

Wheeler Wash

6-90

DRAFT

Wheeler Wash Allotment
Evaluation Documentation
Narrative

June, 1990

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

DRAFT

Wheeler Wash Allotment
Evaluation Documentation
Table of Contents

Evaluation Summary.....i-vi

I. Introduction.....1

II. Livestock and Wildlife.....1

 A. Livestock Use.....1

 1. Classification and Preference.....1

 2. Grazing System.....1

 B. Wildlife Use.....1

 1. Mule Deer.....1

 2. Desert Tortoise.....2

 3. Gambel Quail.....2

 C. Wild Horse and Burro.....3

III. Allotment Profile.....3

 A. Description.....3

 B. Allotment Specific Objectives.....4

 Key/Crucial Management Area Objectives.....5

IV. Management Evaluation.....7

 A. Purpose.....7

 B. Summary of Study Data.....7

 1. Actual Use.....7

 2. Weather Data.....8

 3. Utilization.....8

 4. Trend and Cover.....10

V. Conclusion.....10

 A. Allotment Level Objectives.....10

 B. Key/Crucial Management Objectives.....12

VI. Technical Recommendations.....15

VII. Consultation.....19

Appendix A - Allotment Maps.....20

Appendix B - Weather Data.....26

DRAFT

Evaluation Summary
for the
Wheeler Wash Allotment
Documentation

Allotment Name: Wheeler Wash, 05431
Las Vegas District Office
Stateline Resource Area

Total Acreage: Public Lands 70,115 Acres
USFS 59,563 Acres
Total 129,678 Acres

I. Grazing Practices

Grazing has been seasonal since 1969 with livestock movement being determined by seasonal climatic changes and the availability of water. In early May, livestock are trailed into the allotment near Carpenter Canyon in lower elevation areas. As the grazing season progresses and the climate becomes drier and hotter, the cattle trail into higher elevation areas in the Toiyabe National Forest. In late October, the livestock are removed from the allotment.

The allotment is classified as ephemeral, grazing is authorized on a quarterly basis when forage is available as determined by range inspection.

II. Evaluation Summary in relation to Management Objectives

A. Allotment Objectives	<u>Met</u>	<u>Not Met</u>
AO-1	x	
AO-2	x	
AO-3		x
AO-4		x
AO-5		x
AO-6	x	
AO-7		x
AO-8	x	
AO-9	x	
AO-10	x	

Key/Crucial Management Area Objectives

KA-1 x

Watershed Objective

W-1 x

DRAFT

Wildlife Objectives

WL-1L		x
WL-2L		x
WL-3L	x	
WL-1S	x	

Use Pattern Mapping Objective

UP-1		x
------	--	---

B. Technical Recommendation Summary

1. Implement the following management guidelines for Wheeler Wash 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 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.

DRAFT

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

DRAFT

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 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-6, KA-1, W-1, WL-3L, WL-4L, WL-1S and aid meeting objectives AO-3, AO-4, and UP-1.

2. Implement the following grazing scheme:

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), 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, AO-5, KA-1, W-1, RA-1, WL-3L, WL-4L, WL-1S at current management levels and aid in meeting objectives AO-3, AO-4, WL-1L, WL-2L and UP-1.

DRAFT

3. Manage wild horse and burro populations to achieve a thriving ecological balance by removing excess animals based on monitoring data (use patterns, key area trend and utilizations studies, water flow rates from springs). In cooperation with the Toiyabe National Forest Service, the permittee, and the National Wild Horse Association, reconstruct the Wallace Canyon pipeline from the Forest Service to the BLM and make the water available to wildlife, livestock, and wild horses and burros. Continue to make the Carpenter Canyon pipeline and reservoir available for wild horse and burro use. Construct a temporary solar powered electric fence around the Carpenter Canyon burn site to protect the area and reseed with native seed mix. This will help distribute the wild horses and burros within the HMA more evenly and provide water and forage during critical times of the year. This recommendation will maintain or improve objectives AO-1, AO-2, KA-1, W-1, AO-9, and AO-11 at current management levels and aid in meeting objectives AO-3, AO-4, AO-5, AO-7, WL-1L, WL-2L and UP-1.

4. Select key areas and establish frequency trend and utilization study plots during the spring of 1991 for livestock, wild horses and burros. Establish a frequency trend transect near key area 1 or 2 during the spring of 1991. Establish a frequency trend and utilization study in Carpenter Canyon burn. This study will aid in evaluating current management levels in relation to objectives AO-1, AO-3, AO-7, AO-8, AO-9, W-1, and UP-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 6, appendix B. This 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 different from but 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-7, AO-8, AO-9, KA-1, W-1 and aid in meeting objectives AO-3 and UP-1.

DRAFT

6. Continue to manage problem animals around the town of Johnnie, city of Fahrump, and SR 160 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 recommendation will maintain or improve objectives AO-7, AO-8, and AO-10 at current management levels.
7. Continue to conduct field inspections prior to the issuance of an ephemeral grazing permit. This will meet objective AO-10.
8. 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. This recommendation will maintain or improve objectives AO-1 and W-1 at current management levels.

DRAFT

I. Introduction

- A. Allotment Name: Wheeler Wash
Allotment Number: 05431
- B. Permittee: Perry and Norma Bowman
- C. Selective Management Category: I (Improve)
- D. Kind (Class of Livestock): Cattle
- E. Average AUM's (1979 - 1989): 784 AUM's (Livestock)

II. Livestock and Wildlife

A. Livestock Use

1. Classification and Preference:

In 1969, the Wheeler Wash 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). 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. The 10-year permit specifies only the area of use since grazing use.

2. Grazing System

Grazing has been seasonal since 1969 with livestock movement being determined by seasonal climatic changes and the availability of forage. In early May, the livestock are trailed into the allotment near Carpenter Canyon. As the weather becomes drier and hotter, the livestock move into higher elevations in the Toiyabe National Forest. In late October the cattle are removed from the allotment (See Map 1 - Allotment Map, Appendix A).

B. Wildlife Use

1. Mule Deer

The Wheeler Wash Allotment is included in Big Game Area E-1. The allotment has 84,051 acres of mule deer habitat. The majority of deer habitat in the allotment has been transferred to the U.S. Forest Service because of the recent Nevada Forest Enhancement Act (See map 4, appendix A for mule

DRAFT

deer habitat).

2. Desert Tortoise

A. Category II and III desert tortoise habitat is present on the Wheeler Wash Allotment. The allotment has 27,700 acres of category II habitat and 7,500 acres of category III habitat. Desert tortoise habitat is generally below 4000 ft. in elevation and supports a creosote - white bursage vegetative type. Tortoise density and distribution appears to be associated with soils and vegetation characteristics (See Map 3, Appendix A for tortoise habitat).

B. The Trout Canyon desert tortoise study plot is located within the Wheeler Wash Allotment. The study plot is in an area that receives slight utilization by wild horses, burros and occasional deer. Based on utilization transect data gathered, use pattern mapping, and correspondence with the permittee, domestic livestock have not grazed in the study plot area since the early 1970's.

The study plot is located in a creosote - white bursage vegetative type. Based on field inspections and professional judgement, the plot and surrounding area is in late seral ecological status to PNC (good to excellent ecological condition). The population density of desert tortoise within the study plot and the Wheeler Wash Allotment is low to moderate. Some of the soils in the area have certain restrictive properties such as being shallow to a limiting layer that may affect tortoise density and distribution (based on data collected in 1990). Data collected during the 1987 survey shows a high mortality rate within the study plot that may be related to drought and the corresponding reduced forage quality and quantity.

3. Gambel's Quail

Wheeler Wash Allotment has 64,839 acres of quail habitat, of which 7,077 acres is considered summer crucial habitat. A portion of quail habitat has been transferred to the Toiyabe National Forest.

DRAFT

C. Wild Horse and Burros

The Wheeler Wash Allotment is located within the proposed historic Mount Stirling-Wallace Canyon Herd Use Area, which is part of the existing Spring Mountain Herd Management Area. Based on the 1988 census, 185 wild horses and 124 wild burros are located within this historic herd use area. Monitoring data collected since 1988 indicates that this is a distinct wild horse herd management area. The herd is unique in that 25% of the horses are paints. Due to the high ridge tops of the Spring Mountains and the locations of scattered springs, the paint herd stays primarily within the historic use area. Herd census data shows that little intermixing occurs with the other two herd areas located within the Spring Mountain HMA. The other two proposed herd areas are primarily dark colored horses in Lucky Strike and 40 percent palominos in the Red Rock area. (see Map 2, 5, 6 Appendix A for the herd use area).

III. Allotment Profile

A. Description:

The Wheeler Wash Allotment is 47 miles west of Las Vegas, Nevada. The allotment is bounded to the north and east by the Toiyabe National Forest, and to the south by Highway 160. Nye County is the eastern boundary. The elevation ranges from 3,000 ft. along Highway 16 to 5,200 ft. in the Spring Mountains (See Allotment Map 1, Appendix A).

Precipitation averages about 5.3" annually at Pahrump, Nevada. Pahrump and the Wheeler Wash Allotment are similar in elevation and 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 transferred land to the U.S. Forest Service in accordance with the Nevada Forest Enhancement Act. A total of 59,563 acres has been transferred to the Toiyabe National Forest in compliance with the act, leaving 70,115 acres under Bureau of Land Management administration.

The following vegetative information from the Clark County Range Survey of 1979 indicates the acreage of

DRAFT

vegetative types found in the Wheeler Wash Allotment prior to the transfer:

<u>Vegetation Types and Sub-types</u>	<u>Acreage</u>	<u>%</u>
creosotebush - creosotebush	26,218	20
desert shrub - big sagebrush	1,577	1
desert shrub - fourwing saltbrush	2,398	2
desert shrub - Joshua tree	31,070	24
Pinyon Pine - Juniper	66,799	52
mountain shrub - ceanothus	1,189	1

The majority of acreage lost in the land exchange is in the Pinyon Pine - Juniper and Joshua Tree types. The remaining areas in the allotment are dominated mostly by important perennial shrubs such as white bursage and blackbrush. 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.

B. Allotment Specific Objectives

The following allotment level objectives have been tiered from the Land Use Plan/MFP III 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. The allotment objective that each key management area objective originates from is noted in parenthesis after each objective. Whether or not an allotment objective is met is determined by the results of the respective key, riparian, wild horse and burro 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 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).

DRAFT

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(1), & WL 3.0).
7. (AO-7) Maintain or improve wild horse and burro habitat in a thriving ecological balance by managing for horses yearlong in the Wheeler Wash Allotment portion of the herd use area. (R.M 1.1, WH&B 1.1, HMAP-A).
8. (AO-8) 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).
9. (AO-9) Maintain or improve wild horse and burro habitat by providing water where possible and developing or improving waters and vegetative communities. (excluding rain water catchments for wildlife) (WH&B 2.0).
10. (AO-10) 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 at key areas (AO 2 & AO 3).

Key Area 1

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

Key Area 2

≤55%	desert needlegrass
------	--------------------

DRAFT

Key Area 3

≤45% Mormon Tea

Key Area 4

≤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 areas. All live annual species, persistent and non-persistent litter are considered as litter (AO 1).

4. Wildlife

Long term Objectives

- a. (WL-1L) Maintain or improve the habitat condition for mule 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 throughout the allotment (AO 3 & 5).
- c. (WL-3L) Maintain or improve the ecological condition on category II desert tortoise habitat to a minimum of late seral stage (AO-6)
- d. (WL-4L) Maintain or improve the ecological condition on category III desert tortoise habitat to a minimum of mid seral stage (AO 6).

Short Term

- e. (WL-1S) Authorize livestock grazing below 4000 feet in Category II tortoise habitat from October 15 to March 15. Utilization on perennial key forage species will be no greater than 55 percent of the current years growth on perennial grasses and 45 percent on shrubs. Grazing at other times of the year must be in accordance with the management

DRAFT

guidelines located in the technical recommendations (AD 6).

5. Use Pattern Mapping

Long and short term (UP-1)

Maintain utilization levels on key species by all ungulates at or below the following use levels for the periods and locations identified (consistent with other utilization objectives) (AD 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.

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. Prior to this evaluation, actual use data was not required of the permittee and therefore is not available. Generally, authorized livestock grazing occurs from early May to late October. Over a thirteen year period (1977 to 1989) of licensed livestock data utilized, the Wheeler Wash allotment received the following annual livestock use:

DRAFT

	<u>Spring</u>	<u>Summer</u>	<u>Fall</u>	<u>Winter</u>	<u>Total</u>
1977	273	712	200	0	1185
1978	53	349	285	0	687
1979	118	527	352	0	997
1980	119	518	218	0	885
1981	180	304	79	0	563
1982	102	437	203	0	742
1983	133	312	203	0	648
1984	185	543	200	0	928
1985	125	525	225	0	875
1986	169	210	190	0	569
1987	175	506	300	0	981
1988	165	381	126	0	672
1989	150	304	0	0	454

2. Weather Data

The data from the Pahrump University of Nevada (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 Wheeler Wash Allotment. The following table shows climatic data for Pahrump from 1970 to 1988.

Pahrump UN Lab at Pahrump, 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, Appendix A for location of key area.

DRAFT

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 Indian ricegrass, desert needlegrass and Mormon tea. In the two years of recorded utilization data, the allowable-use on the key species was never exceeded. Overall use is light (21 to 40%). The utilization levels on key species are as follows:

	<u>Spring</u>	
	<u>1987</u>	<u>1988</u>
Indian ricegrass	42	7
desert needlegrass	34	24
Mormon tea	33	24

Utilization on key species in key area 2 was estimated on desert needlegrass. In two years of data collection, the allowable use on key species was never exceeded. Overall use has been moderate (41 - 60%). The utilization levels are as follows:

	<u>Spring</u>	
	<u>1987</u>	<u>1988</u>
desert needlegrass	52	40

Utilization on Key area 3 was estimated on Mormon tea. Allowable-use levels in two years of data collection has not exceeded light use. The utilization levels are as follows:

	<u>Spring</u>	
	<u>1987</u>	<u>1988</u>
Mormon tea	22	23

Use levels at key area 4 was estimated on Mormon tea, desert needlegrass, and Indian ricegrass. In two years of data collection, utilization levels has not exceeded slight use (0 to 20%). The following shows utilization levels on key species:

	<u>Spring</u>	
	<u>1987</u>	<u>1988</u>
Mormon tea	18	17
desert needlegrass	10	7
Indian ricegrass	0	10

DRAFT

Use pattern mapping was completed on the Wheeler Wash Allotment in 1988 and 1989. Moderate to heavy use was found at Carpenter Canyon Reservoir with moderate use also occurring one and one-half mile northeast of the reservoir because of a burn on approximately 1200 to 1500 acres that occurred ten years ago. 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 Wheeler Wash 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 (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 been met. Trend studies have not been established at or near key areas. However, utilization studies and use pattern mapping show that utilization levels at key areas are below allowable-use levels. Professional judgement indicates that the trend on key species are static based on use levels.

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).

The objective has not been met. Utilization levels at the Key Areas are at or below light use (21 - 40%), thus meeting allowable use levels. However, use pattern mapping indicates small areas of heavy use (61 - 80%) at Carpenter Canyon

DRAFT

Reservoir and at a burn near the reservoir.

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

This objective has not 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).

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 wild horse and burro habitat in a thriving ecological balance by managing for horses yearlong in the Wheeler Wash Allotment portion of the herd use area. (R.M 1.1, WH&B 1.1, HMAP-A).

This objective has been met. According to utilization studies and use pattern mapping, utilization levels throughout the majority of the allotment are below light use (21-40%). Use in the Carpenter Canyon burn is primarily by livestock not wild horses or burros.

8. (AO-8) 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).

This objective has been met. Permanent 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.

9. (AO-9) Maintain or improve wild horse and burro habitat by providing water where possible and developing or improving waters and vegetative communities (excluding rain water catchments for

DRAFT

wildlife). (WH&B 2.0).

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

10. (AO-10) 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 areas (AO 3).

Key Area 1

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

Key Area 2

≤55% desert needlegrass

Key Area 3

≤45% Mormon Tea

Key Area 4

≤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 (AO 3).

DRAFT

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 areas. All live annual species, persistent and non-persistent litter are considered as litter (AO 1).

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

3. Long Term Wildlife Objectives

a. Mule Deer (WL-1L)

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

This objective has not been met. Use in the majority of deer habitat has been below allowable-use levels as indicated by use pattern mapping and utilization transects. However, heavy use has occurred at the Carpenter Canyon Reservoir within deer habitat.

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. Grazing near quail guzzlers and the majority of the Wheeler Wash allotment located in quail habitat has not exceeded 55%. However, grazing at the Carpenter Canyon Reservoir has exceeded allowable-use levels.

c. Desert Tortoise (WL-3L)

(WL-3L) Maintain or improve the range condition on category II desert tortoise habitat to a minimum of late seral stage (AO-6)

This objective has been met. Use in category II habitat has been below allowable-use

DRAFT

levels. Ecological condition has been maintained at late seral based on professional field judgement.

d. Desert Tortoise (WL-4L)

(WL-4L) Maintain or improve the ecological condition on category III 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 late seral based on professional field judgement.

Short Term Wildlife Objectives

a. Desert Tortoise (WL-1S)

(WL-1S) Authorize livestock grazing below 4000 feet in Category II tortoise habitat from October 15 to March 15. Utilization on perennial key forage species will be no greater than 55 percent of the current years growth on perennial grasses and 45 percent on shrubs. 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. Grazing has been seasonal on the Wheeler Wash Allotment since 1969 with most use occurring between May and October in the Toiyabe National Forest and in elevations above 4200 feet. Category II habitat is used mostly as a trailing area in late April - early May with livestock being trailed to upper elevational areas from the ranch.

4. 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).

DRAFT

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 has not exceeded light use (21 to 40%) as determined by use pattern mapping and therefore has been met for desert tortoise habitat. For the remaining areas of the allotment outside of desert tortoise habitat, use has been maintained below allowable-use levels except for the Carpenter Canyon burn area.

VI. Technical Recommendations

1. Implement the following management guidelines for Wheeler Wash 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 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

DRAFT

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 ELM 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

DRAFT

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 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-6, KA-1, W-1, WL-3L, WL-4L, WL-1S and aid meeting objectives AO-3, AO-4, and UP-1.

DRAFT

2. Implement the following grazing scheme:

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), 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, AO-5, KA-1, W-1, RA-1, WL-3L, WL-4L, WL-1S at current management levels and aid in meeting objectives AO-3, AO-4, WL-1L, WL-2L and UP-1.

3. Manage wild horse and burro populations to achieve a thriving ecological balance by removing excess animals based on monitoring data (use patterns, key area trend and utilizations studies, water flow rates from springs). In cooperation with the Toiyabe National Forest Service, the permittee, and the National Wild Horse Association, reconstruct the Wallace Canyon pipeline from the Forest Service to the BLM and make the water available to wildlife, livestock, and wild horses and burros. Continue to make the Carpenter Canyon pipeline and reservoir available for wild horse and burro use. Construct a temporary solar powered electric fence around the Carpenter Canyon burn site to protect the area and reseed with native seed mix. This will help distribute the wild horses and burros within the HMA more evenly and provide water and forage during critical times of the year. This recommendation will maintain or improve objectives AO-1, AO-2, KA-1, W-1, AO-9, and AO-11 at current management levels and aid in meeting objectives AO-3, AO-4, AO-5, AO-7, WL-1L, WL-2L and UP-1.
4. Select key areas and establish frequency trend and utilization study plots during the spring of 1991 for livestock, wild horses and burros. Establish a frequency trend transect near key area 1 or 2 during the spring of 1991. Establish a frequency trend and utilization study in Carpenter Canyon burn. This study will aid in evaluating current management levels in relation to objectives AO-1, AO-3, AO-7, AO-8, AO-9, W-1, and UP-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 6, appendix B. This modification does not result in any reduction in the HMA's outside boundary set in the

DRAFT

Clark MFP III and the Stateline-Esmeralda Resource Management Plan. Monitoring data collected from 1988 through 1990 shows three distinct historic herd areas different from but 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-7, AO-8, AO-9, KA-1, W-1 and aid in meeting objectives AO-3 and UP-1.

6. Continue to manage problem animals around the town of Johnnie, city of Pahrump, and SR 160 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 recommendation will maintain or improve objectives AO-7, AO-8, and AO-10 at current management levels.
7. Continue to conduct field inspections prior to the issuance of an ephemeral grazing permit. This will meet objective AO-10.
8. 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. This recommendation will maintain or improve objectives AO-1 and W-1 at current management levels.

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.

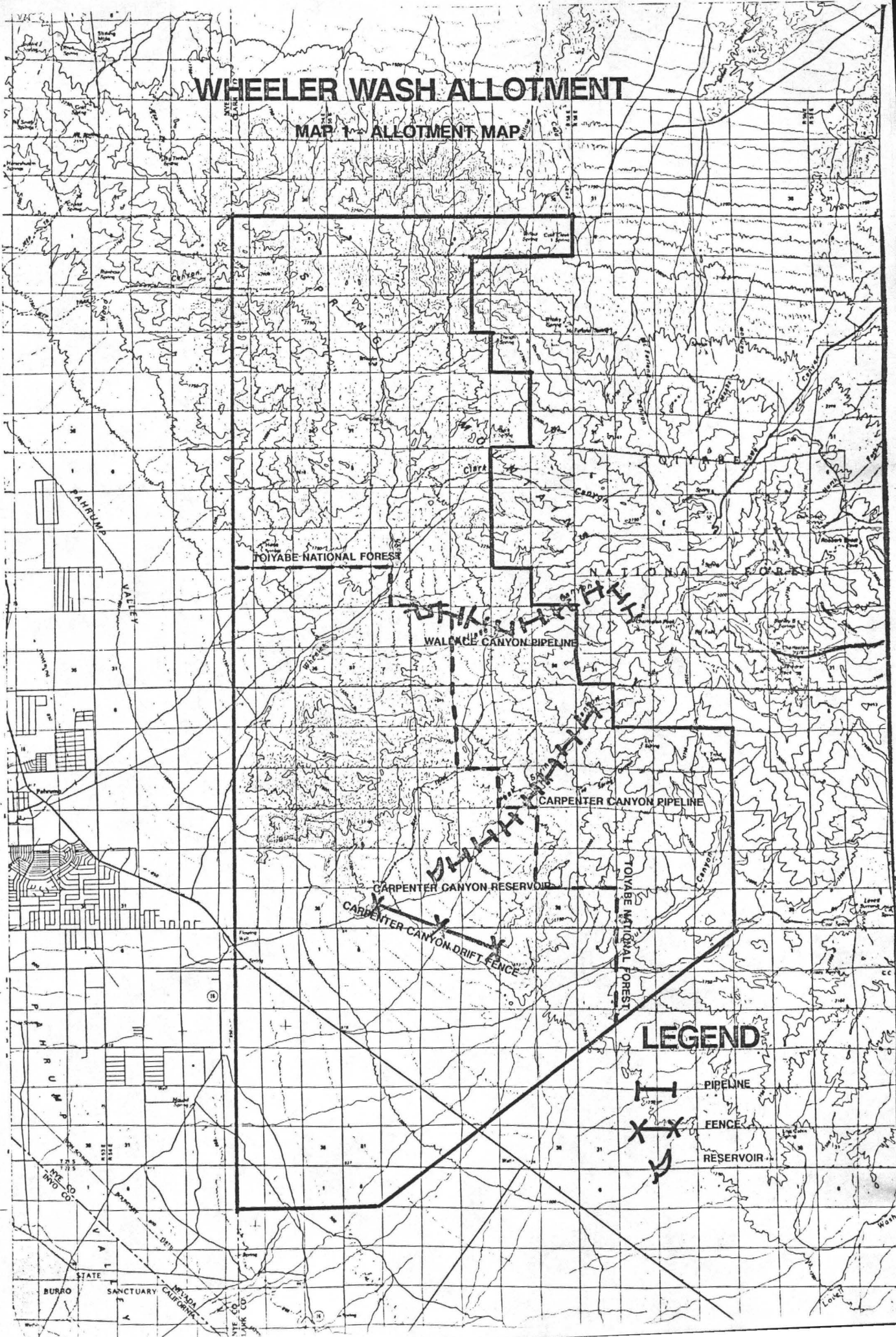
Bob Stager, Las Vegas District Range Conservationist, Bureau of Land Management

Bruce Sillitoe, Stateline Range Conservationist, Bureau of Land Management.

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

WHEELER WASH ALLOTMENT

MAP 1 ALLOTMENT MAP

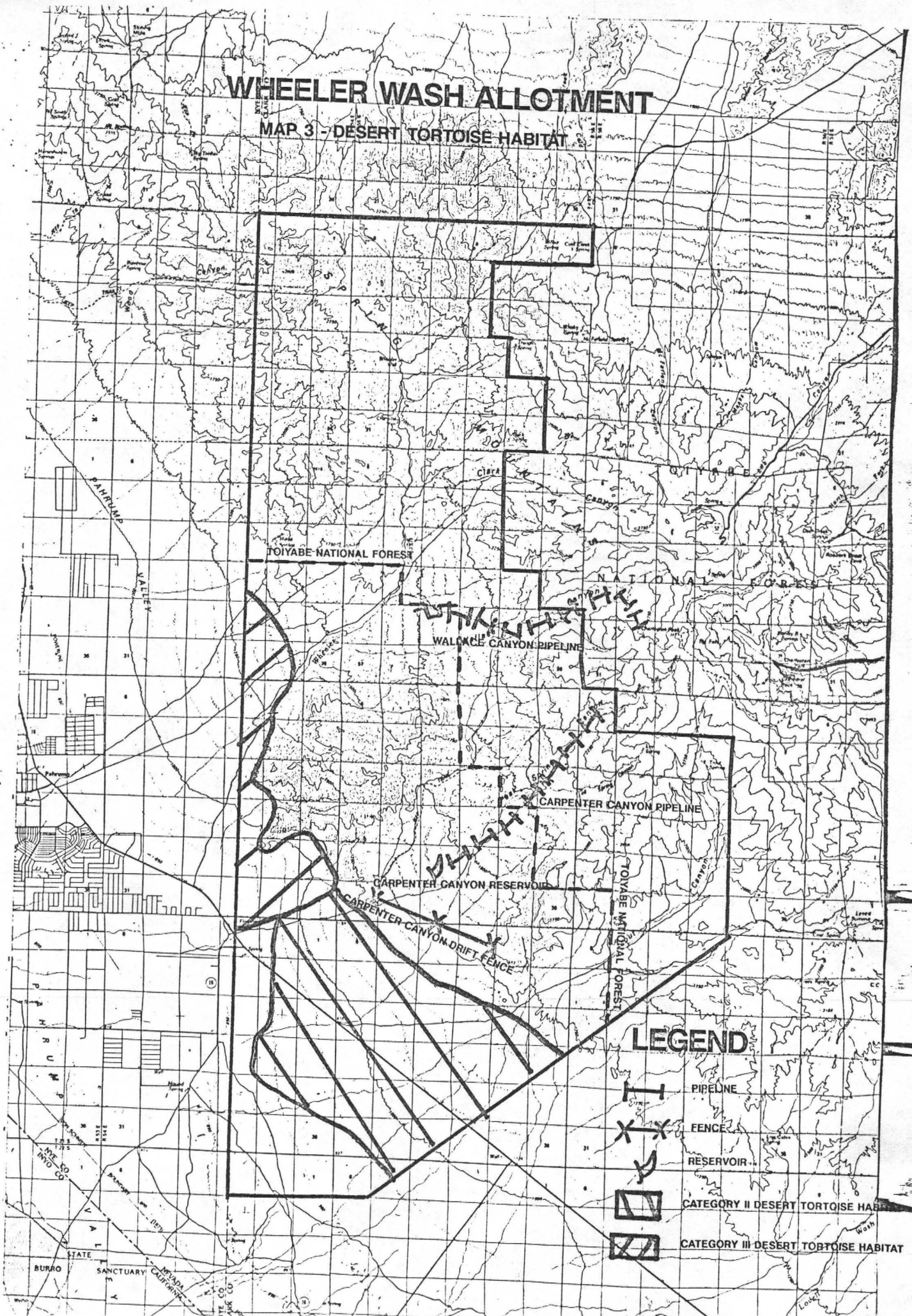


LEGEND






- PIPELINE
- - - FENCE
- RESERVOIR

WHEELER WASH ALLOTMENT

MAP 3 - DESERT TORTOISE HABITAT

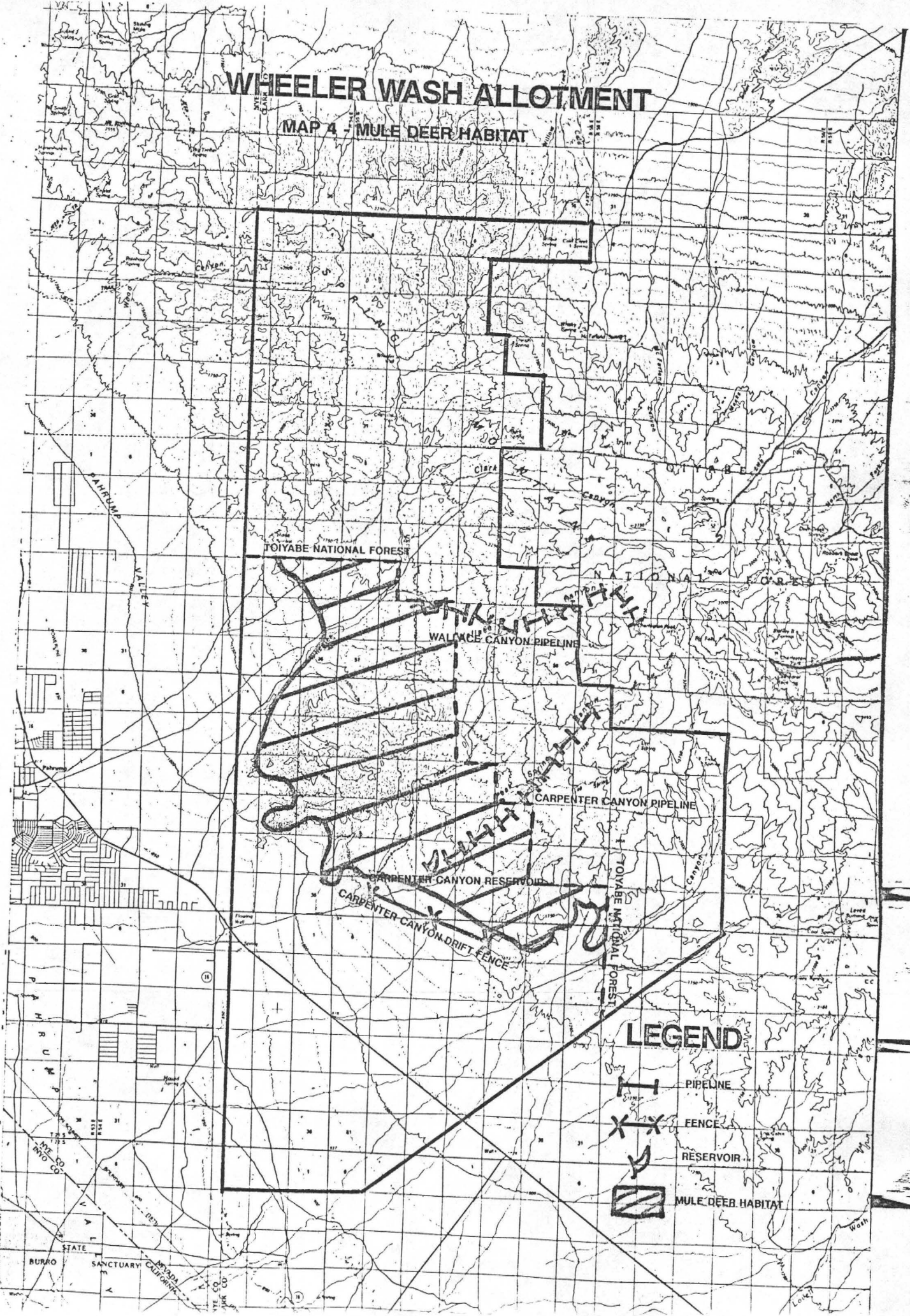


LEGEND





-  PIPELINE
-  FENCE
-  RESERVOIR
-  CATEGORY II DESERT TORTOISE HABITAT
-  CATEGORY III DESERT TORTOISE HABITAT

WHEELER WASH ALLOTMENT

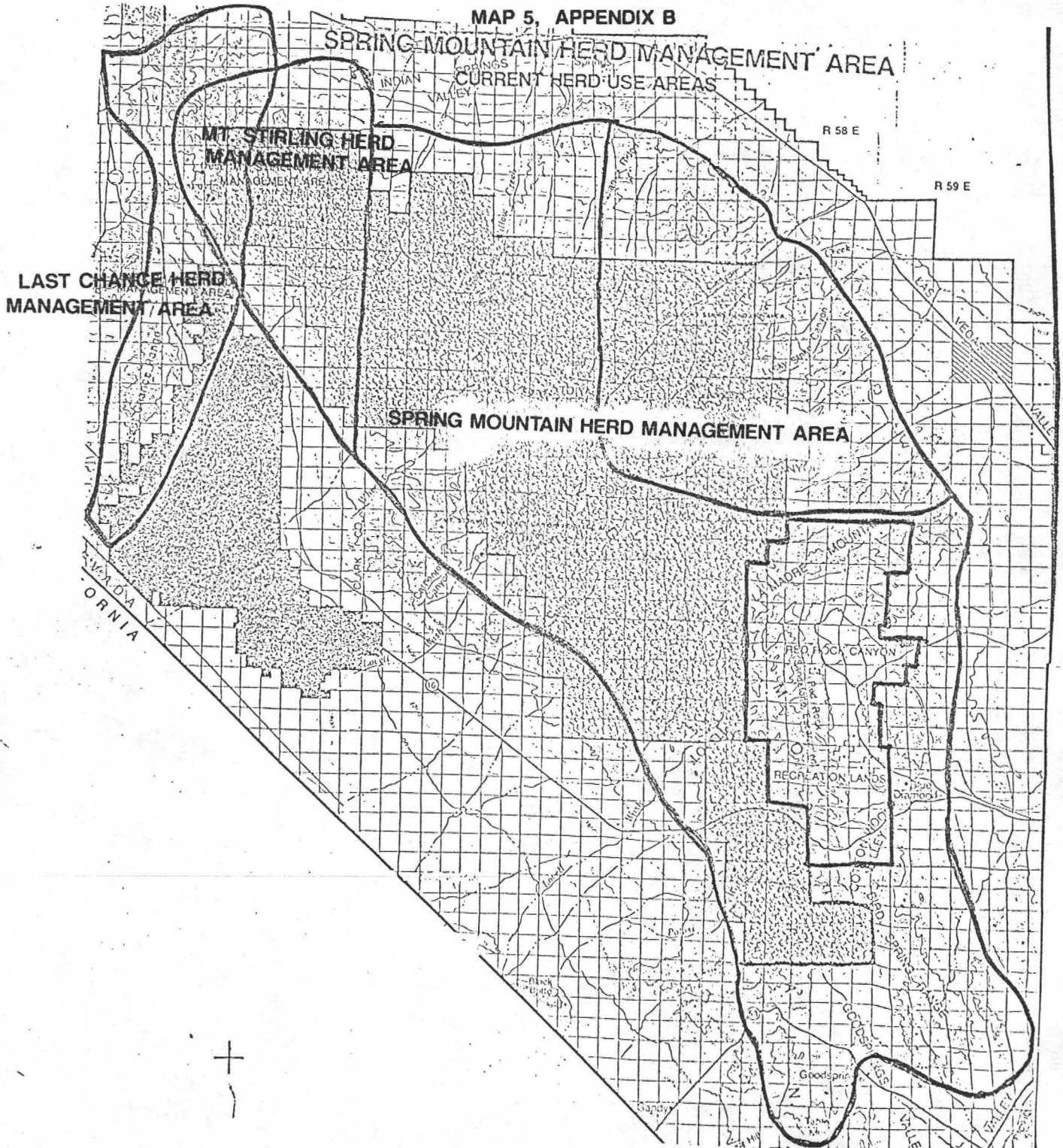
MAP 4 - MULE DEER HABITAT



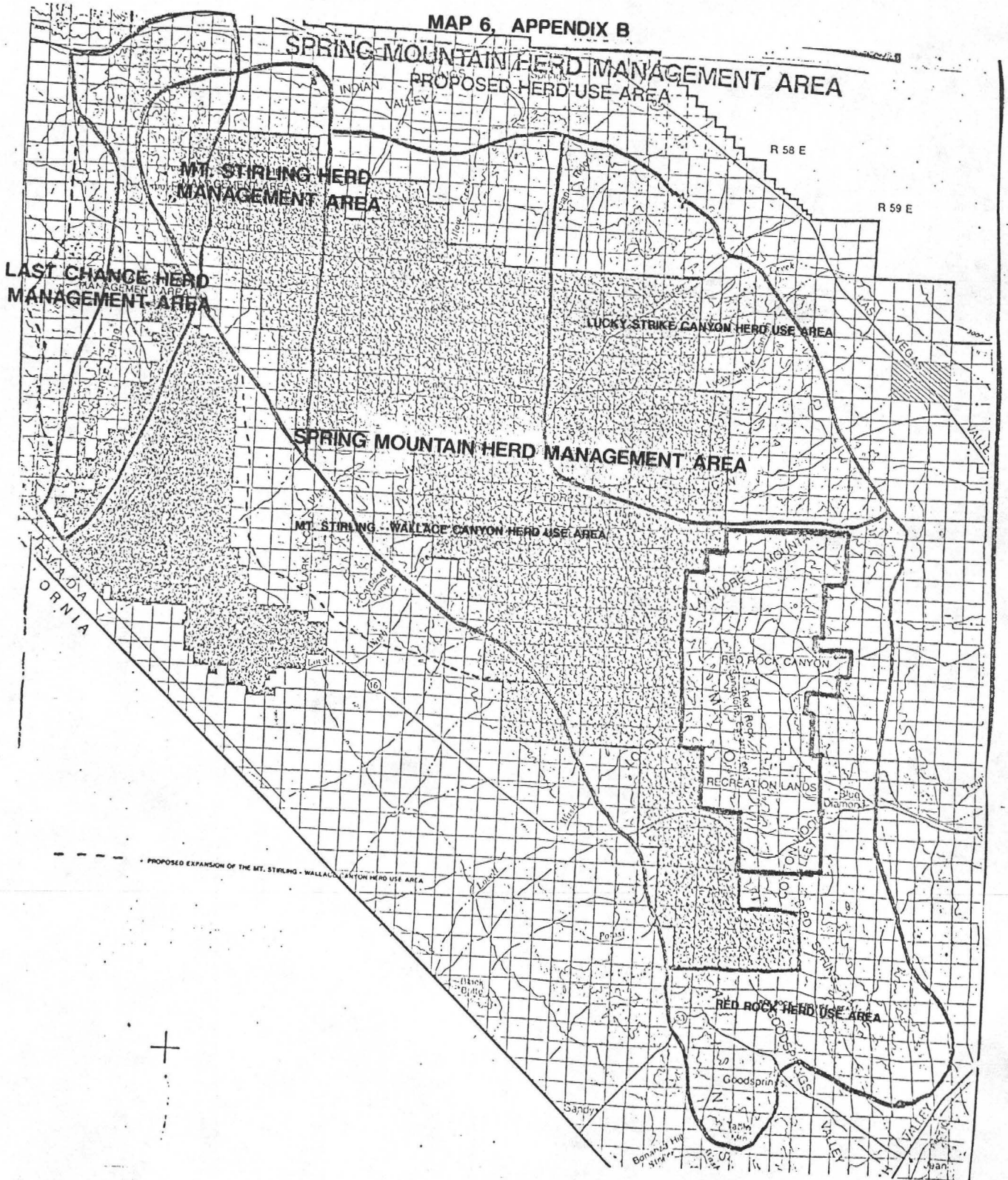
LEGEND

-  PIPELINE
-  FENCE
-  RESERVOIR
-  MULE DEER HABITAT

MAP 5, APPENDIX B

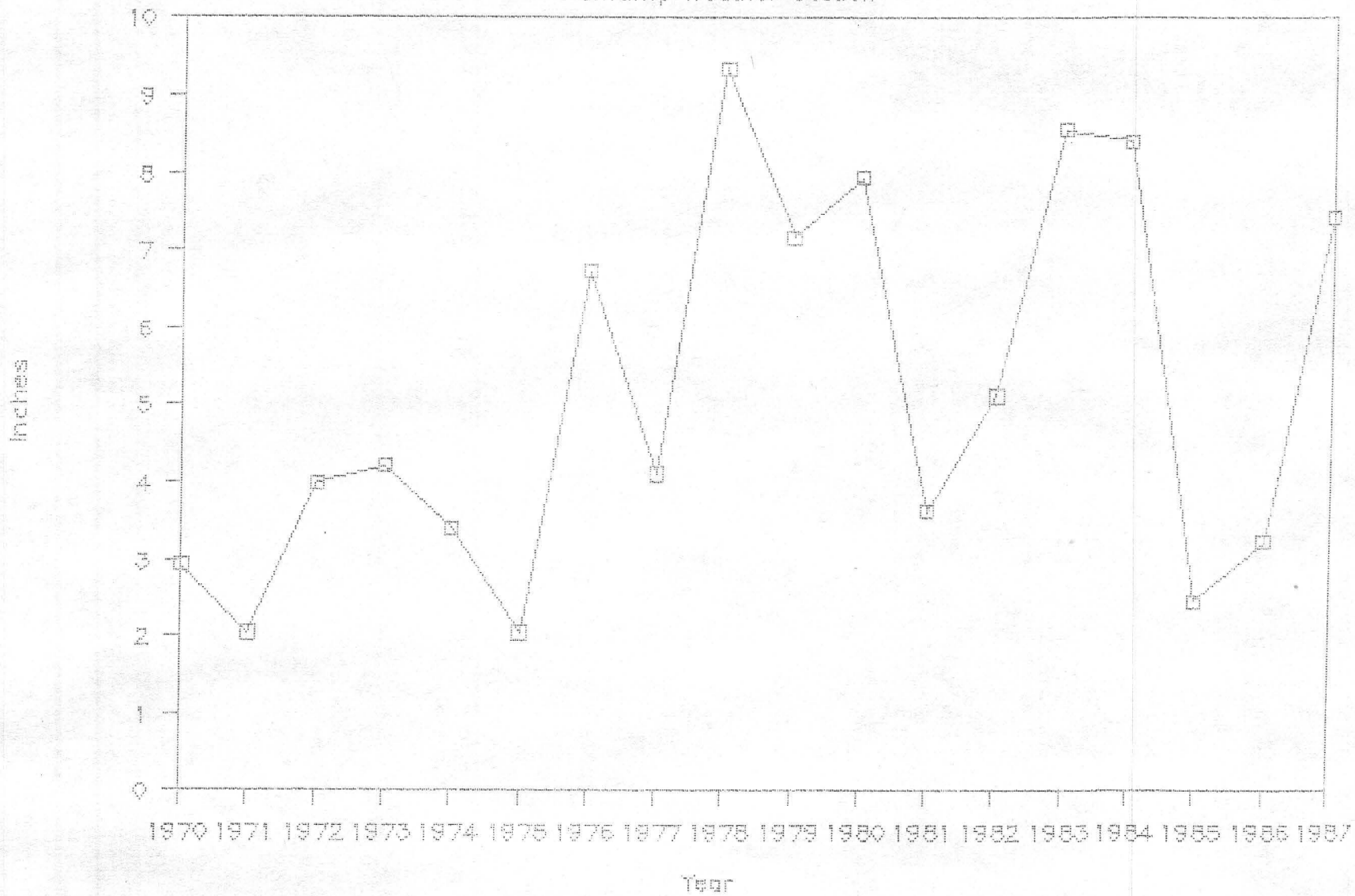


MAP 6, APPENDIX B



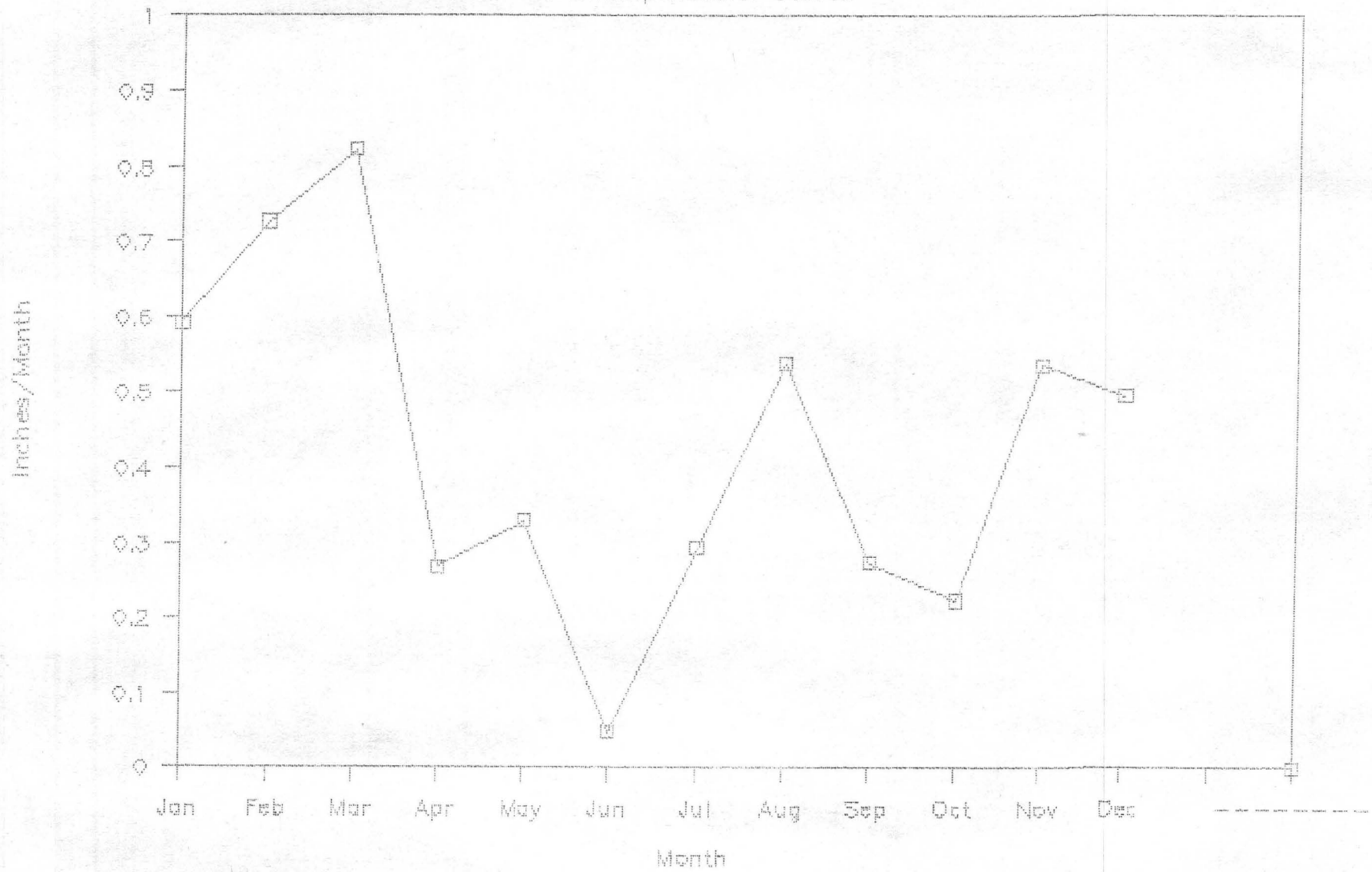
Annual Precipitation 1970 to 1987

Pahrump Weather Station



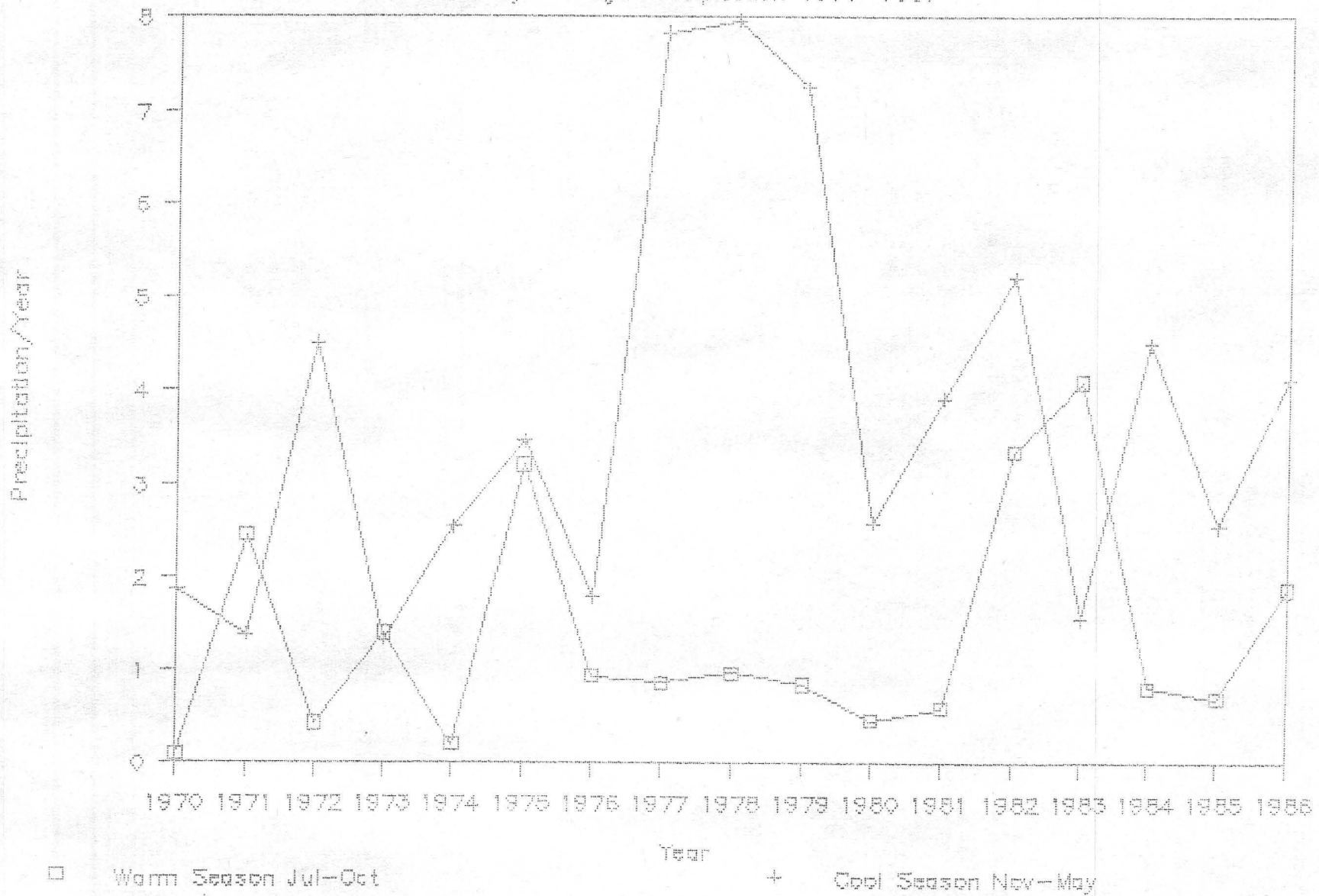
Monthly Precipitation

Pahrump Weather Station



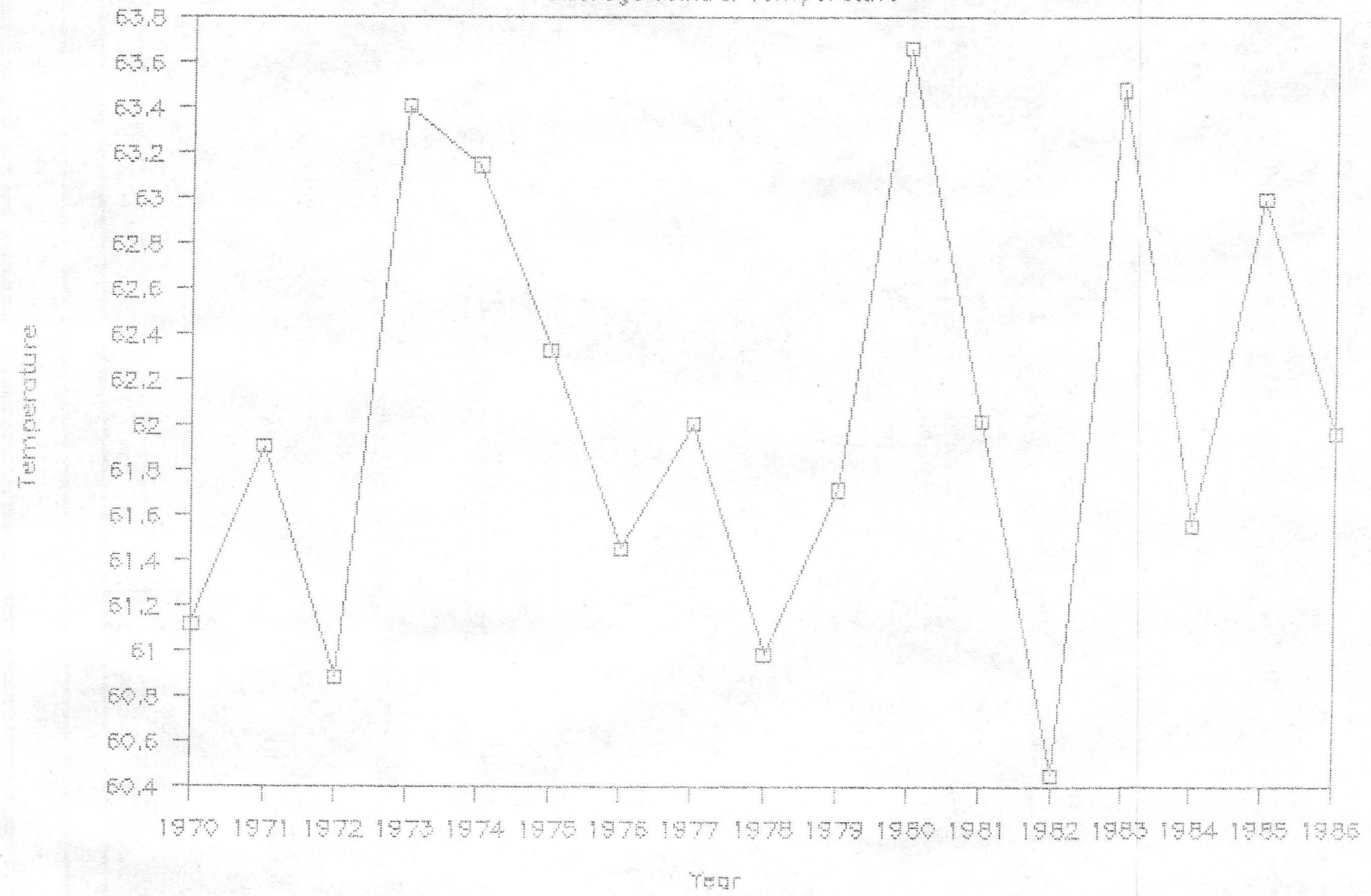
Pahrump UN Lab

Yearly Average Precipitation 1970-1987



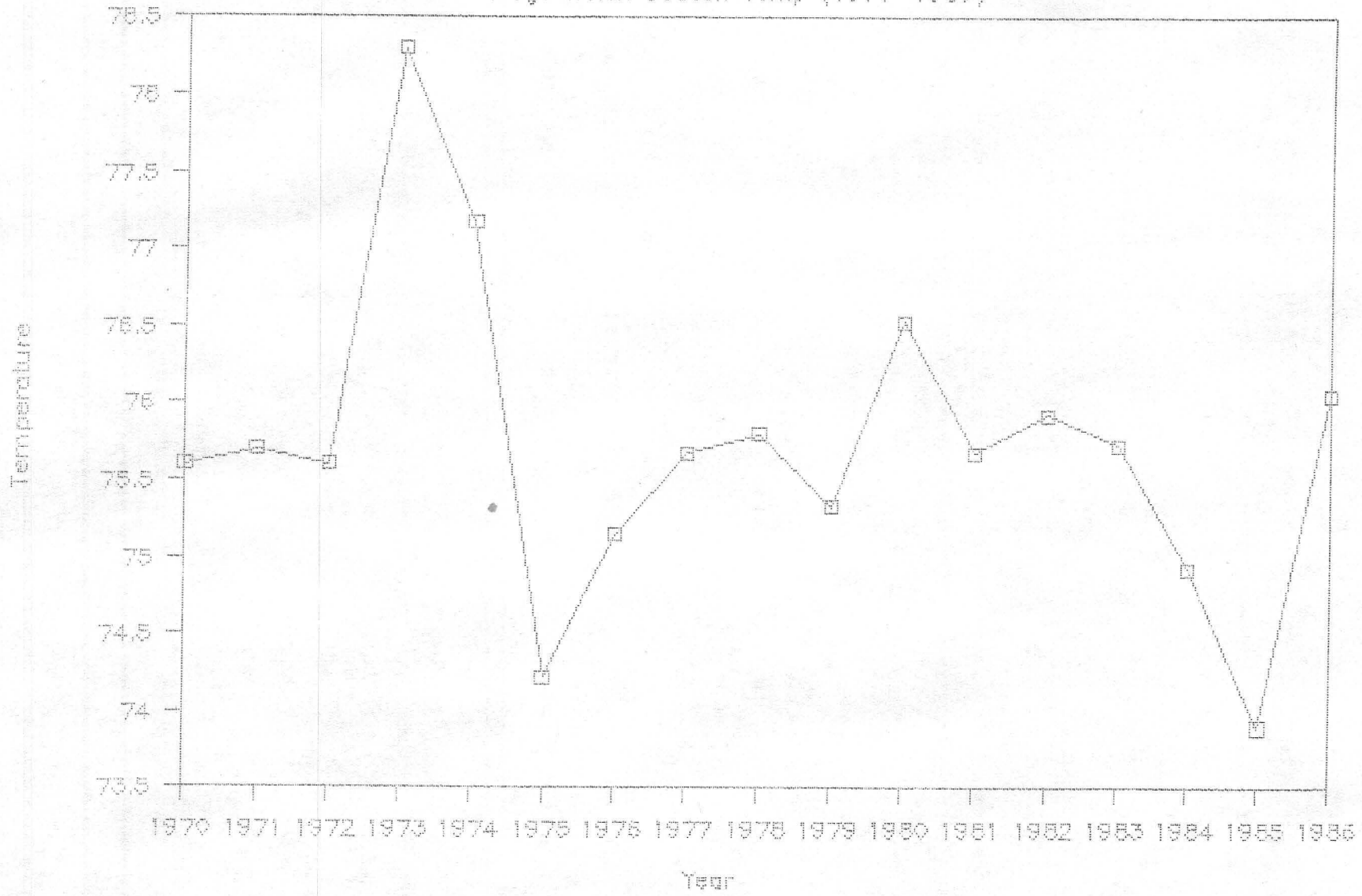
Pahrump UN Lab

Average Annual Temperature



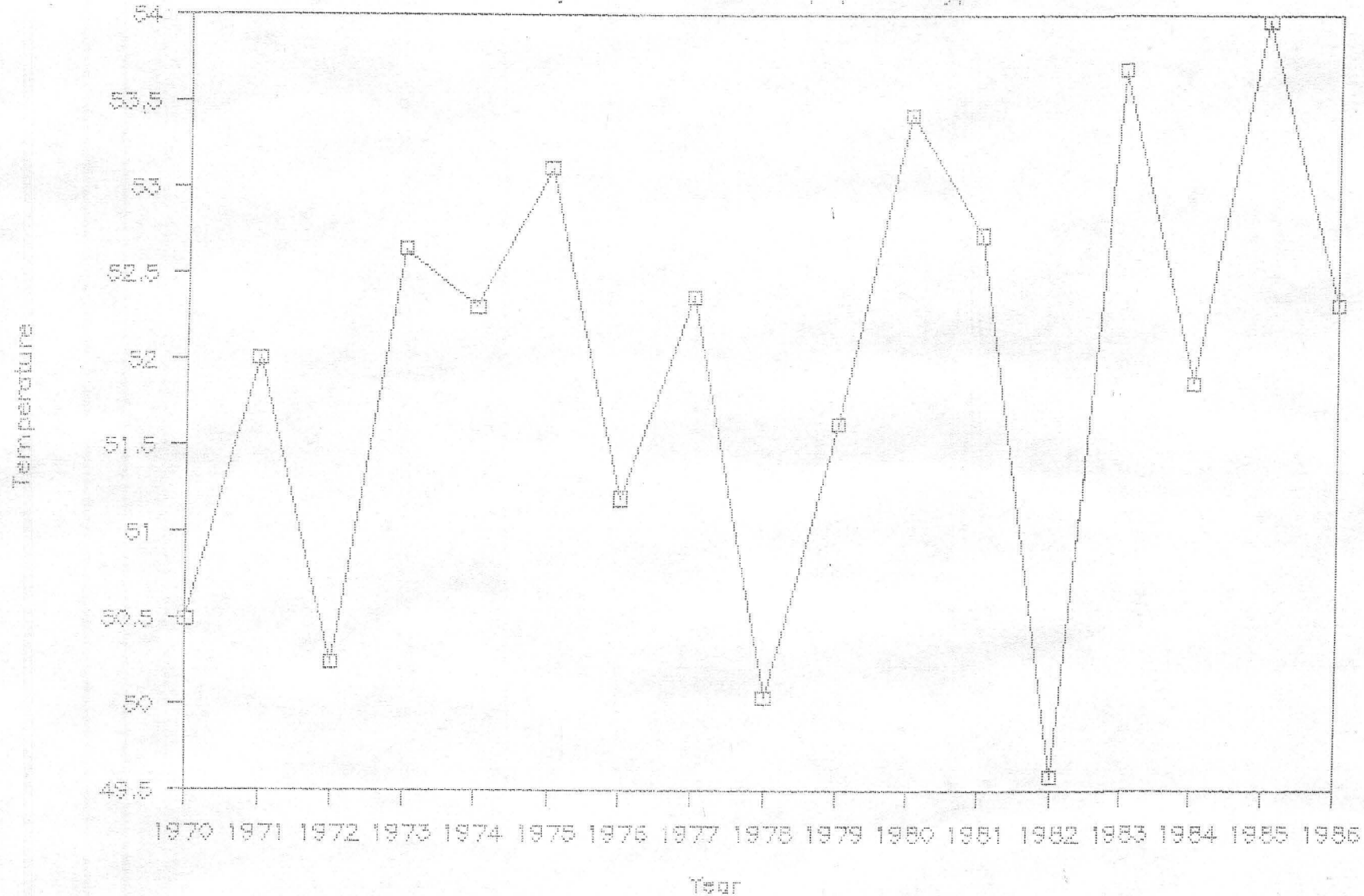
Pahrump UN Lab

Average Warm Season Temp (1970-1987)



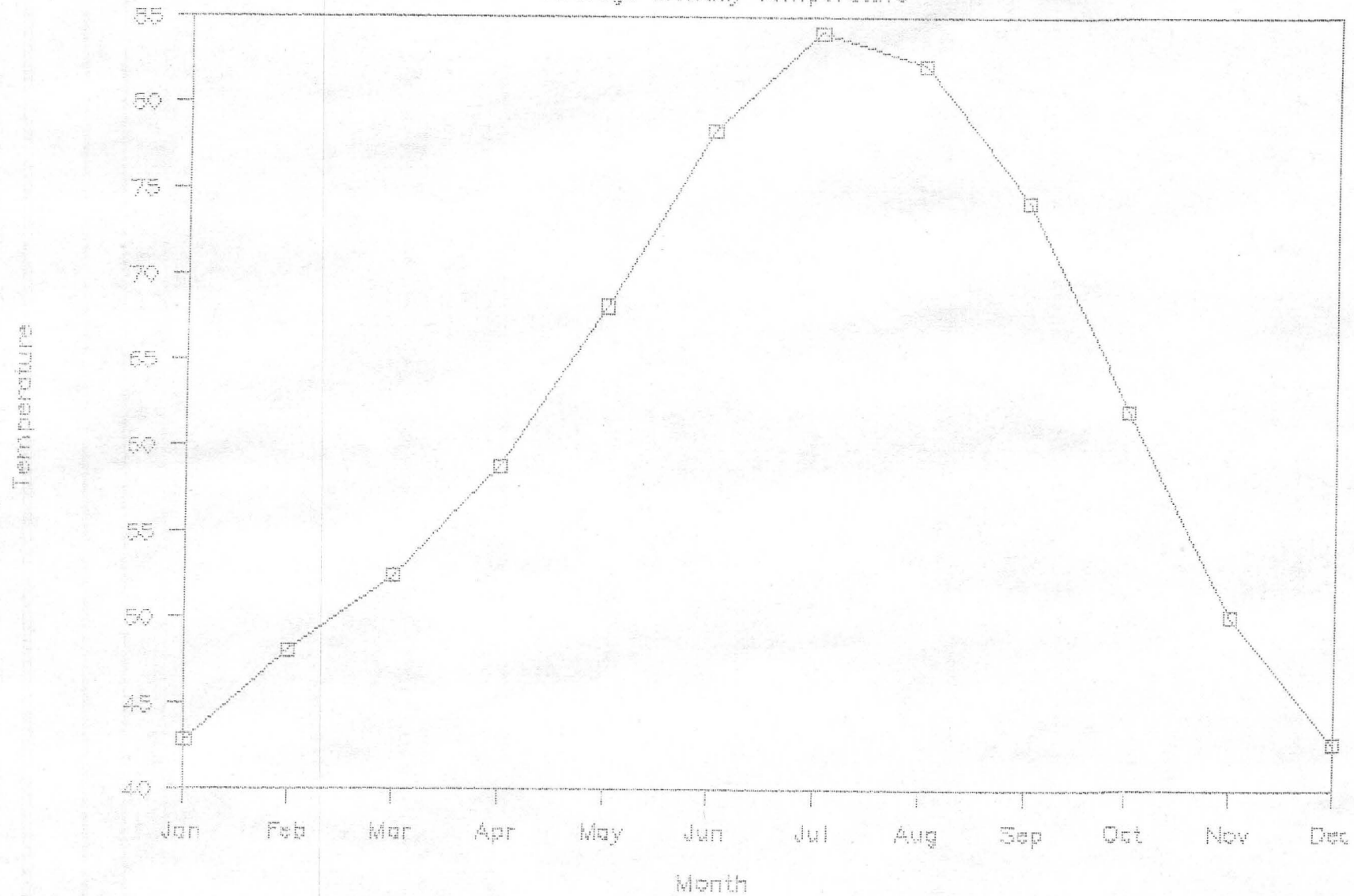
Pahrump UN Lab

Average Cool Season Temp (Nov-May)



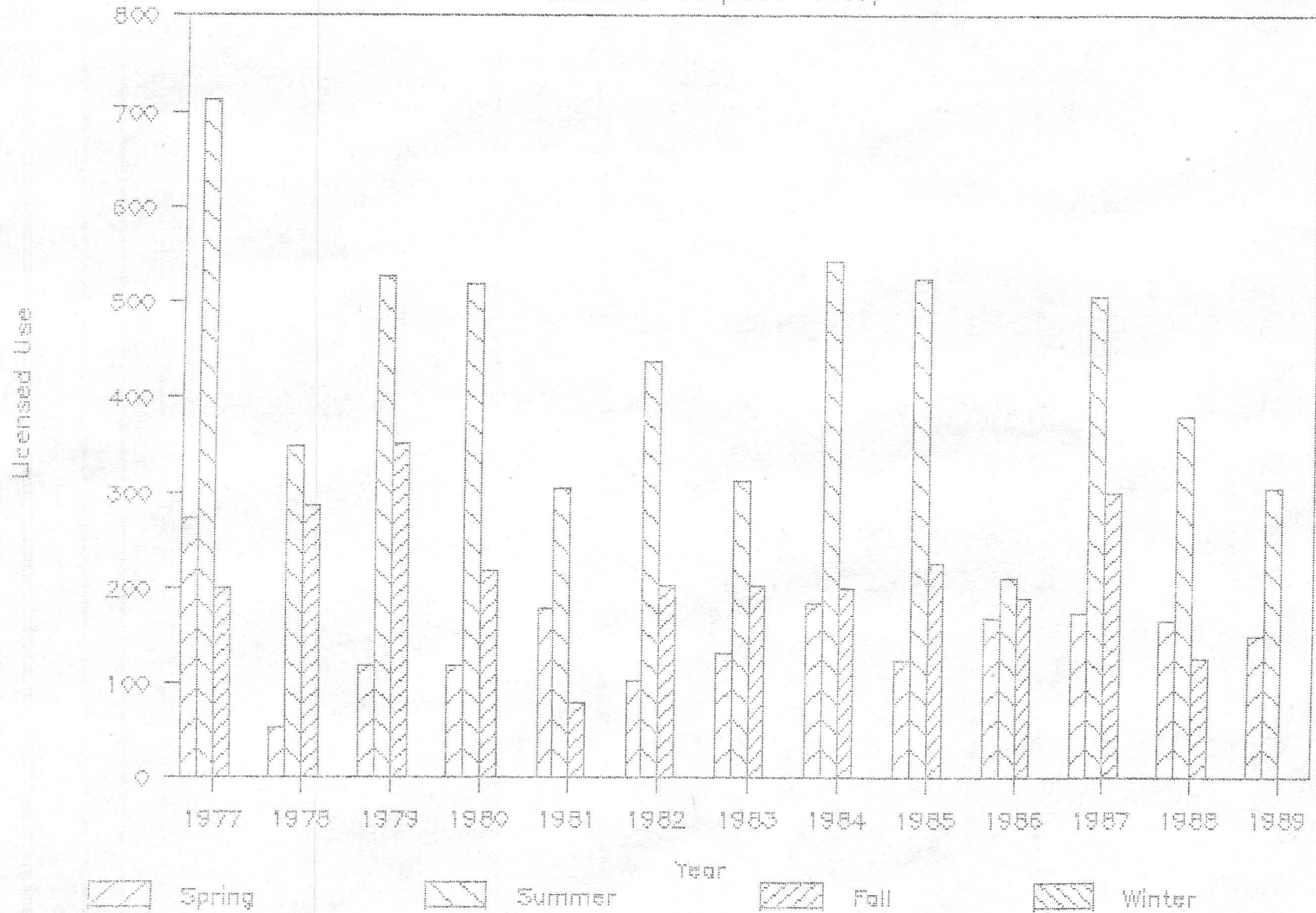
Pahrump UN Lab

Average Monthly Temperature



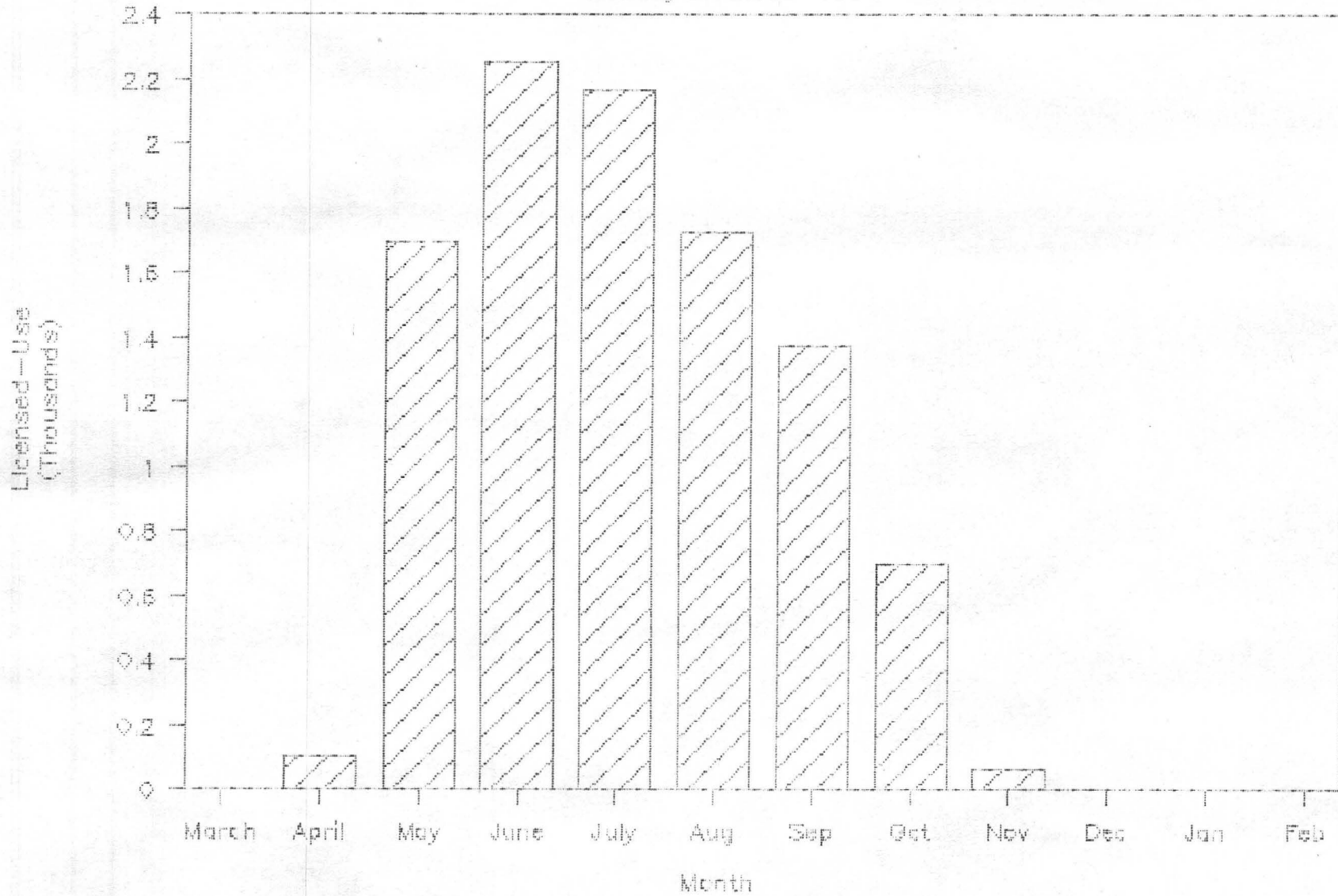
Wheeler Wash Allotment

Licensed Use (1977-1989)



Wheeler Wash Allotment

Monthly Licensed—Use



Wheeler Wash Allotment

Licensed-Use (1977-1989)

