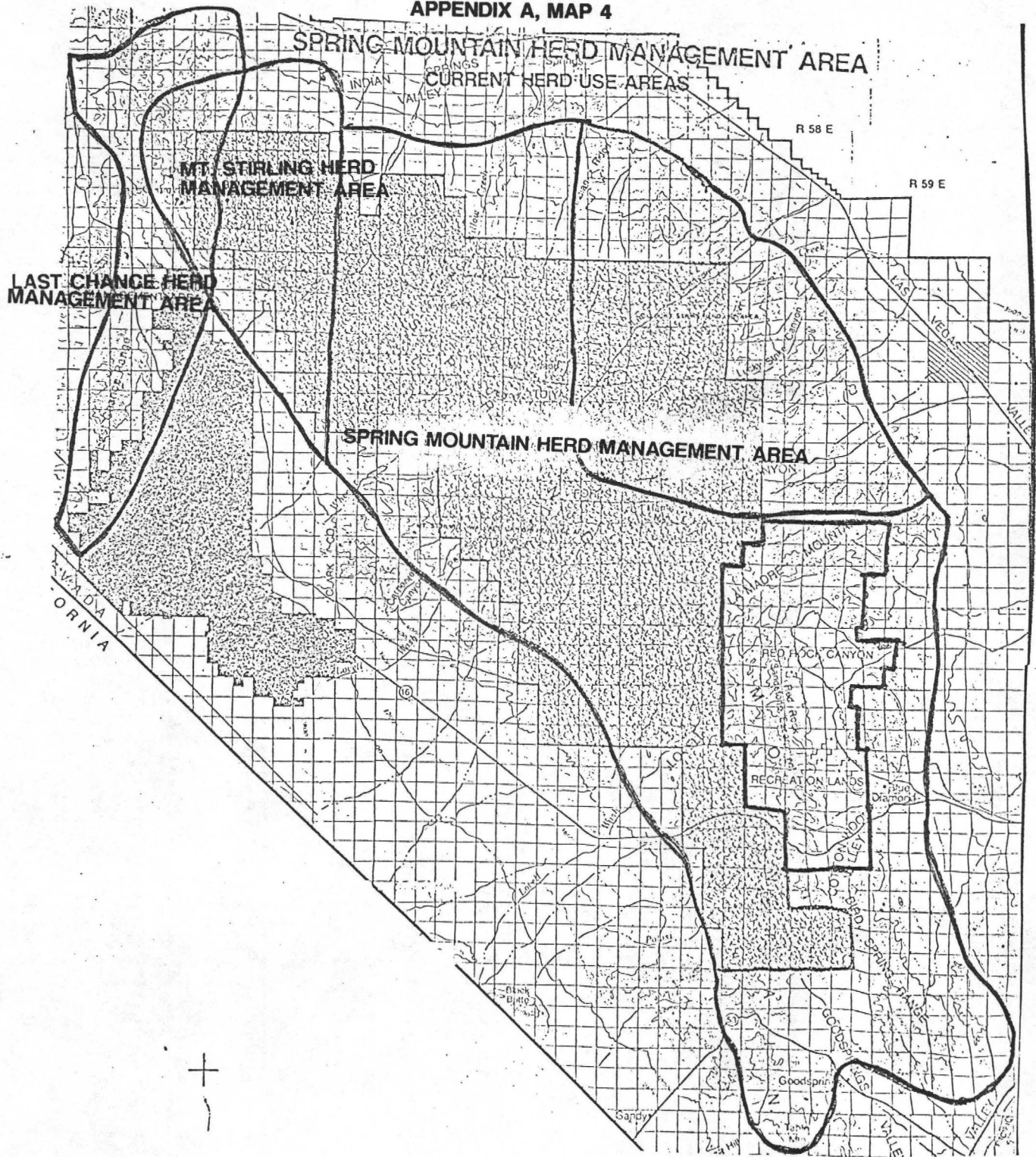
LUCKY STRIKE CANYON ALLOTMENT



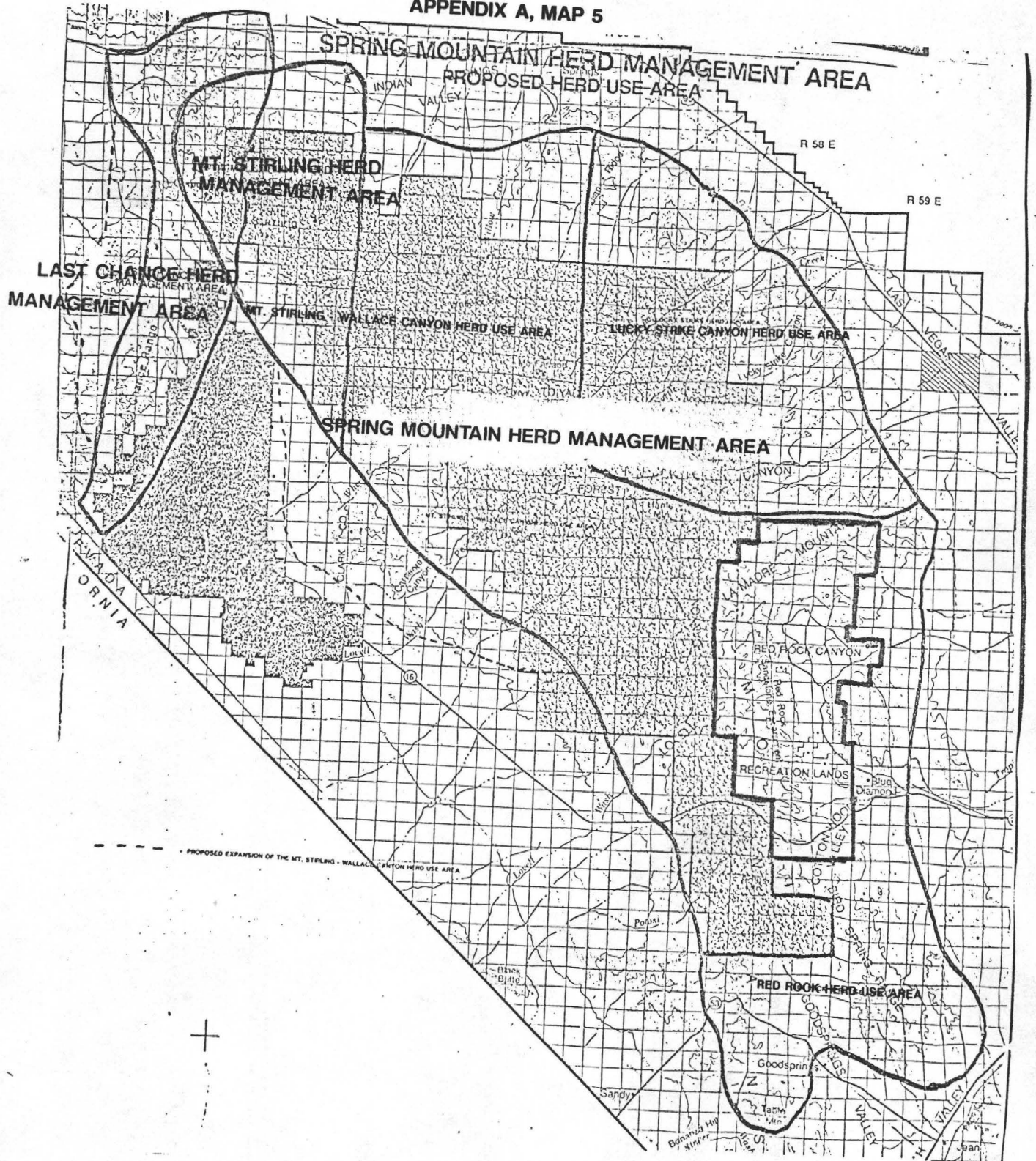
LEGEND

- SPRING
- CORRAL
- UT UTILIZATION STUDY
- TOIYABE NATIONAL FOREST BOUNDARY
- MULE DEER HABITAT
- WILD HORSE AND BURRO HERD MANAGEMENT AREA

APPENDIX A, MAP 4

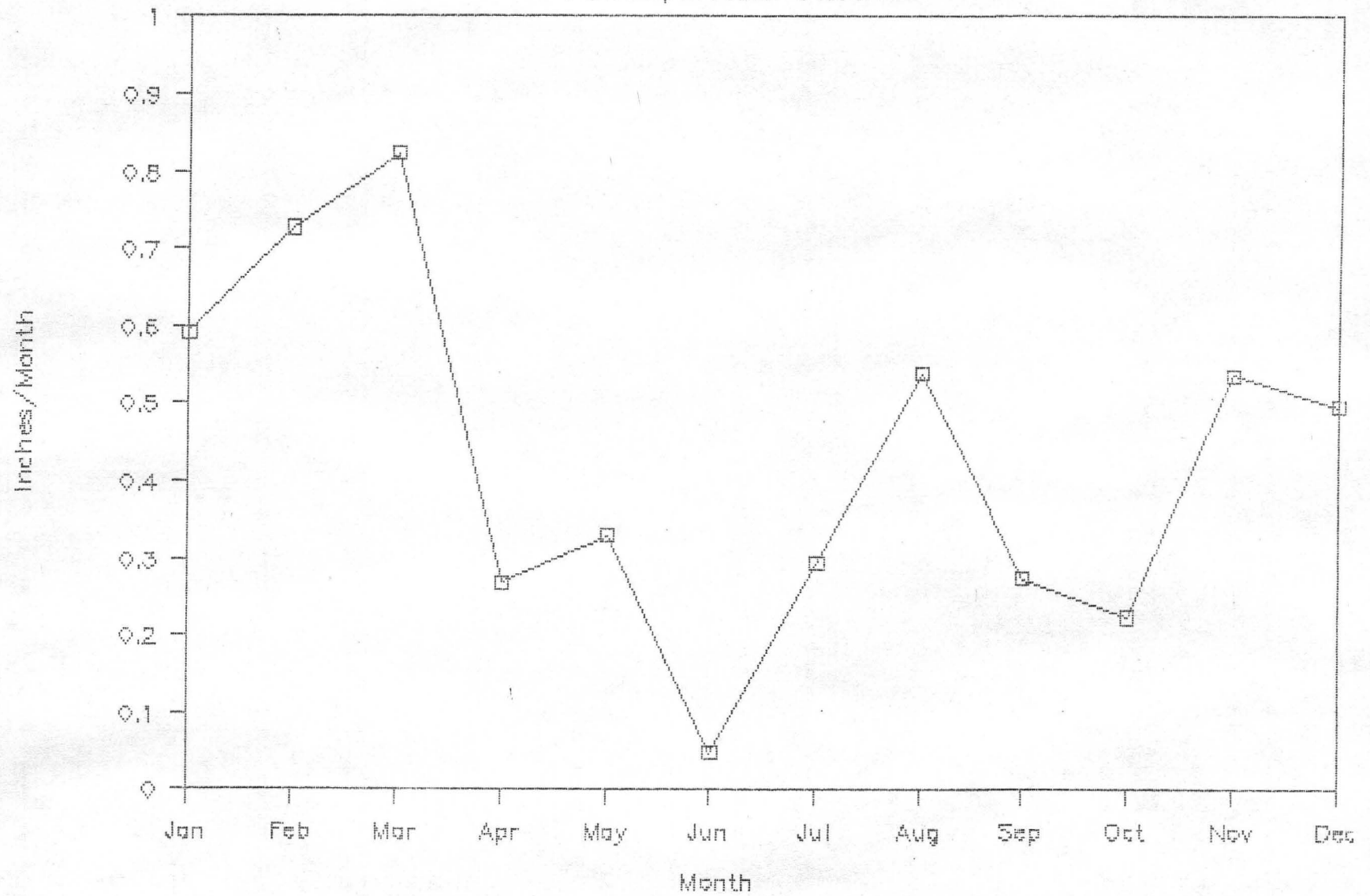


APPENDIX A, MAP 5



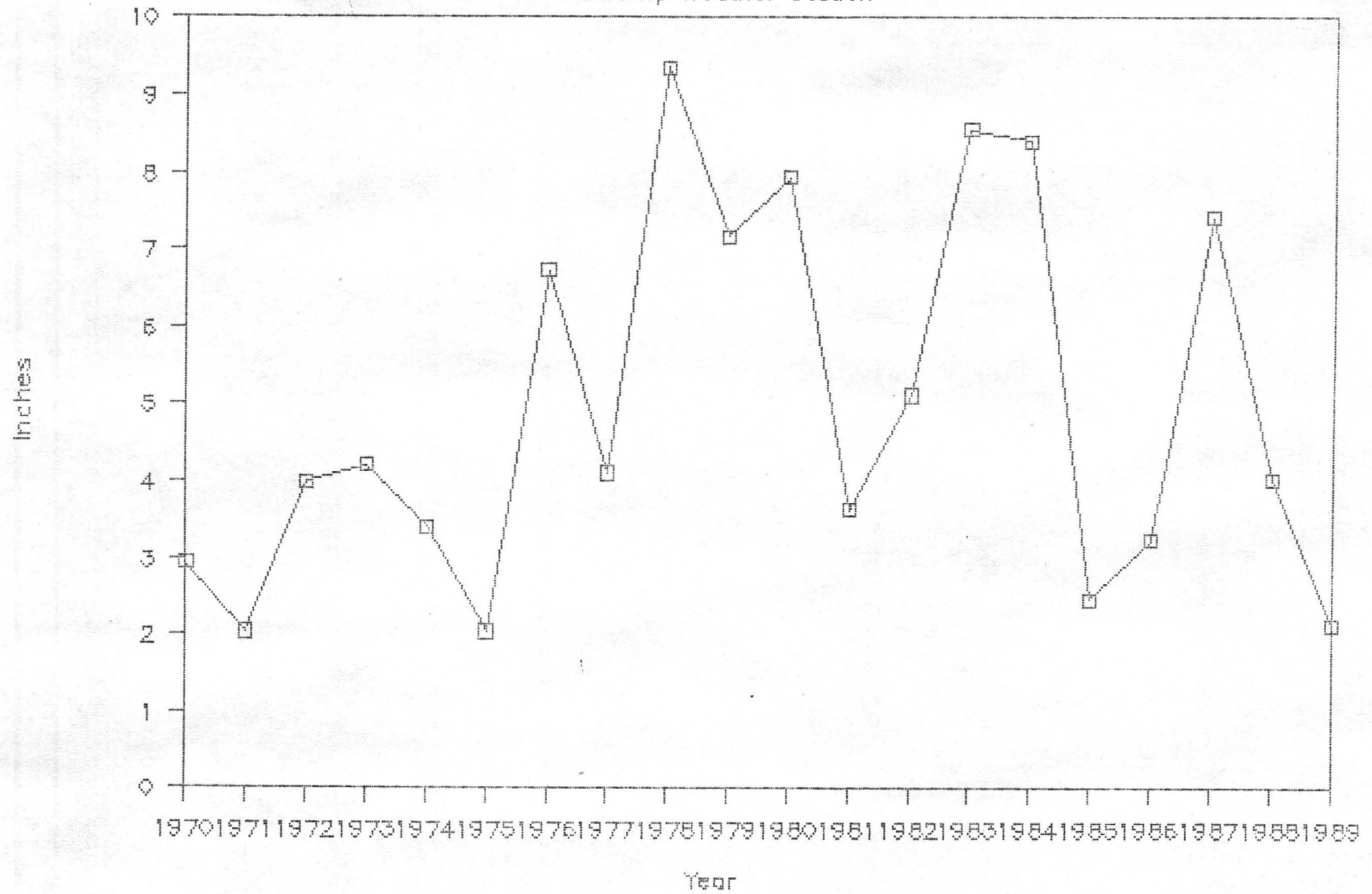
Monthly Precipitation

Pahrump Weather Station



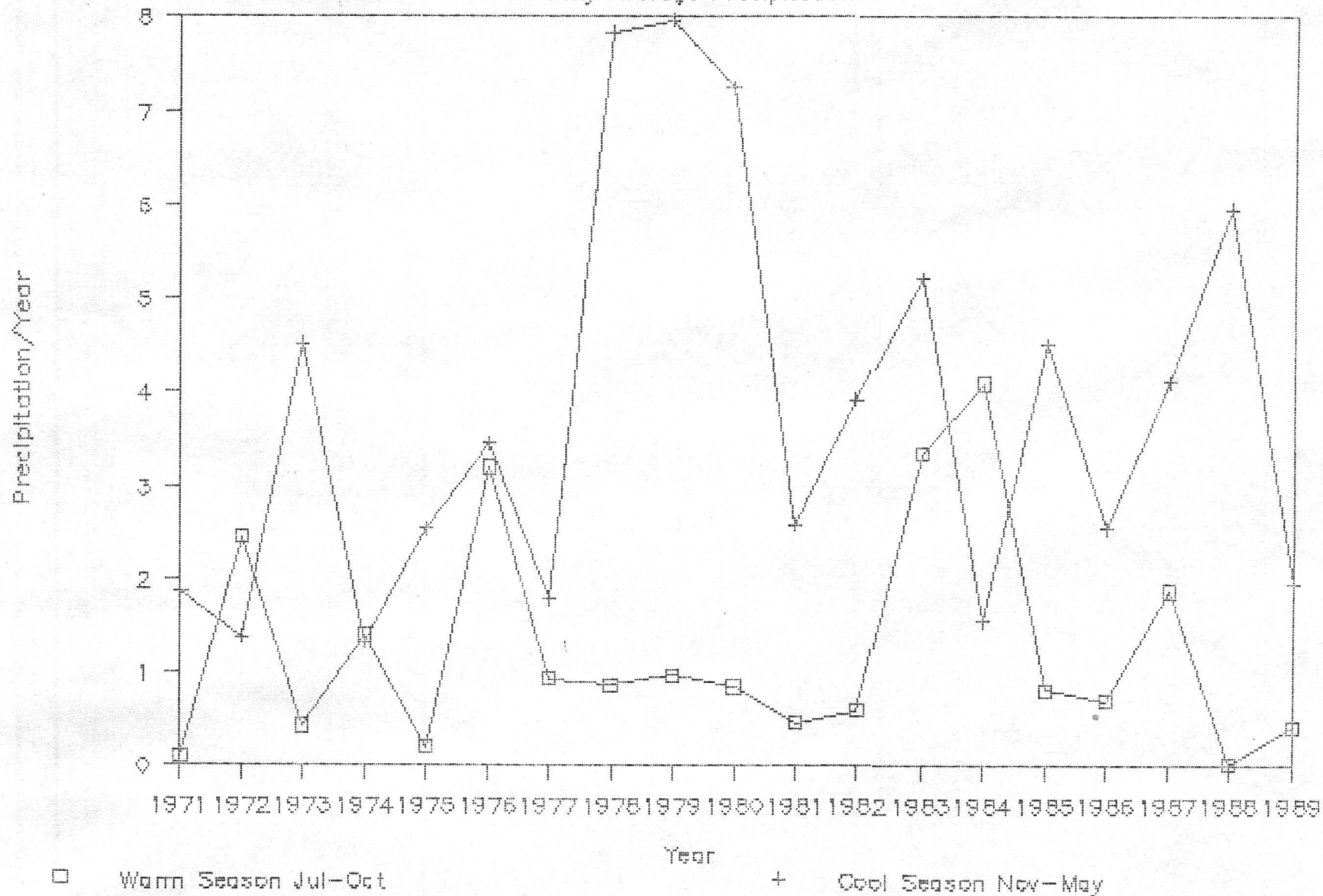
Annual Precipitation 1970 to 1989

Pahrump Weather Station

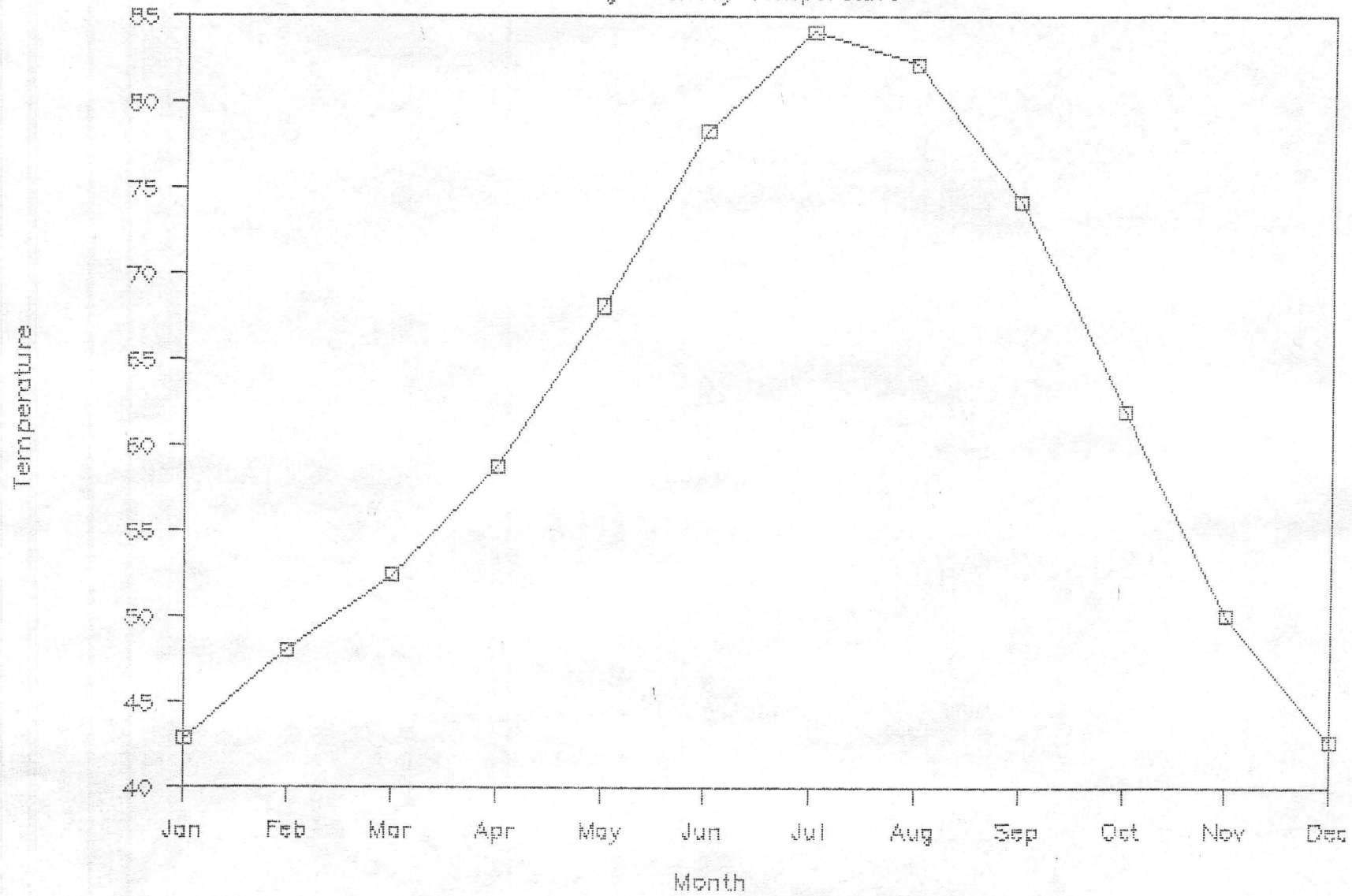


Pahrump UN Lab

Yearly Average Precipitation



Appendix B, Figure 4
Pahrump UN Lab
Average Monthly Temperature



Appendix B, Figure 5

Pahrump UN Lab

Average Annual Temperature

