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Reference yellow marks to first draft green marks.

DRAFT

Allotment Management Plan

Hunter Mountain Allotment

Ridgecrest Resource Area
California Desert District
Bureau of Land Management

take out returns

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Page

I. INTRODUCTION

A. General Information

This document is an Allotment Management Plan (AMP) for the Hunter Mountain Allotment. The need for this AMP is identified in the California Desert Conservation Area Plan and Environmental Statement, Appendix XIII of the proposed Desert Plan, the Rangeland Program summary, several grazing decisions, and rancher requests. This AMP is intended to be broad in scope and dynamic to accomodate needed future changes. As the results of monitoring are analyzed and experience is gained working under this plan, it is expected that modification will be made.

B. Physical Description

The Hunter Mountain Allotment is located in the north-western Mohave Desert between Panamint and Saline Valleys along the western boundary of Death Valley National Monument (Figure 1). The official allotment boundaries, as shown in the California Desert Conservation Area (CDCA) Plan, are shown in Figure 2. These boundaries were laid out along topographic breaks and the Death Valley National Monument boundary. All these boundaries are not fenced, the actual cattle-use-area is controlled by locations of drinking water, topography, forage availability, and the permittee's livestock herding practices. The actual cattle use area differs from the area shown in Figure 2.

Topographically, the Hunter Mountain Allotment is quite diverse with a mixture of flats, plateaus, aluvial fans, canyons, and steep mountain slopes. Elevations in the allotment range from a low of 3500 feet in Saline Valley to 5200 feet in Lee Flat and 7300 feet on Hunter Mountain.

The climate for the area is predominately mediterranean in character with hot dry summers and cool moist winters. Most of the precipitation falls in the winter and spring from Pacific frontal storms. Erratic summer thunder storms are not uncommon, however, they only contribute about 10% of the total precipitation. Total precipitation ranges between six and ten inches per year with a volume increase with elevation. Precipitation occurs as a combination of rain and snow. Temperatures range from below zero in the winter to over 100 degrees farenheit in the summer.

II. DOMESTIC LIVESTOCK USE

A. Historical Use

Domestic livestock grazing in the area dates back to 1868 when Mr. William Lyle Hunter, the current permittees grandfather, settled in the area. Since that time the Hunter family has been the sole user of the Hunter Mountain Area. Historically, the area of use included Hunter Mountain area east to Cottonwood Canyon. Part of this area is now

CALIFORNIA DESERT CONSERVATION AREA

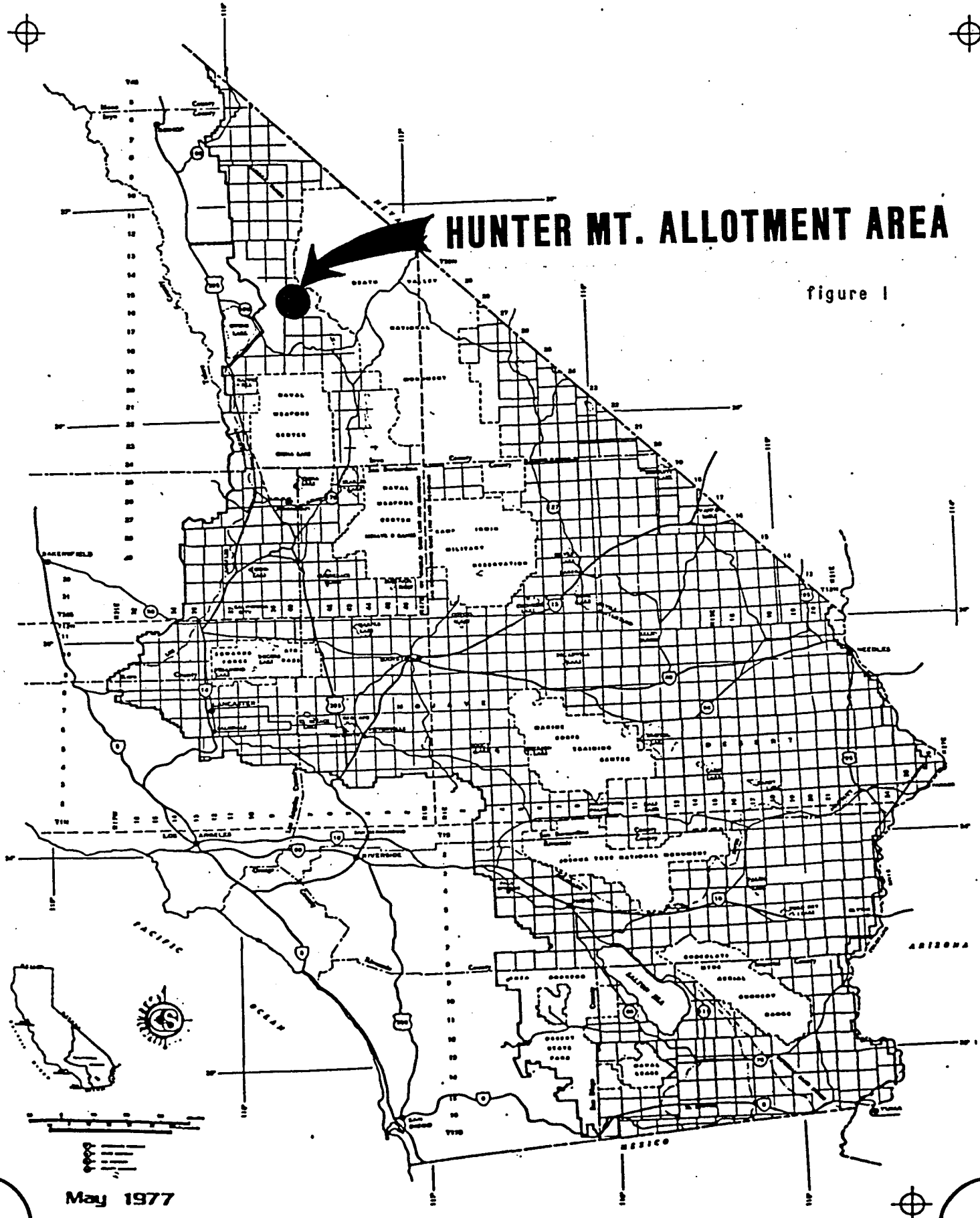
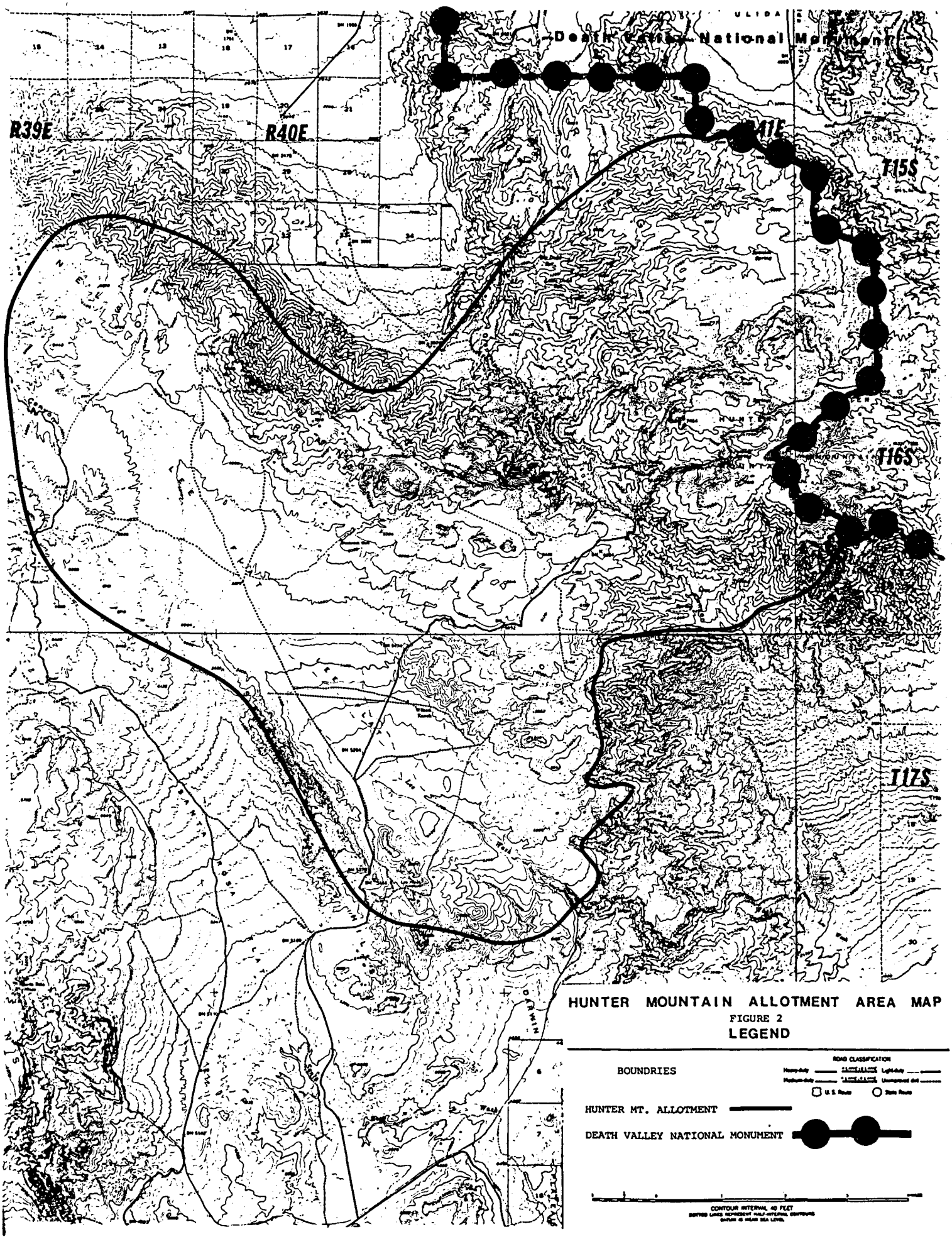


figure 1

May 1977



HUNTER MOUNTAIN ALLOTMENT AREA MAP

FIGURE 2

LEGEND

BOUNDRIES

ROAD CLASSIFICATION

HUNTER MT. ALLOTMENT

DEATH VALLEY NATIONAL MONUMENT

CONTOUR INTERVAL 40 FEET

within the Death Valley National Monument (DVNM). ~~The~~ (DVNM) lands constituted 50% of the area of use when they were set aside in the 1930's. Litigation by the Park Service removed livestock use from the DVNM in 1964. At that time the BLM permit was reduced from 300 head to 150 head.

The Coso Grazing Unit adjudication in 1966 established a carrying capacity for the area of 1600 AUMs. Part of those AUMs were considered unsuitable due to lack of nearby water.

During the adjudication it was determined that Roy Hunter had only Class II base property and a right to 1104 AUMs. This resulted in a permit for 150 head for January 1 to August 11 (1105 AUMs). The permit continued that way until 1978 when Mr. Hunter applied for and was granted a change in his season of use to match his Forest Service ondate. The permit now reads "150 cattle 11-20 to 6-30 for 1105 AUMs."

B. Current Livestock Management

Currently the permittee owns approximately 235 head of cattle which are ran as a cow-calf operation. Grazing takes place on owned and leased private lands around Owens Lake and Olancha, on BLM lands, and on Forest Service lands.

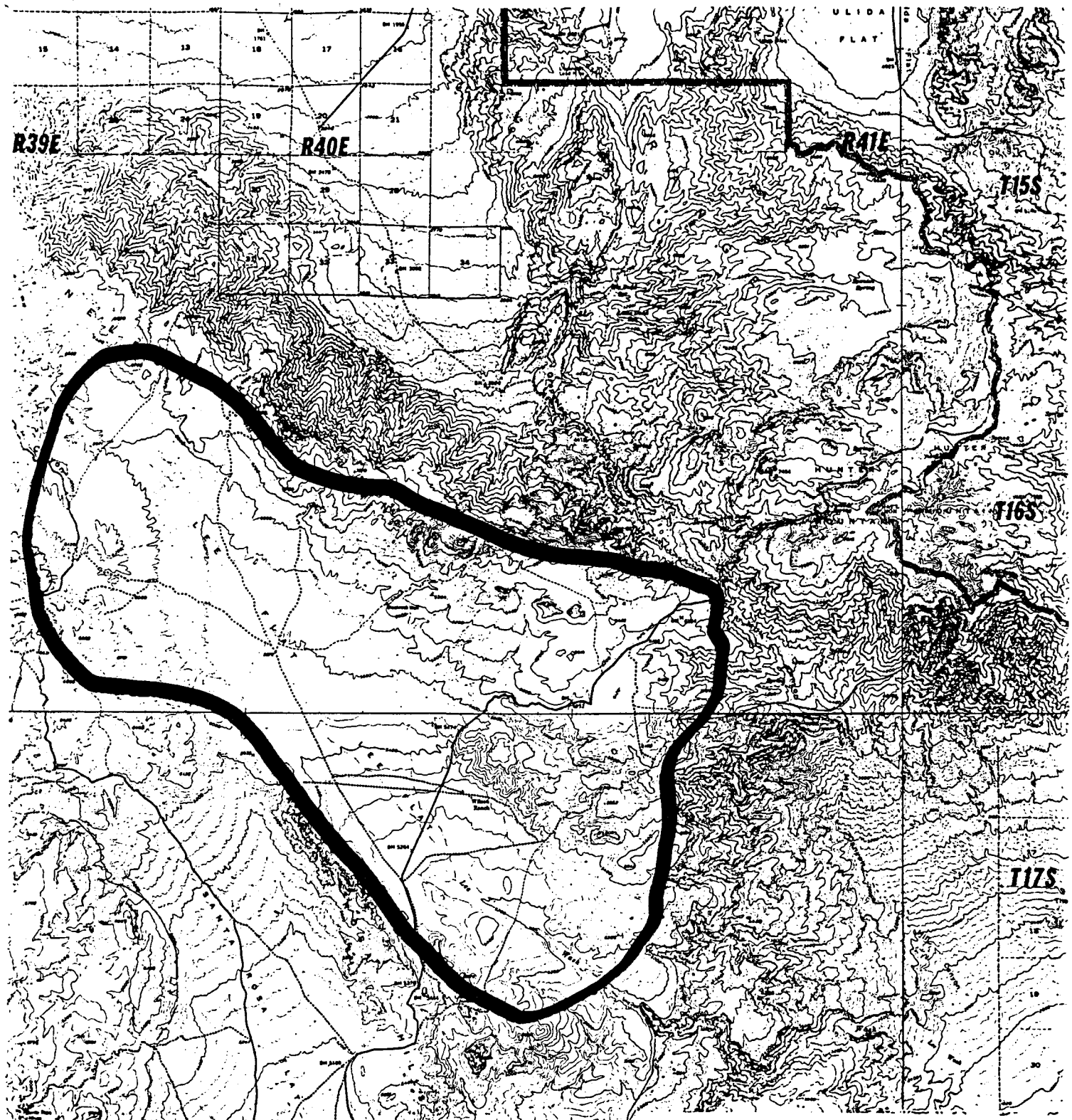
One hundred and fifty head of cattle graze during the winter, spring, and early summer on the Hunter Mountain Allotment. The permit allows an ondate of November 20; however, poor fall feed conditions have resulted in a delay, many times, until January. The remaining cattle stay on the home ranch at Olancha or on the Owens Lake leases.

Cattle are trailed from the Hunter Mountain Allotment back to the home ranch late June in ~~July~~. There they are combined with the remaining herd and ~~235~~ are trailed to the high elevation range in the Inyo National Forest. The Forest Service Season of Use varies according to weather conditions, but is generally in July, August, and September (90 days). From the Inyo National Forest, the cattle are trailed back to the private lands where they remain until part of the herd is trailed ~~back~~ to the Hunter Mountain Allotment.

When on the Hunter Mountain Allotment, the permittee has a ~~general~~ personal cattle management plan he follows. Mr. Hunter has four sites he monitors to evaluate forage conditions. Cattle are trailed to the Allotment when forage and water conditions appear adequate. Initially, the cattle are grazed from Grapevine Canyon west. As the season progresses and the snow melts off, part of the cattle move onto Hunter Mountain where they remain until they are herded back to the Wilson Ranch on Lee Flat and then trailed or trucked off ~~to~~ the Allotment. (S N Wilson)

C. Rancher's Concerns:

1. Several range surveys have shown that additional forage may exist. Considering that the wild horse and burro herds are under control, the permittee would like to increase his stocking rate.



HUNTER MOUNTAIN ALLOTMENT AREA MAP

FIGURE 3

LEGEND

ROAD CLASSIFICATION

Heavy-duty ——— Light-duty - - - -

Medium-duty ——— Unimproved dirt .....

U.S. Route State Route

BURRO MAINTAIN AREA

CONTOUR INTERVAL 40 FEET

DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS

DATUM IS MEAN SEA LEVEL

2. The current Season of Use starting November 20th has not been pratical because feed conditions are generally not ~~very good~~ reliable until February.

3. The current season of use does not match feed conditions on the top of Hunter Mountain. Currently, weather conditions do not allow much livestock use until April or May. This makes a very short season of use because cattle gathering starts in June. The permittee would like to add two months to his grazing season and keep cattle off the area until ~~mid-June when a percentage of the cattle would be shipped to the Inyo National Forest~~ July. This would change the Season of Use from May, June, and ~~July~~ to ~~late June,~~ July, and August for the Hunter Mountain Area.

4. The Forest Service is changing policy on access to their Allotments. They want cattle trucked instead of trailed. To implement this the permittee would like some flexability in his out date to correspond to the Forest Service opening date. This would allow him to truck straight from the Hunter Mountain Allotment to the Inyo National Forest.

5. Additional water developments in the Lee Flat area would allow better livestock distribution.

6. An authorization is needed to graze the 700-800 acres of BLM land associated with the permittees base property around Owens Lake. Highway fencing is needed there also.

7. The permittee would like to eventually be able to graze 450 head of cattle.

III. WILD HORSE AND BURROS

Wild burros have accounted for most of the grazing use in the Hunter Mountain Allotment in recent years, and are responsible for a majority of adverse impacts caused by grazing animals. Capture data is incomplete, however, it appears that around 2300 burros were removed from the general area between 1978 and 1985. The removed burros spent part of their time inside the Allotment. Data on exact numbers and the percentage of time spent inside the Allotment is lacking, however, best estimates place the use in the Hunter Mountain Allotment at the equivalent of 1000 to 1500 burros on a year-around basis (8400 to 12600 AUMs). At the current time around 100 burros use the allotment at least part of the year. Current management goals call for removal of all but 30 head of burros. Thirty burros are to be maintained in the Lee Flat area. Management of these burros is addressed in the Saline Valley-Lee Flat Herd Management Area Plan. Forty AUMs are reserved for burro use in the allotment.

(Figure 3)

IV. RESOURCE INFORMATION

A. Vegetation

Vegetation types on the allotment are typical of the Great Basin Desert. At high elevations the vegetation is dominated by Pinyon pine (Pinus monophylla). Major associated species include Big sage (Artemesia tridentata), Desert bitterbrush (Purshia glanclulosa), Utah juniper (Juniperus osteosperma). Pine blugrass (Poa scabrella) commonly occurs in this type. This vegetation type constitutes 15% of the Allotment and 5% of the forage production.

Low elevation areas are dominated by a mosaic of shrub species. Creosotebush (Larrea divaricata) occurs over much of this area. When soils become more saline, shadscale (Atriplex confertifolia) replaces Creosotebush as the dominant species. This vegetation type constitutes 26% of the area and produces 20% of the livestock forage.

A complex vegetation type occupies the intermediate area between the two previous vegetation types. This vegetation type includes such species as Big sage, Low sage (Artemesia nova), Budsage (Artemesia spinescens), Joshua trees (Yucca brevifolia), Ephadra (Ephedra nevadensis, E. viridus), Winterfat (Ceratoides lanata), Spiny hop-sage (Grayia spinosa), Desert bitterbrush ~~(LATIN???)~~ and Spiny menodora (Menodora spinescens). This vegetation type constitutes 59% of the allotment area and produces 75% of the forage.

The California Desert Conservation Area Plan classified the Hunter Mountain Allotment as a perennial allotment. The principal perennial forage species are shown in Table 1. The allotment is estimated to produce 6646 AUMs by the Desert Plan. Of this production, 728 AUMs are considered to be unsuitable due to lack of water, leaving a total of 4438 AUMs available for allocation.

In recent years the validity of forage production estimates has been questioned. This has resulted in a BLM policy to not use one-time inventories as the sole basis for changes in stocking rates. The Coso Range unit survey conducted in 1964-1965 estimated forage production in the Hunter Mountain Allotment at 2400 AUMs. Since burro removal started, between 8400 and 12600 AUMs have been removed. Those facts, coupled with a low utilization rate observed in several important areas, would indicate that the available forage production is higher than the current allocation. It would also be reasonable to assume that the development of additional water sources would make additional forage available.

The Desert Plan rates the Hunter Mt. Allotment as being in fair condition. This evaluation was done using the system shown in Table 2. At the time of the evaluation, the burro removal had just started and the Hunter Mt. pipeline was nonfunctional. Since that time, approximately 2300 burros have been removed from the Allotment and the Hunter Mt. pipeline has been reconstructed. Current indicators show an ~~ephemeral~~ upward trend.

TABLE 1

PRINCIPAL FORAGE SPECIES AND PROPER USE

SPECIES NAME	COMMON NAME	PROPER USE
SHRUBS		
Ambrosia dumosia	Bursage	10%
Artemisia spinescens	Budsage	20%
Atriplex canescens	Four-wing saltbush	40%
Atriplex confertifolia	Shadscale	10%
Atriplex polycarpa	Cattle spinach	20%
Ceratoides lanata	Winterfat	40%
Cownie mexicana	Cliff rose	40%
Ephedra nevadensis	Nevada tea	30%
Ephedra viridus	Green tea	20%
Eriogonum fasciculatum	California buckwheat	20%
Grayia spinosa	Spiny hop-sage	30%
Lycium spp.	Thornbush	10%
Menodora spinescens	Spiny menodora	20%
Purshia glandulosa	Desert bitterbrush	40%
FORBS		
Sphaeralcea ambigua	Desert mallow	40%
GRASSES		
Hilaria jamesii	Galeta grass	50%
Oryzopsis humenoides	Indian ricegrass	50%
Poa scabrella	Pine bluegrass	50%
Sitanion hystrix	Squirrel-tail	40%
Stipa speciosa	Desert needlegrass	50%

Source: "California Desert Conservation Area Final Environmental Impact Statement and Proposed Plan, Appendix Volume F," BLM 1980

TABLE 2

RANGE CONDITION

Excellent	-Similar to climax condition. -Decreasers abundant, good vigor. -Cover good for potential of site. -No accelerated erosion. -Production 75 percent and over of potential.
Good	-Somewhat similar to climax condition. -Decreasers still representative of the site and vigor, but are starting to be replaced by increasers. -Invaders, though present, are insignificant. -Cover still good for site. -Accelerated erosion very minor but present. -Production is 50-75 percent of potential.
Fair	-Decreasers show low vigor with remnant populations occurring in sheltered areas. -Invaders are common, increasers are expanding. -Accelerated erosion evident but not common. -Cover tending to be reduced. -Production is 25-50 percent of potential.
Poor	-Invaders and increasers predominate. -Decreasers gone or those left are in inaccessible areas. -Accelerated erosion evident.

Certain forage plants are useful as indicators of condition by their characteristic response to grazing pressure. "Decreasers" reduce in the composition under heavy grazing pressure. "Increasers" multiply in the composition under heavy grazing pressure. When conditions appreciably deteriorate, the less-desirable plants or "invader species" become more abundant (Appendix XIII to the Proposed Plan, October 1980).

Whether plant cover and species composition exhibit amounts and proportions representative of the "climax" for the areas is judged from relict areas, exclosures, fence-line contrasts, and/or historical information.

B. Wildlife

Desert bighorn sheep and mule deer are the major wildlife species of concern in the Hunter Mt. Allotment. Both of these species are considered residents with little or no migratory behavior, although heavy snowfalls may force the deer to lower elevations.

The Desert bighorn sheep population is currently estimated to be 30 head with 20 of those centered around Big and Little Dodd Springs and the remaining 10 adjacent to the allotment south and east of Hunter Mt. All of the bighorn sheep are thought to travel extensively and probably use much of the area around Hunter Mt. The current population is thought to be depressed due to habitat deterioration as a result of excess grazing pressure. Wild burros are ~~thought~~ to be the major problem because of their high numbers and year-around use. Total burro removal of from the bighorn sheep habitat is nearly complete. Cattle grazing has the potential to adversely affect the bighorn sheep by retarding range recovery, occupying important spring range, impacting riparian areas, and possibly transmitting diseases.

acknowledged

The current population of mule deer is estimated to be around 150 head. Deer typically occupy the higher elevations in association with the Pinyon pine and Big sagebrush zones. Habitat deterioration due to heavy grazing has also been an adverse impact on mule deer. Continued spring cattle grazing on Hunter Mt. is considered a major problem area because the early green grass is important for deer. ~~2222222.~~ Nutrition.

The California Desert Plan identified two possible wildlife management areas in the Allotment. One of these plans is for the bighorn sheep in the Hunter Mt. area; the other is for the shadscale plant community of Lee Flat. Neither of these plans have been written.

C. Wilderness (figure 5)

The Hunter Mt. Allotment contains parts of four Wilderness Study Areas (WSAs). These four are WSAs 122, 123, 124, and 127? Changes in grazing use and new proposed range improvements proposed for areas within wilderness study areas must comply with the Interim Management Policy (IMP) for land under wilderness review.

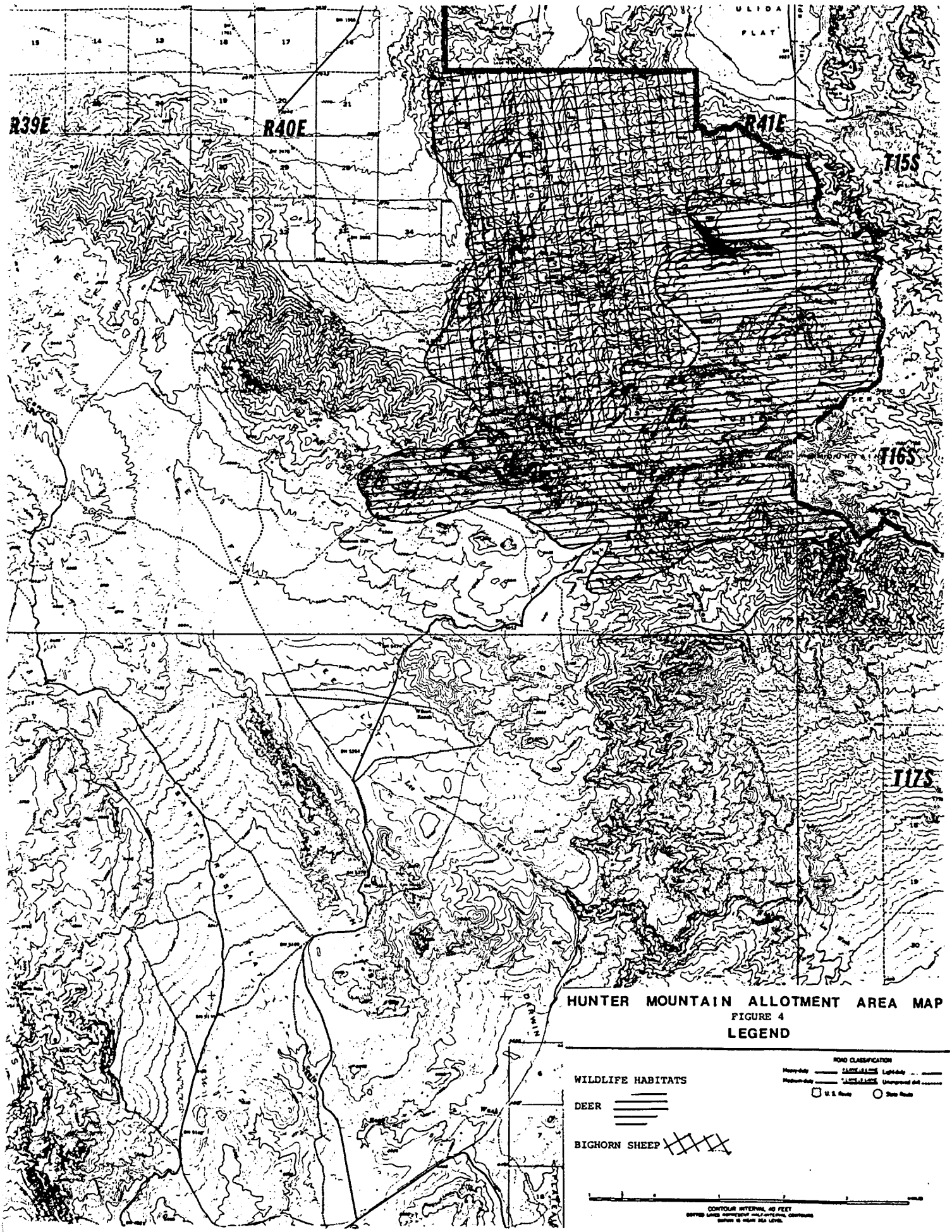
V. OBJECTIVES

A. Improve the overall range condition from fair to good in 10 years.

B. Increase forage production to allow allocation to increase to 2400 AUMs in 10 years.

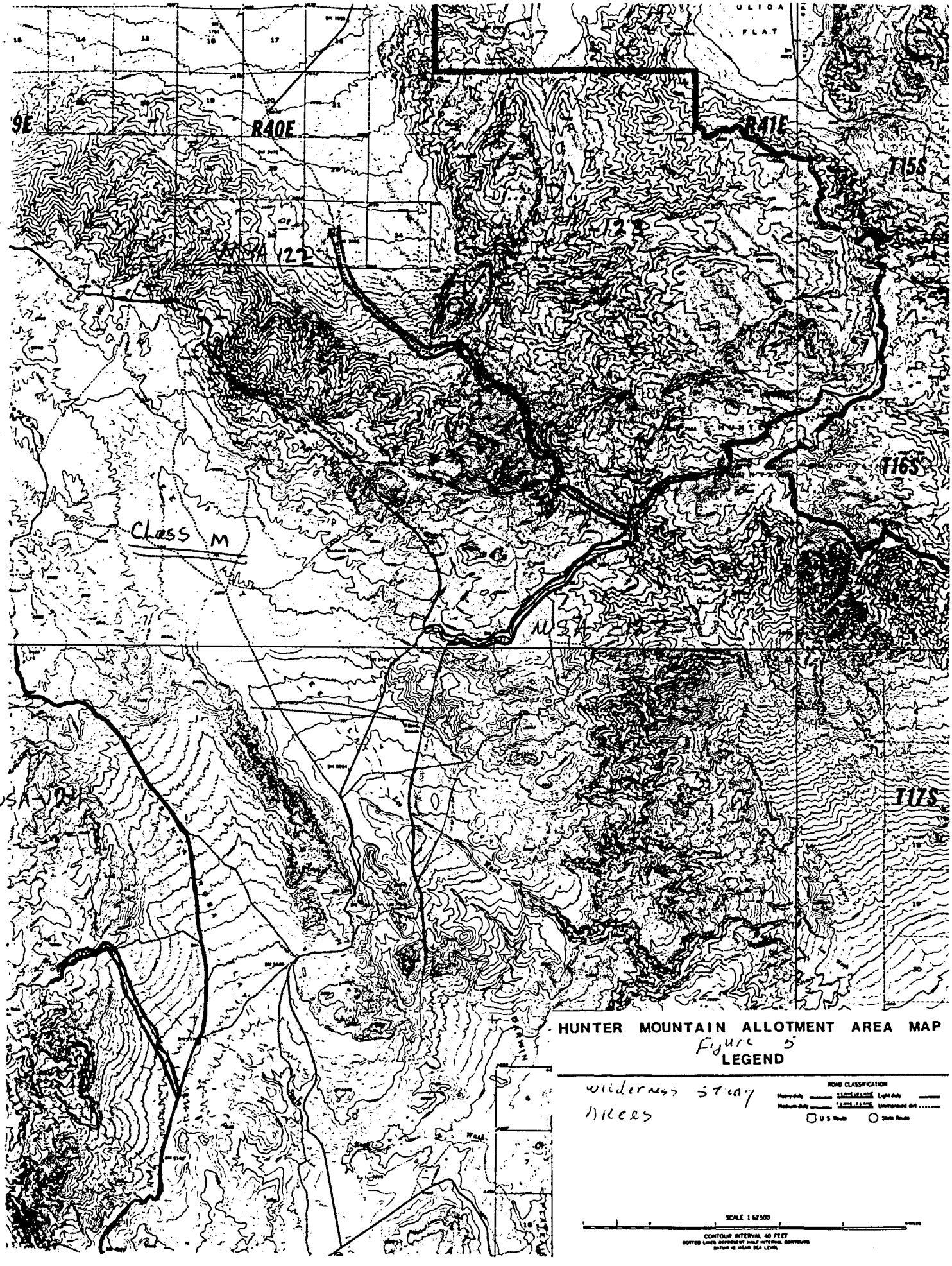
C. Provide for the physiological need of the vegetation by establishing key plant species for livestock and wildlife and ~~contratiz~~ timing on grazing use and/or limiting use. Controlling

D. Promote better distribution of livestock and grazing use through development of additional water sources.



HUNTER MOUNTAIN ALLOTMENT AREA MAP

FIGURE 4



HUNTER MOUNTAIN ALLOTMENT AREA MAP

Figure 5

LEGEND

wilderness study Areas

ROAD CLASSIFICATION

U.S. Route

SCALE 1:62500

CONTOUR INTERVAL 40 FEET

E. Provide habitat needs to allow an increase in the population of Desert bighorn sheep from 20 to 40 head in 10 years.

F. Provide habitat needs to allow a 25% increase (150 to 200) in deer numbers on Hunter Mt. in 10 years.

G. Allow greater permittee flexibility in livestock turnout and gathering dates and stocking rates to fit forage conditions and personal needs.

VI. GRAZING MANAGEMENT

A. Proposed Management

The key species for the Hunter Mt. Allotment ~~will be~~ are Desert needlegrass, Indian ricegrass, Four-wing saltbush, Desert Bitterbrush, Winterfat, and Cliff rose~~, and Bud sage~~. Nearly all parts of the allotment contain at least one of these species; they provide forage for livestock, and their response to grazing is an indicator of overall utilization. The management prescriptions for the allotment are aimed at meeting the critical physiological needs of these species. The critical season for these species is the Spring growing period extending through seed set. The timing for this critical period varies with elevation, but it will generally be from mid-March through May.

To meet the management objectives for key species, programmed rest will be provided during the critical growing season. To meet the management objectives to improve wildlife, cattle will be excluded from the crucial bighorn range and grazing use will be deferred on Hunter Mt. until after June 30. It is expected that this deferment will allow exclusive wildlife use during spring, will enhance range recovery, and will meet the permittee's needs for later forage. To facilitate this management, the allotment will be broken up into four management areas using drift fences and natural barriers (Figure 6). Table 3 shows the proposed grazing treatment.

Under the grazing treatment shown, the cattle will be placed in areas 1 and 2 during February and the first half of March. Through this period the cattle will be distributed through these two areas at the discretion of the permittee. Gates between the two units may be open or closed at the discretion of the permittee. By March 15 the cattle will be removed from the rested pasture and the gates will be closed. Once seed set has occurred (approx. June 1), the gates may be opened and the cattle may be distributed through areas 1 and 2 at the discretion of the permittee. Cattle will be removed from areas 1 and 2 around July 1 when the National Forest opens their range. At that time, the remaining cattle would be moved to area 4 where they would stay until August 31. Cattle may be trailed through area 2 any time.

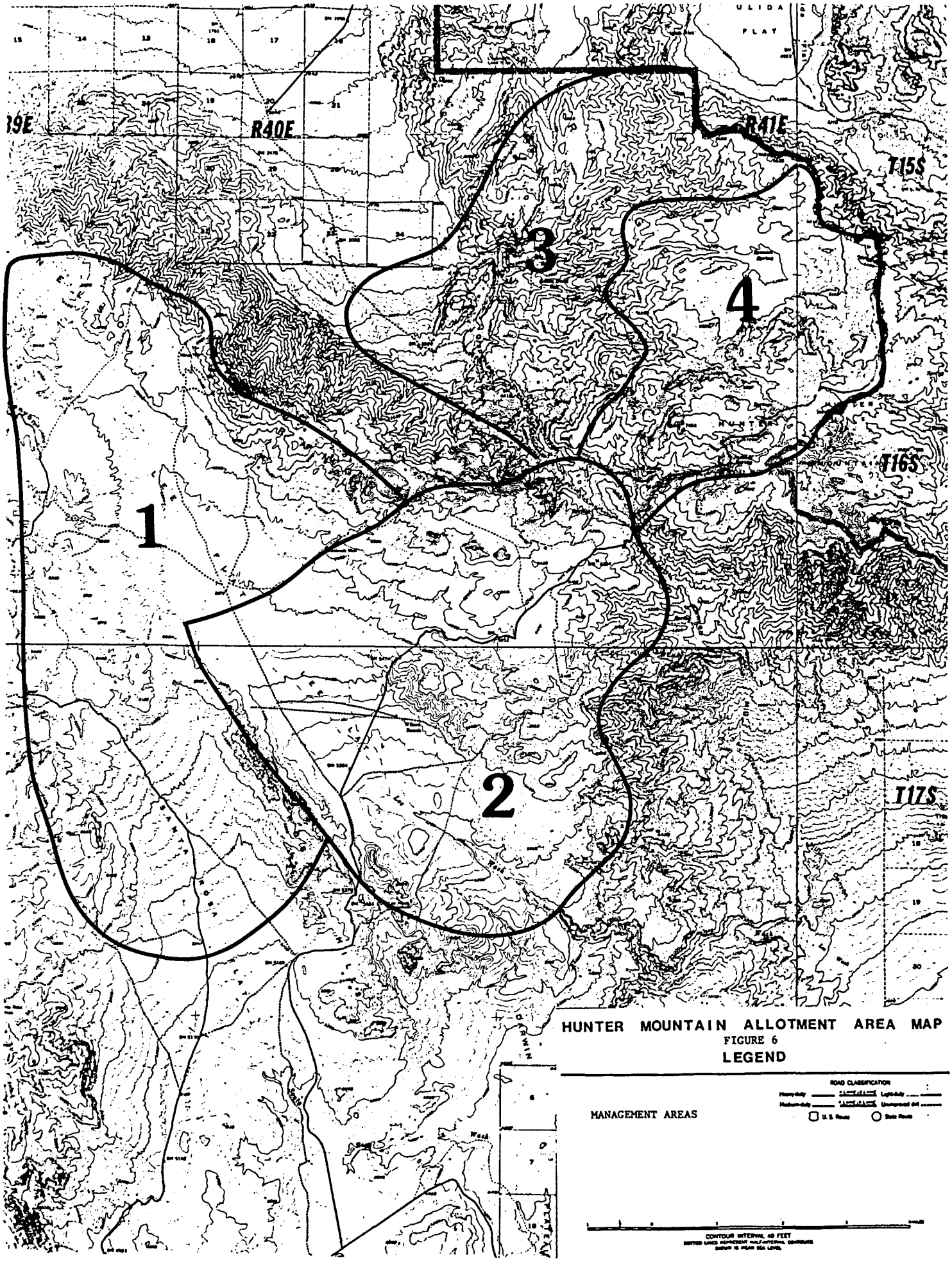
Stocking rates and changes in stocking rates will be based upon an evaluation of the monitoring information. The allotment will be evaluated every two years (one grazing cycle). Favorable monitoring data will result in the allowance of a 20% increase in authorized AUMs. Unfavorable monitoring will result in reductions in AUMs.

TABLE 3

GRAZING TREATMENT

YEAR NUMBER 1	FEB		MAR		APR		MAY		SEED SET	JUN		FOREST SERVICE ON DATE	JUL		AUG	
1. Upper Lee Flat and Santa Rosa Flat	XX	XX	XX	XX	XX	XX	XX	XX		XX	XX					
2. Lower Lee Flat, Wilson Ranch, Lee Mesa	XX	XX	XX							XX	XX					
3. Lower Grapevine Canyon																
4. Hunter Mt. and Spanish Spring													XX	XX	XX	XX
YEAR NUMBER 2																
1. Same as above	XX	XX	XX							XX	XX					
2. " "	XX	XX	XX	XX	XX	XX	XX	XX		XX	XX					
3. " "																
4. " "													XX	XX	XX	XX

--Year 3 repeats Year 1
--"X" indicates grazing
--Blanks indicate no grazing



HUNTER MOUNTAIN ALLOTMENT AREA MAP

FIGURE 6

LEGEND

MANAGEMENT AREAS

ROAD CLASSIFICATION

CONTOUR INTERVAL 40 FEET

Once the AMP is fully implemented, the permit will be revised as follows:

Feb 1 to June 30:	285 head	areas 1 and 2	1425 AUMs
July 1 to Aug 30:	50 head	area 4	100 AUMs

Stocking for area 4 will be limited to 20% of the animals run in areas 1 and 2.

B. Interim Management

Initially, the proposed management will not be able to be carried out because the necessary range improvements and monitoring studies would not be in place. During this time, the stocking will be limited to 1200 AUMs between November 20 and the Forest Service opening date (Approx. June 30). Cattle numbers will not exceed 235 head. The permittee may adjust cattle numbers and grazing season to fit his own needs as long as the maximum AUMs and numbers of cattle are not exceeded.

VII. ADMINISTRATIVE PROCEDURES

The following administrative procedures will apply to the Hunter Mt. Allotment:

A. Preference statements will be issued yearly showing the general grazing use authorized.

B. Actual Grazing Use Reports (form 4130-5) must be submitted to BLM by March 14 and September 15 each year to report grazing use for the February and March-through-August use respectively.

C. Grazing bills will be issued by BLM based upon the actual Grazing Use Reports.

D. Increases in grazing use will be authorized as temporary nonrenewable use until at least two years of monitoring shows that the AUMs are permanently available. If monitoring shows the AUMs to be permanently available, then the AUMs will be added to the active preference.

VIII. FLEXIBILITY

The permittee has the flexibility to make modifications in his stocking rates and in-out dates within the following ~~provisions~~ guidelines:

A. The maximum number of AUMs will not exceed those authorized for the February-through-June period or the July-August period.

B. The livestock may arrive up to 15 days early or leave 15 days late as long as the authorized AUMs are not exceeded.

C. The number of cattle grazed may vary up to 10% more than that shown on the authorization as long as AUMs are not exceeded.

IX. RANGE IMPROVEMENTS

A. Existing Range Improvements

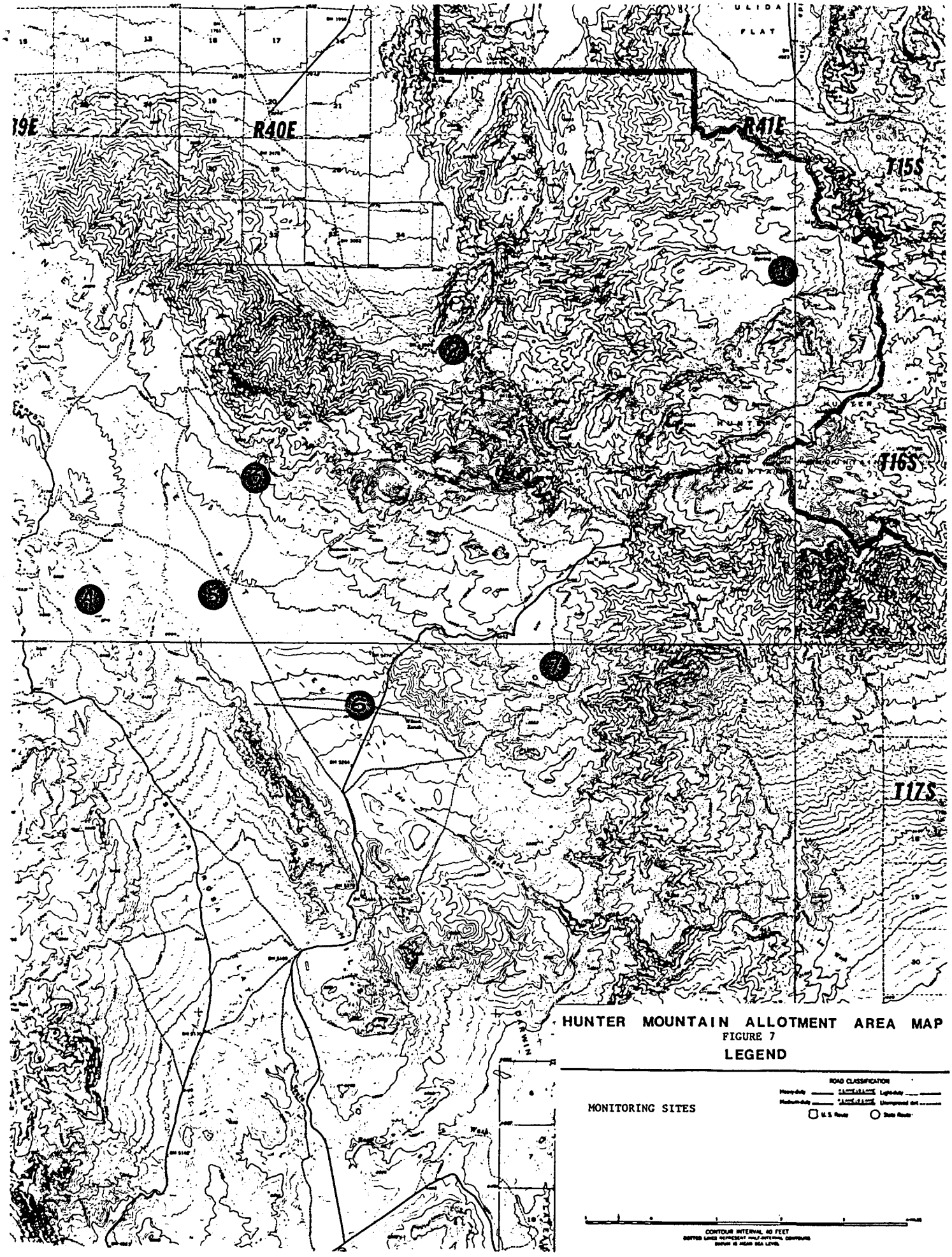
Project Number	Project Name
5018	Jackass Spring
5082	Spanish Spring
5352	Hunter Mt. Pipeline
5336	Lee Flat Reservoir
5378	Lee Flat Reservoir #2
5605	Wilson Ranch corral

PROPOSED RANGE IMPROVEMENTS

PROJECT TYPE/NAME	PROJECT NUMBER	SIZE/ UNITS	EST. COST	%BLM	LIFE SPAN	REPLAC. COST	AN MAIT. COST	% BLM	CONSTRUCTION COST BY YEAR 1	2	3	4	5
Lee Flat Pipeline	5394	3m	17768	100	51	17768	20	0	17768				
Lee Mesa Pipeline	5393	1½m	7000	100	51	7000	10	0		7000			
Santa Rosa Flat Tank #1	5395	1 ea.	1500	100	26	1500	0	0		1500			
Spanish Spring Reconstruction	5082	1 ea.	1500	100	26	1500	0	0		1500			
Dead Horse Spring Development	5083	1 ea.	4800	100	51	4800	30	0	4800				
Grapevine Canyon Drift Fence		½ m.	3500	30	51	3500	10	0	3500				
Grapevine Canyon Guard		1	2200	100	51	2200	30	0	2200				
Hunter Mt. Road Drift Fence		3/4m	5200	30	51	5200	10	0		5200			
Hunter Mt. Guard		1	2200	100	51	2200	30	0		2200			
Lee Flat Fence		2 m	8000	50	51	8000	10	0		8000			
Lee Flat Guard		1	2200	100	51	2200	30	0		2200			
Quail Spring Development		1	1500	100	51	1500	10	0			1500		
Spring Protection Fences		3	2000	100	51	2000	20	100		2000			

X. MONITORING

Method	What Measured	Location By Map Number	Repeat Interval	Remarks
Large Scale Photo Plots	Trend Species Composition	2, 3 + 6	5 years	Repeat part of Photo Plots Shot as part of Desert Plan
Photo Trend Plots	Trend	1, 4, 5, 7,	2 years	Use standard techniques with stereo photographs from tripod ~~(first 5 plots existing)~~ do 1/2 each year
Exclosures	Trend	4	5 years	Record data by photographs for baseline
Grazed-Class	Utilization	1, 3, 4, 5, 6, 7	yearly	To determine amount of use
Line Intercept	Trend, cover composition	1, 4	5 years	One inside and one outside each exclosure with permanent end points
Quadrant Frequency	Trend, cover composition	1, 4, 5	5 years	Use same permanent transect end points as Line Intercept
Climatological	Temperature PPT	6	continuous	



HUNTER MOUNTAIN ALLOTMENT AREA MAP

FIGURE 7

LEGEND

MONITORING SITES

ROAD CLASSIFICATION

CONTOUR INTERVAL 40 FEET