

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

In reply refer to:

4100 (NW 02.60)

January 30, 1989

Memorandum

To: District Manager, Winnemucca  
From: Area Manager, Paradise-Denio R.A.  
Subject: Management Analysis of Allotment Evaluations

BACKGROUND

With the completion in 1983 of the Rangeland Program Summary, the Resource Area started the implementation of the Grazing portion of its Land Use Plan. The strategy used for this implementation was to work through the Coordinated Resource Management and Planning process to identify specific allotment issues, develop monitoring strategies, gather information, use the monitoring data to develop allotment evaluations and then use the evaluations to formulate livestock use agreements or issue decisions to adjust management as needed. This was a 5 year process which we intended to use for our "I" and "M" allotments. The Resource Area started this process, but found out in 1986 that the intent of the 5 years was not a process but was a requirement to have agreements or decisions for all "I" and "M" allotments done within 5 years after issuance of the Rangeland Program Summary.

MONITORING DATA

Needless to say, this left the Resource Area in a situation that we did not have current data on a large percentage of our allotments. We did the best we could to collect monitoring data on all "I" and "M" allotments during the 1987 and 1988 field seasons.

The Resource Area issued a letter to all permittees on February 3, 1988 informing them that the evaluation process was occurring and that we would like to include any data that they may have in this process.

In January of 1988, the District Manager met with the Regional Office Staff of NDOW and discussed the evaluation process. He asked that they provide any information or data that we could use in our evaluation process. He also indicated to them that they should let us know in the review process if

wildlife data was correctly represented or if information had been left out.

In April, 1988 the permittees were invited to meetings that Jeff Rawson and I held in Denio, Winnemucca, Orovada and Paradise Valley. The purpose of these meetings was to inform the permittees about the evaluation process, utilization levels, why we were doing the evaluations and the timeframes we were working with.

#### EVALUATION PROCESS

My biggest concern throughout the process was the quantification of Land Use Plan objectives to specific allotment objectives. The specific allotment objectives seem to be generic in nature for the Resource Area, but we do have similar forage conditions and similar conflicts throughout the Resource Area.

The evaluation document presents data that we have collected or that was presented to us. I have also allowed the specialists to include professional opinion based on observations they have made in the field. If these observations were not documented, they were not carried forward into the management evaluation section of the document and were not used as a basis for any conclusions or recommendations for livestock management in the livestock use agreements or future decisions. My staff and I also reviewed all documented data, and if there seemed to be a problem with the data, it was not carried forward into the management evaluation section.

I will use the undocumented observations and the questionable data as a basis for future monitoring schemes to collect more data to substantiate or dismiss problem areas or questionable data.

The documents were sent to the permittees and NDOW for review purposes. Copies of evaluations were also sent to USFWS if they contained information about the Lahontan Cutthroat trout or other threatened species.

I elected to send documents to the permittees and the USFWS without any recommendation section, so that they would not get sighted in on the recommendations and forget to formulate actions of their own to solve any identified problems. This worked well.

The evaluation documents are left in draft form as I feel that the Livestock Use Agreement or any future decision will be the finalization of the evaluation process. Permittee comments, NDOW comments or other written comments will be filed in the monitoring file for future review during the next evaluation and consideration in any adjustment of grazing management to be made at this time.

#### CONSULTATION

I am disappointed in the responses that we received from NDOW. Their comments did not address specific problems but were directed more toward our planning process and implementation of the 1978 range survey. This suggestion was disregarded as Bureau policy is not to base changes on one time surveys. On many allotments, new data was not conclusive enough to initiate changes in livestock numbers.

Our consultation process went well with all the permittees. They were willing to work with us by discussing the evaluation and advising us of information that was not correct.

The permittees were encouraged to formalize in writing their comments about the evaluation.

As we discussed the evaluations, there seemed to be three major topics of concern:

- 1) Utilization levels
- 2) Riparian habitat
- 3) Streams identified for fisheries management

The concern for utilization levels stems from the Forest Service action in the Austin area where utilization levels were set up as allowable use levels requiring permittees to remove livestock when the utilization in a certain area was reached. We explained to the permittees that the utilization levels in their evaluations are target levels and that we did not consider them to be allowable use levels dictating livestock removals on a seasonal basis.

The riparian habitat questions seemed to center on what is a riparian area and where are the areas located. My staff used information from the 1977 and 1978 Special Habitat Features Inventory to develop a general location map of riparian areas and other special habitat features. This map was sent to the permittee along with the allotment evaluation. The one problem with this approach is that I can not find any documentation that indicates how the term riparian was defined. The area Supervisory Range Conservationist and I took the time to visit a few of the allotments and visit areas identified in the inventory that had been labeled riparian. In several instances I had to agree with the permittee that a riparian area did not exist.

Streams identified for fisheries presented another problem for us. A lot of permittees were very willing to relate to us which streams had been fishable over the past years and which streams dried up almost every year early in the summer. Their concern was trying to manage fisheries habitat on a stream that goes dry. There was also concern with the stream survey data and the overall percent of optimum calculation that was derived from the survey. The permittees wanted to know why pool riffle ratios are averaged in the optimum rating. The livestock industry questions how livestock can have an effect on pool riffle ratios. It appears that the Bureau needs to develop some sort of process that measures stream potential for supporting a fisheries.

#### LIVESTOCK USE AGREEMENTS

After holding consultation sessions with 20-30 percent of the permittees we discussed possible solutions to address the concerns of the permittees.

To help resolve the concerns of utilization levels, we agreed that it would be best to include a statement in the Livestock Use Agreements that supported our discussion that the utilization level was a target level to be evaluated over a period of time and not on allowable use level for seasonal adjustment of livestock.

This statement has helped resolve some of the concern over utilization levels, but now we face the question of what is the proper utilization level. Proper utilization levels will be developed for individual allotments. Consideration will be given to the following:

- 1) type of forage
- 2) type of grazing system
- 3) time of year forage is used
- 4) type and amount of data that has been collected on the allotment

The riparian issue will be resolved by field examination with the permittee of the areas that we consider riparian. We will use the definition of riparian as stated by Director Burford in his riparian policy statement dated January 22, 1987. I may also have to drop the riparian acreage figure from the riparian objective, but do not feel it will hinder management of riparian areas.

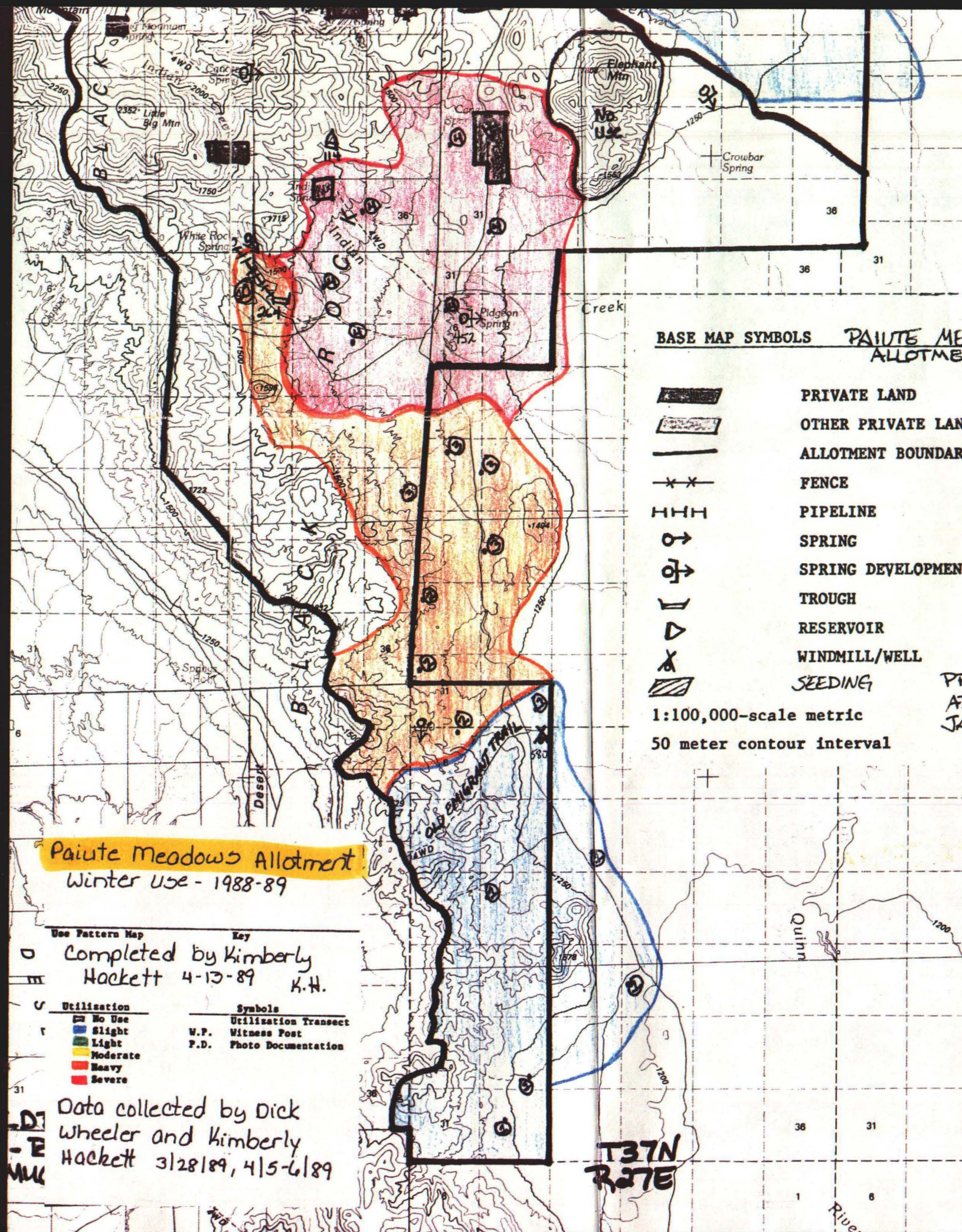
To resolve the concern for the fishable streams, I revisited the P-D EIS and reviewed the information on fisheries. I have elected to include stream objectives for those streams that are listed as protectable for fisheries in Appendix F, Table F-1, page 6-24 of the EIS. As time goes on and we can determine that other streams have potential to support a fisheries habitat, we will develop objectives for them. I also elected to use a 50% streambank utilization level as a starting point for our objectives except on streams that contain the Lahontan Cutthroat trout. I will remain with 30% at this time to help ensure good to excellent habitat for this threatened species.

Once the Livestock Use Agreement was drafted using the above guidelines, it was sent to the permittee and further negotiations will be held.

At this time, most permittees have worked with us to establish and document livestock use operations. They have been willing to adjust grazing schedules, provide more livestock management and acknowledge where problem areas exist. As of this date, the main concern for signing the Livestock Use Agreement is that they feel their signature indicates full agreement with the specific allotment objectives. At this time they do not agree with all of the allotment objectives. We have tried to word the agreement to indicate only that the allotment objectives have been discussed. We are not asking the permittees to agree with us, only to acknowledge that they know what we are managing for.

Scott Bellamy





**BASE MAP SYMBOLS PAIUTE MEADOWS ALLOTMENT**

- PRIVATE LAND
- OTHER PRIVATE LAND
- ALLOTMENT BOUNDARY
- FENCE
- PIPELINE
- SPRING
- SPRING DEVELOPMENT
- TROUGH
- RESERVOIR
- WINDMILL/WELL
- SEEDING

1:100,000-scale metric  
50 meter contour interval

PR  
AE  
JA

**Paiute Meadows Allotment**  
Winter Use - 1988-89

Use Pattern Map		Key	
	Completed by Kimberly Hackett 4-13-89 K.H.		No Use
			Slight
			Moderate
			Heavy
			Severe
	Utilization		Utilization Transect
			W.P. Witness Post
			P.D. Photo Documentation

Data collected by Dick Wheeler and Kimberly Hackett 3/28/89, 4/5-6/89

T37N  
R27E







## Paiute Meadows Allotment Evaluation

## 1. Allotment Information

A. Paiute Meadows Allotment, 05 - Kenneth H. Earp/Permittee - Priority 17, Category I

## B. Allotment Description

The Paiute Meadows Allotment lies approximately 40 air miles south, southwest of Denio, Nevada and encompasses the east side of the Black Rock Range. Total acres in the allotment are 182,266 of which 177,096 acres are public land. The allotment ranges in elevation from 4,000' to 8,631'. The lower elevations are dominated by shadscale and greasewood vegetation types. As elevation increases vegetation changes to sagebrush; mountain browse; aspen and mountain mahogany vegetation types.

## C. Livestock Use

1. a. Total Preference	9,932
b. Active Preference	7,827
c. Suspended Preference	2,105
d. Exchange-of-use	70

## 2. Season(s) of Use

Notice of Final Advisory Board Recommendation and Decision of District Manager on Adjudication of Grazing Privileges dated June 18, 1965 stated "That the Paiute Meadows Unit is designated and will be licensed for cattle and horses during all seasons".

The Proposed Action of the Paradise-Denio EIS (Table 1-1) recommended the following periods of use for the Paiute Meadows Allotment:

6/1 to 10/31  
12/1 to 1/31

The actual period of use since 1981 has been:

3/22 to 11/31  
1/1 to 3/31 (1985 only)

## 3. Kind and Class of Livestock

The Paiute Meadows Unit, from which came the Paiute Meadows Allotment, was adjudicated for cattle and horses in 1965. Paiute Meadows Ranch has been a cow/calf operation since that time.

Horses are not licensed in the allotment because the allotment lies in the Black Rock East Wild Horse Herd Use Area.

A request to convert from a cow/calf operation to dual use (50% cow/calf and 50% sheep) was made by the permittee in 1986. A decision is pending.

4. A grazing system for the Paiute Meadows Allotment has not been developed. There has not been a stable livestock operation on this allotment since 1981 and total non use was taken in three of last five years. In 1981 and preceding years, the permittee turned out in the spring and gathered in the fall.

Approximately 2,055 acres were fenced, plowed and seeded to tall and crested wheatgrass in 1953 and 1954. In 1956 1,000 acres of this project (east half) was reseeded to crested wheatgrass. A division fence creating two pastures was constructed in 1957. A memorandum dated February 3, 1958 indicates that intended management was a two pasture/fall rotation system. Licensed use in 1981 was for fall use for the entire seeding and I believe this to be the actual season of use for the seeding for domestic livestock. Wild horses use the seeding year long, weather permitting.

5. Allotment Objectives

- a. Short Term

- 1) Utilization of key streambank riparian plant species shall not exceed 30% on Pahute, Battle, and Bartlett Creeks except where adjusted by an approved activity plan. (WL 1.1, WL 1.2)
- 2) Utilization of key plant species in wetland riparian habitats shall not exceed 50% except where adjusted by an approved activity plan. (WL 1.3, WL 1.5, WL 1.28)
- 3) Utilization of key plant species in upland habitats shall not exceed 50% except where adjusted by an approved activity plan. (RM 1.11, WL 1.2, WL 1.4, WL 1.28)

- b. Long Term

- 1) Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep. (WL 1.2)
  - a) Improve to and maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent mule deer habitat condition.

- b) Improve to and maintain 45,005 acres in Black Rock PS-15 in good pronghorn habitat condition. Improve to and maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Pahute Creek PW-16 in fair or good pronghorn habitat condition.
  - c) Improve to and maintain 69,939 acres in Black Rock BY-15 in good to excellent bighorn sheep habitat condition.
- 2) Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with an initial stocking level of 7,827 AUMs. (RM 1.11)
  - 3) Improve range condition from poor to fair on 161,116 acres and from fair to good on 3,188 acres. [1] (RM 1.11)
  - 4) Maintain and improve the free-roaming behavior of wild horses by protecting and enhancing their home ranges. (WHB 1)
    - a) Manage, maintain, and improve public rangeland conditions to provide an initial level of 708 AUMs of forage on a sustained yield basis for 59 (AML) wild horses. (WBH 1.1)
    - b) Maintain and improve wild horse habitat by assuring free access to water. (WBH 1.5)
  - 5) Improve to and maintain 132 acres of ceanothus habitat types in good condition. [1] (WL 1.4)
  - 6) Improve to and maintain 193 acres of mahogany habitat types in good condition. [1] (WL 1.3, FL.2)
  - 7) Improve to and maintain 214 acres of aspen habitat types in good condition. [1] (WL 1.3, F 1.3)
  - 8) Improve to and maintain 263 acres of riparian and meadow habitat types in good condition. [1] (WL 1.5)
  - 9) Improve to and maintain the following stream habitat conditions on Pahute Creek, Battle Creek, and Bartlett Creek from 51% on Pahute Creek, 59% on Battle Creek, and 54% on Bartlett Creek to an overall optimum of 60% or above. (WLA 1.1, WLA 1.2)
    - a) Streambank cover 60% or above.
    - b) Streambank stability 60% or above.
    - c) Maximum summer water temperatures below 70° F.
    - d) Sedimentation below 10%.



10) Protect sage grouse strutting grounds and brooding areas. Maintain a minimum of 30% cover of sagebrush for nesting and winter use. (WL 1.28)

11) Improve to and maintain the water quality of Pahute, Battle, and Bartlett Creeks to the State criteria set for the following beneficial uses: livestock drinking water, cold water aquatic life, wading (water contact recreation), and wildlife propagation. (W 1.1)

12) Improve to or maintain the seeding in good condition. (5-10 acres per AUM) (RM 1.11)

[1] The condition objective will be redefined/quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

#### D. Monitoring Data and EIS/Range Survey Data and Analysis

1. a. A phase one watershed inventory was conducted in portions of the Paradise-Denio Resource Area from 1971-1974. Livestock forage condition was determined based upon data extrapolation and computations from this inventory. This data extrapolation resulted in the following condition classifications for the Paiute Meadows Allotment:

<u>Good</u>	<u>Fair</u>	<u>Poor</u>
0	15,938	161,158

Appendix G, Pg-28 of the P-D EIS provides more discussion on origin of livestock forage condition.

- b. In 1978 a range survey was conducted using the Ocular Reconnaissance Method. The survey was conducted to provide baseline data for analysis purposes in the Paradise-Denio EIS. This survey along with suitability criteria indicated that 1,403 AUMs were available in 1978 for livestock and wild horse use.
- c. The Paradise-Denio EIS declared observed trend to be downward for the entire allotment (Appendix G, Table 6-1 and Chapter II, 2-9 PD EIS).
- d. A special habitat features inventory was conducted in 1977-1978. This inventory identified the location and acres of special habitats, listed observed plant and wildlife species, and documented ocular observations of the condition and utilization of these habitats. This information was analyzed in the Paradise-Denio EIS.

2. Climatological Data

No site specific climatological data has been collected for the Paiute Meadows Allotment.

The following charts depict summarized precipitation data for the Leonard Creek NOAA weather station from 1978-1987 and 1977-1986 respectively.

NOAA - Leonard Creek Station

Year	Precipitation in Inches		Departure From Normal*	
	Growing Season	Annual Total	Growing Season	Annual
1977	4.33	8.23	+ .09	-1.99
1978	4.81	10.20	+ .57	- .02
1979	5.84	12.26	+1.60	+2.04
1980	3.45	8.55	- .79	-1.67
1981	4.29	11.43	+ .05	+1.21
1982	2.38	8.87	-1.86	-1.35
1983	6.94	17.74	+2.70	+7.52
1984	3.00	8.50	-1.24	-1.72
1985	2.48	6.82	-1.76	-3.40
1986	4.85	9.60	+ .61	- .62
1987				

\* - Normal = 10 year average = 10.22" Annual  
 = 4.24" Growing Season

The Leonard Creek Station is 5 miles northeast of the Paiute Meadows Allotment at 4,300' elevation. The Paiute Meadows Allotment ranges in elevation from 4,000' to 8,631'.

A Remote Automated Weather Systems (RAWS) meteorological station (Dry Canyon) was installed in June of 1986 approximately nine miles north of Soldier Meadows Ranch on the west side of the Black Rock Range at an elevation of 4,900'. This station is approximately ten air miles from the Paiute Meadows Allotment.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1986 (RAWS)								.0	.7	-	.1	.3	1.2
1987(RAWS)	.9	.6	.7	1.3	2.7	1.1	.1	.0	.4	.3	.3	.3	8.7

3. Livestock Use Data

Year	AUMs Used	Nonuse
1981	7,827	0
1982	3,000	4,827
1983	0	7,827
1984	6,283	1,544

1985	4,896	2,931
1986	0	7,827
1987	0	7,827

Permittee has taken total nonuse in three of last seven years.

4. Utilization Data

- a. Utilization was assessed to be heavy in the Paiute Seeding in 1973.
- b. Observations made during 1976 stream survey of Pahute Creek indicate heavy utilization.
- c. A utilization study was established near Wheeler Springs (T. 42 N., R. 27 E., Section 28 unsurveyed), in 1980. Utilization was estimated in November of 1980 by the Ocular Estimate by Plot Method to be 47 per cent.
- d. A use pattern map was prepared during the summer of 1987 to determine utilization by wild horses. There was no livestock use that year. The use pattern mapping revealed heavy to severe use (61-100%) from Paiute Creek south approximately 10 miles or approximately 30% of the allotment.

From Paiute Creek north the remainder of the allotment received light to slight use (0-40%).

5. Trend

a. Paiute Creek Exclosure

It is assumed that the Paiute Creek Exclosure was established in 1979 as initial data was collected in October 19, 1979. Data measurements were made inside and outside the exclosure. Note the discrepancies inside versus outside. If plot location is representative of the site one would expect initial readings inside and outside to be similar. The following data was collected to measure vegetative change:

Paiute Creek Exclosure Trend Data Summary

Frequency		<u>Inside</u>	<u>Outside</u>
	Artr	27	47
	GRSP	6	4
	POSE	17	49
	Sihy	20	4
	Perennial		
	Forb	23	7
	Tesp	1	0
	Anten		4

5 x 5 Rang Trend Plot  
Composition,

	Key Species	0.17	-
	cover, live		
	vegetation	30.60	16.7
	seedlings,		
	Key Species,		
	Litter,		
	Plot total	16.41	22.02
	Total	47.18	38.72
Line Intercept	Artr	86	78
% Composition	Grsp	14	11
	Pose	0	0
	SiHy	0	0
	Brte	0	11
Production -		35.7 Ac/AUM	Not collected
Weight Estimate			
Method			

6. Ecological Status Inventory

ESI has not been initiated on this allotment.

7. Wildlife

a. Wildlife Habitat Inventory

Priority species: Mule deer, pronghorn, sage grouse, trout.

Other game species: Hungarian and chukar partridge, Valley quail. The LUP identified potential habitat for bighorn sheep.

1) Special habitat features (public lands):

Riparian habitat	263 acres
Aspen	214 acres
Curlleaf mountain mahogany	193 acres
Ceanothus	132 acres

2) Wildlife Use areas (public acres):

Black Rock DY-13	2,134 acres
Black Rock DW-10	41,678 acres
Black Rock DS-6	45,856 acres
Black Rock PS-15	45,965 acres
Black Rock PY-14	35,274 acres
Leonard Creek PW-17 (Concentration)	2,043 acres
Paiute Creek PW-16 (Concentration)	31,466 acres
Black Rock BY-15 (Potential)	69,939 acres

Other: No sage grouse strutting grounds have been identified in the Paiute Meadows Allotment. One strutting ground is identified adjacent to the allotment in the Bartlett Creek drainage. However, several brooding areas are identified scattered throughout the allotment which would indicate that additional strutting grounds are present. Two winter use areas for sage grouse have also been identified, one each near the Paiute Creek and Bartlett Creek drainages.

b. Habitat Evaluation

A habitat condition evaluation has not been conducted on this allotment.

c. Stream Survey

Pahute Creek was surveyed in 1976 at 51% of optimum. Battle Creek was also surveyed in 1976 and was rated at 59% of optimum. Bartlett Creek was 54% of optimum when surveyed in 1976.

Summaries of the stream surveys follow:

1) Bartlett Creek

The pool-riffle ratio was 78% of optimum with riffles being dominant. Quality pools were seldom observed.

The stream bottom consisted of 64% desirable materials and 22% sediment. Forty-eight percent of the total bottom composition was in the form of spawning gravel.

Bank cover and stability were 50% and 61% of optimum, respectively. Ungulate damage averaged 50%.

Fifty-six percent of the stream surveyed was shaded.

The water was relatively clear at the upper stations, but it became increasingly turbid downstream (30 JTUs at S-1).

The habitat was 54% of optimum with the lack of quality pools and high incidence of bank instability being the major critical factors.

2) Battle Creek

The total number of pools were 39% with quality pools lacking. This dropped the overall pool quality for the stream to 41% of optimum.



The stream bottom consisted of 67% desirable materials and 28% sediment. Spawning gravel provided only 37% of the total benthic composition.

Bank cover and stability were 52% and 64% of optimum, respectively. Ungulate damage varied between 10% and 50%.

Only 34% of the stream was covered, but water temperatures were not recorded above 64°F.

The habitat was 59% of optimum. The lack of both total pools and quality pools were the limiting factors.

### 3) Pahute Creek

The pool-riffle ratio of Pahute Creek was near optimum, but the few numbers of optimum pools recorded reduced the pool quality rating to 26% of optimum.

The stream bottom was made up of 41% desirable materials and 30% sedimentation. Thirty-six percent of the benthic materials consisted of spawning gravel.

Bank cover and stability were 39% and 58% of optimum, respectively. Much of the banks were deeply eroded. Ungulate damage averaged between 50% and 90% throughout the four stations.

Only 37% of the stream was shaded. The creek averaged 0.16 feet deep with a flow of 1.03 c.f.s. These factors resulted in a maximum water temperature reading of 80°F.

The stream was 51% of optimum. Warm water temperatures, a scarcity of quality pools, and poor benthic composition were the primary limiting factors.

## 8. Water Quality

Available data - Lab water quality analysis was done in 1976 and 1979 on Bartlett Creek and Pahute Creek. Stream survey water quality analysis with a Hach Kit was done in 1976 on Battle, Bartlett, and Pahute Creeks.

Battle Creek - The limited water quality data indicates suitable water for the above uses except for a slightly low pH for wildlife propagation. Dissolved oxygen, alkalinity, turbidity, pH, and temperature were tested.

Pahute Creek - Temperatures are consistently too high for cold water aquatic life and fecal coliform and turbidity may also be problems, but more data is needed. TDS was both low (1976) and

high (79). A high reading is a general indicator of poor water quality.

Bartlett Creek - The only potential water quality problem identified is temperatures which may be too high for cold water aquatic life.

9. Wild Horses

The Black Rock East Herd Management Area (HMA) encompasses the entire allotment. The Appropriate Management Level (AML) is 59 wild horses and 0 burros.

Census data collected in this HMA is listed in the following chart.

<u>1971</u>	<u>1972</u>	<u>1975</u>	<u>1976</u>	<u>1978</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1987</u>
172	195	252	287	274	390	52	59	611

In 1980, 81 horses were removed and in January of 1988, 442 horses were removed from Paiute Meadows Allotment.

Maps from censuses conducted in 1974, 1979, 1980, and 1987 clearly indicate that the area south of Butte and Paiute Creeks is the historical range for the majority of the horses in the Black Rock East HMA.

The Black Rock East and West HMAs are adjacent to each other with no physical barriers separating them. There is no documentation concerning the movement of horses between the HMAs, although observations made in April of 1988 by the current permittee and BLM employees documented that 171 horses were using part of the Black Rock East HMA.

E. Other Factors

1. Maintenance

Normal maintenance on most range improvements has not been consistent leaving them in poor condition.

2. Big Game Populations

The Paradise-Denio EIS indicates that forage demand by big game was:

Mule deer	1,869 AUMs
Pronghorn	204 AUMs

The 1986 forage demand was:

Mule deer	2,552 AUMs
Pronghorn	615 AUMs

Survey methods to determine forage demand for big game differ for the two time periods, so data is not comparable. In general, population trends for big game animals has increased on the Black Rock Range in the last 10 years.

## II. Management Evaluation

### A. Short Term Objectives

1. Utilization of key streambank riparian plant species shall not exceed 30% on Pahute, Battle, and Bartlett Creeks except where adjusted by an approved activity plan.

Utilization in Pahute and and Battle Creeks was slight to light while Bartlett Creek received no use. All use was by wild horses and wildlife. No licensed use by livestock during year of monitoring.

The majority of wild horses were removed the winter following use pattern mapping.

At the present use levels by wild horses and wildlife and with no livestock use this objective is being met.

Data is unavailable to determine if this objective would be met if allotment were stocked to active preference. It is reasonable to assume that at full active preference this objective would be difficult to achieve.

2. Utilization of key plant species in wetland riparian habitats shall not exceed 50% except where adjusted by an approved activity plan.

Use pattern mapping revealed heavy to severe use by wild horses on all areas south of Paiute Meadows Ranch. North of Paiute Meadows Ranch utilization was slight to light.

At the present use levels by wild horse and wildlife, with no livestock use, this objective was met in 1987 north of Paiute Meadows Ranch and was not met in 1987 south of Paiute Meadows Ranch on 52 acres of riparian habitat..

The majority of wild horses were removed the winter following use pattern mapping.

Data is unavailable to determine if this objective would be met if allotment were stocked to active preference. It is reasonable to assume that at full active preference this objective would be difficult to achieve.

3. Utilization of key plant species in upland habitats shall not exceed 50% except where adjusted by an approved activity plan.

Use pattern mapping revealed heavy to severe use by wild horses on all areas south of Paiute Meadows Ranch. North of Paiute Meadows Ranch utilization was slight to light.

At the present use levels by wild horse and wildlife, with no livestock use, this objective is being met north of Paiute Meadows Ranch and is not being met south of Paiute Meadows Ranch.

The majority of wild horses were removed the winter following use pattern mapping.

B. Long Term Objectives

1. Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.
  - a. Improve to and maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent condition.
  - b. Improve to and maintain 45,965 acres in Black Rock PS-15 in good condition.
  - c. Improve to and maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Pahute Creek PW-16 in fair or good condition.
  - d. Improve to and maintain 69,939 acres in Black Rock BY-15 in good or excellent condition.

Current demand for mule deer is 2,552 AUMs, 615 AUMs for antelope and 0 AUMs for bighorn. Existing populations are above reasonable numbers. To date no bighorn sheep have been introduced into the Paiute Meadows Allotment and not scheduled at this time. Data on habitat condition has not been collected to determine if we are meeting this objective.

2. Manage, maintain and improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with an initial stocking level of 7,827 AUMs.

No livestock use has been made on this allotment since 1985. Use pattern mapping done in 1987 showed heavy to severe use by wild horses south of the Paiute Meadows Ranch. 442 wild horses were removed from the allotment in January 1988. No other data has been gathered to determine whether or not this objective is being met.

3. Improve range condition from poor to fair on 16,116 acres and from fair to good on 3,188 acres.

The objective will be redefined and quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

4. Maintain and improve the free-roaming behavior of wild horses by protecting and enhancing their home ranges. (WHB 1)
  - a. Manage, maintain and improve public rangeland conditions to provide an initial level of 708 AUMs of forage on a sustained yield basis for 59 (AML) wild horses. (WHB 1.1)
  - b. Maintain and improve wild horse habitat by assuring free access to water. (WHB 1.1)

Use pattern mapping done in 1987 showed heavy to severe use by wild horses south of Paiute Meadows Ranch. In January 1988, 442 wild horses were removed from the allotment to reach appropriate management levels.

Observations in April of 1988 documented that 171 horses were using the Black Rock East HMA.

We are meeting our objectives to maintain the free roaming behavior of wild horses and assuring them free access to water.

We are not meeting our objective to maintain and improve the public rangeland condition.

5. Improve to and maintain 132 acres of ceanothus habitat types in good condition.

Data on habitat condition has not been collected to determine progress toward meeting this objective.

6. Improve to and maintain 193 acres of mahogany habitat types in good condition.

Data on habitat condition has been collected to determine progress toward meeting this objective.

7. Improve to and maintain 214 acres of aspen habitat types in good condition.

Data on habitat condition has been collected to determine if progress is being made toward this objective.

8. Improve to and maintain 263 acres of riparian and meadow habitat in good condition.

Because of the heavy to severe utilization (61-100%) south of the Paiute Ranch, it is concluded that this objective was not



met 22 acres of riparian and meadow habitat. With light to slight use on the other 211 acres of riparian and meadow habitat, progress is being made towards meeting the objective.

9. Improve to and maintain the following stream habitat conditions on Pahute Creek, Battle Creek, and Bartlett Creek from 51% on Pahute Creek, 59% on Battle Creek, and 54% on Bartlett Creek to an overall optimum of 60% or above.
  - a. Streambank cover 60% or above.
  - b. Streambank stability 60% or above.
  - c. Maximum summer water temperatures below 70°F.
  - d. Sedimentation below 10%.

The analysis of short term objective No. 1 indicates that progress is being made toward achievement of this objective. However, inconsistent livestock use has been made on the allotment since 1982. High water years in 1983 and 1984 may have significantly altered stream conditions.

10. Protect sage grouse strutting grounds and brooding areas. Maintain a minimum of 30% cover of sagebrush for nesting and winter use.

Data on habitat condition has not been collected to determine if we are meeting this objective.

11. Improve or maintain the water quality of Pahute, Battle, and Bartlett Creeks to the state criteria set for the following beneficial uses: livestock drinking water, cold water aquatic life, wading (water contact recreation), and wildlife propagation.

Data indicates we are meeting our objective on Battle Creek with a slight problem with a low pH.

Data indicates we are not meeting our objective on Pahute and Bartlett Creeks as a result of water temperatures being too high.

12. Improve to or maintain the seeding in good condition (5-10 acres per AUM).

There is no data to evaluate this objective.

### III. Conclusions

- A. Stream surveys conducted in 1976 indicated that the streams identified in the LUP (Bartlett Creek, Battle Creek and Pahute Creek) were in high fair condition when the allotment was stocked to full active preference.

- B. Resource values in this allotment are relatively high, however, data on habitat condition is insufficient to determine the degree to which livestock grazing actually conflicts with other resource values. Data does not support livestock use adjustments, however, potential conflicts exist between livestock grazing and wild horse use south of Paiute Meadows Ranch.
- C. The allotment has been the beneficiary of substantial nonuse since 1981 which makes it impossible to assess livestock grazing impacts and achievement of allotment objectives.
- D. Current wild horse herd management area (HMA) boundary between the Black Rock West and East HMAs does not appear to be the actual use area boundary. Horse levels were reduced to 72 in January of 1988 and observations in April of 1988 indicate there may be as many as 171 horses currently using the HMA.

The major horse concentration area appears to be predominantly south of Butte and Pahute Creeks with horse use diminishing sharply as you enter Battle Creek Basin.

I. INTRODUCTION

This agreement is based on the Paiute Meadows Allotment Evaluation dated June 20, 1988.

The agreed upon changes in livestock use, as documented below, is consistent with the achievement of the management objectives for the public lands administered by the Bureau of Land Management in the Paiute Meadows Allotment.

This agreement was prepared after consultation, cooperation, and coordination with affected permittee, Kenneth Earp, Doris Earp and the Nevada Department of Wildlife.

II. ALLOTMENT OBJECTIVES

A. Short Term

1. Utilization of key plant species in wetland riparian habitats shall not exceed 50% except where adjusted by an approved activity plan. [1]
2. Utilization of key plant species in upland habitats shall not exceed 50% except where adjusted by an approved activity plan. [1]

B. Long Term

1. Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.
  - a. Improve to and maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent mule deer habitat condition.
  - b. Improve to and maintain 45,965 acres in Black Rock PS-15 in good pronghorn habitat condition. Improve to and maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Pahute Creek PW-16 in fair or good pronghorn habitat condition.
  - c. Improve to and maintain 69,939 acres in Black Rock BY-15 in good to excellent bighorn sheep habitat condition.
2. Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with an initial stocking level of 7,827 AUMs.

3. Improve range condition from poor to fair on 161,116 acres and from fair to good on 3,188 acres. [2]
4. Maintain and improve the free-roaming behavior of wild horses by protecting and enhancing their home ranges.
  - a. Manage, maintain, and improve public rangeland conditions to provide an initial level of 708 AUMs of forage on a sustained yield basis for 59 (AML) wild horses.
  - b. Maintain and improve wild horse habitat by assuring free access to water.
5. Improve to and maintain 132 acres of ceanothus habitat types in good condition. [2]
6. Improve to and maintain 193 acres of mahogany habitat types in good condition. [2]
7. Improve to and maintain 214 acres of aspen habitat types in good condition. [2]
8. Improve to and maintain 263 acres of riparian and meadow habitat types in good condition. [2]
9. Protect sage grouse strutting grounds and brooding areas. Maintain a minimum of 30% cover of sagebrush for nesting and winter use.
10. Improve to and maintain the water quality of Pahute, Battle, and Bartlett Creeks to the State criteria set for the following beneficial uses: livestock drinking water, cold water aquatic life, wading (water contact recreation), and wildlife propagation.
11. Improve to and maintain the seeding in good condition. (5-10 acres per AUM)

[1] The utilization levels used are target levels to be evaluated over a period of time and are not intended to be an allowable use level dictating livestock removal on a seasonal basis.

[2] The condition objective will be redefined/ quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

### III. AGREED UPON CHANGES IN LIVESTOCK USE

#### A. From (Description of Existing Use)

##### 1. Livestock Numbers

Herd size has been as high as 2,000 C.

2. Kind	Period		% Public Land	Type Use	AUMs
	Begin	End			
C	03/01	12/31	100	Active	7827

3. Allotment Preference Summary

a. Total Preference	9,932 AUMs
b. Suspended Preference	2,105 AUMs
c. Active Preference	7,827 AUMs
d. Exchange of Use	70 AUMs

4. Period of Use:

Season Long 03/01 to 12/31

5. Grazing System

No grazing system exists for the Paiute Meadows allotment.

B. To (Description of Agreed Upon Changes)

1. Livestock Numbers

Herd size may vary depending on livestock operations and weather conditions.

2. Kind	Period		% Public Land	Type Use	AUMs
	Begin	End			
C	05/01	02/15	100	Active	5472

3. Allotment Preference Summary

a. Total Preference	9,932 AUMs
b. Suspended Preference	2,105 AUMs
c. Active Preference	5,472 AUMs
d. Exchange of Use	70 AUMs
e. Voluntary Non Use	2,348 AUMs

4. Period of Use:

Season Long 05/01 to 02/15

5. Grazing System

Livestock should be turned out in such a manner as to avoid direct competition for forage with wild horses. This can be accomplished by utilizing the following guidelines:

- Majority of livestock use should be made north of Paiute Creek.
- Livestock turn out should be north and south of Battle Creek Ranch in alternate years.



IV. MONITORING PROGRAM

Monitoring data used in the Paiute Meadows Allotment evaluation consists of the following:

- A. Climatological data
- B. Utilization/Use Pattern Mapping
- C. Trend
- D. Actual Use

Future monitoring will include the same as above.

Additional types of monitoring data may be collected if the need arises. As time and funding permit, future monitoring will entail the identification of key areas and associated key species. This will be done in coordination and cooperation with the livestock permittee.

V. FUTURE ADJUSTMENTS

This agreement documents and establishes the grazing practices to be used on the Paiute Meadows Allotment and acknowledges that the allotment objectives as listed in the introduction have been discussed between both parties. Any future adjustments will be the result of additional monitoring data collected and evaluated towards the achievement of the allotment objectives. This process will be done in coordination and cooperation with the livestock permittee.

VI. Authority for this agreement is given through 43 CFR 4100.0-8, 4110.3 and 4110.3-3

VII. The agreed upon changes in livestock use as identified above is binding on any successor interest or future transferees with such modifications as approved or required by the authorized officer.

VIII. SIGNATURES

\_\_\_\_\_  
Kenneth Earp, permittee

\_\_\_\_\_  
Date

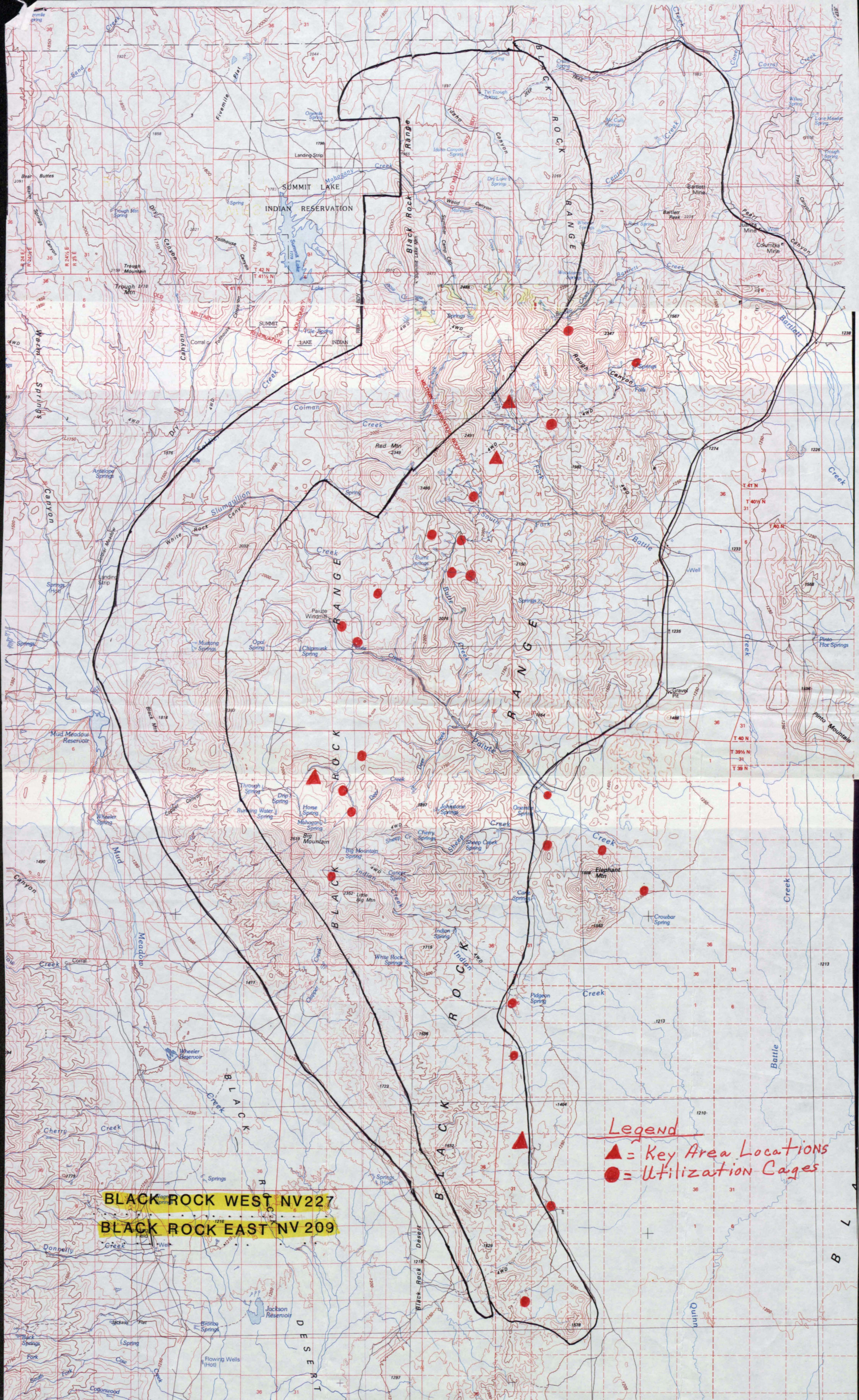
\_\_\_\_\_  
Doris Earp

\_\_\_\_\_  
Date

\_\_\_\_\_  
Scott Billing  
Area Manager, Paradise-Denio RA

\_\_\_\_\_  
Date





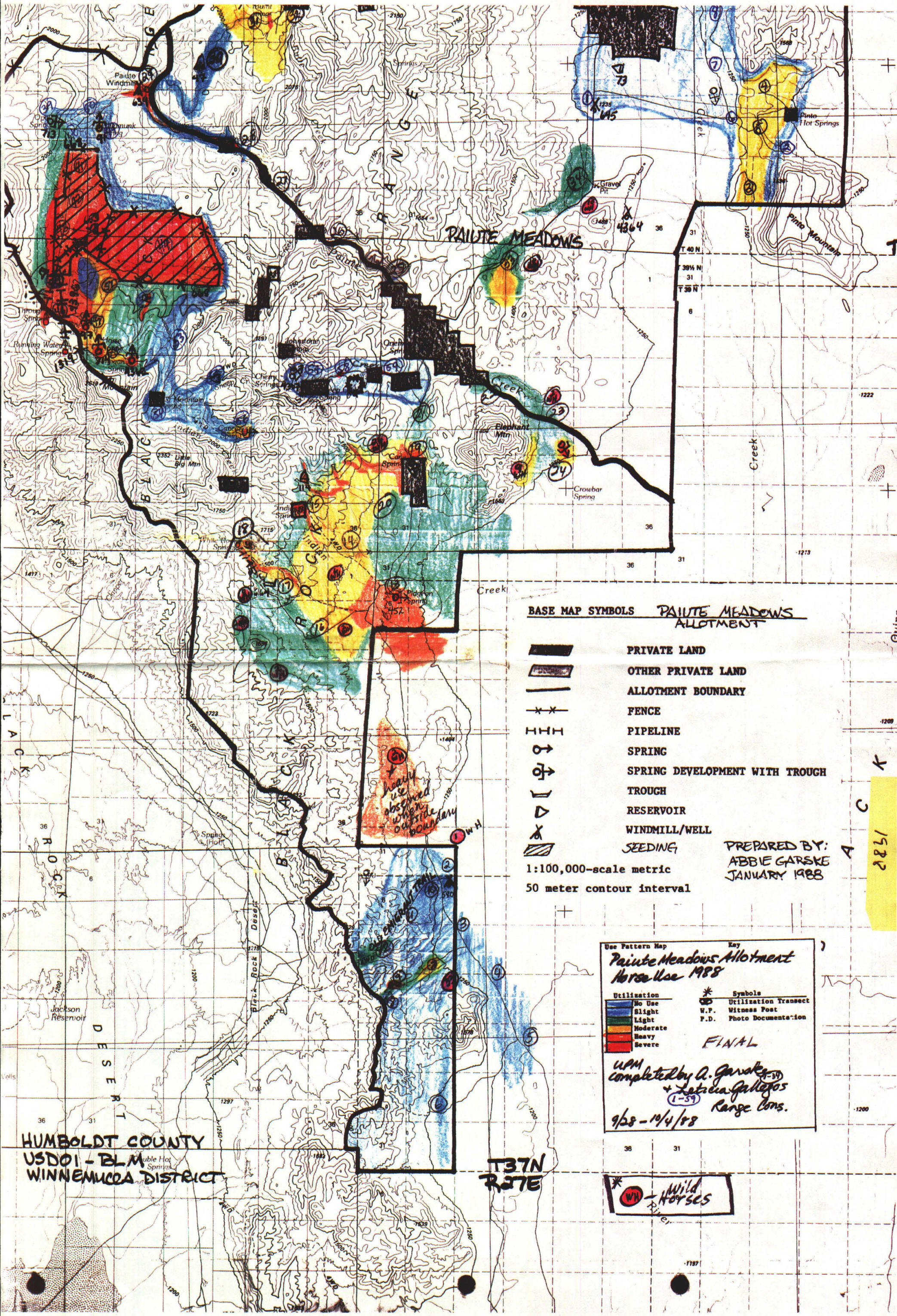
Legend  
▲ = Key Area Locations  
● = Utilization Cages

BLACK ROCK WEST NV227  
BLACK ROCK EAST NV 209

DESERT

B 7





**BASE MAP SYMBOLS PAIUTE MEADOWS ALLOTMENT**

- PRIVATE LAND
- OTHER PRIVATE LAND
- ALLOTMENT BOUNDARY
- FENCE
- PIPELINE
- SPRING
- SPRING DEVELOPMENT WITH TROUGH
- TROUGH
- RESERVOIR
- WINDMILL/WELL
- SEEDING

1:100,000-scale metric  
50 meter contour interval

PREPARED BY:  
ABBIE GARSKE  
JANUARY 1988

Use Pattern Map Key  
**Paiute Meadows Allotment Horse Use 1988**

Utilization	Symbols
No Use	* Utilization Transect
Slight	W.P. Witness Post
Light	P.D. Photo Documentation
Moderate	
Heavy	
Severe	

**FINAL**

UPM completed by A. Garske & Patricia Gallegos (1-59) Range Cons.  
9/88 - 10/4/88

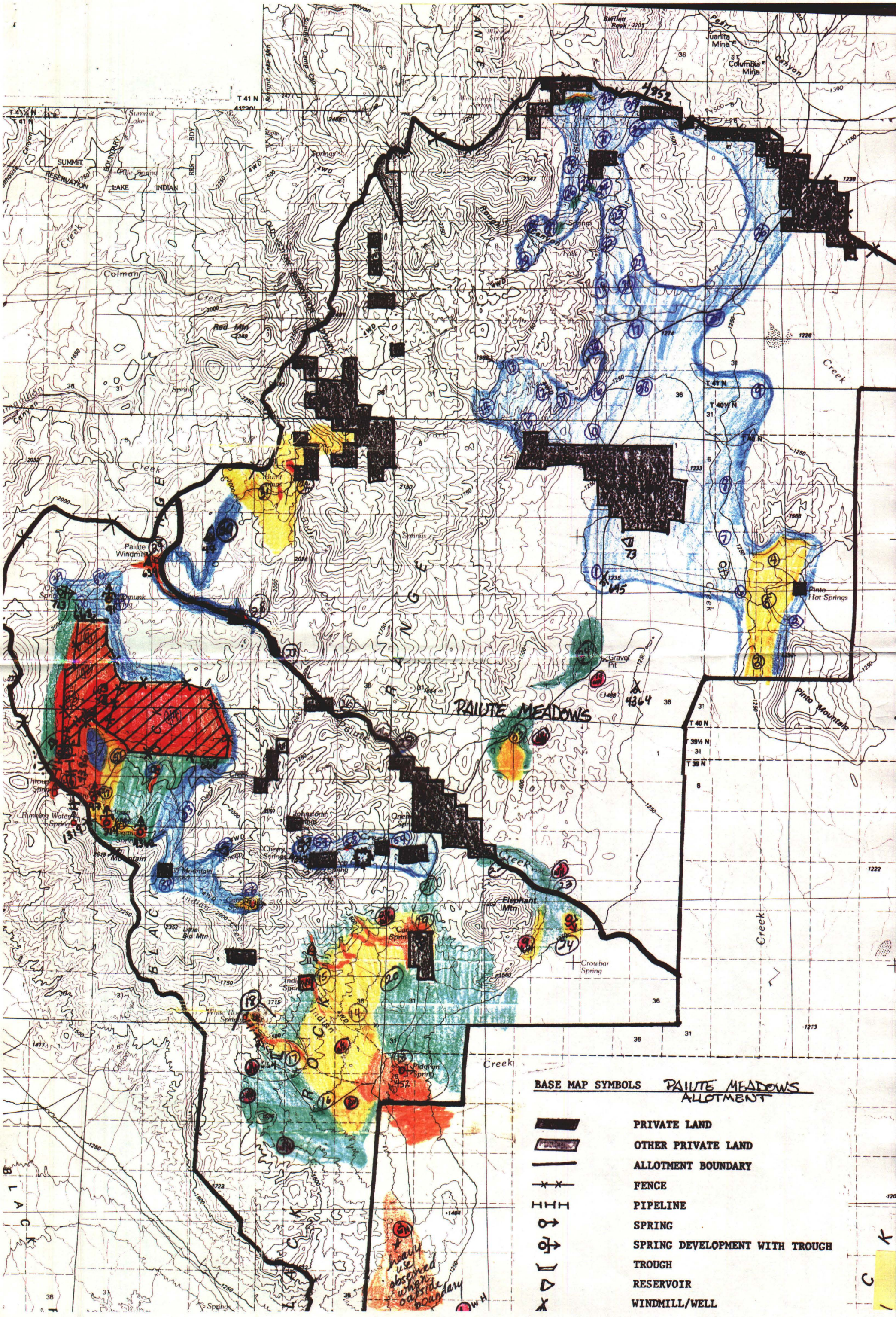
HUMBOLDT COUNTY  
USDOI - BLM  
WINNEMUCCA DISTRICT

T37N  
R27E




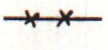
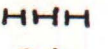
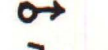
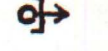



\* W.H. - Wild Horses

1582  
A C





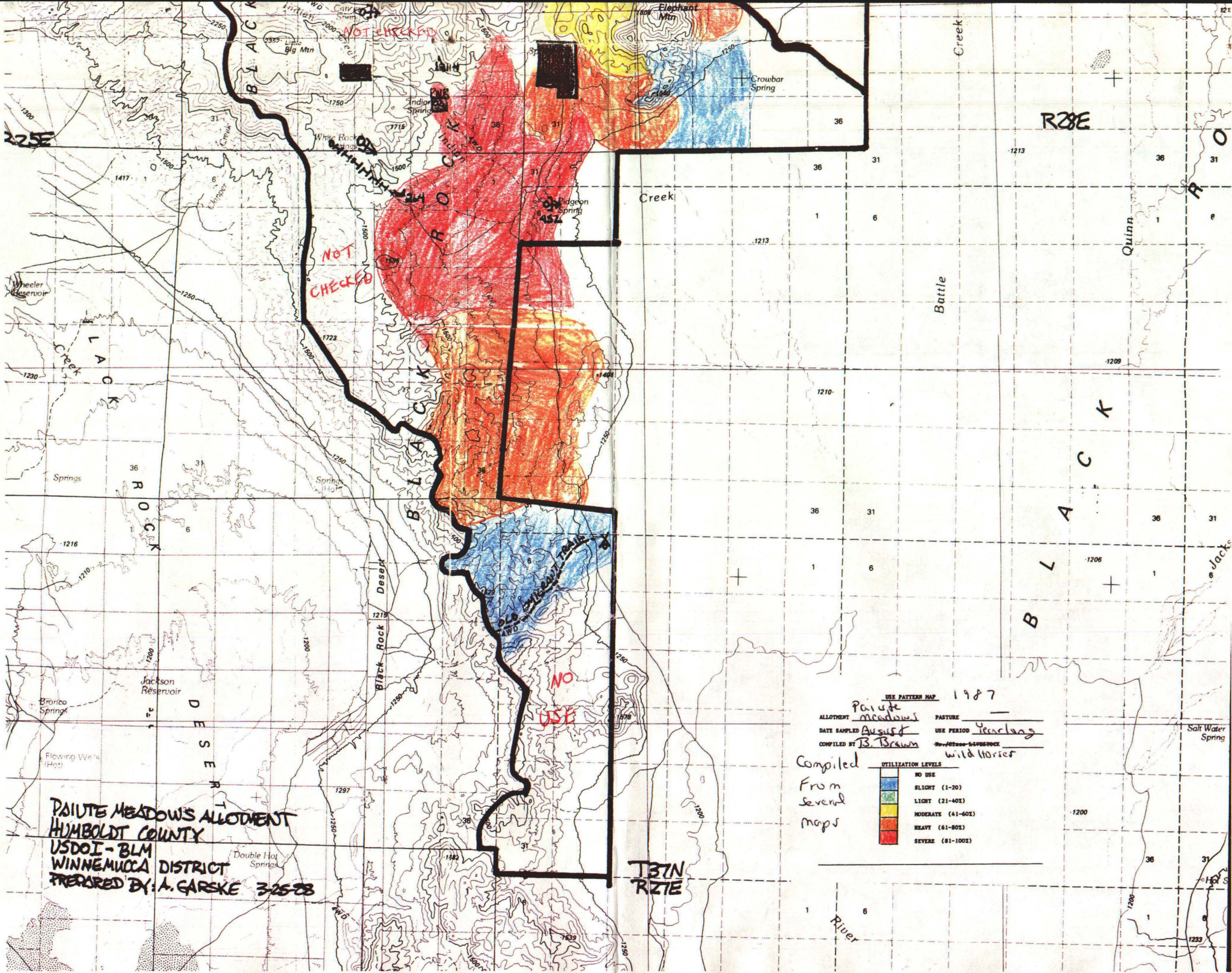
**PAIUTE MEADOWS**

- BASE MAP SYMBOLS PAIUTE MEADOWS ALLOTMENT**
-  PRIVATE LAND
  -  OTHER PRIVATE LAND
  -  ALLOTMENT BOUNDARY
  -  FENCE
  -  PIPELINE
  -  SPRING
  -  SPRING DEVELOPMENT WITH TROUGH
  -  TROUGH
  -  RESERVOIR
  -  WINDMILL/WELL

*heavily used when outside boundary*

C K





**PAIUTE MEADOWS ALLOTMENT**  
**HUMBOLDT COUNTY**  
 USDOI - BLM  
 WINNEMUCCA DISTRICT  
 PREPARED BY: A. GARSKE 3-25-88

USE PATTERN MAP 1987  
 ALLOTMENT Paiute Meadows PASTURE \_\_\_\_\_  
 DATE SAMPLED August USE PERIOD Yearlong  
 COMPILED BY B. Brown No. of Cows 515000  
 Wild Horses

Compiled From several maps

UTILIZATION LEVELS	
Blue	NO USE
Green	SLIGHT (1-20)
Yellow	LIGHT (21-40%)
Orange	MODERATE (41-60%)
Red	HEAVY (61-80%)
Dark Red	SEVERE (81-100%)

T31N R21E

R28E

NOT CHECKED

NO USE

B L A C K

L A C K

D E S E R T

B L A C K

B L A C K

River

Quinn

Battle

Creek

Creek

Salt Water Spring

Wheeler Reservoir

Springs

Flowing Wells (Hot)

Jackson Reservoir

Double Hot Springs

Pigeon Springs

Crowbar Spring

White Rock Springs

Indian Springs

Elephant Mtn

Big Mtn

225E

1230

1216

1287

1233

1417

1250

1210

1250

1200

1722

1250

1250

1250

1750

1500

1250

1250

1250

7715

1500

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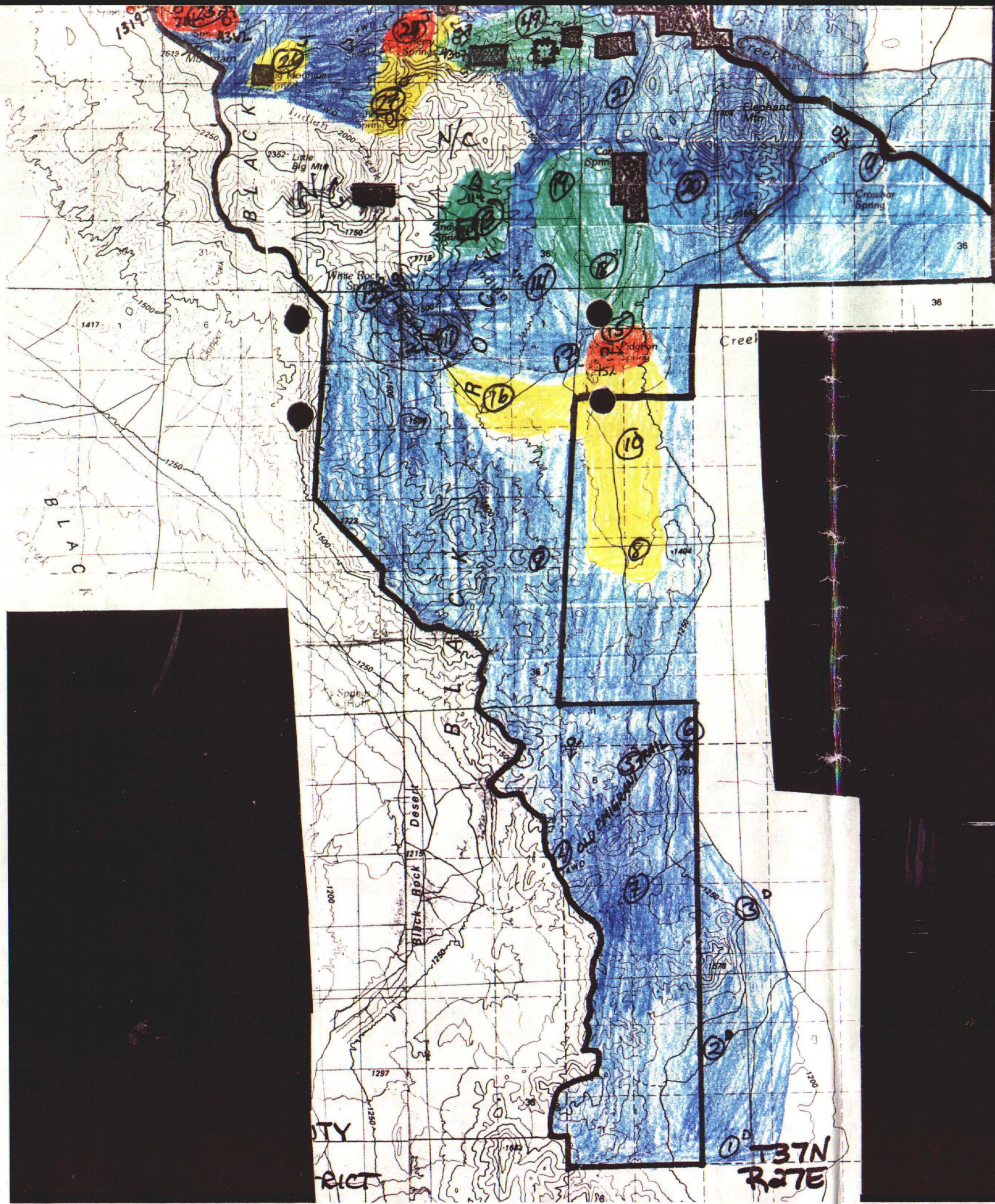
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31









F.D. Photo Documentation

- N/C - Not Checked

Remedy Cherry 9/11, 9/12, 9/13, 9/14  
 Raff Dawson and 9/20/89  
 Deck Wheeler - 9-11-89

137N  
 RATE



