



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City District Office
1535 Hot Springs Rd., Ste. 300
Carson City, NV 89706-0638



IN REPLY REFER TO:

4130CF
(NV-03480)

DEC 08 1992

Dear Reviewer:

Enclosed is a copy of the Copper Kettle Allotment Evaluation for your files.
Thank you for your interest and involvement.

Sincerely yours,

James M. Phillips
Area Manager
Lahontan Resource Area

cc: U.S. Fish & Wildlife Service
Commission for the Preservation of Wild Horses
The Wilderness Society
Animal Protection Institute
Nevada Department of Wildlife
Don & Martha Sims

Copper Kettle Allotment Evaluation

Table of Contents

I.	Introduction	1
II.	Initial Stocking Level	
	A. Livestock Use	1
	B. Wild Horse Use	1
	C. Wildlife Use	1
III.	Allotment Profile	
	A. Description	1
	B. Acreage	2
	C. Allotment Specific Objectives	
	1. Land Use Plan Objectives	2
	2. RPS Update	2
	3. Activity Plan Objectives	3
	4. Threatened and Endangered Species	3
	D. Key Species Identification	3
IV.	Management Evaluation	
	A. Purpose	3
	B. Summary of Studies Data	3
	1. Actual use	3
	2. Precipitation	4
	3. Utilization	5
	4. Trend	5
	5. Ecological status	5
	6. Wildlife habitat	6
	7. Riparian / Fisheries habitat	6
	8. Wild horse habitat	6
V.	Conclusions	
	A. RPS Objectives	6
	1. Short Term	6
	2. Long Term	6
	B. Other Conclusions	6
VI.	Technical Recommendations	
	A. RPS Objectives	7
	1. Short Term	7
	2. Long Term	8
	B. Other Conclusions	8
VI.	Consultations	8
	Map 1. Allotment Map	
	Map 2. Riparian Map	

I. Introduction

- A. Allotment name: Copper Kettle
- B. Permittee: Don and Martha Sims
- C. Evaluation Period: 1982-1991
- D. Selective Management Category and Priority: "I", #14

II. Initial Stocking Level

- A. Livestock Use (Animal Unit Months - AUMs)
 - 1. Land use plan objectives (Lahontan RMP)
 - a. Total: 2333
 - b. Suspended Nonuse (SNU): 0
 - c. Active: 2333
 - d. Temporary nonrenewable (TNR): 6
 - 2. Season of use: yearlong
 - 3. Kind and class of livestock: cow/calf
 - 4. Percent federal range: 89
- B. Wild Horse Use (RPS - Rangeland Program Summary - Update, 1989)
 - 1. Appropriate management levels (AMLs): No management levels have yet been established for the North Stillwater Herd Management Area (HMA).
 - 2. Herd use areas within the allotment: North Stillwater HMA - 25% of the allotment is within the HMA.
- C. Wildlife Use - Stillwater Habitat Management Plan (HMP) Area (RPS Update, 1989)
 - 1. Mule deer
 - a. Reasonable numbers: 7 deer yearlong (21 AUMs)
 - b. Existing numbers: 15 deer yearlong
 - 2. Bighorn sheep
 - a. Reasonable numbers: 100 yearlong (240 AUMs) in the entire Stillwater Range within District boundaries
 - b. Existing numbers: 0

III. Allotment Profile

A. Description

The Copper Kettle Allotment is located in Churchill County, Nevada, approximately 55 miles northeast of Fallon and 30 miles southeast of Lovelock. The Carson City - Winnemucca District boundary forms the northern allotment boundary, and the summit of the Stillwater Mountains forms the eastern boundary.

The allotment is characterized by high rugged mountains and low-producing sand dunes bordering the Humboldt Sink.

B. Acreage

100,979 - total
74,555 - BLM
26,424 - private

C. Allotment Specific Objectives

1. Land use plan objectives (Lahontan EIS, 1983, Preferred Alternative)

- a. Improve the condition of public rangelands so as to improve production for all rangeland values.
- b. Initially, manage livestock use at existing levels.
- c. Initially, manage for wild horses and their habitat in current herd management areas at present population levels.
- d. Initially, manage habitat for existing numbers of big game, while recognizing reasonable numbers as a management goal.
- e. Maintain or improve wildlife habitat, including riparian/stream habitat, and reduce habitat conflicts while providing for other appropriate resource uses.

2. Rangeland Program Summary (RPS) Update, 1989

Short term

- a. Maintain utilization not to exceed 55% on identified key species on upland key areas.
- b. Initially allow 2333 AUMs.
- c. Limit utilization to 55% on identified key species in mule deer and bighorn habitat.
- d. Maintain or improve willow stands to have at least 20% of all stems produce young over 5 feet in height.
- e. Limit utilization not to exceed 55% current year's growth in riparian areas.
- f. Initially provide 180 AUMs of forage for approximately 15 head of wild horses.

Long term

- a. Improve ecological condition in ten years by one class from: early seral to mid-seral 950 acres; mid-seral to late seral 7,724 acres; late seral to Potential Natural Community (PNC) 748 acres.
- b. Manage identified mule deer habitat to maintain a fair (26-50) rating or better to support 7 deer yearlong, 21 AUMs reasonable numbers.
- c. Maintain or improve identified bighorn sheep habitat at a minimum rating of 50 to help support 100 sheep yearlong, 240 AUMs reasonable numbers, Stillwater HMP area.
- d. Manage riparian areas to achieve and maintain late seral ecological condition.
- e. Maintain or improve wild horse habitat consistent with wildlife and livestock objectives.
- f. Maintain or improve free-roaming behavior of wild horses by protecting or enhancing wild horse home ranges.
- g. Maintain or improve wild horse habitat by assuring that all waters remain open to use by wild horses.

3. Activity plan objectives

No Allotment Management Plan (AMP) has been developed for this allotment.

No Herd Management Area Plan has been developed for wild horses in this HMA.

The North Stillwater Range Bighorn Sheep Release Plan and Habitat Plan was completed in 1985. The objective is to reestablish desert bighorn sheep (Ovis canadensis nelsoni) into the North Stillwater Range. The HMP identified 10 acres of spring riparian needing protection.

4. Threatened and endangered (T&E) species

No T&E plant species are found in the allotment. However, two miles northwest of the northwest corner of the allotment a population of Oryctes nevadensis has been found. This plant is listed as a federal Category 2 Candidate. If this population is found to extend southward into the allotment, it would be in that portion of the allotment classified as "barren" and receives little use by livestock.

There is a potential for peregrine falcon nesting in the north portion of the Stillwater Mountains. The HMP indicated that the Nevada Department of Wildlife would survey the Stillwaters in 1987 for nest sites. The survey has not yet been conducted.

D. Key Species Identification

One key area was established in the allotment. Bottlebrush squirreltail (Sitanion hystrix) was identified as the key species.

IV. Management Evaluation

A. Purpose: the purpose of this evaluation is to determine if current management is adequate to meet objectives.

B. Summary of Studies Data

1. Actual use

a. Livestock

<u>Year</u>	<u>Licensed</u>	<u>Actual*</u>
1991	2345	NA (Not Available)
1990	2339	2339
1989	2339	NA
1988	1876	NA
1987	2333	NA
1986	2333	2333
1985	2333	2333
1984	2333	2333
1983	2328	2328
1982	2328	2328

* - provided by the grazing permittee

b. Wildlife (existing numbers)

Mule deer

During an April 12, 1987, Interagency Coordination Meeting, the Nevada Department of Wildlife (NDOW) and BLM agreed to stop listing mule deer numbers in Allotment Management Plans and Habitat Management Plans.

Bighorn sheep

Eighty seven sheep were released into the Stillwater Range at four locations since 1981. All the release sites were located east of the allotment boundary, but the potential use areas delineated in the HMP includes the eastern portion of the allotment. The closest release sites were Mississippi Canyon and Bell Mare, both adjacent to the allotment on the east side of the Stillwaters.

No information is available on existing numbers within the allotment.

c. Wild horses

The last census was completed in August, 1991, by the Winnemucca District, which counted 49 horses (adults and foals) in the Copper Kettle portion of the HMA. Another 73 were found within three miles of the unfenced allotment boundary in the Rochester Allotment.

Three distribution flights were conducted in 1992. The February flight counted 34 horses (adults and foals) on the Carson City side of the HMA, the May flight counted 53 horses, and the July flight counted 43 horses. The horses are concentrated along the foothills, below the trees.

2. Precipitation

Precipitation data was obtained from the NOAA Publication, Climatological Data Annual Summary for Nevada, and was recorded in Lovelock, the closest available data collection point. The Station Normal is for the years 1951-1980.

<u>Year</u>	<u>Inches</u>
1990	5.61
1989	4.36
1988	6.76
1987	6.99
1986	1.88
1985	4.85
1984	5.72
1983	12.27
1982	<u>5.61</u>
	5.76 = Station Normal

3. Utilization

a. Key area

1991 - Not Available (NA)
1990 - SIHY: 42% (moderate)
1989 - NA
1988 - NA
1987 - NA
1986 - mapped light
1985 - NA
1984 - mapped moderate
1983 - NA
1982 - mapped moderate

b. Use pattern mapping

Use pattern mapping is limited for the years included in this evaluation. However, there are a few patterns that emerge. The area west of the sand dunes (west of the main road) has been classified as barren. The area between the dunes and the foothills of the Stillwater Range has been mapped slight and is a low producing site. A large area along the southern boundary has been classified as "7W" (waste). The ridge of the Stillwaters and approximately a mile to the west has been mapped as slight use. Copper Kettle Canyon has received moderate use. The remainder of the allotment varied from slight to moderate.

For the grazing years 1982, 1984, and 1986, no portion of the allotment received more than moderate (41-60%) use. Limited utilization was conducted in the spring of 1991 to measure use on the lower portions of the allotment. The key area received moderate use, and one transect, run close to water indicated heavy use, mostly by wild horses.

4. Trend

At the key area frequency trend plot, between 1983 and 1986, there was no significant change in shadscale (Atriplex confertifolia) and a significant increase in bottlebrush squirreltail.

In 1991 the key area location was evaluated, and it was determined not to be representative of the allotment. The transect is located in a low-producing site and is too close to water.

It is recommended moving the key area and establishing another trend plot.

5. Ecological status

a. Ecological condition (acres)

<u>low seral</u>	<u>mid-seral</u>	<u>high seral</u>	<u>PNC</u>
2,996	25,687	14,361	0

b. Forage condition (acres) for woodland types

<u>poor</u>	<u>fair</u>	<u>good</u>	<u>excellent</u>
9,471	498	0	0

6. Wildlife habitat

No wildlife studies exist in the allotment. The wildlife habitat monitoring program for the Resource Area is being reviewed. Additional studies may be added to ensure that wildlife objectives are being met.

7. Riparian / Fisheries habitat

Nine springs and associated riparian areas have been identified within this allotment. No fisheries habitat was identified.

8. Wild horse habitat

Through interdistrict agreement, the Winnemucca District has been responsible for monitoring. No data was available.

V. Conclusions

Conclusions are based on the RPS Objectives (found on pages 2-3). These are the most current objectives, as no AMP has been developed on this allotment. Conclusions are based on past monitoring data, as described in the Summary of Studies Data section, beginning on page 3.

A. RPS Update Objectives

1. Short term

- a. met
- b. met
- c. met
- d. unknown - no sites were established to monitor this objective.
- e. No riparian areas have been specifically monitored. The use pattern maps did not show any heavy use areas surrounding springs, however, the wildlife habitat inventory in 1974 identified several springs being trampled and/or receiving heavy use. One spring riparian area has been identified as needing protection. This objective has apparently not been met.
- f. met

2. Long term

- a. unknown - insufficient data
- b. unknown - insufficient data
- c. unknown - insufficient data
- d. unknown - insufficient data
- e. met
- f. met
- g. met

B. Other Conclusions Found

- 1. There has been some unauthorized use made in the upper unfenced portion of the Mississippi Canyon Allotment. Geographically, this upper portion fits in with the Copper Kettle Allotment, and cattle must be driven through Copper Kettle in order to reach this area. This is not economically feasible for the limited number of AUMs available in this upper portion of Mississippi Canyon. This unauthorized situation could be eliminated by including this upper portion in the Copper Kettle Allotment through a rangeline agreement.

This would be equal to approximately 80 cows for six weeks, approximately 107 AUMs.

2. Limited monitoring in the past showed that livestock management at that time was meeting utilization objectives. Livestock numbers have remained the same, but by 1991, horse numbers had more than tripled the AUMs that were recommended in the RPS.
3. No comprehensive reliable utilization studies have been done since 1984.
4. Allotment visits have noted an abundance of Sandberg's bluegrass (Poa sandbergii), and it appears in some areas that desirable perennial grasses are retreating under shrubs.
5. Livestock use almost the entire allotment yearlong, moving as storms push them out of the higher elevations and precipitation provides temporary water sources.
6. Drift occurs between the Copper Kettle Allotment and the Rochester Common Allotment to the north. It is unknown how much use occurs in Copper Kettle from cattle that are licensed in Rochester and vice versa. Rochester Common is a common allotment administered by the Winnemucca District, however as a convenience to Mr. and Mrs. Sims, the Carson City District licenses them in Rochester Common.
7. The permittee identified a need for the development of additional waters to improve distribution.
8. The key area is in a location not representative of the allotment as a whole. It is located in a low producing range site and is too close to water.

VI. Technical Recommendations

A. RPS Objectives

1. Short term

- a. Read utilization in the higher elevations in fall before winter storms make the area inaccessible. The remainder of the allotment should be read in early spring before green-up to determine overall utilization for the year. If possible, differentiate utilization made by horses versus cattle use.
- b. Continue to license at 2333 AUMs. A full Allotment Management Plan will not be written, however a more thorough documentation will be made, describing the current grazing practices on the allotment. Additional monitoring is needed to substantiate any adjustment in livestock grazing or wild horse numbers.
- c. See 1.a.
- d. Identify any areas of willows and establish study sites as necessary to monitor this objective.
- e. Re-visit springs and riparian areas as necessary to determine any additional needs for protection. Establish riparian area monitoring sites if needed.

f. More information is needed on wild horses in the allotment as to use areas, numbers and movement to determine how many use the allotment and at what times, and if there is movement between Rochester Allotment and Copper Kettle. Utilization data needs to be collected according to these dates to determine how much use is attributable to livestock and wild horses.

2. Long term

a-c. No ecological condition ratings or wildlife habitat ratings have been done since the originals to determine if ecological status has changed. When funding and resources allow, conduct a new ecological status survey.

d. See 1e. above.

e-g. Continue present management.

B. Other Conclusions Found

1. Prepare a rangeline agreement to incorporate upper Mississippi Canyon into Copper Kettle. Use field observations and monitoring data to determine the AUM value.

2. See Alf. above.

3. See Ala. above.

4 & 5. Range sites will be evaluated in the spring of 1993 to determine if the bluegrass is within normal ranges or indicative of a problem. If this is, in fact, a problem, determine if this is due to overutilization (and by what user species) and/or improper season of use.

6. Construct a fence along the district boundary to eliminate drift from the Rochester Common Allotment. This will aid in better control of livestock and eliminate trespass use from the adjacent allotment. It will also enable more accurate monitoring of actual use and utilization data.

7. Identify needs for additional waters. Construction and maintenance of any new range improvements built within the WSA will be constrained by the Interim Management Plan (IMP) guidelines for WSA's. Copper Kettle Well (JDR #3515) is in a state of disrepair. It does not recharge enough to warrant re-equipping and is not cost-feasible to redevelop. This project should be abandoned.

8. Identify a new key area and establish a frequency trend plot in the spring of 1993. Continue to monitor trend.

VII. Consultations

Scoping letters were sent to the list of affected parties and interests. The following expressed interest in being involved in the Copper Kettle Allotment Evaluation process:

Nevada Department of Wildlife

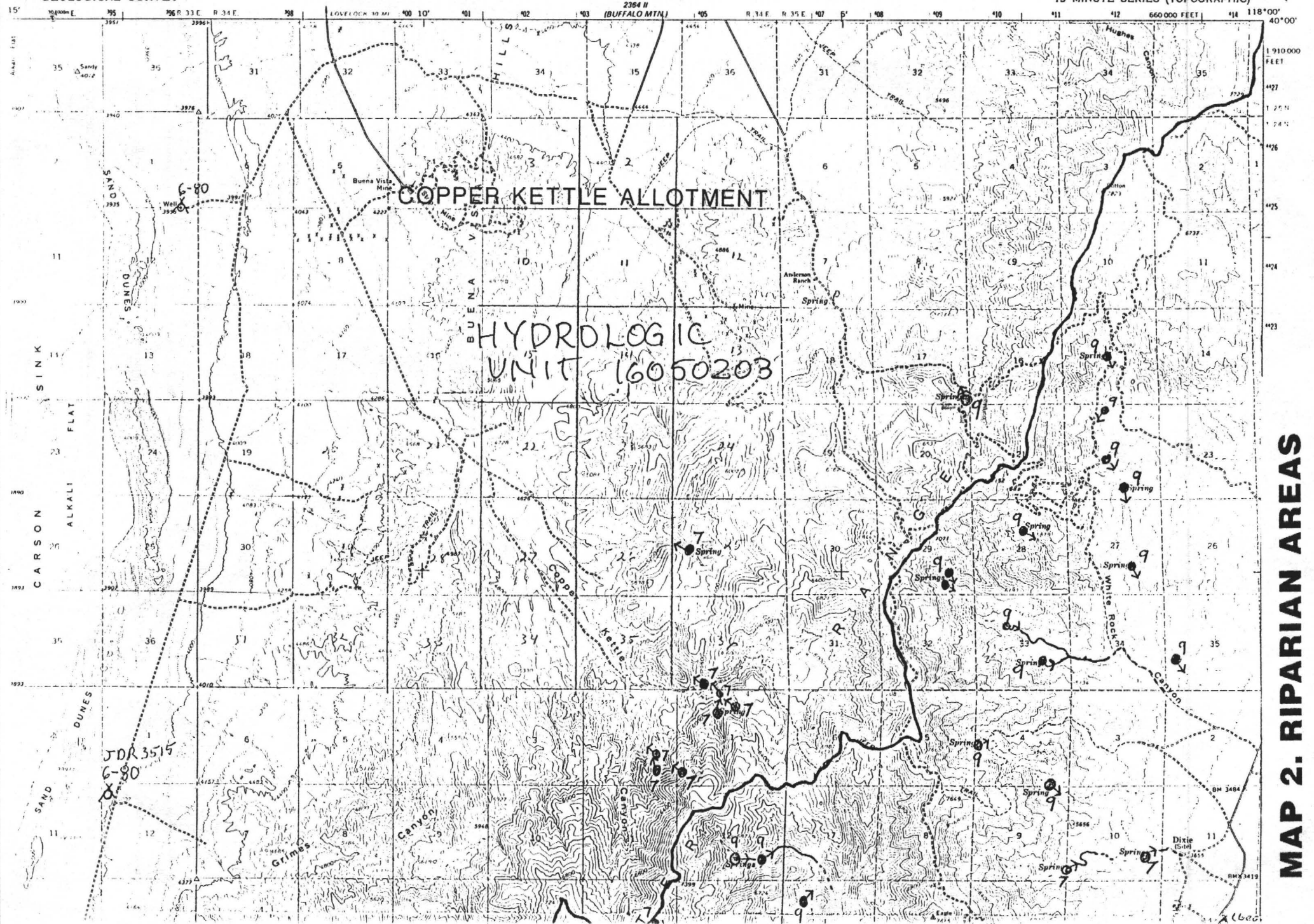
Animal Protection Institute

U.S. Fish and Wildlife Service

Don and Martha Sims, grazing permittees

Commission for the Preservation of Wild Horses

The Wilderness Society



MAP 2. RIPARIAN AREAS