Cherry Creek HMA m 6/26/00

BUREAU OF LAND MANAGEMENT
Ely Field Office
702 North Industrial Way, HC 33 Box 33500
Ely, Nevada 89301-9408

In Reply Refer To:
4400 (NV-042)

JUN 26 2000

Dear Interested Public:

The Ely Field Office has completed a Final Evaluation for the Indian Creek Allotment located within the Cherry Creek Herd Management Area (HMA). The Final Indian Creek Allotment Evaluation was conducted in accordance with the direction set forth in the Washington Office Instruction Memorandum No. 86-706, and is based on monitoring data collected primarily between 1995 and 1998.

The allotment evaluation process is used to evaluate livestock, wild horse and wildlife use. The purpose is to determine if existing multiple uses are meeting the allotment specific and land use plan objectives as described in the Egan Resource Area Resource Management Plan and Final Environmental Impact Statement (RMP/FEIS), Egan Resource Area Record of Decision (ROD), Rangeland Program Summary (RPS), and Standards and Guidelines for the Northeastern Great Basin Area. This evaluation process will also be used in determining the appropriate management levels (AMLs) for wild horses within the Indian Creek Allotment portion of the Cherry Creek HMA.

The Indian Creek Allotment Evaluation was sent to the affected permittees as a scoping procedure for consultation, cooperation, and coordination on December 10, 1999. It was resent to Stephen & Vicki Nye on February 18, 2000. There will be a 30 day comment period for the final evaluation. Please submit your written comments by July 28 to Mark Lowrie, Rangeland Management Specialist, Bureau of Land Management/Ely Field Office, HC 33 Box 33500, Ely, NV. 89301. If you have any questions during your review of the evaluation, please call Mr. Lowrie at (775) 289-1888.

Sincerely,

James M. Perkins
Assistant Field Manager
Renewable Resources

1 Enclosure
1. Final Indian Creek Allotment Evaluation

JUN 23 2000

MAILING LIST
FINAL INDIAN CREEK ALLOTMENT EVALUATION

Kay Lear (permit operator for Louise Lear)
Stephen & Vicki Nye (Indian Creek Ranch Partnership)
Carol Sherman (permit leasee)
Commission for the Preservation of Wild Horses
Mr. Curt Baughman, Nevada Div. of Wildlife
Mr. Steve Foree, Nevada Div. of Wildlife
Nevada Cattlemen's Association
Nevada Department of Agriculture
Mr. John McLain, Resource Concepts, Inc.
U.S. Fish & Wildlife Service
Nevada State Clearinghouse

6/23/00
Cherry Creek HMA

INDIAN CREEK ALLOTMENT (0401) EVALUATION SUMMARY

JUN 23 2000

I. INTRODUCTION

JUN 23 2000

A. Evaluation/Decision and Planning Process

The allotment evaluation process is used to evaluate livestock grazing use, wild horse use and wildlife use. The purpose of this evaluation is also to determine if existing multiple uses are meeting the allotment specific and land use plan objectives as described in the Resource Management Plan/Environmental Impact Statement and Record of Decision for the Egan Resource Area, the Rangeland Program Summary, and the Standards for the Northeastern Great Basin Area. (Refer to the Allotment Objective Flow Chart, Appendix II and the Public Consultation Process Chart, Appendix III).

The Resource Management Plan/Environmental Impact Statement and Record of Decision for the Egan Resource Area were issued in September 1984 and February 1987, respectively. The Egan Rangeland Program Summary was issued in May of 1988. These documents guide the management of public lands within the Indian Creek Allotment. The Egan Resource Area Record of Decision states in pertinent part:

"Monitoring studies will be used to determine if adjustments in livestock numbers are necessary...All vegetation will be managed for those successional stages which would best meet the objective of this proposed plan..." (short term objective) "Future adjustments in livestock use will be based on data provided through the rangeland monitoring program." (long term objective).

"Implementation [of the range management program] will take place through coordination, consultation, and cooperation. Actions could include, but will not be limited to, change in seasons-of-use, change in livestock numbers, correction of livestock distribution problems, alteration of the number of wild horses, development of range improvements, and taking site specific measures to achieve improvements in wildlife habitat."

B. NEPA Compliance and Conformance

Proposed actions associated with the evaluation process are analyzed through the NEPA process. Management actions or practices developed through the evaluation process are analyzed in an environmental assessment to determine if they are in conformance with the land use plan decisions, to determine if the actions fall within the scope of the range of alternatives identified in either the resource management plans and environmental impact statements or the grazing environmental impact statements, and to determine conformance with NEPA. Environmental analysis will occur associated with issuance of the term permit.

C. Allotment Information

The Indian Creek Allotment (0401) is a category "M" allotment encompassing approximately 3,330 public land acres and 240 private land acres for 3,570 acres total. Map A illustrates the location of the allotment within the Ely District and Map B shows the allotment boundaries.

An Allotment Management Plan (AMP) has not been initiated for the allotment. The allotment is entirely within the Cherry Creek Wild Horse Herd Management Area (HMA).

Louise Lear and Stephen & Vicki Nye (Indian Creek Ranch Partnership) are the current permittees of record for this allotment. Both permittees graze cattle. Louise Lear owns the base property for permitted grazing use in the allotment. She has held the permit since March, 1996. Prior to 1996 the grazing permit was held by Lear Ranches. Kay Lear runs the cattle operation for Louise Lear and is the current authorized representative for the permit. The Nyes also own the base property for permitted grazing use in the allotment. Sonya Hesterlee and Brett and Karen Spahan leased the base property and grazing permit from the Indian Creek Ranch Partnership from March 1997 to February 1998. Ralph Vance leased the base property and permit from the partnership from April 1992 to December 1996.

The main evaluation period covered four years, from 1995 - 1998. Other years of rangeland monitoring data are included in this evaluation.

II. INITIAL STOCKING LEVEL

For an explanation of the process for changing authorized grazing use, refer to Appendix I, page 31.

A. Livestock Use

The current permitted use for the allotment is 177 AUMs, with 145 AUMs held in historical suspended non-use for a total permitted use of 322 AUMs. The kind and class of livestock is cattle (cow/calf). The period of use is 7/01 through 9/01. The existing operations summer up to 135 head of cattle on the allotment during July and August. The three year average stocking rate (1979 - 1981) used in the Egan Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS) as well as the Egan Rangeland Program Summary (RPS) is 70 AUMs. Table 1 lists the permitted use summary for the allotment.

Table 1. **Indian Creek Permitted Use**

Permittee	Current Permitted Use	Historical Suspended Non-use	Total Permitted Use
Louise Lear	71 AUMs	58 AUMs	129 AUMs
S. & V. Nye	106 AUMs	87 AUMs	193 AUMs
Total	177 AUMs	145 AUMs	322 AUMs

B. Wild Horse Use

The Indian Creek Allotment is entirely within the Cherry Creek Wild Horse Herd Management Area (HMA) (Map C). The Rangeland Program Summary objective for this allotment is to provide habitat and forage for one wild horse (9 AUMs) within the Cherry Creek HMA.* Wild horse aerial census data, together with one on the ground count, done from 1985 through 1994 indicate very little wild horse use of the allotment. No wild horses were counted on the allotment for six different years of aerial census. In only one year of those six, 1989, were any wild horses counted in the entire HMA (3 wild horses counted in the Cherry Creek Allotment). In February of 1987, following a gather of wild horses in the Cherry Creek North HMA in Elko County, 16 wild horses were counted by ground observation in the Ely District, 9 of which were near private ground in the extreme eastern portion of the Indian Creek Allotment and 7 of which were in the north portion of the Cherry Creek Allotment. The post- gather census summary indicated these 16 wild horses were probably pushed onto the Ely side by the gather operations. Two different rangeland resource specialists from the Ely Field Office have noted very infrequent wild horse sign (tracks or droppings or evidence of grazing) in the Indian Creek Allotment from 1991 through 1996. The overall consensus of resource specialists in the Ely Field Office is that wild horses commonly use the land area in Elko County and very seldom drift into the Ely District. A summary of the wild horse census data for the allotment and HMA is provided in the wild horse actual use section on page 8 of this evaluation.

* The 1 wild horse yearlong within the Cherry Creek HMA is no longer a valid AML. The Interior Board of Land Appeals June 7, 1989 decision (IBLA 88-591, 88-638, 88-648, 88-679) ruled in part:

"An AML established purely for administrative reasons because it was the level of wild horse use at a particular point in time cannot be justified under the statute." The IBLA further ruled that AML must be established through monitoring "in terms of the optimum number which results in a thriving natural ecological balance and avoids deterioration of the range."

C. Wildlife Use

1. Reasonable numbers (from Land Use Plan).

The RPS objective for this allotment is to provide forage and habitat for reasonable numbers of wildlife, i.e., 125 AUMs for mule deer and 7 AUMs for pronghorn antelope.

2. Key or Critical Management Areas

The Ely Field Office BLM has not identified any key or critical management areas for wildlife within the Indian Creek Allotment. However, the Nevada Division of Wildlife considers the allotment to be a key area for mule deer, upland game, and nongame wildlife.

III. ALLOTMENT PROFILE

A. EXISTING MANAGEMENT PRACTICES

Kay Lear, authorized representative for Louise Lear, has made fairly consistent summer cattle grazing use of the Indian Creek Allotment over the past several years. He normally grazes about 35 head of cattle during July and August. Cattle are herded to and from the allotment from the north, through the Dry Canyon area of the Currie Allotment in the Elko District BLM. Mr. Lear has stated that the cattle sometimes drift north from the allotment to the Dry Canyon area in Elko County and vice versa. Ralph Vance grazed cattle in the allotment during the summers of 1992, 1993, and 1995. Ralph Vance also moved cattle to and from the allotment from the north.

Cattle drift from the Indian Creek Allotment to the Goshute Basin Allotment, to the west, has been common during the evaluation years. The fence separating the two allotments is in disrepair. The main gate is often left open. Sheep were found to be grazing in the Indian Creek Allotment in September of 1998, when they were permitted to be grazing in the Goshute Basin Allotment.

The Indian Creek drift fence, approximately one mile in length, was constructed in 1972. The main purpose of the fence was to implement a habitat management plan objective of protecting the Bonneville cutthroat trout in Goshute Creek. The fence was thus intended to control cattle drift from the Indian Creek Allotment into the critical watershed area of the Goshute Basin Allotment. Fence materials were supplied by BLM and labor was contracted to complete the construction. The fence was originally built as a combination permanent/let down fence with let down panels so that snow damage would be minimal during winter. The fence has been repaired several times over the years by both BLM and the permittees.

Because of steep and rugged topography, forage availability, and generally hot conditions, cattle tend to congegrate on the sub-irrigated meadows and seep areas in the Indian Creek Allotment.

B. DESCRIPTION

The Indian Creek Allotment (0401) is a category "M" allotment encompassing 3,300 public land acres and 240 private land acres for 3,570 acres total. The allotment is located in White Pine County, Nevada, approximately 60 air miles north of Ely in the northern portion of the Ely District (Map A). The allotment is situated in the Cherry Creek Mountains. Main access to the allotment is via the county road that runs from Cherry Creek to Currie. Much of the allotment is characterized by steep slopes. The southwest boundary of the allotment is fenced and borders the Goshute Basin Allotment (0402). The west boundary is unfenced and borders the Medicine Butte Allotment (0501). The northern boundary is mostly unfenced and borders the Currie Allotment in the Elko District. The eastern boundary borders the Cherry Creek Allotment (0403). Map B shows the allotment boundaries. Elevations in the allotment range from 6,200 feet in the east of the allotment to about 10,300 feet in the Cherry Creek Range.

C. GOSHUTE CANYON WILDERNESS STUDY AREA (WSA)

The designation of the Goshute Canyon WSA (NV-040-015) came in October of 1987 with the filing of the Final Wilderness Environmental Impact Statement (EIS). The entire WSA is comprised of 35,594 acres of public land with one 15 acre patented mining claim inholding near the southern boundary. The WSA occurs in the Cherry Creek Mountain Range in both White Pine and Elko Counties. Elevations range from 6,000 to 10,000 feet. The recommendation for the Goshute Canyon WSA is to designate 22,225 acres as wilderness and release 13,369 acres for uses other than wilderness. Generally, exceptionally high wilderness values, strong public interest, and limited amounts of competing resource uses were the reasons for recommending a portion of the WSA as wilderness. Approximately 2,165 acres, or 65% of the Indian Creek Allotment in the east portion of the allotment are located within that part of the Goshute Canyon WSA that is recommended for wilderness (Map D). Many of the spring/seep areas and subirrigated meadows in the allotment also occur within the recommended portion of the WSA.

In relationship to grazing, the Final Wilderness EIS concluded that there would be no impacts to grazing facility maintenance in that portion of the Indian Creek Allotment within the designated wilderness area. The EIS also found that minor impacts on construction of new projects are possible due to designated wilderness management limitations.

In 1970 the BLM designated 7,650 acres in Goshute Basin as the Goshute Canyon Natural Area. It was designated as such bacause of its unique scenery, geology, vegeation, and zoology. It was also designated in order to protect the Bonneville cutthroat trout, which was then on Nevada's endangered species list. The natural area included several small portions of the Indian Creek Allotment along the boundary between it and the Goshute Basin Allotment. As a result of passage of the Federal Land Policy and Management Act (FLPMA) in 1976, all designated BLM natural areas became candidates for wilderness designation known as "Instant Study Areas" (ISA). The Goshute Canyon Natural Area was included in the 1991 Nevada BLM Statewide Wilderness Report. ISAs are currently under the same protection and management guidelines as Wilderness Study Areas.

D. ALLOTMENT SPECIFIC OBJECTIVES (Northeastern Great Basin Area Standards)

STANDARDS

Standard 1. Upland Sites:

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and land form.

As indicated by:

Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to the potential of the site.

a. Applicable Land Use Plan (RMP/ROD) Objectives:

"Establish utilization limits to maintain watershed cover, plant vigor and soil fertility in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing system and aesthetic values." (Egan ROD, p.44)

b. Applicable Rangeland Program Summary Objective:

"Maintain or enhance native vegetation with utilization not to exceed Nevada Rangeland Monitoring Handbook (NRMH) levels on key species. Maintain or improve the current ecological condition of the native range."

Standard 2. Riparian and Wetland Sites:

Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

As indicated by:

Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating properly functioning condition such as avoiding accelerating erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:

Width/depth ratio; Channel roughness; Sinuosity of stream channel; Bank stability; Vegetative cover (amount, spacing, life form); and Other cover (large woody debris, rock).
Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.

Chemical, physical, and biological water constituents are not exceeding the state water quality standards.

a. Applicable Land Use Plan (RMP/ROD) Objectives:

"Establish utilization limits to maintain watershed cover, plant vigor and soil fertility in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing systems and aesthetic values." (Egan ROD, p.44)

b. Applicable Rangeland Program Summary Objectives:

"Maintain meadows and riparian areas in good or better condition for pronghorn antelope, mule deer, and sage grouse."

"Improve from fair condition (.25 miles) of stream riparian habitat condition to good or better."

"Utilization levels will not exceed 55 percent on perennial grasses and grass-like species and 45 percent on shrubs along stream riparian areas and mesic meadows."

Standard 3. Habitat:

Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet the life cycle requirements of threatened and endangered species.

As indicated by:

Vegetation composition (relative abundance of species);

Vegetation structure (life forms, cover, height, or age class);

Vegetation distribution (patchiness, corridors);

Vegetation productivity; and Vegetation nutritional value.

a. Applicable Land Use Plan (RMP/ROD) Objectives:

1) Livestock

"All vegetation will be managed for those successional stages which would best meet the objective of this proposed plan." (Egan ROD, p.3)

2) Wild Horses

Wild horses - Wild horses will be managed at a total of 11 animals within the Cherry Creek HMA. (Egan ROD, p. 6)*

"Future adjustments in wild horse numbers will be based on data provided through the rangeland monitoring program." (Egan ROD, p. 6). Actual wild horse numbers will be determined by this evaluation based upon monitoring data in order to maintain a thriving natural ecological balance and prevent deterioration of the range.

* The 11 wild horses yearlong in the Cherry Creek HMA is no longer a valid Appropriate Management Level (AML) - see also page 3. The Interior Board of Land Appeals June 7, 1989 decision (IBLA 88-591, 88-638, 88-648, 88-679) ruled in part: "An AML established purely for administrative reasons because it was the level of wild horse use at a particular point in time cannot be justified under the statute." The IBLA further ruled that the AML must be established through monitoring "in terms of the optimum number which results in a thriving natural ecological balance and avoids deterioration of the range."

3) Wildlife

"Habitat will be managed for "reasonable numbers" of wildlife species as determined by the Nevada Department of Wildlife." (Egan ROD, p. 6)

"Reintroductions of big game species will be accomplished in cooperation with the Nevada Department of Wildlife, where such reintroductions would not conflict with existing uses and if sufficient forage is available." (Egan ROD, p. 6)

"Forage will be provided for "reasonable numbers" of big game as determined by the Nevada Department of Wildlife." (Egan ROD, p. 8)

b. Applicable Rangeland Program Summary Objectives:

1) Livestock

"Provide forage for up to 70 AUMs of livestock use."

"Maintain or enhance native vegetation with utilization not to exceed Nevada Rangeland Monitoring Handbook (NRMH) levels on key species. Maintain or improve the current ecological condition of the native range."

2) Wild Horses

"Initially mange rangeland habitat to support an Appropriate Management Level (AML) of 1 horse in the Indian Creek Allotment as part of the Cherry Creek HMA.

Provide forage for up to 9 AUMs of wild horse use." (The AML of 1 wild horse identified in the RPS is no longer a valid AML - See asterisk note on page 3 for reasons why).

3) Wildlife

"Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 125 AUMs, antelope 7 AUMs."

"Protect sage grouse breeding complexes."

"Maintain mule deer spring range and antelope yearlong range in good or better condition."

Standard 4. Cultural Resources:

Land use plans will recognize cultural resources within the context of multiple use.

E. ALLOTMENT SPECIFIC OBJECTIVES (Short Term and Long Term).

The Egan land use plan provides the direction to manage resources on a planning area basis. This land use plan provides guidance for making sound resource decisions for a variety of land uses within the planning areas. The allotment specific objectives are a quantification of Northeastern Great Basin Area standards, land use plan objectives, down to site specific objectives. The allotment specific objectives are clearly consistent and in conformance with the land use plans and standards. The short and long term allotment specific objectives are included in Appendices V, VI, and VII on pages 38 - 40 of this evaluation. Refer also to the Allotment Objective Flow Chart, Appendix II.

1. Livestock

a. The short term objective will be accomplished through managing the allowable use levels by season of use, stocking levels, and/or other management practices to maintain or improve the desired vegetation community throughout the allotment.

b. The long term objective is to manage for the most appropriate seral stage to provide desired quantity, quality, and variety of forage in order to meet the requirements for livestock forage production.

2. Wild Horses

a. The short term objective will be accomplished through managing the allowable use level (AUL) to improve or maintain the desired vegetation community.

b. The long term objective is to manage for the most appropriate seral stage to provide desired quantity, quality, and variety of forage in order to meet the requirements of the wild horses.

3. Mule Deer

a. The short term objective is to limit use on key browse species listed for mule deer to 50% or less yearlong.

b. The long term objective is to maintain mule deer summer and migratory range in at least good habitat condition.

4. Pronghorn antelope

a. The short term objective is to limit use on Indian ricegrass, needle-and-thread, or other key perennial grasses in the black sagebrush/ricegrass or shadscale/ricegrass plant communities on the Cherry Creek Mountain benches to 50% or less yearlong.

b. The long term objective is to maintain or improve antelope yearlong range to good or better condition.

5. Riparian areas

a. The short term objective is to manage the allowable use levels on lentic and lotic riparian areas, seeps and sub-irrigated meadows on combined key grasses and grass - like species by season of use, rotation system, and/or stocking levels to achieve the desired riparian vegetation conditions. Utilization levels will not exceed 55% on perennial grasses and grass-like species and 45% on shrubs along stream riparian areas and mesic meadows.

b. The long term objective is to manage all lentic and lotic habitat for proper functioning condition.

F. THREATENED AND ENDANGERED SPECIES

The federally threatened bald eagle winters in the vicinity of the allotment each winter with numbers of birds varying with winter intensity to the north. No documented sightings of the bald eagle have been made on the allotment. The federally endangered peregrine falcon can be observed on the allotment during any month of the year. The Schell Creek Mountain snail, a BLM Nevada sensitive species, is known to exist on the allotment in the vicinity of Indian Creek.

Sage Grouse

The Indian Creek Allotment has provided nesting\brooding habitat for sage grouse over the years of the evaluation and historically. Numbers of birds have declined in recent years due to an overall decline in the numbers of sage grouse that breed on valley leks and then fly to upper elevations to nest and brood. The sage grouse is a Nevada BLM sensitive species. In the near future the U.S. Fish and Wildlife Service expects to receive a petition to request listing of the

Western sage grouse as a threatened species across its range.

No sage grouse breeding complexes (leks) have been found on the allotment. Nesting and brooding habitat conditions have declined somewhat due to excessive use of riparian habitats and upland dry meadows.

G. THREATENED AND ENDANGERED PLANTS

There are no known threatened or endangered plant species on the allotment.

H. KEY SPECIES IDENTIFICATION

Key forage plants for cattle, mule deer, and antelope for the native range of this allotment are as follows:

Cattle - grasses & grasslike plants

ORHY	(Oryzopsis hymenoides),	Indian ricegrass
STIPA	(Stipa spp.),	Needlegrass
AGSP	(Agropyron spicatum),	Bluebunch wheatgrass
POPR	(Poa pratensis),	Kentucky bluegrass
CAREX	(Carex spp.),	Sedge
JUNCUS	(Juncus spp.),	Rush
Other riparian grasses & grass-like species		

Mule deer - all categories

ARTRV	(Artemisia tridentata v.),	Mountain big sagebrush
POTR	(Populus tremuloides),	Quaking aspen
PRVI	(Prunus virginiana),	Chokecherry
All native mesic riparian species		

Antelope - all categories

ARTRWY	(Artemisia tridentata w.)	Wyoming big sagebrush
ARNO	(Artemisia nova),	Black sagebrush
All native mesic riparian species		
Native perennial grasses at lower elvations of the allotment		

IV. MANAGEMENT EVALUATION

A. Purpose

The purpose of this evaluation is to assess whether current management practices are meeting the multiple use objectives for the allotment and to determine the appropriate stocking level and management system for domestic livestock and appropriate management level for wild horses.

B. Summary of Studies Data

All rangeland monitoring information and field data sheets are available for public review in the Ely Field Office.

1. Key Area Summary - Livestock

The primary grazing area of native range is an area of subirrigated meadows and seeps mixed with sagebrush/snowberry/bluebunch wheatgrass plant communities at the higher elevations in the southwest of the allotment. The entire area is approximately 300 acres, and also contains aspen groves. Three key areas have been established within the primary grazing area (Map E). Key area IC-01 was established in October, 1995 in a mesic subirrigated meadow in T. 26N., R. 63E., Section 25, NW1/4 SW1/4. Key area IC-02 was established in September, 1997 in a sagebrush/snowberry/bluebunch wheatgrass plant community in T. 26N., R. 63E., Section 26, SE1/4. Key area IC-03 was established in September, 1997 in a mesic subirrigated meadow in T. 26N., R. 63E., Section 25, SW1/4 NE1/4.

Utilization cages have been placed at each of the key grazing areas to show the current annual growth of key forage species. Key forage plant method transects have been completed at the key area locations and at other locations in the allotment periodically since 1993. Key forage plant method transects have been completed for four years of grazing use. Use pattern maps (UPM data) were drawn for livestock use of the allotment in September of 1993 and October of 1996.. Ecological status studies, cover studies, and observed apparent trend studies have also been completed at all the key areas of the allotment. Proper functioning condition (PFC) studies have been completed at riparian areas. Nevada water resource inventory forms and photographs supplement the PFC data.

Livestock licensed use, wildlife existing use, and precipitation studies round out the allotment specific monitoring for the Indian Creek Allotment.

2. Livestock licensed use

Licensed use for cattle in the Indian Creek Allotment for the grazing years 1991 - 1998 is illustrated in Table 2.

Table 2. **Indian Creek Licensed Use from 1991 through 1998**

Year	AUMs Cattle	Non-Use
1991	71	106
1992	178	<0>
1993	177	<0>
1994	71	106
1995	106	71
1996	71	106
1997	71	106
1998	71	106

3. Wild Horse actual use

As stated on page three of this evaluation, the wild horse specialist and other resource specialists from the Ely Field Office have documented very little wild horse use of the Indian Creek Allotment. An occasional wild horse or two may drift onto the allotment for short periods of time during summer, coming from the Cherry Creek North Herd in Elko County.

Wild horse numbers for both the Indian Creek Allotment and the Cherry Creek Herd Management Area (Ely District) are shown in Table 3. Only adult wild horses were counted during each census. No foals were observed. Census flights have been flown in February, May, June, July, August, and September.

Table 3. - **Wild Horse Census Data, Indian Creek Allotment**

Date	Source	Number of Wild Horses Indian Creek	Entire HMA
1985	Aerial Census	0	0
1987	Ground Count*	9	16
1989	Aerial Census	0	3
1991	Aerial Census	0	0
1992	Aerial Census	0	0
1993	Aerial Census	0	0
1994	Aerial Census	0	0

* The post - gather census summary indicated that the 16 wild horses located in the HMA were probably pushed into the Ely District by gather operations in Elko County.

4. Wildlife Existing Use

Following is the current wildlife use on the allotment as estimated by the BLM area wildlife biologist in conjunction with the Nevada Division of Wildlife (NDOW).

Blue Grouse

The Indian Creek Allotment has provided nesting\brooding habitat for blue grouse over the years of the evaluation and historically. Numbers of birds have declined in recent years. Nesting and brooding habitat conditions have declined somewhat due to excessive use of riparian habitats and upland dry meadows.

Mule Deer

Between 30-40 resident mule deer utilize habitats on the allotment from March 1 through November 30, approximately 63 AUMs of use.

Antelope

Approximately five antelope make yearlong use on the benches at lower elevations of the allotment, approximately 12 AUMs of use.

Rocky Mountain Elk

In July of 1995, 5 elk were observed at Dry Canyon Spring on the allotment. No other observations of elk have been documented. The allotment has no management objectives for elk.

The Wells Resource Area of the Elko BLM District completed an Elk Amendment to their land use plan in 1996 which identified the north end of the Cherry Creek Mountain Range in Elko County as a high elk potential area. Elk will be released in the Elko portion of the Cherry Creek Mountains once the allotment evaluations are complete for this area. Elk are expected to pioneer into the Ely District portion of the Cherry Creeks and occupy habitats on both summer range and winter range. Elk are expected to use the Indian Creek Allotment and other allotments. A total of 148 elk were released on Spruce Mountain in 1996. Spruce mountain is approximately 20 miles north of the White Pine County line. The Cherry Creek Range is located within Nevada Division of Wildlife (NDOW) hunt unit 121. The current elk population estimate is 20 elk. The Draft White Pine Elk Management Plan has proposed an elk population objective of 550 elk for this unit. NDOW considers the Cherry Creek Range a high priority area for elk augmentations.

5. Summary of Wildlife Studies

One wildlife study has been established on the allotment (Map F). This permanent frequency study was established in a location that contains mule deer spring range habitat, pronghorn antelope yearlong range and is utilized by domestic livestock. This study includes frequency, cover, phenology, density, and utilization. The legal location of the study is as follows:

IC#1 T.26N., R.64E., Sec.20 NWNE

The results of the study are as follows:

When initially established, the study rated in a good habitat condition for both pronghorn antelope and mule deer. The study was reread in 1988 and 1992 and was rated as good habitat condition in both readings.

#1 Indian Creek Wildlife Frequency Study IC

YEAR	7/31/84		8/09/88		9/09/92	
Species	% Freq.	Cover hits	% Freq.	Cover Hits	% Freq.	Cover Hits
Si Hy	34	3	35	2	18	4
Po Ne	10	-	25	3	17	4
St Co	4	-	1	-	-	-
Or Hy	6	-	13	1	10	3
Br Te	16	1	28	1	5	1
Po Se	0	-	29	2	20	3
Pe Sp	20	3	48	-	-	-
Lip Sp	52	1	12	-	-	-
Ph Sp	12	-	48	-	29	3
Ca Sp	4	-	1	-	-	-
Lu Sp	12	-	-	-	-	-
Ar No	94	23	92	21	89	13
Ch Vi	45	2	27	-	25	3
Ac To	2	-	2	1	2	1
Te Ca	6	-	8	1	10	1

Utilization - 7/31/84- Arno - 66%
- perennial grass/forbs - 62%

8/09/88- No recent use detectible, spring use on Arno by mule deer, slight hedging evident

9/09/92- Arno - 07%
- perennial grass/forbs - 33%

This study will also be utilized to determine elk habitat condition once elk are augmented into the Cherry Creek Mountain Range.

6. Precipitation Data

Data from the National Oceanic and Atmospheric Administration recording station at Ely, Nevada, is being used for this evaluation. This data is reported to and summarized by the Office of the State Climatologist, University of Nevada, Reno. Precipitation data will be used to calculate a yield index for each year (Sneva et al. 1983). The yield index will be used to adjust the utilization levels for above or below normal precipitation (compared to the long term average). In calculating the yield index, the first step is to calculate the crop yield (effective precipitation). For the Intermountain Big Sagebrush Region this includes precipitation from September through June. The crop yield is then divided by the normal crop yield (average of 30 total years of data at the Ely Station) to determine the precipitation index for each year. The yield index is then calculated using the linear regression equation $Y = -23 + 1.23x$, where Y is the yield index and x is the precipitation index. Table 4 shows the yield indices for the Ely Station for the years 1995 through 1998.

Table 4. - **Yield Indices, Ely Station**

Year	Yield Index
1995	1.60
1996	0.58
1997	0.89
1998	1.21

7. Utilization data

a. Key Area Utilization

Key forage plant method (KFPM) utilization transects were conducted in the allotment in October of 1995, September and October of 1996, September of 1997, and September of 1998. The transects were conducted in two main grazing areas of the allotment. The first is the primary grazing area of subirrigated mesic meadows, big sagebrush/snowberry, and low sagebrush/rabbitbrush in T. 26N., R. 63E., Sections 25, 26. The second is an area of either big sagebrush/rabbitbrush or low sagebrush/rabbitbrush in T. 26N., R. 63E., Sections 13, 24. The second area is mainly west and south of Dry Canyon Spring. Only those transects completed in the primary grazing area were used to determine a use level for each year of grazing use.

Results of the key forage plant method utilization transects completed in the allotment are indicated in Table 5. A more complete analysis is presented in Appendix IX.

In 1995, the use level is based on an average of two KFPM transects read for combined perennial grasses in the subirrigated meadows of the allotment.

In 1996, the use level is based on an average of two KFPM transects read for combined perennial grasses in the subirrigated meadows of the allotment.

In 1997, the use level is based on an average of five KFPM transects read for combined perennial grasses in the subirrigated meadows of the allotment.

In 1998, the use level is based on an average of three KFPM transects read for combined perennial grasses in the subirrigated meadows of the allotment.

Table 5. - **Key Forage Plant Method Transects, Indian Creek Allotment**

Year	Use Level
1995	82%
1996	70%
1997	74%
1998	85%

b. Utilization Pattern Mapping

Use patterns were mapped for the allotment in September of 1993 and October of 1996. Use patterns were mapped for summer/fall use by cattle. Results by use class, acres, and percent of total acres mapped are listed by year in Table 6.

Table 6. - **Use Pattern Mapping Summary - Acres and (Percent of Mapped Acres) by Use Class for the Indian Creek Allotment.**

Year	Slight (0 - 20%)	Light (21 - 40%)	Moderate (41 - 60%)	Heavy (61 - 80%)	Severe (81 - 100%)	Not Mapped
1993	2112(66%)	174(06%)	713(22%)	181(06%)	<0>	47
1996	394(53%)	237(32%)	93(13%)	17(02%)	<0>	2486

The heavy use in 1993 occurred in the primary grazing area of subirrigated meadows in T. 26N., R. 63E., Sections 25 and 26. The heavy use in 1996 occurred in a big sagebrush/rabbitbrush/bluebunch wheatgrass plant community southwest of Dry Canyon Spring in T. 26N., R. 63E., Section 24, W1/2.

Monitoring notes that accompanied the use pattern map done in September of 1993 indicated heavy use by cattle in grassy meadow areas and heavy or moderate use under aspen trees in the

upper portion of the Indian Creek Allotment. The monitoring notes indicated other range conditions as follows:

1. Cattle had been trampling areas underneath aspen by "shading up" under trees.
2. New aspen seedlings are establishing at the edges of aspen groves.
3. Use on aspen appeared slight to light.
4. Heavy use and trampling by livestock was noted under aspen trees at unnamed spring, T. 26N., R. 63E., Section 26, NWSE.
5. Many of the drainages flowing beneath the aspen have received heavy use by cattle.
6. Moderate to heavy use was noted at the Dry Canyon Spring complex (including the spring and two adjacent aspen groves). Use on Elderberry was heavy by livestock in the upper aspen grove. In the lower aspen grove use on grasses and sedge was moderate but cows were "shading up" under the aspens and trampling the ground. Aspen seedlings and saplings were establishing at the edge of the lower grove.
7. Use on perennial grasses on the drier sagebrush slopes surrounding Dry Canyon Spring was moderate.

8. Observed Apparent Trend

Observed apparent trend (OAT) studies were conducted at key area IC - 01 on 10/03/1995, 9/04/1996, 9/24/1997, and 9/15/98. The results of the studies are as follows:

Trend was rated as static (not apparent) for the first three years and rated as downward for 1998. Range notes from the OAT study for 1995 indicated the range had the general appearance of uniform heavy to severe use. Cow droppings were common. Not many undesirable forage species were present. Range notes for the OAT study for 1996 indicated the range again had the general appearance of mowed, heavy use. The summer's cow droppings were abundant. Poa and sedge in the utilization cage were of fair vigor. Range notes for the OAT study for 1997 indicated the meadow is repeatedly used heavy to severe each and every summer. No litter was remaining. Range notes for the OAT study for 1998 indicated trampling, fouling of water, and pedestalling of plants were common. Severe utilization was noted.

OAT studies were conducted at key areas IC - 02 and IC - 03 on 9/15/98. Trend was rated as static (not apparent) at key area IC - 02. Trend was rated as downward at key area IC -03. Range notes for area IC - 03 indicated trampling and compaction were problems, severe use year after year was indicated, and some drift sheep use from the Goshute Basin Allotment was apparent.

9. Ecological Status

Ecological status estimates the stage of succession at a given range site, by measuring plant species composition, production, and other factors and comparing it to the composition of the Potential Natural Community (PNC) or climax for that site. This is estimated as a percentage of PNC; Classifications include Early Seral, or poor, (0 - 25%); Mid Seral, or fair, (26 - 50%); Late Seral, or good, (51 - 75%); And Potential Natural Community (PNC), or excellent, (76 - 100%).

Ecological status has been determined for the three key grazing areas of the allotment during September, 1998 and June, 1999. The results are presented in Table 7.

Table 7. **Ecological Condition Status for Native Key Areas, Indian Creek Allotment.**

Key Area	Allotment Area	Range Site	Veg Type	Ecological Status
IC-01	Upper meadows	028BY095NV	Dry Meadow	Mid Seral (fair)
Trend downward				
IC-02	Upper meadows	028BY087NV	Arva2/Agsp	Mid Seral (fair)
Trend not apparent				
IC-03	Upper meadows	028BY095NV	Dry Meadow	Mid Seral (fair)
Trend not apparent				

10. Cover Studies

Two types of cover studies have been completed in the Indian Creek Allotment, as follows:

1. Ground cover studies.
2. Canopy/Basal cover studies

The results of the ground cover studies completed in the Indian Creek Allotment are presented in Table 8 as follows:

Table 8. **Ground Cover, Indian Creek Allotment**

Study Area	Ground Cover	
Key area IC-01	Vegetation	76.5%
	Bare Ground	11.5%
	Litter	10.5%
	Rock	1.5%
Key area IC-02	Vegetation	52.0%
	Bare Ground	19.5%
	Litter	23.0%
	Rock	5.5%
Key area IC-03	Vegetation	66.5%
	Bare Ground	19.5%
	Litter	10.0%
	Rock	4.0%

The results of the Canopy/Basal cover studies completed in the Indian Creek Allotment are as follows:

Key area IC-01

A photograph was taken of the meadow. The following range notes were made on the line intercept form:

Approximately 75% of the ground surface was covered. The slope was 5 - 10%. Muhlenbergia, bluegrass, and sedge were the main grasses present. Dandelion was abundant. Cow droppings from this summer were abundant. Some plant pedestalling was noted. Trampling of soil was identified as a problem. Deep cow tracks were present. Compaction of soil was not a problem.

Key area IC-02

Total cover of all vegetation = 44.74 feet (of 100 feet).

Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluebunch wheatgrass	07%
Bluegrass	02%
Ryegrass	T
Squirreltail	T
Black sagebrush	73%
Small rabbitbrush	02%
Big sagebrush	11%
Snowberry	02%
Lupine	02%
Phlox	T
Total.....	100%

The following range notes were made on the line intercept form:

Only the basal portion of Lupine was recorded as the leaves were dry or fallen. Two species of bluegrass were present; muttongrass and one other species. Both species were recorded as bluegrass. Cover is appropriate for the site. No trampling or compaction problems are noted. The slope is 0 - 5%.

Key area IC-03

A photograph was taken of the meadow. The following range notes were made on the line intercept form:

Approximately 80% of the ground surface was covered. Slope was from 5 - 10% on this south facing slope. Cow droppings were abundant. Cattle concentrate in the nearby aspen trees. Trampling is a problem. Many deep tracks are present. Pedestalling of plants is common and soil compaction may be a problem. The range trend appears to be static or down. A little sheep use was noted.

Dry Canyon Spring Area

Total intercept distance of all vegetation = 37.85 feet (of 100 feet).

Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	03%
Squirreltail	03%
Black sagebrush	79%
Rubber rabbitbrush	13%
Small rabbitbrush	T
Lupine	02%
Total.....	100%

The following range notes were made on the line intercept form:

No compacting or trampling problems were noted. Bluebunch wheatgrass was common to the area but not encountered in the transect. Microphytes were present on rocks, but not on the soil.

11. Riparian Data

Stream surveys were accomplished for Indian Creek in 1981, 1984, and 1985. The results of the surveys are as follows:

1981

Date of survey	- 4/30
Location of survey	- T. 26N., R. 64E., Sections 19,20
Number of sample stations	- 1
Miles on BLM	- .25
Bank cover (% optimum)	- 56%
Bank stability (% optimum)	- 78%
Percent of habitat optimum	- 71%

1984

Date of survey	- 7/2 & 7/4
Location of survey	- T. 26N., R. 64E., Sections 19,25
Number of sample stations	- 2 (200 feet each)
Miles on BLM	- .25
Overall riparian habitat condition	- fair to good
Bank cover	- good, diverse at upper elevations - less diverse and vigorous at lower elevations
Bank stability	- good, with good root mass & lack of open areas at upper

	elevations - moderate amount of stability at lower elevations
Livestock use	- little use evident, with riparian vegetation in very good condition and no trampling

1985

Date of survey	- 7/30
Location of survey	- T. 26N., R. 64E., Sections 19,25
Number of sample stations	- 2 (200 feet each)
Miles on BLM	- .25
Bank cover (% optimum)	- 69%
Bank stability (% optimum)	- 69%
Percent of habitat optimum	- 43%

A Proper Functioning Condition study was accomplished for Indian Creek in August of 1995. The results of the study are as follows:

Date of survey	- 8/2/1995
Location of survey	- T. 26N., R. 64E., Section 21, SWNW
Final riparian rating	- Functional at risk, with slight upward trend
Survey remarks	- Livestock have eaten chokecherry & aspen on public land and have eaten young plants off the point bars & along the stream bed

A Nevada Water Resources Inventory study (Form N4-7220.2) was also accomplished for the same study segment of Indian Creek the same day. The study recommended protection for the riparian area and stated that the area had already experienced livestock use and was starting to recover.

A Proper Functioning Condition study was also accomplished for Dry Canyon Spring in August of 1995. The results of the study are as follows:

Date of survey	- 8/2/1995
Location of survey	- T. 26N., R. 63E., Section 24, NENE
Final riparian rating	- Functional at risk, with trend not apparent
Survey remarks	- Livestock & some wildlife trampling in spring; cattle trails and grazing along stream bed have reduced it to bare dirt likely to erode during high overland flow

A Nevada Water Resources Inventory study was also accomplished for Dry Canyon Spring the same day. The study recommended protection for the area and stated that livestock foraging and trailing had reduced the understory to bare dirt.

V. CONCLUSIONS

A. STANDARDS FOR GRAZING ADMINISTRATION

The following is a summary of the analysis of monitoring data which evaluates the management practices applied during the evaluation period to determine if those management practices are in conformance with the Northeastern Great Basin Area Standards.

Indian Creek Allotment Monitoring Data:

Key forage plant method utilization transects, utilization pattern mapping, ecological condition, cover studies, observed apparent trend, stream surveys, and proper functioning condition data (PFC) have been used to determine attainment of the standards. Nevada water resource inventory reports and photographs supplement the PFC studies.

Standard 1. Upland Sites:

"Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and land form."

Findings - General description of key area soils:

The soils of dry meadow range sites are generally fertile, moderately deep to deep and have a high available water holding capacity. They are poorly drained early in spring with a water table near the surface. The soils are subject to flooding in spring. The potential for sheet and rill erosion is slight. These soils are susceptible to gullying which results in site degradation.

Findings - Current resource conditions related to upland sites standard:

Rangeland monitoring studies accomplished in September of 1998 indicate that the amount of vegetative canopy and ground cover is not appropriate to the potential of the site at key areas IC - 01 and IC - 03, and is appropriate to the potential of the site at key area IC - 02.

Key area IC-01 - Trampling of soils was identified as a problem. Deep tracks and pedestalled plants were present. Utilization was heavy to severe. Litter was lacking on the soil surface. No microphytes (lichens and mosses) were present.

Key area IC-03 - Trampling and compaction were identified as problems. Pedestalled plants and deep tracks were common. Utilization was heavy to severe. Trend was noted as static to down. Again, litter was lacking on the soil surface. No microphytes were present.

All three key areas of the allotment are in mid seral condition (fair). Mid seral condition indicates that the vegetative composition and production of plant community species are lacking. The lack of vegetative composition and production indicates that ground cover

(vegetation and litter) is reduced. Continued reduction in composition and production of vegetative species will further reduce the amount of cover needed to protect and maintain the watershed soils.

Key forage plant method transects, utilization pattern mapping, and monitoring notes accompanying utilization pattern mapping all show heavy or severe use by cattle in key areas of the allotment. Cattle utilization has exceeded Nevada Rangeland Monitoring Handbook (NRMH) levels in key areas of the allotment. The observed apparent trend studies of 1995, 1996, and 1998 also indicate heavy use in key areas. Heavy or severe utilization year after year reduces the amount of surface ground cover of vegetation and litter. Continued heavy use would not result in improved cover or stable soil - water relations. The watershed condition is not being maintained in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing systems, and aesthetic values. Much of the allotment is characterized by steep slopes that are susceptible to erosion.

Conclusion: Standard not achieved. Existing grazing management and levels of grazing use within the Indian Creek Allotment are significant factors in failing to achieve this objective. Refer to the technical Recommendation section of the evaluation for those proposed actions or practices to be applied to ensure significant progress toward fulfillment of the standards and toward conformance with the guidelines.

Standard 2. Riparian and Wetland Sites:

"Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria."

Findings:

Stream surveys of Indian Creek in 1981, 1984 and 1985 and the proper functioning assessment study done in 1995 showed a stream which was meeting most riparian standards including bank stability, vegetative cover, sinuosity, channel roughness, and being laterally/vertically stable. Chemical/biological analysis in 1981 showed the stream not exceeding the state water quality standards. Grazing impacts (in 1995) on adjacent aspen and chokecherry trees led to marginal vegetation age diversity, composition, and structure. This factor resulted in a functioning at risk rating with an upward trend.

The 1995 proper functioning assessment of Dry Canyon Spring showed a lack of adequate riparian vegetation present to facilitate water retention, filtering, and release. Due also to a lack of healthy riparian ground cover, the spring was rated as functioning at risk. The Water Resources Inventory Report recommended protection for the area and stated that livestock foraging and trailing had reduced the understory to bare dirt, resulting in an erosion hazard.

The seeps and subirrigated meadows at the higher elevations of the allotment that make up the main key area of the allotment have been used heavy or severe by cattle year after year (see

Standard No. 1 above). Trampling, fouling of water, compaction of soils, and deep tracks have been identified as problems at these key areas. Adequate vegetation is not present to facilitate water retention, filtering, and release.

Continued heavy use would not result in seep areas that are in proper functioning condition. Continued heavy use would result in reduced production, less cover and litter, improper vegetation composition (more undesirable species), more plant pedestalling, compacted soils, and other negative impacts of heavy grazing.

Conclusion: Standard not achieved. Existing grazing management and levels of grazing use within the Indian Creek Allotment are significant factors in failing to achieve this objective. Refer to the technical Recommendation section of the evaluation for those proposed actions or practices to be applied to ensure significant progress toward fulfillment of the standards and toward conformance with the guidelines.

Standard 3. Habitat:

"Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet the life cycle requirements of threatened and endangered species."

Findings:

Ecological condition studies completed at three key grazing areas of the allotment in 1998 indicate the areas are in mid seral (fair) ecological condition with trend not apparent or a downward trend. Vegetation composition was generally rated as fair. Observed apparent trend studies completed in 1998 indicate downward trend at key areas IC - 01 and IC - 03 and static trend at key area IC - 02. Cover studies indicate cover is not appropriate to the potential of the site at key areas IC - 01 and IC - 03. Utilization studies clearly show heavy and severe utilization throughout the evaluation years.

Habitats are not exhibiting a healthy or productive population of desirable plant species appropriate to site characteristics. Suitable feed, water, and cover is not being provided for animal species or to maintain ecological processes. Vegetation cover and productivity are particularly lacking on this allotment.

Conclusion: Standard not achieved. Existing grazing management and levels of grazing use within the Indian Creek Allotment are significant factors in failing to achieve this objective. Refer to the technical Recommendation section of the evaluation for those proposed actions or practices to be applied to ensure significant progress toward fulfillment of the standards and toward conformance with the guidelines.

Standard 4. Cultural Resources:

A cultural resources report will be completed to address any potential impacts to cultural resources from grazing during the term permit renewal process.

B. ALLOTMENT SPECIFIC OBJECTIVES

Allotment Specific Objectives are referred to by number from III. C., and Appendix V.

1. Livestock Short/Long Term Objective

Objective Not Met

Rationale: Heavy and severe livestock use of the spring/seep areas at the higher elevations of the allotment is causing negative impacts to those areas. Cattle utilization has exceeded Nevada Rangeland Monitoring Handbook (NRMH) levels in key areas of the allotment (see findings for Standard 1. above). Key forage plant method transects, utilization pattern mapping, monitoring notes accompanying utilization pattern mapping, and observed apparent trend studies all show heavy or severe use by cattle in key areas of the allotment. The desired vegetation community is not being maintained or improved in the allotment.

Ecological status data shows three key upland areas of the allotment are in mid seral (fair) ecological condition with trend not apparent at two areas and downward at the third. Cover is not appropriate for the site at key areas IC - 01 and IC - 03. The desired quantity, quality, and variety of forage is not being produced in order to meet the requirements for livestock forage production.

2. Wild Horse Short/Long Term Objective

Objective Not Applicable

Rationale: There is no history of wild horses grazing the allotment, and they have never been censused in the allotment. A datermination of "Met" or "Not Met" cannot be made for this objective. As stated on page 3, the 1 wild horse yearlong in the Cherry Creek HMA is no longer a valid Appropriate Management Level (AML). This evaluation will determine a new optimum number of wild horses which results in a thriving ecological balance and avoids deterioration of the range.

3. Mule Deer Short/Long Term Objective

Objective Not Met

Rationale: All native mesic riparian species including grasses and grass - like species have been identified as key species for mule deer. The grasses and grass-like species in the spring/seep areas and subirrigated meadows of the allotment were consistently overutilized by cattle during the evaluation years leaving these areas in less than good habitat condition. Heavy use of both chokecherry and elderberry has been documented in the allotment.

4. Pronghorn Antelope Short/Long Term Objective

Objective Met

Antelope yearlong range has been rated in good habitat condition in 1988 and 1992 according to a wildlife study established in an area that antelope utilize. Three utilization transects completed in the eastern portion of the allotment in September of 1997 recorded use of Indian ricegrass at 49%, 43%, and 15% well before the end of the grazing year. Indian ricegrass was noted as infrequent throughout the area. The black sagebrush/rabbitbrush plant communities in the area were noted as generally having a good component of bluegrass.

5. Riparian Short/Long Term Objective

Objective Not Met

Allowable use levels have been exceeded on the seeps and subirrigated meadows at the higher elevations of the allotment all four years for which KPFM data was collected. The desired riparian vegetation conditions are not being achieved.

Both Dry Canyon Spring and Indian Creek have been rated at functional at risk during August of 1995. Notes from the PFC forms indicate negative impacts to both areas due to livestock grazing. Nevada Water Resources Inventory studies completed in 1995 have recommended protection for both areas. Heavy use and trampling of areas beneath aspen trees by livestock has also been documented in the allotment during the evaluation years.

VI. TECHNICAL RECOMMENDATIONS

A. Issues identified on the Indian Creek Allotment

1. Standards for grazing administration are not being achieved. Allotment specific objectives are not being met.

2. Allowable use levels on key species have been exceeded by cattle on key spring/seep/subirrigated meadows and uplands at the higher elevations of the allotment.

3. Cattle distribution has been inadequate in the allotment. Cattle have congregated in the spring/seep/subirrigated meadow areas during summer to forage for green feed. Much of the

allotment is characterized by steep slopes which prevents better cattle distribution.

4. Dry Canyon Spring and Indian Creek have been rated as functioning at risk (FAR). Heavy grazing use has been documented at Dry Canyon Spring. Ecological condition studies and cover studies indicate the negative impacts of trampling and compaction of soils caused by cattle grazing at key areas IC-01 and IC-03.

5. Less than desired ecological condition is apparent at key areas of the allotment.

6. Mule deer objectives are not being met.

7. Approximately 65% of the allotment is within the Goshute Canyon Wilderness Study Area.

8. The final White Pine County Elk Management Plan lists Management Area 121 (including the Indian Creek Allotment) as high priority for augmentation allowing an increase from the current 50 elk to 550 elk. Elk could also be introduced in the Cherry Creek Mountains on the Elko side near the allotment as a result of the Wells Elk Amendment.

9. The fence separating the Indian Creek and Goshute Basin Allotments has not been maintained and gates have been left open, allowing cattle to drift into the Goshute Basin Allotment from the Indian Creek Allotment. Sheep use has also been noted in the Indian Creek Allotment.

B. Short Term Recommendations

1. Adjust the stocking levels on the allotment. Stocking level calculations are located in Appendix VIII.

Option A - Set the stocking level at 30 AUMs for Louise Lear (15 head of cattle for two months) and 45 AUMs for Stephen & Vicki Nye (22 head of cattle for 2 months).

Option B - Set the stocking rate at 57 AUMs for cattle, as indicated by monitoring studies. Under this option Stephen & Vicki Nye would be allocated 34 AUMs and Louise Lear would be allocated 23 AUMs.

2. Change the season of use on the allotment from 07/01 - 09/01 to 07/01 - 08/15. Cattle would be gathered and removed from the allotment by 8/15. Due to the rugged condition of the area, all stragglers will be removed by 09/01.

3. Establish a rotation grazing system on the allotment. Grazing use will be authorized every other year. Year 1 (2001 grazing year) will be grazed.

Guideline: These management actions are related to Guidelines 1.1, 2.1, 2.4, 3.1, and 3.2. These guidelines will be applied to achieve the standards for multiple use.

Rationale: Monitoring data indicates a need to change cattle grazing management in this allotment in order to move towards achieving or meeting standards and objectives. Allowable use levels on key species have been exceeded all four years for which utilization data was collected. Cattle have concentrated on the spring/seep areas and subirrigated meadows, causing negative impacts to those areas. Observed apparent trend has been rated as downward at key areas IC - 01 and IC - 03. Decreasing livestock use to bring animals in balance with the carrying capacity of the allotment would benefit vegetative condition by increasing plant cover, promoting increased plant production and vigor, promoting plant species diversity, stimulating seedling establishment, increasing plant litter and organic matter, reducing the erosion hazard, and providing for a better age class distribution of plant species.

4. Grazing use on the Indian Creek Allotment will not be combined with the Dry Canyon Pasture of the Currie Allotment in Elko County. As indicated in the Maverick/Medicine Complex Evaluation, the Elko Field Office will construct a fence along the Dry Canyon Pasture/Indian Creek Allotment boundary.

5. Establish a wild horse Appropriate Management Level for the Indian Creek Allotment at zero (0) animals yearlong.

Guideline: This management action is related to Guidelines 1.1, 2.1, 3.2, and 3.3. These guidelines will be applied to achieve the standards for multiple use.

Rationale: Since interim management levels were established for wild horses in the Cherry Creek HMA in 1984, there have been only two censuses conducted in which any wild horses were observed in the HMA (1987 and 1989). All other censuses conducted since 1984 have resulted in zero wild horses observed over the entire HMA. No wild horses have ever been censused in the Indian Creek Allotment and ground observations confirm no wild horse use within the allotment.

6. Maintain the Indian Creek Drift Fence so that cattle can be prevented from drifting into the Goshute Basin Allotment from the Indian Creek Allotment. Sheep can thus be prevented from drifting into the Indian Creek Allotment from the Goshute Basin Allotment.

Guideline: This management action is related to Guidelines 1.1, 2.1, 2.4, 3.1, 3.2, and 3.3. These guidelines will be applied to achieve the standards for multiple use.

Rationale: Monitoring data indicates that the Indian Creek drift fence has not been maintained. Cattle drift into the Goshute Basin Allotment from the Indian Creek Allotment has been a trespass problem and has contributed to resource problems in the Goshute Basin Allotment. Open gates have also contributed to cattle drift and resource problems. Sheep have also drifted into the Indian Creek Allotment from the Goshute Basin Allotment.

E. Additional Monitoring Data Required

Continue to conduct ecological condition, cover, and frequency trend studies as needed. Continue to conduct use pattern mapping, key forage plant method utilization transects, and observed apparent trend studies.

Conduct proper functioning assessment studies on the spring/seep areas of the allotment at the higher elevations.

Continue to monitor livestock, wild horse, and wildlife actual use. Continue to conduct aerial census of the Cherry Creek HMA to document wild horse numbers, observations, and movements.

Establish new wildlife studies in summer range to monitor habitat for mule deer and elk.

APPENDIX I
CHANGES IN AUTHORIZED GRAZING USE

The amount of grazing use authorized by the BLM is based on the amount of available forage as established in the land use plans, activity plans or decision by the Bureau of Land Management (BLM) and is expressed in animal unit months (AUMs). This is referred to as permitted use. Permitted use is specified in grazing permits or grazing leases. It includes all authorized use, including livestock use, and any suspended use. Active use or authorized grazing use made by a permittee annually may include a portion or all of permitted use. Active use may also vary by grazing year and could be less than the permitted use. Changes could include an increase or decrease in permitted use and/or modification to management practices.

The BLM periodically reviews the permitted use specified in a grazing permit or lease to determine if permitted use is in conformance with the land use plan. In Nevada, the allotment evaluation process is the process used to determine if existing multiple uses for allotments, including livestock grazing, are meeting or making progress towards meeting land use plan objectives, Rangeland Program Summary objectives and land use plan decisions, in addition to the standards and guidelines for grazing administration. (Refer to Appendix II Allotment Objective Flow Chart). If changes are needed to permitted use or management practices they are made based on consistency with multiple use management objectives and the standards for grazing administration. The allotment evaluation presents the standards and land use plan objectives which are evaluated. The Technical Recommendations section of the allotment evaluation presents management practices which if implemented could assist in meeting or making progress towards the land use plan objectives in addition to the standards for grazing administration. The guideline(s) that apply to each recommendation are also identified for each technical recommendation.

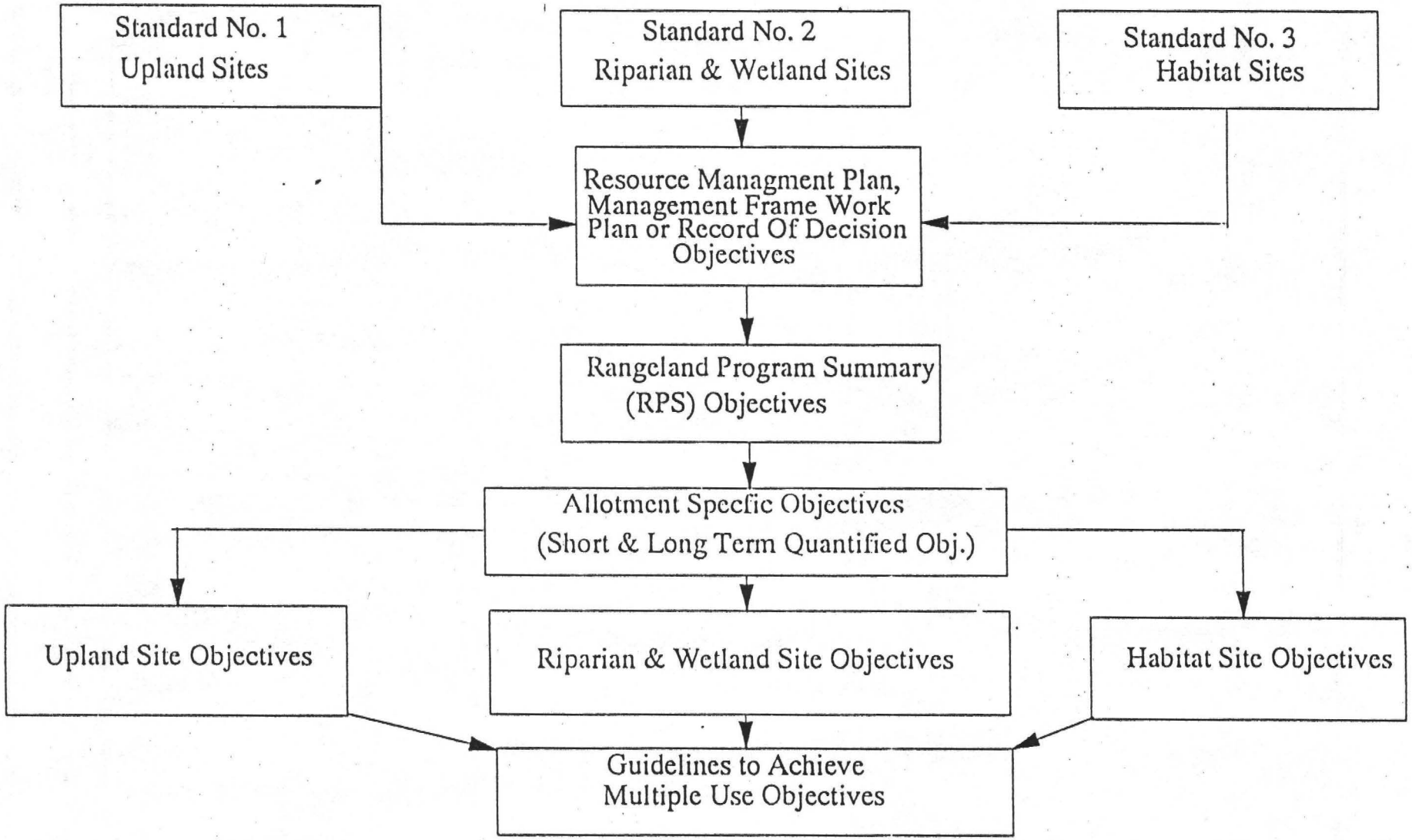
Changes to permitted use are implemented through a documented agreement or by decision. BLM consults with the affected permittee and the interested publics prior to making changes to permitted use. (Refer to Appendix III Public Consultation Process).

Where permitted use is reduced it is no longer held in suspended use. Any reduction in permitted use is no longer reflected on the grazing permit or grazing billing. Suspended use will only be shown on grazing permits and decisions for the purpose of representing historical suspended use and active use which is temporarily withheld. Historical suspended use is the suspended use which was shown on term permits and grazing billings prior to August 21, 1995. Any changes made to permitted use where permitted use has been reduced will be based on meeting or making progress toward meeting land use plan objectives and the standards for grazing administration.

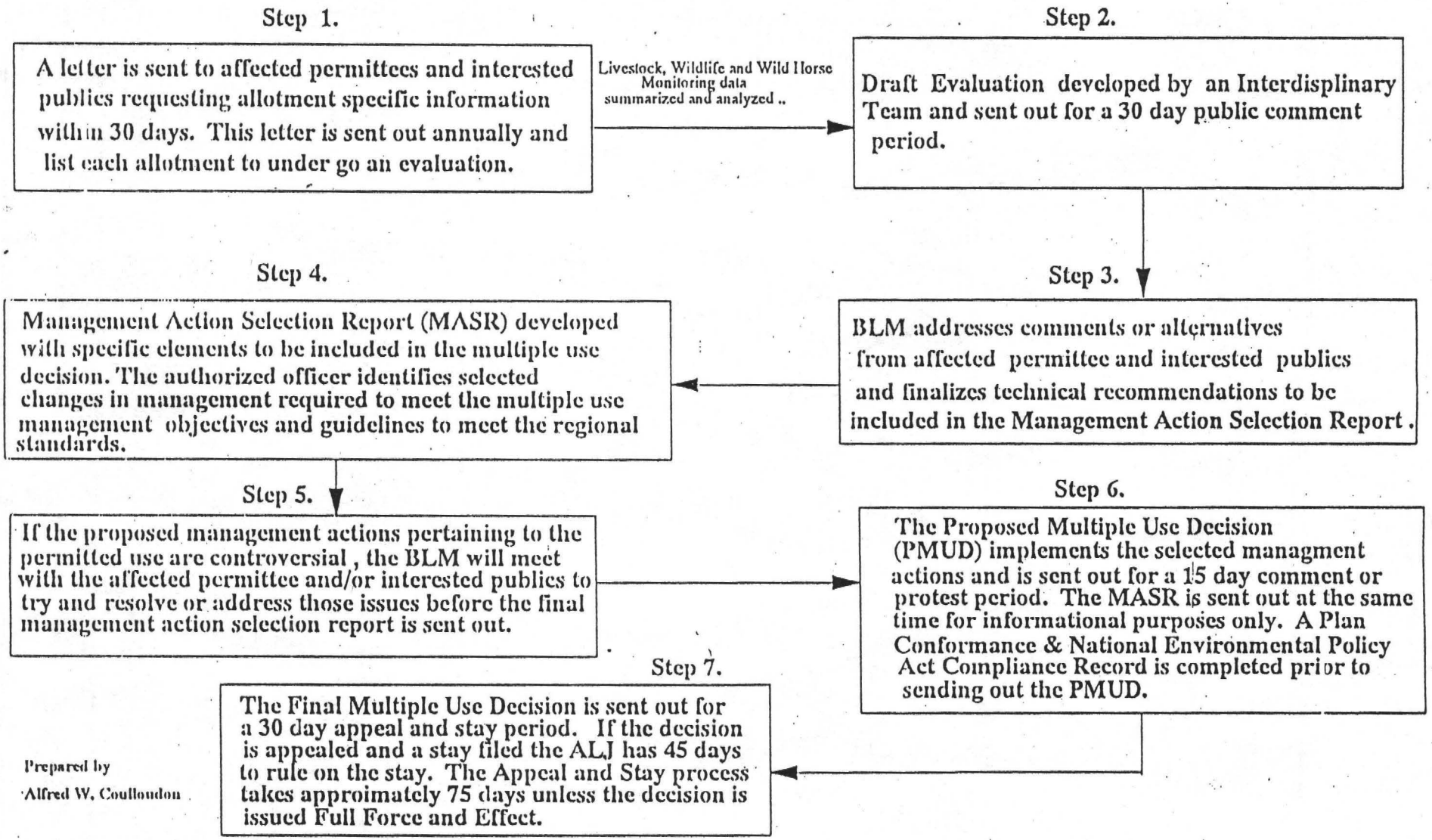
Monitoring information is used to determine if allotment specific objectives and standards are being met. Any changes in permitted use and/or the terms and conditions of the grazing permit are supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer. Monitoring is conducted in accordance with procedures and methodologies identified in BLM and Interagency Technical References and the Nevada

Rangeland Monitoring Handbook.

ALLOTMENT OBJECTIVE FLOW CHART



Public Consultation Process For Ely District Allotment Evaluations



Prepared by
Alfred W. Coullondon

APPENDIX IV

NORTHEASTERN GREAT BASIN AREA RESOURCE ADVISORY COUNCIL STANDARDS AND GUIDELINES

STANDARDS:

STANDARD 1. UPLAND SITES:

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and land form.

As indicated by:

> Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to the potential of the site.

GUIDELINES:

1.1 Management practices will maintain or promote upland vegetation and other organisms and provide for infiltration and permeability rates, soil moisture storage, and soil stability appropriate to the ecological site within management units.

1.2 When grazing practices alone are not likely to restore areas of low infiltration or permeability, land management treatments should be designed and implemented where appropriate.

1.3 Management practices are adequate when significant progress is being made toward this standard.

STANDARD 2. RIPARIAN AND WETLAND SITES:

Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

As indicated by:

> Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating properly functioning condition such as avoiding accelerating erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:

Width/depth ratio; Channel roughness; Sinuosity of stream channel; Bank stability; Vegetative cover (amount, spacing, life form); and Other cover (large woody debris, rock).

> Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.

> Chemical, physical, and biological water constituents are not exceeding the state water quality standards.

GUIDELINES:

2.1 Management practices will maintain or promote sufficient vegetation cover, large woody debris, or rock to achieve proper functioning condition in riparian and wetland areas. Supporting the processes of energy dissipation, sediment capture, groundwater recharge, and stream bank stability will thus promote stream channel morphology (e.g., width/depth ratio, channel roughness, and sinuosity) appropriate to climate, landform, gradient, and erosional history.

2.2 Where grazing management practices are not likely to restore riparian and wetland sites, land management treatments should be designed and implemented where appropriate to the site.

2.3 Management practices are adequate when significant progress is being made toward this standard.

2.4 Grazing management practices will maintain, restore or enhance water quality and ensure the attainment of water quality that meets or exceeds state standards.

STANDARD 3. HABITAT:

Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet the life cycle requirements of threatened and endangered species.

As indicated by:

> Vegetation composition (relative abundance of species);

> Vegetation structure (life forms, cover, height, or age class);

> Vegetation distribution (patchiness, corridors);

> Vegetation productivity; and Vegetation nutritional value.

GUIDELINES:

3.1 Management practices will promote the conservation, restoration and maintenance of habitat for threatened and endangered species, and other special status species as may be appropriate.

3.2 Intensity, frequency, season of use and distribution of grazing should provide for growth and reproduction of those plant species needed to reach long-term land use plan objectives. Measurements of ecological condition and trend/utilization will be in accordance with techniques identified in the **Nevada Rangeland Monitoring Handbook.**

3.3 Grazing management practices should be planned and implemented to allow for integrated use by domestic livestock, wildlife, and wild horses consistent with land use plan objectives.

3.4 Where grazing practices alone are not likely to achieve habitat objectives, land treatments may be designed and implemented as appropriate.

3.5 When native plant species adapted to the site are available in sufficient quantities, and it is economically and biologically feasible to establish or increase them to meet management objectives, they will be emphasized over non-native species.

3.6 Management practices are adequate when significant progress is being made toward this standard.

STANDARD 4. CULTURAL RESOURCES:

Land use plans will recognize cultural resources within the context of multiple use.

GUIDELINES:

4.1 Rangeland management plans will consider listings of known sites that are National Historic Register eligible or considered to be of cultural significance and new eligible sites as they become known.

Appendix V

Indian Creek Allotment - Long Term/Short Term Objectives - Livestock

				PRESENT SITUATION		LONG TERM OBJECTIVES**			SHORT TERM OBJECTIVE			
Study No.	Key Area Location	Ecological Site No.	Key Species	Key Spp. % Comp. By Weight	Seral Stage (% of PNC)*	Maintain or Improve	Key Spp. % Comp. By Weight	Seral Stage (% of PNC)**	Allowable Use Level***	Season of Use	Met or Not Met	Rationale
IC-01	T. 26N R. 63E Sec. 25 NWSW	028BY095NV	PONE3 MURI CAREX	15% 10% 08%	43% MID SERAL	Improve	20% 15% 15%	>50% P. Grass >50% Forbs 10-20% Shrubs 2-8%	50% PONE3 MURI CAREX	Summer	Not Net	Measured utilization indicates AUL for combined species exceeded during all 4 years of utilization studies.
IC-02	T. 26N R. 63E Sec. 26 SE	028BY087NV	AGSP POCA AGDA SYMPH	20% 09% 01%	50% MID SERAL	Improve	25% 15% 05%	>55% P. Grass >45% Forbs 5-15% Shrubs 20-30	50% AGSP POCA AGDA	Summer	Not Met	Measured utilization indicates AUL for bluebunch wheatgrass exceeded some years of studies.
IC - 03	T. 26N R. 63E Sec. 25 SWNE	028BY087NV ****	POCA MUHLE SYMPH	05% 05%	40% MID SERAL	Improve	10% 10%	>40% P. Grass >20% Forbs 5-15% Shrubs 20-30	50% POCA MUHLE	Summer	Not Met	Measured utilization indicates AUL for combined species exceeded all 4 years of studies. 18% of 087 site currently is BRTE.

Footnotes to Appendix V - Long Term/Short Term Objectives are as follows:

* Percent of PNC (Potential Natural Community) is based on 0-25 (early seral), 26-50 (mid seral), 51-75 (late seral), and 76-100 (PNC). Seral Stage is based on plant community composition, diversity, production, and other factors. Ecological sites listed above can be referred to from the U.S. Soil Conservation Service Ecological Site Descriptions.

** This is the percent composition and seral stage that would have the desired vegetative characteristics to optimize production, quantity, quality and variety to provide the greatest forage value for all users.

*** Allowable use levels for utilization are the short term objectives established to meet the long term composition objectives.

**** It was impractical to read condition at the main key area (028BY095NV) because the dry meadow was used heavy or severe. Ecological condition was read immediately next to the key area in big sagebrush range.

APPENDIX VI

Indian Creek Allotment - Long Term/Short Term Objectives - Wildlife

				Present Situation	Long Term Objective		Short Term Objective			
Study No.	Key Area Location	Seasonal Use Area	Key Species	Habitat Condition Rating	Maintain or Improve	Habitat Condition Rating	Allowable Use Level	Season of Use	Met or Not Met	Rationale
IC#1	T.26N., R.64E. Sec. 20 NWNE	M. Deer - Spr. P. Antelope - YL	ArNo OrHy	1984-Good 1988-Good, 1992-Good	Maintain	Good to Better	45%	M. deer-Spr P. Antelope-YL	Met	Allowable use levels have not been exceeded

* Pronghorn antelope yearlong, mule deer spring, future elk permanent frequency study

APPENDIX VII

Indian Creek Allotment - Long Term/Short Term Objectives - Riparian*

STUDY AREA DESCRIPTION			FUNCTIONING CONDITION ASSESSMENT (PRESENT SITUATION)	LONG TERM OBJECTIVES	SHORT TERM OBJECTIVES			
Type	Location	Key Species			Allowable Use Level	Season of Use	Met or Not Met	Rationale
Lotic Indian Creek	T. 26N R. 64E Sec 21 SWNW	Riparian Gasses & Grass Like Spp. Riparian Shrubs & Trees	Functional at Risk Slight upward trend	Achieve Proper Functioning Condition	50%	Summer	Not Met	Survey remarks indicate livestock use of aspen & chokecherry. NWRI study recommended protection for the lotic area
Lentic Dry Canyon Spring	T. 26N R. 63E Sec. 24 NENE	Riparian Gasses & Grass Like Spp. Riparian Shrubs & Trees	Functional at Risk trend not apparent	Achieve Proper Functioning Condition	50%	Summer	Not Met	Survey remarks indicate livestock & some wildlife trampling in spring. Cattle trails & grazing along stream bed have reduced it to bare soil. Likely to erode.

* Proper functioning condition assessments are planned for several spring/seep areas at the higher elevations of the Indian Creek Allotment during the 1999 grazing year.

APPENDIX VIII
STOCKING RATE CALCULATIONS

B. Utilization and Stocking Rate Calculations

Data will be analyzed and a proper stocking level calculated for the allotment. The appropriate stocking level will be based on monitoring information, specifically key forage plant method transects and utilization pattern mapping. The appropriate stocking level is calculated using the following formula:

$$\frac{\text{Actual use (AUMs)}}{\text{Corrected Utilization (\%)*}} = \frac{\text{Desired use (AUMs)}}{\text{Desired Utilization (\%)**}}$$

* Value from key forage plant transects and use pattern mapping, adjusted using yield index
** Value from Nevada Rangeland Monitoring Handbook - Native perennial grasses 50%.

The Desired Utilization (proper use factor) used in the stocking rate calculations for the Indian Creek Allotment is 50% allowable use for perennial grasses, based on summer use by cattle. The allowable use factor of 50% is supported by current range literature. Land Use Plan Objectives are expected to be accomplished using the 50% allowable use benchmark for livestock grazing.

Utilization/Stocking Rate Calculations

Year	Raw Utiliz.	Yield Index	Corrected Utilization	Actual Use AUMs	Proper Stocking Level AUMs
1995	82%	1.60	100.0%	106	53
1996	70%	0.58	40.6%	70	86
1997	74%	0.89	65.9%	71	54
1998	85%	1.17	99.5%	71	36

The average proper stocking level is 57 AUMs. The stocking level will be apportioned to cattle.

1. Forage Demand

Cattle authorized use.....	177 AUMs (100.0%)
Wild Horses.....	0 AUMs (0.0%)
Total.....	177 AUMs (100.0%)

2. Reduction and Allocation to Permittee

The proper stocking level of 57 AUMs will be allocated to the two cattle permittees in the allotment. This is a 68% reduction (reduction of 120 AUMs) to the current authorized use of 177 AUMs.

Permittee	Authorized Use	-	Reduction	=	New Authorized Use
Indian Creek Ranches	106 AUMs	-	72 AUMs	=	34 AUMs
Louise Lear	71 AUMs	-	48 AUMs	=	23 AUMs
	177 AUMs	-	120 AUMs	=	57 AUMs

3. New livestock authorized use summary (Permitted Use)

Permittee	Authorized Use	Historical Suspended Use
Indian Creek Ranches	34 AUMs	58 AUMs
Louise Lear	23 AUMs	87 AUMs

APPENDIX IX
UTILIZATION INFORMATION

A complete listing of utilization transects conducted in the Indian Creek Allotment for four years of grazing use is as follows:

1995	1996	1997	1998
1. 68% Poa	1. 55% Agsp	1. 68% Agsp at IC-02	1. 84% CSp.* at IC-01
2. 76% Poa + Agsp	2. 71% CSp. At IC-01	2. 72% CSp. at IC-01	2. 85% CSp. At IC-03
3. 80% CSp. At IC-01	3. 41% Poa	3. 66% CSp.	3. 86% CSp.
4. 84% CSp.	4. 66% CSp.	4. 64% Agsp	4. 78% Agsp
	5. 56% Agsp	5. 78% CSp.	
		6. 76% CSp. At IC-03	
		7. 64% Agsp	
		8. 78% CSp.	

* CSp. = Combined mesic species (Poa, carex, muhlenbergia, juncus).
IC-01, IC-02, and IC-03 are key areas.

APPENDIX X
DOCUMENT REFERENCE

To aid the reader in the understanding of the purpose of this allotment evaluation please refer to the following documents:

1. Northeastern Great Basin Area Standards and Guidelines, February 1987.
2. Egan Resource Area Resource Management Plan and Final Environmental Impact Statement (RMP/EIS), September, 1984.
3. Egan Resource Area Record of Decision (ROD), February 1987.
4. Egan Resource Area Rangeland Program Summary (RPS), May 1988.
5. Egan Resource Area Final Wilderness Environmental Impact Statement (EIS), September 1987.
6. Goshute Creek Habitat Management Plan (HMP), March 1980.
7. Nevada Rangeland Monitoring Handbook (NRMH), September 1984.

APPENDIX XI
LIST OF PREPARERS

Name	Title
James Perkins	Assistant Field Office Manager, Renewable Resources
Chris Mayer	Supervisory Rangeland Management Specialist
Mark Barber	Wildlife Biologist, Riparian and T&E Species
Mike Perkins	Wildlife Biologist
Robert Brown	Wild Horse and Burro Specialist
Gary Medlyn	Soil, Air, and Water Resources
John Longinetti	Rangeland Management Specialist
Mark Lowrie	Rangeland Management Specialist

GLOSSARY

The following definitions are taken from Title 43 of the Code of Federal Regulations (Revised as of October 1, 1996), Subchapter D - Range Management, Subpart 4100-Grazing Administration-Exclusive of Alaska; General, Sec. 4100.0-5 Definitions.

The "Act" means the Taylor Grazing Act of June 28, 1934, as amended (43 U.S.C. 315, 315a-315r).

"Active use" means the current authorized use, including livestock grazing and conservation use. Active use may constitute a portion, or all, of permitted use. Active use does not include temporary nonuse or suspended use of forage within all or a portion of an allotment.

"Activity plan" means a plan for managing a resource use or value to achieve specific objectives. For example, an allotment management plan is an activity plan for managing livestock grazing use to improve or maintain rangeland conditions.

"Actual use" means where, how many, what kind or class of livestock, and how long livestock graze on an allotment, or on a portion or pasture of an allotment.

"Actual use report" means a report of the actual livestock grazing use submitted by the permittee or lessee.

"Affiliate" means an entity or person that controls, is controlled by, or is under common control with, an applicant, permittee or lessee. The term "control" means having any relationship which gives an entity or person authority directly or indirectly to determine the manner in which an applicant, permittee or lessee conducts grazing operations.

"Allotment" means an area of land designated and managed for grazing of livestock.

"Allotment management plan (AMP)" means a documented program developed as an activity plan, consistent with the definition at 43 U.S.C. 1702(k), that focuses on, and contains the necessary instructions for, the management of livestock grazing on specified public lands to meet resource condition, sustained yield, multiple use, economic and other objectives.

"Animal unit month (AUM)" means the amount of forage necessary for the sustenance of one cow or its equivalent for a period of 1 month.

"Annual rangelands" means those designated areas in which livestock forage production is primarily attributable to annual plants and varies greatly from year to year.

"Authorized officer" means any person authorized by the Secretary to administer regulations in this part.

"Base property" means: (1) Land that has the capability to produce crops or forage that can be used to support authorized livestock for a

specified period of the year, or (2) water that is suitable for consumption by livestock and is available and accessible, to the authorized livestock when the public lands are used for livestock grazing.

"Cancelled or cancellation" means a permanent termination of a grazing permit or grazing lease and grazing preference, or free-use grazing permit or other grazing authorization, in whole or in part.

"Class of livestock" means ages and/or sex groups of a kind of livestock.

"Conservation use" means an activity, excluding livestock grazing, on all or a portion of an allotment for purposes of--

(1) Protecting the land and its resources from destruction or unnecessary injury;

(2) Improving rangeland conditions; or

(3) Enhancing resource values, uses, or functions.

"Consultation, cooperation, and coordination" means interaction for the purpose of obtaining advice, or exchanging opinions on issues, plans, or management actions.

"Control" means being responsible for and providing care and management of base property and/or livestock.

"District" means the specific area of public lands administered by a District Manager.

"Ephemeral rangelands" means areas of the Hot Desert Biome (Region) that do not consistently produce enough forage to sustain a livestock operation but may briefly produce unusual volumes of forage to accommodate livestock grazing.

"Grazing district" means the specific area within which the public lands are administered under section 3 of the Act. Public lands outside grazing district boundaries are administered under section 15 of the Act.

"Grazing fee year" means the year, used for billing purposes, which begins on March 1, of a given year and ends on the last day of February of the following year.

"Grazing lease" means a document authorizing use of the public lands outside an established grazing district. Grazing leases specify all authorized use including livestock grazing, suspended use, and conservation use. Leases specify the total number of AUMs apportioned, the area authorized for grazing use, or both.

"Grazing permit" means a document authorizing use of the public lands within an established grazing district. Grazing permits specify all authorized use including livestock grazing, suspended use, and conservation use. Permits specify the total number of AUMs apportioned, the area authorized for grazing use, or both.

"Grazing preference" or "preference" means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by

a permittee or lessee.

"Interested public" means an individual, group or organization that has submitted a written request to the authorized officer to be provided an opportunity to be involved in the decisionmaking process for the management of livestock grazing on specific grazing allotments or has submitted written comments to the authorized officer regarding the management of livestock grazing on a specific allotment.

"Land use plan" means a resource management plan, developed under the provisions of 43 CFR part 1600, or management framework plan. These plans are developed through public participation in accordance with the provisions of the Federal Land Policy and Management Act of 1976 and establish management direction for resource uses of public lands.

"Livestock" or "kind of livestock" means species of domestic livestock-- cattle, sheep, horses, burros, and goats.

"Livestock Carrying Capacity" means the maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

"Monitoring" means the periodic observation and orderly collection of data to evaluate:

(1) Effects of management actions; and

(2) Effectiveness of actions in meeting management objectives.

"Permitted use" means the forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUMs.

"Public lands" means any land and interest in land outside of Alaska owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management, except lands held for the benefit of Indians.

"Range improvement" means an authorized physical modification or treatment which is designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses and burros, and fish and wildlife. The term includes, but is not limited to, structures, treatment projects, and use of mechanical devices or modifications achieved through mechanical means.

"Rangeland studies" means any study methods accepted by the authorized officer for collecting data on actual use, utilization, climatic conditions, other special events, and trend to determine if management objectives are being met.

"Secretary" means the Secretary of the Interior or his authorized officer.

"Service area" means the area that can be properly grazed by livestock watering at a certain water.

"State Director" means the State Director, Bureau of Land Management, or his or her authorized representative.

"Supplemental feed" means a feed which supplements the forage available from the public lands and is provided to improve livestock nutrition or rangeland management.

"Suspension" means the temporary withholding from active use, through a decision issued by the authorized officer or by agreement, of part or all of the permitted use in a grazing permit or lease.

"Temporary nonuse" means the authorized withholding, on an annual basis, of all or a portion of permitted livestock use in response to a request of the permittee or lessee.

"Trend" means the direction of change over time, either toward or away from desired management objectives.

"Unauthorized leasing" and "subleasing" means --

(1) The lease or sublease of a Federal grazing permit or lease, associated with the lease or sublease of base property, to another party without a required transfer approved by the authorized officer;

(2) The lease or sublease of a Federal grazing permit or lease to another party without the assignment of the associated base property;

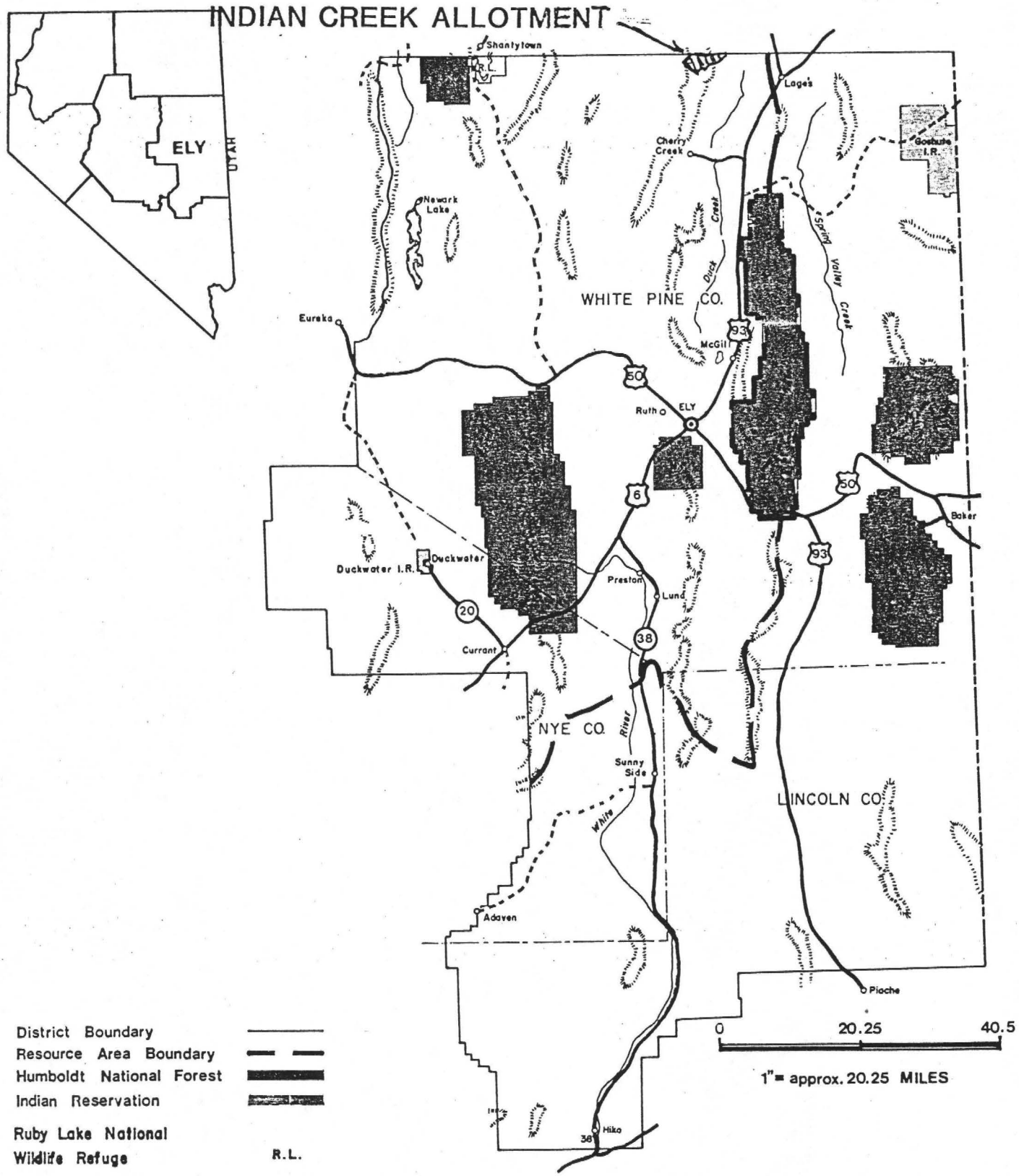
(3) Allowing another party, other than sons and daughters of the grazing permittee or lessee meeting the requirements of § 4130.7(f), to graze on public lands livestock that are not owned or controlled by the permittee or lessee; or

(4) Allowing another party, other than sons and daughters of the grazing permittee or lessee meeting the requirements of § 4130.7(f), to graze livestock on public lands under a pasturing agreement without the approval of the authorized officer.

"Utilization" means the percentage of forage that has been consumed by livestock, wild horses and burros, wildlife and insects during a specified period. The term is also used to refer to the pattern of such use.

MAP A

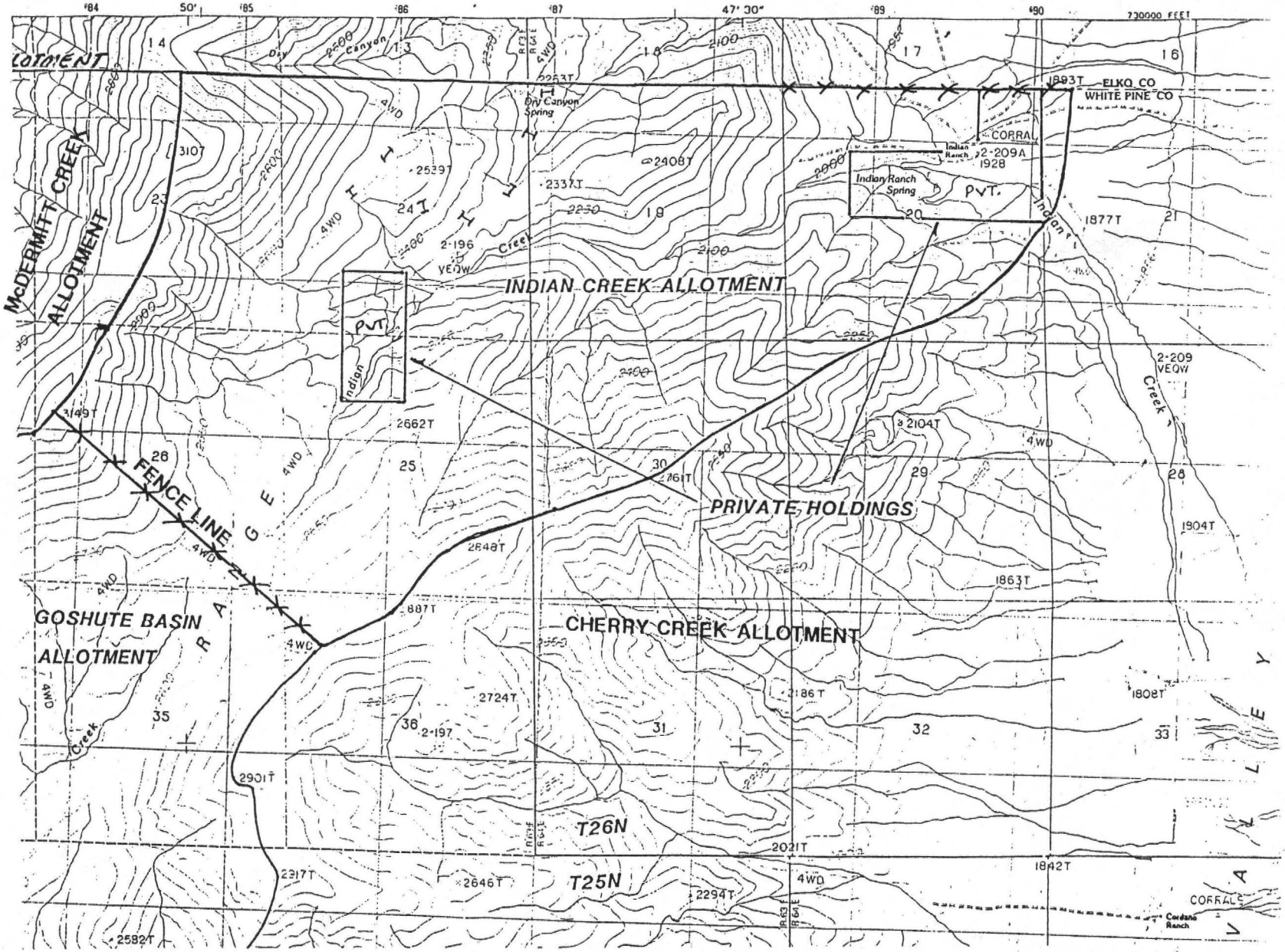
ALLOTMENT LOCATION WITHIN THE ELY DISTRICT

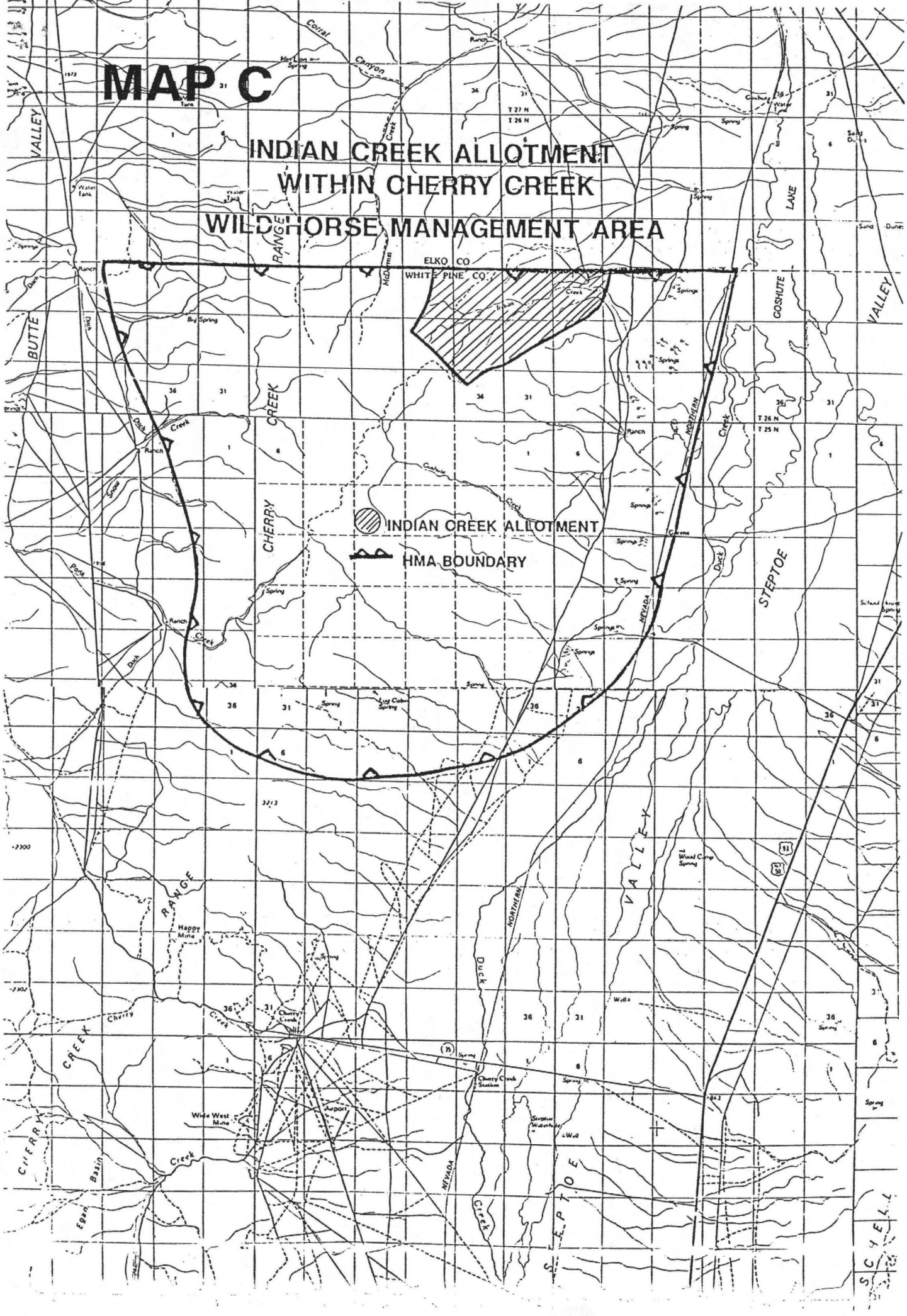


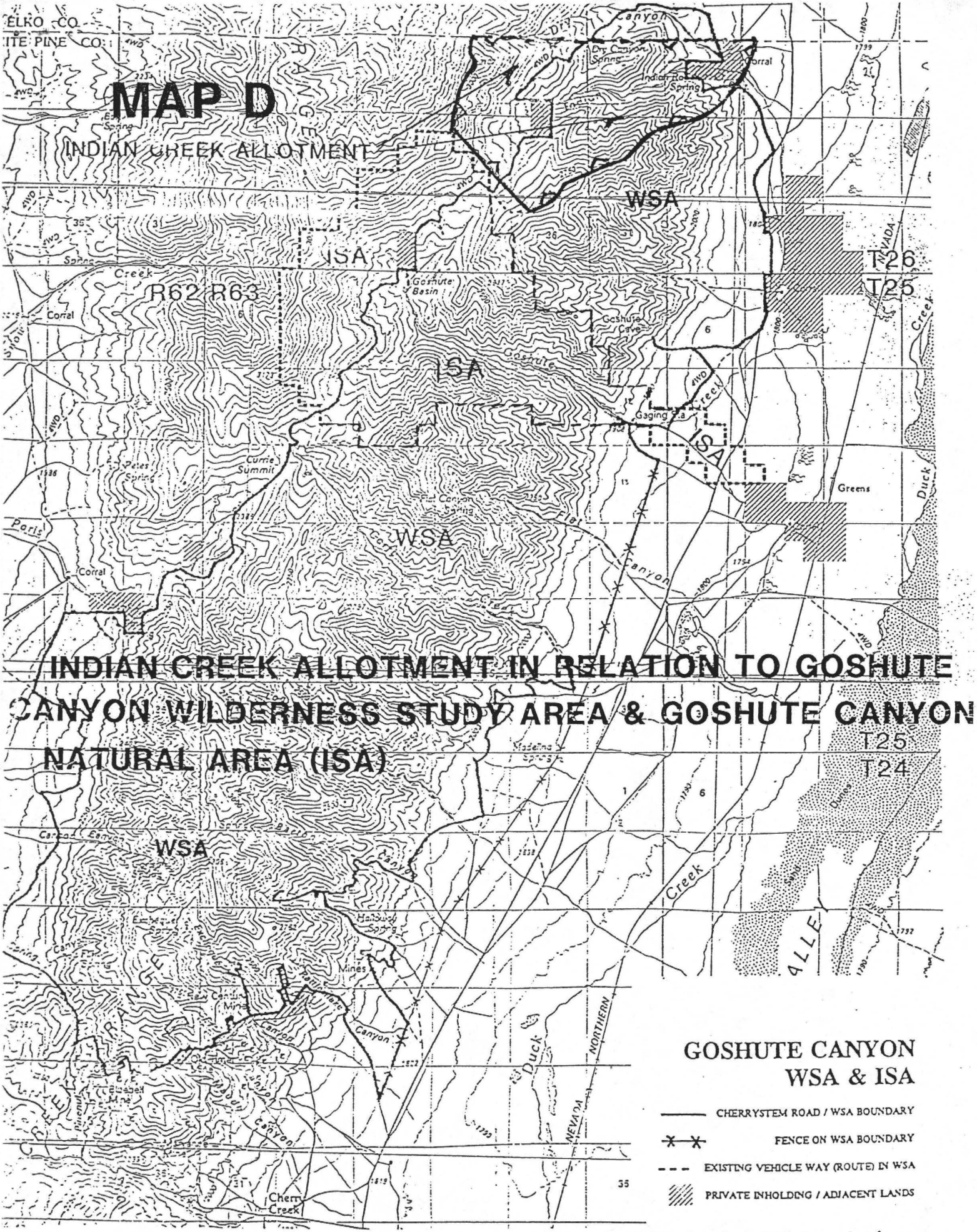
ELY DISTRICT

BUREAU OF LAND MANAGEMENT
U. S. DEPARTMENT OF THE INTERIOR

MAP B INDIAN CREEK ALLOTMENT BOUNDARIES

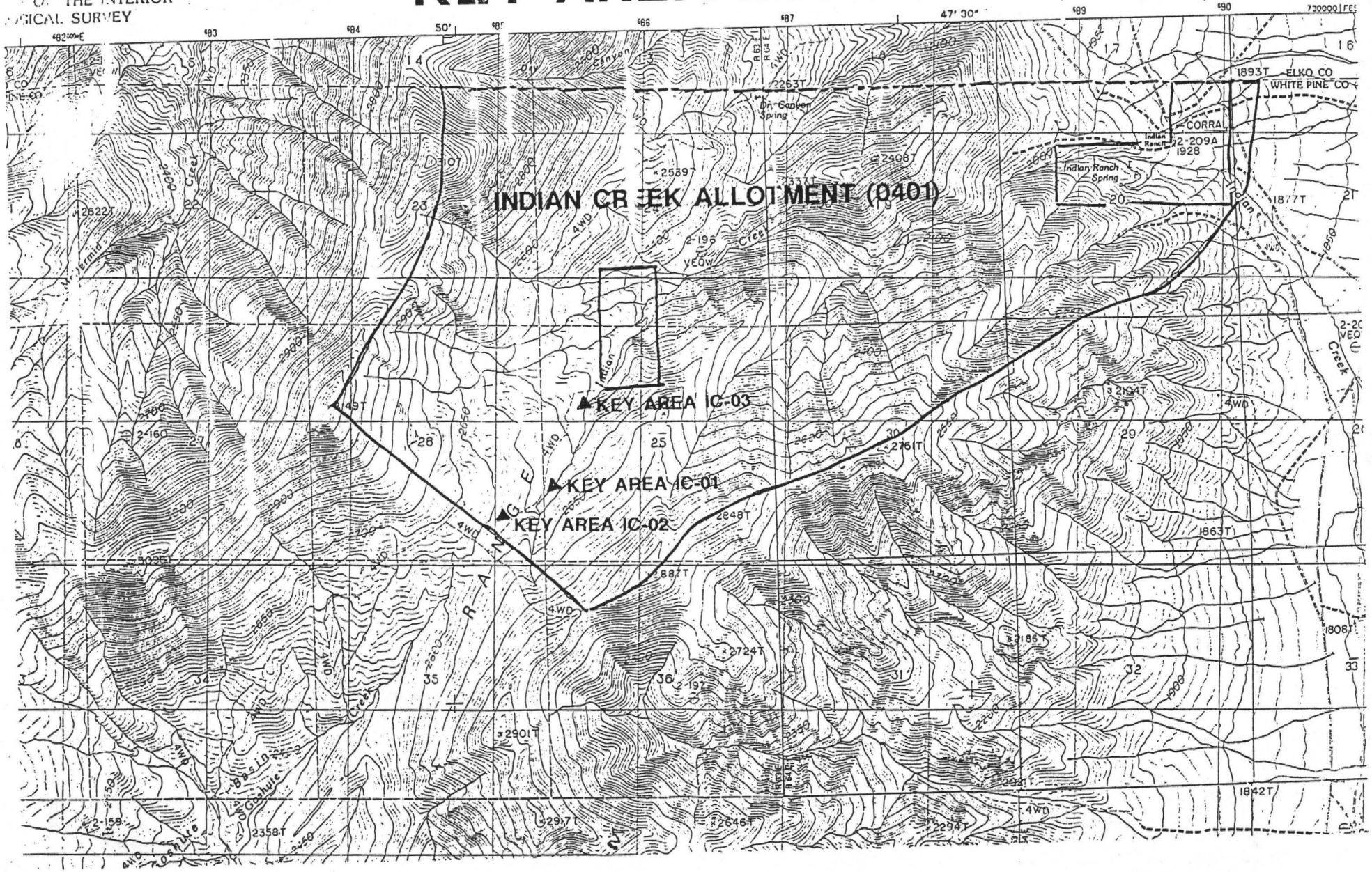



MAP C
INDIAN CREEK ALLOTMENT
WITHIN CHERRY CREEK
WILD HORSE MANAGEMENT AREA
ELKO CO
WHITE PINE CO
INDIAN CREEK ALLOTMENT
HMA BOUNDARY
BUTTE VALLEY
CHERRY CREEK RANGE
GOSHUTE VALLEY
STEPTOE VALLEY
DUCK CREEK
NORTHERN NEVADA RAILROAD
T 27 N
T 26 N
T 25 N



WORKING COPY for field use, SUBJECT TO REVISION. OFFICIAL MAPS showing WSA boundaries are on file at BLM Offices in Ely or Reno.

MAP E INDIAN CREEK ALLOTMENT KEY AREA LOCATIONS



MAP F INDIAN CREEK ALLOTMENT WILDLIFE STUDY