m 8/17/00

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)

AUG 17 2000

Dear Interested Public:

The Ely Field Office has completed a Final Evaluation for the Cherry Creek Allotment. Portions of three wild horse herd management areas (HMAs) occur within the allotment. These are the Antelope, Butte, and Cherry Creek HMAs. The Final Cherry 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 1994 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 for those portions of the Antelope, Butte, and Cherry Creek HMAs within the Cherry Creek Allotment.

The Draft Cherry Creek Evaluation was sent to the affected permittees as a scoping procedure for consultation, cooperation, and coordination on January 31, 2000. Following that, individual meetings were held with each permittee of the allotment to discuss permittee comments and input regarding the grazing issues brought out by the draft evaluation. A public meeting with the affected permittees concerning the draft evaluation was held at the Ely Field Office on April 18, 2000 to further coordinate about the issues brought forth by the evaluation.

There will be a 30 day comment period for the final evaluation. Please submit your written comments by September 22 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 or John Longinetti at 289-1887.

Sincerely,

Chris Mayer, acting

James M. Perkins
Assistant Field Manager
Renewable Resources

1 Enclosure
1. Cherry Creek Allotment Evaluation

Mailing List
Final Cherry Creek Allotment Evaluation
August 17, 2000

Ms. Catherine Barcomb (Commission For The Preservation of Wild Horses)
Mr. Curtis A. Baughman (Nevada Division of Wildlife)
Mr. Steve Foree (Nevada Division of Wildlife)
Mr. Gordon Foppiano (Permittee)
Mr. George Irlbeck (Permittee)
Kay & Mary Lear (Permittees)
Mr. Kitt Lear (Permittee)
Mr. John McLain (Resource Concepts, Inc.)
Nevada Cattlemen's Association
Nevada Dept. of Agriculture
Nevada State Clearinghouse
Stephen & Vicki Nye (Permittees)
Mr. Carol Sherman (Leasee)
Mr. Herb Stathes (Permittee)
U.S. Fish & Wildlife Service
Mr. Sterling Wines (Leasee)

FINAL CHERRY CREEK ALLOTMENT (0403) EVALUATION SUMMARY

I. INTRODUCTION

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 Cherry 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 permittees of record for this allotment are George Irlbeck (Turner & Irlbeck), Sterling Wines (Foppiano permit), Kay Lear (Kay & Mary Lear), Kitt Lear, Herb Stathes, and Stephen & Vicki Nye (Indian Creek Ranch Partnership). Sterling Wines currently leases the cattle grazing permit from Gordon Foppiano. Ralph Vance leased the base property and cattle grazing permit from Indian Creek Ranch Rartnership from April 1992 to December 1996. Sonya Hesterlee and Brett and Karen Spahan leased the base property and cattle grazing permit from Indian Creek Ranch from March 1998 to February 1999. Mr. Carol Sherman currently leases the cattle grazing permit from Indian Creek Ranch.

The main evaluation period covers five years, from 1994 through 1998. Other years of rangeland monitoring data supplement that data collected during the main evaluation period. An allotment management plan (AMP) has not been initiated for the allotment. That portion of the allotment east of the Goshute Basin Allotment (0402), comprising approximately 1,860 acres, is designated as the Goshute Creek Wildlife Habitat Area (WHA-N4-S1). This is the Goshute Creek Canyon and its associated watershed. The Goshute Creek Habitat Management Plan (HMP), signed in 1980, was prepared for the wildlife habitat area. The Goshute Canyon Natural Area, which roughly coincides with the wildlife habitat area, was designated in October of 1970 because of unique scenery, geology, vegetation, and zoology. A portion of the Goshute Canyon Wilderness Study Area (WSA) also occurs within the Cherry Creek Allotment. Two Wild Horse Herd Management Plans (HMAPs) exist for the allotment - the Antelope and Butte HMAPs.

II. INITIAL STOCKING LEVEL

For an explanation of the process for changing permitted grazing use, refer to Appendix I, page 68.

A. Livestock Use

The current permitted livestock grazing use for the allotment is 6,562 AUMs, with 2,865 AUMs held in suspended non-use for a total permitted use of 9,427 AUMs. The kind and class of livestock is cattle (cow/calf). The period of use for the native range varies by permittee. The season of use for the three crested wheatgrass seedings also varies (see Table 4 below). Grazing use is permitted at 100% federal range. That portion of the Cherry Creek Allotment east of Highway 93 is used as a sheep trailing area by Hank Vogler (North Steptoe Trail). The three year average stocking rate (1979 - 1981) used in the Egan Area Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS) as well as the Egan Rangeland Program Summary (RPS) is 3,039 AUMs.

Sterling Wines is permitted for 3 horses from 03/01 - 02/28 for 36 AUMs, which is included in the 6,562 current permitted AUMs. The fenced Goshute Seeding in the allotment has a separate forage allocation of 459 AUMs, which are also included in the 6,562 permitted AUMs. The North Egan Seeding has a forage allocation of 400 AUMs, and the South Egan

Seeding has a forage allocation of 334 AUMs. Those allocations are also included in the 6,562 AUM total.

Tables 1, 2, 3, and 4 list the permitted use summaries for the allotment.

Table 1. - **Cherry Creek Permitted Use (Native + Seedings)**

Total Use	Suspended Historical	Permitted Use
9,427 AUMs	2,865 AUMs	6,562 AUMs

Table 2. - **Cherry Creek Permitted Use by Permittee (Animal Unit Months)**

Permittee	Total Use	Suspended Historical	Permitted Use
Sterling Wines	1,013	469	544
Herb Stathes	1,225	586	639
Indian Creek Ranch	1,359	611	748
Kay & Mary Lear	290	0	290
Kitt Lear	3,940	1,199	2,741
Turner & Irlbeck	1,600	0	1,600

Table 3. - **Grazing Season of Use by Permittee by Native Range or Seeding**

Permittee	Native Range	Goshute Seeding	Egan Seedings
Sterling Wines	4/01 - 2/28		Not Listed*
Herb Stathes	3/01 - 2/28		Not Listed*
Indian Creek Ranch	3/01 - 2/28	3/01 - 2/28	
Kay & Mary Lear	4/15 - 2/28		
Kitt Lear	4/20 - 2/28	Beginning May 1**	Beginning May 1
Turner & Irlbeck	4/01 - 2/28	Beginning May 1**	

* Turnout date in the South Egan Seeding has generally been after May 1.
** Use in the Goshute Seeding for Kitt Lear or George Irlbeck has been in either spring or fall.

Table 4. - **Cherry Creek Permitted Use by Native Range or Seeding (Animal Unit Months)**

Permittee	Native Range	Goshute Seeding	Egan Seedings
Sterling Wines	497		47 (South)
Herb Stathes	587		52 (South)
Indian Creek Ranch	613	135	
Kay & Mary Lear	290		
Kitt Lear	1,932	174	235 (South)
			400 (North)
Turner & Irlbeck	1,450	150	
Totals	5,369	459	734

B. Wild Horse Use

The Cherry Creek Allotment encompasses portions of three wild horse herd management areas (HMAs); the Antelope, Butte, and Cherry Creek HMAs. The Rangeland Program Summary objective for this allotment is to provide habitat and forage for approximately 14 wild horses (159 AUMs), with provision for 5 wild horses (57 AUMs) in the Antelope HMA, 5 wild horses (58 AUMs) in the Butte HMA, and 4 wild horses (44 AUMs) in the Cherry Creek HMA.*

The Proposed Egan Resource Management Plan and Final Environmental Impact Statement (RMP/EIS) (1984) established an interim management level of 11 wild horses for the entire Cherry Creek HMA. This number was based on the 1982 - 1983 wild horse population level. The Egan Rangeland Program Summary level of 4 wild horses for the Cherry Creek Allotment is the allotment's proportionate share of the 11 wild horses identified in the RMP/EIS.

Table 5 summarizes the Rangeland Program Summary objective as well as the acres of public land of each HMA within the allotment.

Table 5. - **Cherry Creek Allotment Herd Management Areas, Acres, and 1988 Rangeland Program Summary Objective**

	Public Acres Within Allotment	1988 RPS Objective Numbers / AUMs
Antelope HMA	44,160	5 / 57
Butte HMA	21,760	5 / 58
Cherry Creek HMA	44,000	4 / 44

* The 5 wild horses in the Antelope HMA, 5 wild horses in the Butte HMA, and 4 wild horses in the Cherry Creek HMA are no longer valid Appropriate Management Levels (AMLs). 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."

That portion of the Antelope HMA within the Cherry Creek Allotment occurs within the eastern third of the allotment (Maps G,J). The northwest portion of the Antelope HMA within the allotment borders the Cherry Creek HMA. That portion of the Highway 93 right of way that runs through the Antelope HMA and allotment is now a fenced boundary. Wild horse census data gathered over a period of more than twenty years together with on the ground observations indicate that wild horses commonly use an area of approximately 3,200 acres to the east of Highway 93 in the extreme eastern portion of the Cherry Creek Allotment. This is mainly an area of mixed salt desert shrub vegetation where Douglas rabbitbrush, black sagebrush, and winterfat are co-dominant with a fair component of Indian ricegrass also present. Wild horses use this area in spring, fall, and winter but rarely during the summer. During the summer months they typically use habitat types at higher elevations in the Antelope Range within other allotments.

That portion of the Butte HMA within the Cherry Creek Allotment occurs within the southwest portion of the allotment, commonly known as the Egan Basin (see Maps H,J). That portion of the HMA boundary within the allotment, which covers approximately five miles, is an unfenced boundary. Wild horse census data together with on the ground observations indicate that wild horses commonly use the southern and western portions of the Egan Basin that are north of Black Canyon. This is mainly an area of Wyoming big sagebrush and scattered juniper and pinyon trees. Indian ricegrass, needlegrass, bluegrass, and bluebunch wheatgrass are common in the understory. Winterfat shrubs are present but infrequent. Wild horses have been censused in these areas during each season of the year. Wild horses have also been observed in the burn area near Overland Pass in the north portion of the basin.

That portion of the Cherry Creek HMA within the Cherry Creek Allotment occurs within the northwest third of the allotment (see Maps I,J). The northern boundary of the HMA coincides with the north boundary of the allotment for approximately 2.5 miles and is a fenced boundary. The eastern and southern boundaries of the Cherry Creek HMA within the allotment are unfenced boundaries. Much of the eastern HMA boundary runs north/south along the Nevada Northern Railroad right of way. The southern tip of the HMA occurs just north of the town of Cherry Creek. 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 1988). All other censuses conducted since 1984 have resulted in zero wild horses observed over the entire HMA.

Very little movement of wild horses from one HMA to another or from an HMA to a horse free area occurs within the Cherry Creek allotment. Wild horses have occasionally been observed in the northern portions of the allotment that have drifted in from the Cherry Creek North HMA in Elko County.

More specific information on wild horse use of the allotment is provided in the Wild Horse Actual use section beginning on page 21 of this evaluation.

The Antelope HMA wild horse population is currently managed under the Antelope Wild Horse Herd Management Area Plan (HMAP), approved in September 1987 and revised in October of 1992. This wild horse plan was developed with public input and contains extensive herd information. It is available for review in the Ely District Office. Wild horse public land objectives outlined in the HMAP are listed under the Allotment Specific Objectives section of this evaluation on page 14.

The Butte HMA wild horse population is currently managed under the Butte Wild Horse Herd Management Area Plan (HMAP), signed in June of 1993. This plan is also available for public review. Public lands objectives outlined in the plan are also listed in the Allotment Specific Objectives section.

C. Wildlife Use

1. Wildlife numbers (from Land Use Plan (LUP)).

The Rangeland Program Summary (RPS) objective for this allotment is to provide forage and habitat for wildlife, i.e., 828 AUMs for mule deer and 130 AUMs for pronghorn antelope.

2. Key or Critical Management Areas.

While there are no big game key or critical management areas within the Cherry Creek Allotment, Goshute Creek has been recognized as a critical area for the Nevada BLM sensitive Bonneville cutthroat trout. The five sage grouse strutting grounds on the allotment (see page 27) are also key wildlife management areas.

III. ALLOTMENT PROFILE

A. EXISTING MANAGEMENT PRACTICES

The Cherry Creek Allotment is a common use allotment shared by six permitted cattle operators. The period of use is yearlong; however, the BLM and permittees have agreed to a arrangement whereby cattle turnout will be after April 15th. A rotation system exists for the South Egan Seeding. This crested wheatgrass seeding is grazed during spring in odd years from May 1 until June 30, and grazed in fall during even years from October 15 until February 28. No rotation system exists for the North Egan Seeding. Turnout date is May 1. No rotation system exists for the Goshute Seeding. The season of use begins May 1 for the Goshute Seeding (Indian Creek Ranch season of use for the Goshute Seeding is listed as 3/1 to 2/28).

The following information about cattle grazing patterns was gathered from the permittees during field tours made in June of 1996:

Gordon Foppiano - In spring cows start out grazing near his ranch and work their way east and south through the slough area. During summer some of the cows may drift as far south as the allotment boundary. Cows also use the Cherry Creek Mtn. benches west of the ranch in spring. He follows the grazing rotation system in the South Egan Seeding, and cows also graze the native range in the Egan Basin. Cows winter primarily on the Cherry Creek bench on both sides of the drift fence, where they water at the Star Mine or Madelina Spring. Cattle also winter east of Johnson's Ranch and in the "sink area." Both locations are south of the Cherry Creek Road. Cattle generally do not get as far east as the two windmills on the east side of the valley.

Kitt Lear - Will use either the South or North Egan Seeding in spring. Typically he will graze the slough area south of the Cherry Creek Road during summer. Kitt owns 320 acres in the slough called the "slough ranch." In fall the cattle typically graze the South Egan Seeding or the Goshute Seeding. Kitt stated he pushes cattle by horseback to and from the North or South Egan Seeding through Egan Canyon.

George Irlbeck - Cattle start out grazing around the Green Ranch in spring, then work south from there, mostly drifting along the east benches of the Cherry Creek Mountains. Water is hauled to the bench area by alternating from below Barton Canyon one year to Log Canyon another year. Typically about 180 head of cattle are run during spring. In recent years cows have grazed the burn above Cherry Creek. Cows water at the Star Mine or in Cherry Creek Canyon when grazing the burn. Cattle also make some use of Egan Canyon and the native range around the Egan Seedings during spring. During summer cattle use the Overland Pass burn area. George has been alternating cattle grazing locations to create a beneficial use of the range. Beginning about September cattle move to the east side of the valley and water at the two wells there. Cattle graze the Goshute Seeding in either spring or fall.

Sam Henriod (former holder of Herb Stathes permit) - Cattle are normally turned out near Schellbourne Road in spring. Cattle may also graze the native range near the Egan Seedings in spring. The cattle water on Egan Creek when grazing the native range near the seedings. Cattle do not normally run north of the Cherry Creek Road. Currently Sam is leasing Herb Stathes' private ground in the slough. Sam stated he usually feeds cattle during early spring at the Borchert Ranch. Cattle are sometimes watered in the lane between Foppiano's field and Herb Stathes' field north of Schellbourne Road.

Kay Lear - Traditionally Kay has run 90 - 130 head of heifers in association with his private field and in native range north of the Schellbourne Road. He stated that in recent years he has not used the benches of the Cherry Creek Range in spring for cattle grazing. He has used primarily the valley bottom, and pushes cows out in spring by horseback, starting north of the Cordano Ranch. He has used the Mill Field for an overnight corraling area. Some cattle come off the Cherry Creek Allotment in July when about 35 cows move to the Indian Creek Allotment and 30 cows to the Dry Canyon Allotment. Cattle also graze north of the Cordano Ranch during summer then move south in September and October where he will stay in the slough area around his private field until the first of March if there is an open winter. If weather is harsh, he brings the cattle home earlier. Kay stated that he has two water haul outfits.

B. DESCRIPTION

The Cherry Creek Allotment (0403), a category "I" allotment encompassing 153,107 federal acres and 9,230 private acres, is located in White Pine County, Nevada, approximately 34 air miles north of Ely in the north central portion of the Ely District (Map A). The allotment is situated mainly in Steptoe Valley, which is bordered on the west by the Cherry Creek Mountain Range and bordered on the east by the Schell Creek Mountain Range. Main access to the allotment is via highway 93 north. The Northern Nevada Railroad runs north/south through the approximate middle of the allotment in the middle of Steptoe Valley.

Approximately one half of the allotment is unfenced. The north allotment boundary is fenced for approximately five miles along the White Pine/Elko County line. The southern boundary is fenced for approximately three miles. The southwest boundary is defined by the Big Rock Seeding Fence for approximately four miles. The Cherry Creek Mountains form much of the western boundary of the allotment. The Highway 93 right-of-way fence forms much of the eastern boundary. Map B shows the allotment boundaries. Approximately 4,500 acres of the allotment lie to the east of highway 93 on the west slopes of Becky Peak. That portion of the allotment east of highway 93 is within the Antelope Wild Horse Herd Management Area (HMA). Much of the northwestern portion of the allotment is within the Cherry Creek Wild Horse HMA. A small portion of the allotment in the southwest is within the Butte Wild Horse HMA.

Elevations range from 5,840 ft. in the north valley bottom to 10,200 ft. in the Cherry Creek Range. The Goshute Seeding, a completely fenced crested wheatgrass seeding of

approximately 1,400 acres, is situated in the north middle of the allotment. The Goshute Seeding was developed in the 1960's. The Egan Basin Seedings are located in the western portion of the allotment. The North Egan Seeding is approximately 1,200 acres and is completely fenced. The South Egan Seeding is also approximately 1,200 acres and is fenced on the north, south, and west sides. Steep slopes of the Cherry Creek Range form the eastern boundary. The Goshute Creek Exclosures, completed in 1975, protect approximately 320 total acres of public land along lower Goshute Creek. Riparian habitat is protected by the exclosures. Three creeks, Duck Creek, Egan, and Goshute Creek occur in the allotment. Riparian springs and seeps occur throughout the valley portion of the allotment.

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 (Maps E,F). 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 17,000 acres of the Cherry Creek Allotment in the western portions of the allotment (Cherry Creek Mountains) are located within that part of the Goshute Canyon WSA that is recommended for wilderness. Cattle grazing has been a historical use in the area.

In 1970 the BLM designated 7,650 acres in Goshute Basin and Goshute Canyon as the Goshute Canyon Natural Area. It was designated as such bacause of its unique scenery, geology, vegetation, and zoology. It was also designated in order to protect the Bonneville cutthroat trout, which was then on Nevada's endangered species list. 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). ISAs are currently under the same protection and management guidelines as Wilderness Study Areas. The Goshute Canyon Natural Area was included in the 1991 Nevada BLM Statewide Wilderness Report. A portion of the Natural Area is within the Cherry Creek Allotment (Map C).

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. Improve ecological condition of the spring/fall range and maintain ecological condition on the remainder of the allotment's native range. Maintain seedings (4) in good or better condition."

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 system and aesthetic values." (Egan ROD, p.44)

b. Applicable Rangeland Program Summary Objectives:

"Manage rangeland habitat and forage condition to support wildlife, as follows: mule deer 828 AUMs, antelope 130 AUMs."

"Improve or maintain habitat condition of meadows and riparian areas from fair to good or better condition for antelope, mule deer, sage grouse, and Hungarian partridge."

"Protect sage grouse breeding complexes."

"Improve riparian stream condition from fair condition to good or better within stream exclosures on Goshute Creek for Category 1 Bonneville cutthroat trout."*

* The Bonneville cutthroat trout is currently a Nevada BLM Sensitive Species, and is also under U.S. Fish and Wildlife Service review for possible listing as a threatened species.

"Improve or maintain other stream riparian from fair to good or better condition."

"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 will be managed at a total of 14 animals within the Antelope HMA, 60 animals within the Butte HMA, and 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 14 wild horses within the Antelope HMA, 60 wild horses within the Butte HMA, and 11 wild horses within the Cherry Creek HMA are no longer valid Appropriate Management Levels (AMLs) - see also page 4. 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 "numbers" of wildlife species as determined by the Nevada Division of Wildlife." (Egan ROD, p. 6)

"Reintroductions of big game species will be accomplished in cooperation with the Nevada Division 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 "numbers" of big game as determined by the Nevada Division of Wildlife." (Egan ROD, p. 8)

b. Applicable Rangeland Program Summary Objectives:

1) Livestock

"Provide forage for up to 3,039 AUMs of livestock use."

"Maintain or enhance native vegetation with utilization not to exceed Nevada Rangeland Monitoring Handbook (NRMH) levels on key species. Improve ecological condition of the spring/fall range and maintain ecological condition on the remainder of the allotment's native range. Maintain seedings (4) in good or better condition."

2) Wild Horses

"Initially manage rangeland habitat to support an Appropriate Management Level (AML) of 14 horses in the Cherry Creek Allotment as part of the Antelope HMA (5 horses), Butte HMA (5 horses), and Cherry Creek HMA (4 horses). Provide forage for up to 159 AUMs of wild horse use (57 AUMs - Antelope HMA; 58 AUMs - Butte HMA, 44 AUMs - Cherry Creek HMA)."*

* See asterisk footnote on page 4.

3) Wildlife

"Manage rangeland habitat and forage condition to support wildlife, as follows: deer 828 AUMs, antelope 130 AUMs."

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

Standard 4. Cultural Resources:

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

ACTIVITY PLAN OBJECTIVES - Wild Horse Herd Management Area Plan Objectives.

A. Antelope Wild Horse Herd Management Area Plan Objectives.

Wild Horse Habitat Objectives

The BLM Strategic Plan for Management of Wild Horses and Burros on Public Lands (1993) states that there will be increased program emphasis on wild horse habitat management. Specific wild horse habitat objectives for the Antelope HMA include the following:

Vegetation - Manage for the most appropriate seral stages to provide for desired quantity, quality, and density of forage in order to meet the requirements of wild horses and other foraging animals. Utilization levels will be maintained at approximately 45% on shrubs and 55% on grasses in accordance with the recommended utilization levels in the Nevada Rangeland Monitoring Handbook (1984).

Water Distribution and Availability - Improve distribution and provide water yearlong for wild horses throughout the HMA where possible.

Wild Horse Population Objectives

Multiple Use - The objective in the Antelope HMA is to maintain a healthy, viable population of wild horses in a thriving natural ecological balance with all other resources and users.

Appropriate Management Level (AML) - The Antelope wild horse AML will be established through the allotment evaluation process. The number of wild horses will be maintained within a range of $\pm$ 15% of AML.

Free Roaming Characteristics - The wild horses within the Antelope HMA will be managed in a manner that maintains their wild free-roaming characteristics.

Coloration and Conformation - The wild horses within the Antelope HMA which exhibit the "Spanish Barb" characteristics will be maintained within the population. Removals and/or fertility control treatments will exclude those horses that obviously exhibit those traits. No other characteristics or conformations will be selected. Only those animals with gross deformities or disease will be eliminated from the herd.

B. Butte Wild Horse Herd Management Area Plan Objectives.

The overall objective for the Butte HMA is to maintain and manage the wild free-roaming horse population as a recognized component of the public land environment, in balance with its habitat and other resource uses.

Wild Horse Habitat Objectives

1) Maintain or enhance ecological condition of the native vegetation by maintaining utilization levels by all herbivores at the levels specified in the Egan Rangeland Program Summary. The levels may be adjusted in the allotment evaluations depending on the resource problems existing within the respective evaluation.

2) Improve distribution, and maintain or improve wild horse habitat by assuring free access to water yearlong by wild horses, by creating new waters in areas it is now lacking or only seasonally available, and by properly maintaining those waters now existing in the area. Also, improve distribution of wild horses through other range improvements.

Wild Horse Population Objectives

1) Achieve AML as determined through allotment evaluations and future rangeland monitoring to restore the range to a thriving natural ecological balance within a $\pm$ 15% range to allow flexibility in herd numbers.

2) Maintain the AML by reducing the herd growth within the Butte HMA to 12% or less per year using fertility control measures outlined in the the HMAP.

3) Implement a study to determine the exchange between the Butte, Buck and Bald, and Elko District's Maverick-Medicine HMAs in the Pony Mountain area.

4) Maintain the color diversity of the herd as it exists at the time of the initial gather.

5) Maintain the wild and free-roaming characteristics of the wild horses within the Butte HMA.

ACTIVITY PLAN OBJECTIVES - Habitat Management Plan (HMP) Objectives

The following HMP Objectives from the Goshute Creek Habitat Mnagement Plan (WHA -N4 - S1) are pertinent to the Cherry Creek Allotment:

1) Maintain gabion structures, install log structures, rock dams, trash catchers, etc. in stream channel.

2) Increase bank cover and riparian zone vegetation to prevent erosion.

4) Increase vegetative cover.

7) Control livestock and increase vegetative cover by planting grasses, forbs, and shrubs. Plant willow shoots along streambank.

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

The Egan Land Use Plans provide the direction to manage resources on a planning area basis. These plans provide 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, Wild Horse Herd Management Area Plan Objectives, and Habitat Management 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 of this evaluation beginning on page 68. (Refer 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. Antelope

a. The short term objective is to limit use on key species for antelope to 50% or less yearlong throughout the allotment.

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, stocking levels and/or other management practices 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 ANIMALS

The threatened bald eagle is a winter resident on the allotment and can be found along Duck creek and slough areas. The Nevada BLM also maintains a list of state sensitive species. Together with listed threatened and endangered species they make up the BLM Special Status Species. The sage grouse, ferruginous hawk, and Bonneville cutthroat trout are state sensitive species which occur in the Cherry Creek Allotment.

In the near future the U.S. Fish & Wildlife Service expects to receive a petition to request listing of the Western sage grouse under the Endangered Species Act (ESA) as a threatened species across its range.

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, wild horses, and wildlife for the native range of this allotment are as follows:

Cattle - Grasses

AGSP (Agropyron spicatum), Bluebunch wheatgrass
ELCI (Elymus cinereus), Basin wildrye
ORHY (Oryzopsis hymenoides), Indian ricegrass
POJU (Poa juncifolia), Alkali bluegrass
PONE (Poa nevandensis), Nevada bluegrass
SPAI (Sporobolus airoides), Alkali sacaton
STCO (Stipa comata), Needle-and-thread

Cattle - Shrubs

EULA (Eurotia lanata), Winterfat
ATCA (Atriplex canescens), Fourwing saltbush

Wild horses - Grasses

AGSP (Agropyron spicatum), Bluebunch wheatgrass
ORHY (Oryzopsis hymenoides), Indian ricegrass
PONE (Poa nevandensis), Nevada bluegrass
STCO (Stipa comata), Needle-and-thread

Wild horses - Shrubs

EULA (Eurotia lanata), Winterfat

Mule deer - Grasses & Forbs

No particular grass or forb is considered a key forage plant for deer in the allotment. Green grass and forbs are important to the mule deer diet in spring and early summer. Mesic grass and forb species common to riparian areas, springs, seeps, and subirrigated meadows are also important to mule deer.

Mule deer - Shrubs & Trees

AMAL (Amelanchier alnifolia), Serviceberry
ARTRWY (Artemisia tridentata wyomingensis), Wyoming big sagebrush
ARTRVA (Artemisia tridentata vaseyana), Mountain big sagebrush
PUTR (Purshia tridentata), Antelope bitterbrush
POTR (Populus tremuloides), Quaking aspen
PRVI (Prunus virginiana), Chokecherry

Antelope - Grasses & Forbs

No particular grass or forb is considered a key forage plant for antelope in the allotment. Green grass and forbs are important to the antelope diet in spring and early summer. Mesic grass and forb species common to riparian areas, springs, seeps, and subirrigated meadows are also important to antelope.

Antelope - Shrubs & Trees

ARNO (Artemisia nova), Black sagebrush
ARTR (Artemisia tridentata), Big sagebrush
PUTR (Purshia tridentata), Antelope bitterbrush

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 the Appropriate Management Level for wild horses.

B. Summary of Studies Data

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

1. Key Area Summary - Livestock

The Cherry Creek Allotment is composed of two primary grazing areas. One primary grazing area is the broad, relatively level valley bottom which is commonly known as the "slough." The main vegetative associations, or range sites, in the "slough" are saline meadows, saline bottoms, sodic terraces, sodic flats, and wet meadows. The lower east slopes of the Cherry Creek Mountain Range (piedmont fans, alluvial fans, low hills) make up the second primary grazing area.

There are 25 key grazing areas established in the allotment (Map L). Utilization cages have been placed at each of the key grazing areas to show the current annual growth of key forage species. Seventeen cages are located in native range. Most of the cages have been placed in the two primary grazing areas. Some cages have been placed in other areas of the allotment commonly grazed by livestock or wild horses. Two cages are located in Goshute Seeding, three in the North Egan Seeding, and three in the South Egan Seeding. Key forage plant method utilization transects have been completed at the key area cage locations and at other locations throughout the grazing areas of the allotment periodically since 1981. Intensive utilization studies were completed throughout the allotment in the spring of 1995, 1997, and 1998. Utilization pattern mapping has been accomplished for the North Egan Seeding in 1996 and 1997. Thirteen frequency trend transects have been established in key grazing areas of the allotment. In addition, observed apparent trend studies have been completed at many key grazing areas from 1995 through 1998.

During the summer of 1998, an intensive rangeland monitoring studies effort was undertaken in the Cherry Creek Allotment. The following rangeland studies were completed at 13 key areas in the allotment during the summer of 1998:

Line Intercept Method.
Quadrat Frequency.
Ecological Condition.
Observed Apparent Trend.

General range view photographs were taken and field notes were made in conjunction with the above field work in 1998.

Also during the summer of 1998, forage production studies were accomplished in the North and South Egan Seedings. Forage production studies were accomplished for the Goshute Seeding in October of 1997. Proper functioning condition studies were completed for riparian areas of the allotment in 1994, 1995, and 1998.

2. Livestock Licensed Use

Licensed use for cattle in the Cherry Creek Allotment for the years 1993 through 1998 is illustrated in Table 6.

Table 6. **Licensed Use For Cattle in the Cherry Creek Allotment from 1993 to 1998 in Animal Unit Months (AUMs) by Permittee***

Year and Pasture	Gordon Foppiano	Sam Henriod	Sterling Wines	Turner, Irlbeck	Lear Ranches	Kay & Mary Lear	Kitt Lear	Ralph Vance	Sonya Hesterlee
1993 - Native	211	498		1388	756	291		108	
Goshute Seeding				140					
South Egan Sdg.	46				416				
North Egan Sdg.					399				
1994 - Native	216	589		1205		288		641	
Goshute Seeding				77				134	
South Egan Sdg.		51							
North Egan Sdg.									
1995 - Native	150	595		1170	715	291		681	
Goshute Seeding				149	62				
South Egan Sdg.	47	180							
North Egan Sdg.					400				
1996 - Native	228	588		1309		290	763		
Goshute Seeding				149			123		
South Egan Sdg.									
North Egan Sdg.							400		
1997 - Native	356	537		1450		290	1034		
Goshute Seeding				149			173		
South Egan Sdg.									
North Egan Sdg.							400		
1998 - Native		530	390	1449		258	981		357
Goshute Seeding				151			42		
South Egan Sdg.		319	83				96		
North Egan Sdg.							373		

Licensed use averaged 3,434 AUMs for the six years 1993 - 1998 for native range.

* Footnotes to Table 6 are as follows:

1. In 1989 Gordon Foppiano licensed 26 of 601 AUMs as horse use.
2. In 1990 Gordon Foppiano licensed 11 of 549 AUMs as horse use.
3. In 1992 Gordon Foppiano licensed 3 of 369 AUMs as horse use.
4. In 1993 Lear Ranches licensed 284 AUMs permitted use and 132 AUMs temporary non renewable (TNR) use in the South Egan Seeding.
5. In 1994 Ralph Vance was billed for 29 of 641 AUMs as trespass use.
6. In 1995 Ralph Vance was billed for 67 of 681 AUMs as trespass use.
7. In 1998 Sterling Wines licensed 47 AUMs permitted use and 36 AUMs TNR in the South Egan Sdg. Sam Henriod licensed 52 AUMs permitted use and 267 AUMs TNR in the South Egan Sdg.

2. Livestock Actual Use

A partial livestock actual use record exists for the Cherry Creek Allotment from 1993 through 1998. Livestock actual use is illustrated in Table 7 as follows:

Table 7. **Actual Use For Cattle in the Cherry Creek Allotment from 1993 to 1998 in Animal Unit Months (AUMs) by Permittee***

Year & Pasture	Gordon Foppiano	Turner, Irlbeck	Lear Ranches	Kay & Mary Lear	Sterling Wines	Sam Henriod	Kitt Lear
1993 - Native	204	1354	638	291			
Goshute Sdng.		137					
South Egan Sdng.	49		413				
North Egan Sdng.			395				
1994 - Native	214	1168		273			
Goshute Sdng.		72					
South Egan Sdng.							
North Egan Sdng.							
1995 - Native	147		710	291			
Goshute Sdng.			91				
South Egan Sdng.	42						
North Egan Sdng.			400				
1996 - Native	227	1290		291			
Goshute Sdng.		151					
South Egan Sdng.							
North Egan Sdng.							
1997 - Native	352	1389	928	283		530	
Goshute Sdng.		146	174				
South Egan Sdng.							
North Egan Sdng.			405				
1998 - Native		1457		258	388	530	971
Goshute Sdng.		151					46
South Egan Sdng.					70	320	12
North Egan Sdng.							324

* Footnotes to Table 7 are as follows:
1. Stowell Brothers reported 1298 AUMs actual use through 8/30/89 for the 1989 grazing year.
2. Sam Henriod reported 530 AUMs actual use for the 1997 grazing year. No other actual use report exists on file for Mr. Henriod from 1989 - 1997.

3. Wild Horse Actual Use

a. Antelope HMA

In the Antelope HMA, many years of wild horse census data combined with range observation indicate wild horses commonly use the west slopes of the Schell Creek Range from Becky Peak south to about Schellbourne Pass in the Cherry Creek, Becky Springs, and Becky Creek Allotments. There are no fences separating the allotments. Much of the area is characterized by plant communities consisting of black sagebrush, Indian ricegrass, needle-and-thread, winterfat, and associated plant species. Wild horses favor grazing the perennial grasses and winterfat in this region. Wild horses have been counted in the Cherry Creek Allotment on 9 out of 21 census flights over the years. Counts have ranged from 4 to 14 wild

horses. In the Becky Springs Allotment to the north (just that portion of the allotment north of the Cherry Creek Allotment) wild horses have been counted on 16 out of 21 census flights. Counts have ranged from 1 to 31 animals. In the Becky Creek Allotment just south of the Cherry Creek Allotment, wild horses have been counted on 17 of 21 census flights, with counts ranging from 3 to 28 animals. Census flights occurred during all seasons of the year. Wild horses are more likely to be found at higher elevations during the summer months and on the west Schell bench during the winter.

Censused wild horse numbers from the Antelope HMA within the Cherry Creek Allotment and adjoining allotments (Becky Springs, Becky Creek) are shown in Table 8 below.

Table 8. **Aerial Census of Wild Horses in the Antelope HMA by Allotment (West Slopes of Schell Creek Range).**

Date	Cherry Creek Allotment	Becky Springs Allotment	Becky Creek Allotment	Total HMA*
5/1983	0	19	6	303
6/1985	0	0	0	451
2/1987**	4	2	3	782
2/1988**	0	14	3	528
3/1990	8	9	0	753
10/1990**	4	10	6	574
2/1991**	10	0	10	331
2/1992	6	0	15	468
5/1992	14	0	0	741
8/1992	0	8	13	723
11/1992	5	0	24	640
2/1993**	0	11	23	217
5/1993	0	2	25	278
8/1993	0	1	11	369
12/1993	10	13	17	336
3/1994	0	4	28	231
5/1994	6	22	7	351
8/1994	0	21	0	346
12/1994**	0	31	11	250
6/1997	0	15	10	799
7/1998	0	25	9	739

* The Total HMA count includes both adult and foal wild horses.
** The 2/1987, 2/1988, 10/1990, 2/1991, 2/1993, and 12/1994 censuses were post gather censuses.

The Nevada Department of Transportation (NDOT) has identified those portions of U.S. highway 93 and alternate route 93 from Schellbourne Station north to the Elko County Line as being in need of fencing, on both sides of the existing highway right of way, to address public safety concerns with wild horses, livestock, and wildlife crossing the highways. Construction of the fences is authorized under 43 Code of Federal Regulations (CFR) 2801.2(b)(6), which discusses right-of-way holders responsibility for compliance with state standards for public health and safety. Construction of the fences was completed in the summer of 1999. The fenced highway divided the wild horse habitat within the Antelope HMA and isolated that portion of the HMA west of highway 93 (see Map K). Wild horses in the Antelope herd will no longer have free access to the area.

The portion of the HMA which has been isolated as habitat contains no free water and has supported minimal wild horse foraging use. No wild horses have ever been counted during any census west of the highway. Very few wild horses have ever been noted from ground observations west of the highway.

The area west of highway 93, being isolated as habitat from the Antelope HMA, lies adjacent to the unfenced east boundary of the Cherry Creek HMA. Since BLM is required by the Code of Federal Regulations at 43 CFR 4710.2 to "maintain a record of the herd areas that existed in 1971", the area west of highway 93 will be managed in the future as a portion of the Cherry Creek HMA. This action will be formalized in a future Egan RMP Amendment.

The fenced portion of the Antelope HMA that lies between highway 93 and alternate route 93 will remain a part of the Antelope HMA. Wild horses from the Antelope HMA east of alternate route 93 will still have access to this portion of the HMA, if they cross the highway north of the unfenced Elko County line. The highway north of the county line remains unfenced, allowing access across the highway.

b. Butte HMA

Wild horses have been censused in the Cherry Creek Allotment within the Butte HMA eleven out of sixteen years. Wild horse census data indicates they commonly use the southern and western portions of the Egan Basin that are north of Black Canyon. This is mainly an area of Wyoming big sagebrush and scattered juniper and pinyon trees. Indian ricegrass, needlegrass, bluegrass, and bluebunch wheatgrass are common in the understory. Winterfat shrubs are present but not frequent. Wild horses have been censused in these areas during each season of the year. Wild horses have also been observed in the burn area near Overland Pass in the north portion of the basin. Censused wild horse numbers from the Butte HMA within the Cherry Creek Allotment are shown in Table 9.

Table 9. **Aerial Census of Wild Horses in the Butte HMA.**

Date	Cherry Creek Allotment	Total HMA*
6/1987	0	202
3/1989	7	238
3/1990	7	272
7/1991	12	502
3/1992	17	318
6/1992	2	546
9/1992	4	568
11/1992	9	442
2/1993	7	527
5/1993	6	240
8/1993**	0	121
12/1993	0	131
2/1994	3	119
5/1994	0	223
9/1994	0	161
6/1997	21	215

* The Total HMA count includes adults and foals
** The 8/1993 census was a post gather census

c. Cherry Creek HMA

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.

Censused wild horse numbers from the Cherry Creek HMA within the Cherry Creek Allotment are shown in Table 10.

Table 10. **Aerial Census of Wild Horses in the Cherry Creek HMA.**

Date	Cherry Creek Allotment	Total HMA*
6/1985	0	0
2/1987	16	16
2/1989	3	3
7/1991	0	0
8/1992	0	0
5/1993	0	0
9/1994	0	0
6/1997	0	0
8/1998	0	0

* Total HMA count includes both adults and foals

Although this evaluation will determine wild horse utilization and set appropriate management levels (AMLs) of wild horses on an allotment basis, the management of wild horses is established and administered on an overall herd management area (HMA) basis. Wild horse numbers may fluctuate up or down within any one allotment but would not require removal of excess animals unless the overall AML of the HMA is exceeded. When excess wild horses are removed, priority sites for trapping will be selected based upon those areas most overutilized by wild horses.

4. Wildlife Existing Use

Following is a breakdown of the current wildlife use on the allotment as estimated by the area wildlife biologist in conjunction with the Nevada Division of Wildlife:

Mule Deer

Resident mule deer use of the allotment is limited due to the habitat characteristics of the allotment. Mule deer use occurs in Egan Basin, in the Cherry Creek Mountain portion of the allotment generally within two miles of perennial water, and on the Becky Peak portion of the allotment. Mule deer populations in this portion of the state have been at stable levels to slightly decreasing since 1992-93 when a severe winter killed a substantial number of deer. Approximately 150 deer reside on the allotment yearlong (360 AUMs). The winter\spring period of the year will provide forage and habitat for approximately 230 mule deer (276 AUMs). Mule deer are generally foraging on green grass in the early spring period and can be observed on the benches and in the valleys.

Antelope

Antelope have been on the increase on the allotment. There is generally good water distribution throughout most of the valley portion of the allotment. Spring grasses and forbs provide for quality milk production for lactating doe antelope. Approximately 150 antelope utilize the allotment on a yearlong basis (360 AUMs).

Rocky Mountain Elk

Although there is now no known resident elk in the Cherry Creek Allotment, elk sightings go back to as early as 1975. In the winter of 1988 a bull elk was observed using the Egan Basin seedings. Three bull elk were observed using the Egan Basin seedings in the winter of 1998. A total of 148 elk were released at Spruce Mountain in Elko County 20 miles north of the allotment in 1996 as a result of the finalization of the Wells Resource Area Elk Amendment. The amendment identified the north end of the Cherry Creek Mountain range as a high elk potential area.

The March 1999 completion of the White Pine County Elk Management Plan provides for possible elk augmentation(s) in or near the Cherry Creek Allotment. The Nevada Division of Wildlife plans to coordinate the location and timing of elk release(s) with local ranchers and with both Elko and Ely Field Offices. Elk are also expected to pioneer into the area and occupy habitats on both summer range and winter range in the Cherry Creek Allotment and other nearby allotments.

The Cherry Creek Range is located within Nevada Division of Wildlife (NDOW) hunt unit 121. The White Pine County Elk Management Plan has proposed an elk population objective of 550 elk for the White Pine County portion of this unit. The Cherry Creek Range is identified by NDOW as a high priority area for elk augmentation(s). NDOW is planning an augmentation of elk in late 2000 in accordance with the White Pine County Elk Plan.

Upland Game

Sage grouse, cottontail rabbits, chukar, hungarian partridge, and blue grouse have been documented on the allotment.

Special Status Species

The Bonneville cutthroat trout, ferruginous hawk, and Western sage grouse are considered special status species.

Bonneville Cutthroat Trout

The Bonneville cutthroat trout is found in Goshute Creek. The fish is a state as well as Nevada BLM sensitive species. Trout populations in Goshute Creek from recent surveys conducted jointly with the Nevada Division of Wildlife have found the fish to be at stable levels to possibly increasing in numbers. Several habitat improvement projects have been constructed on the creek to improve habitat for the fish. Three large exclosures from the mouth of the Goshute Canyon down have been placed to protect aspen and other riparian vegetation from

grazing pressure. Lower on the creek, eight detention structures were installed to provide pools for the fish.

Proper functioning condition was completed on Goshute Creek during 1994 and rated functioning at risk with a upward trend.

Ferruginous Hawks

The Egan Rangeland Program Summary mistakenly included references to ferruginous hawk nests in the Cherry Creek Allotment. Several nests occur near the allotment but no nest sites are known to occur in the allotment.

Sage Grouse

The Cherry Creek Allotment has provided nesting\brooding and winter habitat for sage grouse over the years of the evaluaution and historically. The sage grouse population in this part of Nevada appears to be stable to slightly increasing in numbers. 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 sage grouse as a threatened or endangered species across its range.

Five sage grouse strutting grounds or "leks" have been identified within the allotment. A sixth lek is located only 1\3 mile from the allotment. Strutting males have been observed on five of the six leks during the 1999 breeding season. See Map M for the location of sage grouse strutting grounds.

5. Summary of Wildlife Studies

To determine wildlife habitat condition ratings for mule deer, antelope, and Rocky Mountain elk the following methods are utilized:

Frequency, vertical cover, total plant cover/percent plant composition (by cover), and biomass (production). For more detailed infromation refer to Appendix VI and BLM Manual 6630, Big Game Studies.

CC#1 T.23N., R.64E., Sec. 33 NESE

This permanent frequency study was established in 1987 in a location that antelope and domestic livestock both utilize. When initially established in 1987 the study rated in a good habitat condition for antelope. When reread in 1991, the study demonstrated a slight downward trend with a minimal loss of perennial grass and forb frequency. This is possibly attributed to the drought. The study rated as fair habitat condition for antelope.

CC#2 T.23N., R. 63E., Sec. 08 NESW

This permanent frequency study was established in 1995 in a location that both antelope and domestic livestock utilize. When initially established the study rated in a fair habitat condition

grazing pressure. Lower on the creek, eight detention structures were installed to provide pools for the fish.

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CC#2 T.23N., R. 63E., Sec. 08 NESW

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for antelope. The study was reread in 1998 and demonstrated a slight downward trend with a minimal loss of perennial grass and forb frequency. The study rated in a fair habitat condition for antelope.

CC#3 T.24N., R.63E., Sec. 10 NESW

This permanent frequency study was established in 1995 in a location that antelope and domestic livestock both utilize. The study initially rated in a fair habitat condition for antelope. The study has not been reread to date.

CC#4 T.25N., R.63E., Sec. 12 SENW

This permanent frequency study was established in 1979 in an area that mule deer, antelope and domestic livestock utilize. The study was established in a small aspen enclosure that at the time of establishment was open to livestock grazing. The area was closed to livestock grazing in the fall of 1981. When initially established, the study rated in a good habitat condition. The study has been reread in 1986, 1990 and 1994 and rated in a good habitat condition rating on all readings. Once elk are augmented into the Cherry Creek Mountain Range this study can be utilized to determine a habitat condition rating for elk.

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 thirty years of data at the Ely Station/ 1969 - 1998) 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 V. shows the yield indices for the Ely Station for the years 1993 through 1996.

Table 11. **Yield Indices, Ely Station**

Year	Yield Index
1993	1.15
1994	0.84
1995	1.60
1996	0.58
1997	0.89
1998	1.21

7. Utilization Data

a. Key Area Utilization

Key forage plant method utilization transects have been completed on various portions of the allotment since 1981. Utilization studies have been completed at the key area utilization cage locations and other primary grazing locations throughout the allotment. Sixty nine transects were completed in native range in May of 1995 for the 1994 grazing year, 104 transects were completed in April and May of 1997 for the 1996 grazing year, 109 transects were completed in April and May of 1998 for the 1997 grazing year, and 70 transects were completed in March and April of 1999 for the 1998 grazing year.

The following is a description of the utilization data collected for the three crested wheatgrass seedings and native range of the allotment:

1. South Egan Seeding

Nine key forage plant method transects were completed in the South Egan Seeding in April of 1995 for the 1994 grazing year. Two transects were completed at key area locations. Use ranged from 9.0% to 23.0%. Five photographs were taken of the seeding.

Eight key forage plant method transects were completed in the South Egan Seeding in September of 1995 for the 1995 grazing year. Two transects were completed at key area locations. Use ranged from 0.0% to 6.0%. Three photographs were taken of the seeding.

During August of 1998, eleven forage production transects were conducted in the South Egan Seeding. It was observed and documented that very little forage utilization had occured thus far in the grazing year. Utilization was less than 1% overall for the seeding.

During March of 1999, eight key forage plant method transects were conducted in the South Egan Seeding. Use ranged from 6.0% to 82.0%. Four photographs were taken of the seeding.

2. North Egan Seeding

Six key forage plant method transects were completed in the North Egan Seeding in April of 1995 for the 1994 grazing year. Two transects were completed at key area locations. Use ranged from 2.0% to 21.0%. Four photographs were taken of the seeding.

Ten key forage plant method transects were completed in the North Egan Seeding in September of 1995 for the 1995 grazing year. Three transects were completed at key area locations. Use ranged from 17.0% to 86.0%. Use was 86% at a key area cage. Three photographs were taken of the seeding.

Eleven key forage plant method transects were completed in the North Egan Seeding in August of 1996 following spring/summer cattle grazing. Three transects were completed at key area

locations. These transects were completed in support of a full use pattern map. Use ranged from 36.0% to 90.0%. Use was 90% at a key area cage and 86% in the south of the seeding. Three photographs were taken of the seeding.

Eight key forage plant method transects were completed in the North Egan Seeding in June of 1997 following spring/summer cattle grazing. These transects were completed in support of a full use pattern map. Three transects were completed at key area locations. Use ranged from 38.0% to 90.0%. Use was 90% at a key area cage. Five photographs were taken of the seeding.

Eight key forage plant method transects were completed in the North Egan Seeding in August of 1998 following spring/summer cattle use. Three transects were completed at key area locations. Use ranged from 35.0% to 90.0%. Use was again 90% at a key area cage. Three photographs were taken of the seeding.

Full use pattern maps were drawn for the North Egan Seeding in August of 1996 and June of 1997. The results of the mapping are indicated in Table 12 as follows:

Table 12 . **North Egan Seeding - Level of utilization by use class, in acres by year.**

Use Class	1996	1997
Light	197 Acres	280 Acres
Moderate	1120 Acres	940 Acres
Heavy	34 Acres	137 Acres
Severe	49 Acres	33 Acres
Total	1400 Acres	1390 Acres

3. Goshute Seeding

Seven key forage plant method transects were completed in the Goshute Seeding in May of 1997 for spring cattle use. Two of seven transects were completed at key area utilization cage locations. Use ranged from 22.0% to 54.0%.

Four key forage plant method transects were completed in the Goshute Seeding in October of 1997 in conjunction with four forage production studies. Utilization was measured at 5%, 42%, 15%, and 24%.

Seven key forage plant method transects were completed in the Goshute Seeding in March of 1999 for the 1998 grazing year. Two of seven transects were completed at key area cage locations. Use ranged from 15.0% to 55.0%.

4. Native Range

The Cherry Creek Allotment has been divided into eight general geographic areas in order to better analyze and interpret utilization data. The geographic areas have relatively similar plant communities and key forage plant species. The eight areas are as follows:

1. West of Drift Fence (Upper east facing benches of the Cherry Creek Mountains from Cherry Creek in the south to Goshute Creek in the north). This area consists mainly of black sagebrush/ricegrass/needlegrass or shadscale/ricegrass plant communities.

2. East of Drift Fence (Lower east facing benches of the Cherry Creek Mountains from Cherry Creek in the south to Goshute Creek in the north). This area also consists mainly of black sagebrush/ricegrass/needlegrass or shadscale/ricegrass plant communities.

3. North Bench (East facing benches of the Cherry Creek Mountains from Goshute Creek in the South to the Elko County line in the north). This area also consists mainly of black sagebrush/ricegrass/needlegrass or shadscale/ricegrass plant communities.

4. South Bench (East facing benches of the Cherry Creek Mountains from Cherry Creek in the north south to the Borchert Ranch). This area also consists mainly of black greasewood/big sagebrush/basin wildrye, black sagebrush/ricegrass/needlegrass or shadscale/ricegrass plant communities.

5. North Slough (Valley portion of the allotment north of the Cherry Creek Road and generally west of the railroad tracks). The topography is generally flat. This area consists mainly of black greasewood/alkali sacaton/saltgrass, alkali sacaton/alkali cordgrass, black greasewood/big sagebrush/basin wildrye, or black greasewood/basin wildrye/alkali sacaton plant communities.

6. South Slough (Valley portion of the allotment south of the Cherry Creek Road). This area consists mainly of alkali sacaton/alkali cordgrass, black greasewood/basin wildrye/alkali sacaton, black greasewood/big sagebrush/basin wildrye, and black greasewood/basin wildrye/saltgrass plant communities.

7. Woodcamp Pasture (West slopes of Becky Peak and east of Highway 93). This is an area of approximately 6,000 acres consisting mainly of black sagebrush/ricegrass/needlegrass and shadscale/ricegrass plant communities.

8. East Windmills Slough (Valley portion of the allotment north of the Cherry Creek Road and generally east of the Northern Nevada Railroad Tracks). This area consists mainly of black greasewood/basin wildrye/saltgrass, black greasewood/alkali sacaton/saltgrass, and black greaswood/big sagebrush/basin wildrye plant communities.

The following is a summary of the key forage plant method (KFPM) utilization transect data collected at the above eight areas of native range for the 1994, 1996, 1997, and 1998 grazing years. Use levels are based on Indian ricegrass, the main key perennial grass species on the bench areas of the allotment, and alkali sacaton and alkali bluegrass, the main key perennial grass species in the slough area. Use levels in the moderate (41 - 60%), heavy (61 - 80%), and severe (81 - 100%) use classes were averaged to determine the geographic area utilization level for each year. Table 13 below presents the results.

Table 13. - **Utilization Levels For Cherry Creek Allotment**

Area	1994	1996	1997	1998
1. West of drift fence	52%	47%	42%	51%
2. East of drift fence	70%	50%	51%	56%
3. North bench	55%	----*	76%	70%
4. South bench	79%	73%	73%	61%
5. North slough	48%	78%	61%	52%
6. South slough	46%	48%	61%	52%
7. Woodcamp pasture	----	62%	51%	60%
8. East windmills slough	44%	52%	48%	----

* ---- Dotted line indicates no summarized data for that year.

For a complete listing of utilization transects, see the utilization tables in Appendix VIII, beginning on page 78. For stocking level calculations based upon utilization data, see Appendix IX beginning on page 100.

In order to determine the allotment wide use levels, use levels were first determined for each of the eight geographic areas listed on page 31 (see also Table 13 above). Use levels from all eight areas were than averaged to determine the allotment wide utilization.

In 1994, the allotment wide use level is based on an average of 13 transects read for Indian ricegrass and 2 transects for alkali sacaton or alkali bluegrass. Allotment wide, use ranged from 22% on alkali sacaton to 84% on Indian ricegrass.

In 1996, the allotment wide use level is based on an average of 15 transects read for Indian ricegrass and 7 transects read for alkali sacaton or alkali bluegrass. Allotment wide, use ranged from 21% on Indian ricegrass to 84% on alkali sacaton.

In 1997, the allotment wide use level is based on an average of 24 transects read for Indian ricegrass and 15 transects read for alkali sacaton or alkali bluegrass. Allotment wide, use ranged from 21% to 88% on Indian ricegrass.

In 1998, the allotment wide use level is based on an average of 27 transects read for Indian ricegrass and 6 transects read for alkali sacaton or alkali bluegrass. Allotment wide, use ranged from 7% on alkali sacaton to 78% on Indian ricegrass.

Results of the KFPM utilization transect data completed for the allotment wide use levels are indicated in Table 14.

Table 14. - **Allotment Wide Raw Utilization Levels, Cherry Creek Allotment**

Year	Use Level
1994	56%
1996	59%
1997	58%
1998	59%

8. Frequency Trend Data

Frequency trend studies have been established on thirteen native key grazing areas in the allotment. Two trend studies were established in 1983, two studies were established in 1995, eight in 1996, and one in 1997. Plant species frequency was first measured at key areas CC-001 and CC-01 in June of 1983. These two key areas were re-read in 1989 and 1998.

Table 15 lists the results of the frequency trend studies for key areas CC-001 and CC-01. Only statistically significant changes are presented.

Table 15. **Frequency Trend Data for Key Areas on the Cherry Creek Allotment**

Key Area	Years Read	Significant Changes	Indicated Trend
CC-001 (East of Drift Fence)	83/89/98	Less ORHY Less SIHY Less ATCO Less ARSP More POSE More POSC More BRTE	Down

Key Area	Years Read	Significant Changes	Indicated Trend
CC-01 (North Slough)	83/98	Less SPGR Less POJU Less DIST More JUBA More CHAL More LOMAT	Down

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 thirteen key grazing areas of the allotment during the summer of 1998. The results are presented on the next page in Table 16.

Table 16. **Ecological Condition Status for Native Key Areas, Cherry Creek Allotment.**

Key Area	Allotment Area	Range Site	Veg Type	Ecological Status
CC-001	East of Drift Fence Trend not apparent	028BY011NV	Arno/Orhy	Mid Seral (fair)
CC-01	South Slough Trend declining	028BY002NV	Saline Meadow	Mid Seral (fair)
CC-02	South Slough Trend declining	028BY098NV	Wet Clay Basin	Mid Seral (fair)
CC-06	North Slough Trend not apparent	028BY002NV	Saline Meadow	Mid Seral (fair)
CC-07	East Slough Trend not apparent	028BY002NV	Saline Meadow	Late Seral (good)
CC-08	Woodcamp Trend not apparent	028BY011NV	Arno/Orhy	Mid Seral (fair)
CC-08b	Woodcamp Trend not apparent	028BY011NV	Arno/Orhy	Mid Seral (fair)
CC-09	East Slough Trend not apparent	028BY002NV	Saline Meadow	Mid Seral (fair)
CC-10	North Slough Trend not apparent	028BY002NV	Saline Meadow	Mid Seral (fair)
CC-11	North Bench Trend declining	028BY075NV	Atco/Orhy	Mid Seral (fair)
CC-16	West of Drift Fence Trend not apparent	028BY011NV	Arno/Orhy	Mid Seral (fair)
CC-16b	East of Drift Fence Trend not apparent	028BY075NV	Atco/Orhy	Mid Seral (fair)
CC-17	South Slough Trend improving	028BY002NV	Saline Meadow	Late Seral (good)

10. Cover Studies

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

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

The results of the ground cover studies completed in the Cherry Creek Allotment in the summer of 1998 are presented in Table 17 as follows:

Table 17. Ground Cover, Cherry Creek Allotment

Study Area	Ground Cover		Study Area	Ground Cover	
CC-01	Vegetation	28.5%	CC-02	Vegetation	39.0%
	Bare Ground	70.0%		Bare Ground	55.5%
	Litter	01.5%		Litter	05.5%
	Rock	00.0%		Rock	00.0%
Study Area	Ground Cover		Study Area	Ground Cover	
CC-04	Vegetation	34.7%	CC-06	Vegetation	28.5%
	Bare Ground	23.3%		Bare Ground	65.5%
	Litter	39.0%		Litter	05.5%
	Rock	03.0%		Rock	00.5%
Study Area	Ground Cover		Study Area	Ground Cover	
CC-07	Vegetation	45.0%	CC-08	Vegetation	25.0%
	Bare Ground	40.5%		Bare Ground	50.0%
	Litter	14.5%		Litter	14.0%
	Rock	00.0%		Rock	11.0%
Study Area	Ground Cover		Study Area	Ground Cover	
CC-08b	Vegetation	36.0%	CC-09	Vegetation	31.0%
	Bare Ground	43.5%		Bare Ground	66.5%
	Litter	15.5%		Litter	02.5%
	Rock	05.0%		Rock	00.0%
Study Area	Ground Cover		Study Area	Ground Cover	
CC-10	Vegetation	56.0%	CC-11	Vegetation	27.5%
	Bare Ground	31.0%		Bare Ground	38.0%
	Litter	13.0%		Litter	31.5%
	Rock	00.0%		Rock	03.0%

Study Area	Ground Cover	
CC-17	Vegetation	93.5%
	Bare Ground	00.0%
	Litter	06.5%
	Rock	00.0%

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

Key Area CC-001

Total cover of all vegetation = 21.43 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	14%
Squirreltail	05%
Ricegrass	T
Needlegrass	T
Black sagebrush	38%
Small rabbitbrush	33%
Shadscale saltbush	10%
Daisy	T

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

Bluegrass and cheatgrass are abundant in the area. Some plants are pedestalled. Cheatgrass not counted in transect because single stemmed species. Ricegrass is infrequent. Lichens and mosses are present. Trampling and compaction of soil are not a problem.

Key Area CC-01

Total cover of all vegetation = 5.36 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Alkali bluegrass	33%
Saltgrass	T
Creeping wild rye	T
Yarrow	17%
Unidentified forb	33%
Unidentified forb	17%

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

Juncus balticus (rush) was not counted in the transect because it occurs as a single stemmed species. Alkali cordgrass also not counted for the same reason. Both plants were common in the transect. This very salty area is poor in production. Little feed is available for grazing. The area appears it was once productive but has lost productivity due to heavy use and becoming saltier. No heavy trampling or compaction recently but soils are historically hummocky.

Key Area CC-02

Total cover of all vegetation = 6.28 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	33%
Poverty weed	17%
Aster	50%

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

Plant species present but not encountered in the transect were creeping wild rye, baltic rush, wild iris, and cinquefoil. Saltgrass was not counted because it occured as a single stemmed species. No trampling and compaction problems. 0% slope. No erosion or very slight. Light or less cow sign present from last grazing year.

Key Area CC-04

Total cover of all vegetation = 5.53 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Squirreltail	33%
Ricegrass	17%
Shadscale saltbush	50%

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

Cheatgrass is tall and thick, covering approximately 80% of the ground. Cattle would have trouble grazing the area. Cheatgrass is up to 30" high. It was not counted in the transect because single stemmed species. No trampling noted. Black cryptogams are present on a stable, gravel soil. Soil structure intact. Flat topography.

Key Area CC-06

Total cover of all vegetation = 9.42 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	70%
Unidentified forb	20%
Poverty weed	10%
Rosette thistle	T

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

Fine textured soil has no gravel, no mosses or lichens. Good species diversity, fair production. Area of mounded vegetation, averaging 6 feet in diameter. Bluegrass, saltgrass, sedge, muhlenbergia, poverty weed, and arrowgrass are present on the mounds. Poverty weed is very abundant. Creeping wild rye present on the flat but not encountered in the transect. Cattle utilization in this area has been moderate or less year after year. No compacting or trampling problems. No litter present.

Key Area CC-07

Total cover of all vegetation = 8.66 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	88%
Aster	T
Poverty weed	12%

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

Rush, saltgrass were not counted because single stemmed species. Basin wild rye and muhly present in the area but not encountered in the transect. Poverty weed is common in the area. A few young basin wild rye plants found. Good production of wild rye and bluegrass. No trampling or compaction problems on this silty bottom with crust surface.

Key Area CC-08

Total cover of all vegetation = 22.10 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	14%
Squirreltail	04%
Small rabbitbrush	64%
Winterfat	04%
Black sagebrush	14%

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

Present but not encountered in the transect were ricegrass and phlox. Ricegrass < 0.4% of the plant community. Many small bluegrass plants cover ground. Mild, west facing slope, about 5%. Soil well gravelled, stable, not compacted or trampled. Some lichens are present.

Key Area CC-08b

Total cover of all vegetation = 25.48 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	19%
Squirreltail	04%
Ricegrass	T
Small rabbitbrush	35%
Shadscale	31%
Bud sagebrush	08%
Winterfat	03%
Globemallow	T

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

Species present but not encountered in the transect were daisy and small pentstemon. Big sagebrush and spiny hopsage were present in the nearby shallow wash (well vegetated). Lichens cover a small percentage of the soil surface. Soils not compacted or trampled, but generally stable with light pedestalling. Large portion of soil surface covered with rabbitbrush or small bluegrass plants. Shadscale perhaps over rated in transect as representative of entire area.

Key Area CC-09

Total cover of all vegetation = 12.94 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Bluegrass	50%
Muhlenbergia	07%
Poverty weed	36%
Aster	07%

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

Single stemmed species present in the transect were creeping wild rye, arrow grass, and saltgrass. Creeping wild rye made up a considerable portion of the community. Arrow grass and saltgrass were also common. Species present but not encountered in the transect were basin wildrye, baltic rush, and alkali sacaton. Mildly salty, baked clay soil type. Poverty weed and arrow grass very abundant. No trampling or compaction due to cattle. Light cow sign from last fall.

Key Area CC-10

Total cover of all vegetation = 2.13 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Alkali bluegrass	50%
Muhlenbergia	50%
Yarrow like sp.	T
Arrow grass	T

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

Single stemmed species present in the transect were baltic rush, sedge, saltgrass, creeping wild rye, arrow grass, and poverty weed. Trampling is a minor problem, compaction no problem. No microphytes are present.

Key Area CC-11

Total cover of all vegetation =13.78 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Squirreltail	21%
Small rabbitbrush	72%
Shadscale	07%
Bud sagebrush	T

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

Cheatgrass not counted because single stemmed species. Cheatgrass is super thick, hard for cattle to graze. Species present but not encountered in the transect include bluegrass, ricegrass, and black sagebrush. Ricegrass is very infrequent. Soil pretty well gravelled, some pedestalling of plants noted but no problem with trampling or compaction. White cryptogams present, < 0.5% cover of ground.

Key Area CC-14

Total cover of all vegetation =9.73 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Ricegrass	34%
Squirreltail	22%
Shadscale	44%
Globemallow	T

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

Cheatgrass not counted in transect. Sea of cheatgrass present, approximately 80% of ground cover. Soil stable, not trampled, not compacted. Structure intact - lichens present on the soil surface. No problem with cover.

Key Area CC-16

Total cover of all vegetation =17.99 feet (of 100 feet).
Vegetation composition by percent along the 100 foot transect is as follows: (T = trace).

Species	Percent Composition
Ricegrass	11%
Squirreltail	11%
Needlegrass	T
Bluegrass	05%
Black sagebrush	32%
Small rabbitbrush	25%
Shadscale	T
Phlox	11%
Asragalus	T
Bluebell	05%

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

Cheatgrass not counted because single stemmed species. It is super abundant covering about 30% of the ground surface. Red or black lichens present, cover < 5.0% of soil surface. Good diversity of species present. Trampling no problem, soils not compacted.

Key Area CC-17

A cover transect was not recorded because in excess of 100% of the ground was covered by foliar cover of the following species:

Cinquefoil, wild iris, sedge, redtop, alkali cordgrass, muhlenbergia, wild rye, baltic rush, meadow barley, musk thistle, and two types of unidentified forbs. No trampling or compaction problems were identified.

11. Forage Production Data

Forage production studies were accomplished in the Goshute Seeding in October of 1997. Forage production studies were accomplished in the South and North Egan Seedings in August of 1998. The results of the rangeland production studies are as follows:

Goshute Seeding - Forty hoops were thrown (4 transects - 10 hoops each).
Total vegetation production ranged from 663 to 1127 lbs. per acre.
Total production averaged 861 lbs. per acre.
Crested wheatgrass production ranged from 561 to 793 lbs. per acre.
Crested wheat production averaged 668 lbs. per acre.

South Egan Seeding - Two hundred hoops were thrown (20 transects - 10 hoops each).
Total vegetation production ranged from 817 lbs. per acre to 3130 lbs. per acre.
Total production averaged 1167 lbs. per acre.
Crested wheatgrass production ranged from 664 to 3114 lbs. per acre.
Crested wheatgrass production averaged 1115 lbs. per acre.

North Egan Seeding - Sixty hoops were thrown (6 transects - 10 hoops each).
Total vegetation production ranged from 553 lbs. per acre to 1020 lbs. per acre.
Total production averaged 798 lbs. per acre.
Crested wheatgrass production ranged from 453 to 903 lbs. per acre.
Crested wheat production averaged 712 lbs. per acre.

Refer to Appendix IX for forage production calculations and stocking levels for the crested wheatgrass seedings.

12. Riparian Data

The following is a summary of the monitoring data collected for riparian areas of the allotment from 1994 through 1998. Data was collected for both lentic (spring) and lotic (stream) riparian areas.

A cluster of eight small springs/seeps were identified in the Cherry Creek Allotment in December of 1980. Photographs were taken. The springs/seeps are located on public land south of the Cordano Ranch in T. 25N., R. 64E., Section 5, SE 1/4. They are on level terrain amidst salt desert shrub range. Nevada Water Resource Inventory forms were completed for all eight of the springs, numbered 634 - 641. The inventory forms indicated the largest spring had a flow estimated at 1/4 to 1/2 gallon per minute (gpm) with other springs having less than 1/4 gpm flow or no flow at all. All springs/seeps wre unfenced and trampled heavily. Two springs were classified as perennial while four were intermittent.

In July of 1995 lentic (spring) Proper Functioning Condition studies were completed by a riparian team for five of the eight sources, numbers 635, 637, 638, 639, and 640. In addition, Nevada Water Resource Inventory forms wre completed and photographs taken. The results of the studies are as follows:

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 5, SE 1/4
Site designation - 635 (unnamed spring)
Final riparian rating - Functional at risk with trend not apparent to down

Survey remarks - Size of riparian area approximately 20 foot diameter circle. The riparian - wetland zone is shrinking and disturbance due to hoof action is present. Severe hummocking is present with hummocks up to one foot high. Overgrazing is present.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 5, SE 1/4
Site designation - 637 (unnamed spring)
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 15 ft. X 25 ft. The riparian - wetland zone is shrinking and disturbance due to hoof action is present. Green algae is present in the water. Some hummocking is present, heavy cattle use is noted, and riparian plant species exhibit poor to moderate vigor with plants thinning out.

Date of survey - 07/1995
Location of survey - T. 25N., R.64E., Section 5, SE 1/4
Site designation - 638 (unnamed spring)
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 50 ft. X 80 ft. The riparian - wetland zone is stable and good vegetative cover is present on the banks. The overall condition of the site is good with some trampling noted. Moderate grazing has occurred on grasses, rushes, and sedge.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 5, SE 1/4
Site designation - 639 (unnamed spring)
Final riparian rating Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 25 ft. X 50 ft. The riparian - wetland zone is shrinking and plant species that indicate maintenance of riparian - wetland soil moisture characteristics are declining. The overall condition of the site is poor and utilization is heavy. Purple thistle and hummocks are present.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 5, SE 1/4
Site designation - 640 (unnamed spring)
Final riparian rating - Nonfunctional with a downward trend

Survey remarks - Size of riparian area approximately 25 ft. X 25 ft. The riparian - wetland zone is shrinking, hoof action is noted, and the overall condition is poor. The area is dry and the riparian habitat has been lost.

A second cluster of ten small springs/seeps was also identified in the Cherry Creek Allotment in December of 1980 and June of 1982. These springs are located in the Goshute Seeding in T. 25N., R. 64E., Section 17, NE 1/4. They are on level terrain amidst the crested wheatgrass of the seeding. The springs/seeps are an important cattle watering source when cattle are authorized to graze the seeding. Inventory forms were completed for three of the springs in December of 1980 and four of the springs in June of 1982. Inventory forms indicated spring/seep flows were estimated from less than 1/2 to 2 gpm. Flows were unmeasureable

because of seep like conditions. Five of six reports indicated the spring source was getting trampled and could be fenced.

In July of 1995 lentic (spring) Proper Functioning Condition studies were completed by a riparian team for eight of the ten water sources (six forms) numbered 644 - 650R. In addition, Nevada Water Resource Inventory forms were completed and photographs taken. The results of the studies are as follows:

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 644 (unnamed spring)
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 20 ft. X 100 ft. Wetland plants exhibit fair vigor. Water is degraded and stagnated, with excess algae at the source. Heavy trampling is noted. Severe hummocking present at source. Current year utilization is 30% on sedge, rush, and bluegrass. Good condition at source then degrades to poor away from the source.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 644 A (unnamed enclosed spring)
Final riparian rating - A Proper Functioning Condition study was not done for this enclosed spring. The tiny spring source was dry amidst thick vegetation. It was noted on the survey form that the spring was not responding to being enclosed.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 645
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 20 ft. X 150 ft. Hummocking is present around the source. Bare bank is present around the source due to trampling and overgrazing. Mustard and poverty weed are present around the source. Current year's utilization estimated at 20%. Overall condition of site noted as good.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 646
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 25 ft. X 200 ft. Severe hummocking is present around the sources (2). Overall condition of the site noted as fair to good. Some stagnation is present.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 647
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 30 ft. X 250 ft. Minor trampling is present around the source. Overall condition of the site noted as good. Some hummocking and bare banks around the source. Current year's utilization estimated at 15%.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 648
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 15 ft. X 50 ft. Water quality is not sufficient to support riparian-wetland plants. Flow patterns are altered by disturbance. Severe hummocking is present at the source. Alot of mustard is present. Overall condition of the site is poor.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 17, NE 1/4
Site designation - 649
Final riparian rating - Functional at risk with a downward trend

Survey remarks - This site is composed of two riparian areas approximately 40 ft. apart from each other. Total area approximately 750 square ft. Hummocking present and shoreline exhibits hoof action.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 19, SE 1/4
Site designation - 650R
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 100 ft. X 300 ft. Some trampling and evidence of erosion present at the riparian/upland boundary. Overall condition of the site is fair to good. Abundant mustard, thistle, and pig weed is present. This site was identified in 1982 as a perennial source without improvements that was being trampled and could be fenced.

A third cluster of five small springs/seeps was also identified in the Cherry Creek Allotment in June of 1982. These springs are located south of the Green Ranch in an area of public land that has been fenced on two sides. They are on level terrain amidst salt desert shrub range. Inventory forms were completed for the five springs in June of 1982. Inventory forms indicated spring/seep flows were measured or estimated from no visible flow to 2 gpm. Five of six reports indicated troughs could be installed.

In July of 1995 lentic (spring) Proper Functioning Condition studies were completed by a riparian team for six springs/seeps in the area identified above. One new spring/seep was also identified and studied. These seven riparian studies were numbered 651, 652R, 652-1R, 653, 654, 671, and 672. In addition, Nevada Water Resource Inventory forms were completed and photographs taken. The results of the studies are as follows:

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 651
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately one acre. Overall condition of the site is good. Trampling is minimal and a lot of wildflowers are present.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 652R
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 20 ft. X 150 ft. Some trampling around the banks. White top and thistle are present. Spring has a concrete collection box.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 652-1R (New)
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 30 ft. X 50 ft. Overall condition of the site is fair. Some trampling and minimal stagnation noted. Current year's utilization estimated as slight (10%). No visible flow.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 653
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 20 ft. X 100 ft. Hummocks are present and there is no visible flow. The site fails to retain water and salt is leaching to the surface.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 654
Final riparian rating - Nonfunctional

Survey remarks - Size of riparian area approximately 10 X 10 ft. The size has declined significantly. The seep has dried up and the remaining riparian vegetation has receeded drastically.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 671
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 20 ft. X 20 ft. Approximately one half of the site has been lost to hummocking. The site has been affected severely from trampling.

Date of survey - 07/1995
Location of survey - T. 25N., R. 64E., Section 20, SW 1/4
Site designation - 672
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 30 ft. X 30 ft. Approximately 1/3 of the riparian site is lost due to hummocking and/or less flow from the source. Sediment is being deposited on the spring source from upland erosion.

A fourth cluster of small springs/seeps was also identified in the Cherry Creek Allotment in July of 1983. These springs are located northeast of the Cordano Ranch on level terrain in a saline bottom area of the floodplain. Inventory forms were completed for the three sites in July of 1983.

In July of 1995 lentic (spring) Proper Functioning Condition studies were completed by a riparian team for the cluster of springs identified above. The riparian areas were identified as 712, 713, 714, and 715. In addition, Nevada Water Resource Inventory forms were completed and photographs taken. The results of the studies are as follows:

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 27 NW 1/4
Site designation - 712
Final riparian rating - Functional at risk with trend not apparent.

Survey remarks - Size of riparian area less than 4 acres or about 20 ft. X 1/4 mile. Hummocking and severe trampling are present at south spring head. Could not sustain anymore grazing pressure at spring head without condition deteriorating fast. Fencing of heads would help. Banks sloughing.

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 27 SW 1/4
Site designation - 713
Final riparian rating - Functional at risk with trend not apparent

Survey remarks - Size of riparian area approximately 1/4 acre. Spring head shrinking. Banks are trampled by cattle. Bare banks are present. Hummocks present. Riparian-wetland zone is not enlarging. Spring flow estimated at 1/2 gpm in 1983 and 0.3 gpm in 1995.

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 27 NW 1/4
Site designation - 714
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 25 ft. X 1500 ft. Small hummocks present. Slight bank impact with compaction from cattle. North source is altered by disturbance and bermed. Fencing of spring head could help riparian area.

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 27 SW 1/4
Site designation - 715
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area (springs 1,2) approximately 30 ft. X 300 ft. (spring 3) approximately 15 ft. X 100 ft. Overall condition of riparian area good. Moderate trampling.

Additional Proper Functioning Condition studies accomplished during 1995 are as follows:

Date of survey - 08/1995
Location of survey - T. 25N., R. 63E., Section 17, NW 1/4
Site designation - 711R
Final riparian rating - Proper functioning condition with trend not apparent

Survey remarks - Size of enclosed riparian area approximately 50 ft. X 50 ft. Enclosure in good condition. In July of 1983 spring flow was measured as 25 gpm. In August of 1995 flow was estimated at 2.5 gpm.

Date of survey - 08/1995
Location of survey - T. 25N., R. 63E., Section 7, SE 1/4
Site designation - 678, 679, 680
Final riparian rating - Functional at risk with trend not apparent

Survey remarks - Three springs flow together to form one creek. Hoof action and hydrologic heaving noted.

Date of survey - 08/1995
Location of survey - T 25N., R. 63., Section 8, SW 1/4
Site designation - 682
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area less than 1 acre. Invasion of upland species evident. Trampling and hoof action noted.

Date of survey - 08/1995
Location of survey - T 25N., R. 63., Section 8, SW 1/4
Site designation - 685
Final riparian rating - Functional at risk with trend not apparent

Survey remarks - Small seep located in road. Road erosion and hoof action are noted. Seep is subject to routing by passing vehicles. Some evidence of livestock use.

Date of Survey - 07/1995
Location of survey - T. 25N., R. 63E., Section 35, NW 1/4
Site designation - 686 - Lime kiln spring
Final riparian rating - Proper functioning condition

Survey remarks - This is a lotic (stream) system. Flows from April to 1st of June in normal years and to end of July in wet years. No bare banks or cattle degradation is present. Size of riparian area approximately 1/2 mile strip X 20 ft. wide. Water flow estimated at 250 gpm in July of 1995.

Date of survey - 07/1995
Location of survey - T. 25N., R. 63E., Section 32, SW 1/4
Site designation - 687 - Log canyon spring
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area approximately 2 acres. Overall in good condition with some trampling. Slight grazing on current year's growth. This is a developed spring with a tank holding 500 gallons of water.

Date of survey - 07/1995
Location of survey - T. 24N., R 63E., Section 16, NE 1/4
Site designation - 669 - Halloway spring
Final riparian rating - Proper functioning condition

Survey remarks - Size of riparian area very small, 3 ft. X 10 ft. Very little vegetation present. No apparent flow. A few thistle plants present. Deer use noted. Spring flow measured at 0.29 gpm in June of 1982.

Survey remarks - Size of riparian area approximately 1/4 acre. Spring head shrinking. Banks are trampled by cattle. Bare banks are present. Hummocks present. Riparian-wetland zone is not enlarging. Spring flow estimated at 1/2 gpm in 1983 and 0.3 gpm in 1995.

Survey remarks - Size of riparian area (springs 1,2) approximately 30 ft. X 300 ft. (spring 3) approximately 15 ft. X 100 ft. Overall condition of riparian area good. Moderate trampling.

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 22 NW 1/4
Site designation - 716 A
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 15 ft. X 300 ft. Severe hummocking present. Riparian vegetation going out. Current year's utilization about 60%. Abundance of thistle present.

Date of survey - 07/1995
Location of survey - T. 26N., R. 64E., Section 22, NW 1/4
Site designation - 716 B
Final riparian rating - Functional at risk with a downward trend

Survey remarks - Size of riparian area approximately 20 ft. X 300 ft. Very extreme trampling present and hummocking. Riparian zone almost gone. The spring will be lost if corrections are not taken.

There are three creeks (lotic riparian areas) that generally flow year round within the Cherry Creek Allotment. The creeks are Goshute Creek, Duck Creek, and Egan Creek. The Duck Creek wetlands, also refered to in this evaluation as lowland riparian, is an area of up to several thousand acres surrounding Duck Creek. This area is also commonly referred to as "the slough" and consists mainly of wet meadow, saline bottom, and saline meadow range sites. The acres of wetland vegetation within these sites may vary year by year due to variations in precipitation and climate. The water flow in Duck Creek also varies year by year for the same reasons.

Goshute Creek

Goshute Creek has provided habitat for the Nevada BLM sensitive Bonneville cutthroat trout since 1954. The fencing of the lower creek began in 1974 and was completed in 1975. Livestock have been excluded from the creek area since 1982 when gates were closed and a cattleguard was installed. Only occasional cattle use has been noted inside the fenced exclosures in the last 17 years.

BLM and NDOW have conducted regular stream and fish population surveys on the creek since 1975. The most recent BLM monitoring in October, 1996 concluded "Goshute Creek has shown steady improvement from station S-6 (aspen near the canyon mouth) upstream for the last 12 years. The lower stream (about 2 miles in high water) has been changed so much (by local rancher and flooding) it has little value for riparian or fish. The lower portion of the stream had diverted back to the northern channel due to high flows.

The most recent fish population survey by NDOW was on November 18, 1996. It showed population levels of Bonneville cutthroat trout increasing. The stream has been recovering since drastic flooding and head cutting in 1983 and 1984 which caused severe damage to the lower stream.

Water quality monitoring was conducted in 1980. Water samples were taken in May, July, and September. All parameters including heavy metals sampled were within their normal range of concentration.

The most recent Proper Functioning Condition rating of Goshute Creek occurred in 1994. The stream was rated as functional-at-risk with an upward trend. The main risk factor for the upper stream is periodic flooding due largely to the confined nature of the canyon and steep canyon walls.

Table 19 lists results of Proper Functioning Condition studies completed in 1994 for Goshute Creek.

Table 19. **Proper Functioning Condition Studies, Goshute Creek**

Site Name	Location	Date of Survey	Rating	Remarks
Lower Goshute Creek (Lotic)	T24N/R63E T24N/R64E	10/18/94	Functioning at Risk Upward trend 2 miles	New aspen, lots of grass, flooding still hazard
Upper Goshute Creek (Lotic)	T24N/R63E	10/18/94	Functioning at Risk Upward trend 4 miles	Natural widening within head cuts, a few livestock have been inside exclosure

Table 20 lists results of Proper Functioning Condition studies completed in 1998 for Egan Creek, Duck Creek, Duck Creek Wetlands, and additional lentic riparian areas.

Table 20. **Proper Functioning Condition Studies, Cherry Creek Allotment**

Site Name	Location	Date of Survey	Rating	Remarks
Egan Creek (Lotic)	T23N/R62E	8/17/98	Functioning at Risk (FAR) Trend not apparent	Cattle trailing evident, mining on private land may effect creek, Upper meadows on pvt. heavy use, threats are outside BLM control.
Duck Creek-stream riparian (Lotic)	22N/63E/Sec 1/12/13/24	8/17/98	Proper Functioning Condition (PFC) 5.5 miles (35 acres)	Bank trampling on some outer corners, 12 cows, light grazing use, northern pike present.
Duck Creek lowland riparian North of Cherry Creek Road	24N/64E/Sec 31/32/30/ 29/20/27/11/6	8/17/98	PFC- for lentic 1600 acres	Livestock use light, creek dry.
Duck Creek lowland riparian South of Shellbourne Road	22N/63E/Sec 1/12/13/24	8/17/98	PFC- for lentic 1370 acres.	Light use by cattle, good condition.
Duck Creek lowland riparian North of Shellbourne Rd. & South of Cherry Creek Road	22N/63E Sec 1 23N/63E Sec 36/24/13/12	8/17/98	PFC- for lentic on BLM 530 acres	Stream only flows .75 miles north. Livestock use light, now on private.
Spring/pond south of Cherry Creek Road (Lentic)	23N/64E/Sec 6 SE1/4	8/17/98	FAR- upward trend 0.5 ac.	Cattle trampling along shore. Waterfowl use.
Star Shaft Spring (Lentic)	24N/63E/Sec 23/33	8/17/98	FAR- Trend not apparent to stable	Outflow from spring has been ditched, water right holder could pipe.

General Comments - 1998

The survey was conducted after a very wet year. This lead to extended stream flow and better than normal livestock distribution on wetland areas. Estimates of acreage of wetlands can vary between wet and dry years. Acreages reported are an average figure of areas which are thought to have mesic soils indicating flooding/saturation on a regular basis.

V. CONCLUSIONS

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 the management practices are in conformance with the Northeastern Great Basin Standards.

Cherry Creek Allotment Monitoring Data:

Key forage plant method utilization transects, utilization pattern mapping, ecological condition, frequency trend, observed apparent trend, cover studies, and riparian proper functioning assessment data were used to determine the attainment of the standards. Nevada water resource inventory forms supplemented the riparian data.

Standard 1. Upland Sites:

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

Findings - Key area soil factors as presented in range site descriptions:

The soils in the slough area in the valley portion of the allotment are generally deep, calcareous, and poorly drained. These soils are moist or flooded silts, regular silts, silty clays, or wet silty clays.

Valley soils are generally salt and sodium affected in the upper profile. A seasonably high water table is generally present. Soils are occasionally flooded for brief periods in spring. The surface layer of clay soils will crust and bake upon drying, inhibiting water infiltration and seedling emergence. Due to the saline condition of soils, seed viability, germination, and water holding capacity is reduced. Slow runoff and ponding in depressional areas is common.

Wet meadow soils are generally fertile. Saline meadow soils are susceptible to gullying and site degradation. Saline bottom and sodic flat soils have a slight to moderate erosion hazard.

The soils on the valley terraces and benches are gravelly silts, gravelly sandy loams, sandy loams, gravelly loams, or loams. Soil properties vary with range site as follows:

028BY011NV (Shallow calcareous loam 8 - 10") - Soils are typically shallow and well drained. A restrictive layer within the main rooting depth is common. Available water holding capacity is very low to low, water intake rates are slow to moderate and runoff is slow to medium.

028BY074NV (Sodic terrace 5 - 8") -Soils are typically deep and well drained. Soils are generally calcareous and saline. Runoff is slow, permeability is slow and available water holding capacity is high.

028BY075NV (Coarse gravelly loam 6 - 8") -Soils are moderately to strongly alkaline and are calcareous throughout. Soils are generally well drained and have low available water holding capacity. Potential for erosion is slight to moderate depending upon slope and surface texture.

Findings - Current resource conditions related to upland sites standard:

Rangeland monitoring studies indicate that the amount of vegetative canopy and ground cover is appropriate to the potential for the site at seven of eight upland key areas in the allotment. All eight key areas in the uplands have been rated in mid seral (fair) ecological condition. Trampling and compaction of soils are not a problem at any of the upland sites. Litter, live vegetation, and rock are currently appropriate to the potential of the majority of range sites in the uplands. Upland key areas are on slopes from 0 - 10%, which contributes to soil stablity and appropriate infiltration and permeability rates. Utilization data indicates a general pattern of moderate grazing use during the evaluation years with heavy use indicated in certain areas. Microphytes (lichens and mosses) are present at all key upland areas, however they generally covered less than 1% of the soil surface. On key area CC-11, moderate plant pedestalling, small amounts of active erosion, and a declining trend have been documented. Declining range trend has also been documented for key area CC-001 and key area CC-02. All other key upland areas show a static trend (trend not apparent), with the exception of key area CC-17, showing an improving trend.

Cheatgrass (Bromus tectorum) is abundant at several of the key upland areas. At key areas CC-14 and CC-16, cheatgrass made up approximately 80% of the ground cover. Perennial grass plants or co-dominant native shrubs are infrequent or lacking in production at several key upland areas, as documented by ecological condition studies, frequency trend studies, and utilization studies. The roots of cheatgrass do not hold the soil together as well as native perennial plants, however they are currently contributing to maintain the watershed potential. The overall range trend for approximately 20% of the land area in the allotment is towards more cheatgrass and less perennial species. Other common undesirable vegetation present in the allotment includes mustard, halogeton, rabbitbrush, thistle, whitetop, poverty weed, wild iris, and Russian thistle.

Conclusion: Standard achieved (marginally achieved).
Refer to the Technical Recommendations section of the evaluation for those proposed grazing management actions or practices to be applied to ensure continued progress toward fulfillment of the standards and 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: Lentic Sites

Of thirty-two lentic riparian studies monitoring functionality (see riparian data beginning page 42) thirteen areas were found to be in proper functioning condition, thirteen areas were found to be functioning at risk with a downward trend, four areas were found to be functioning at risk with trend not apparent, and two areas were non-functional with a downward trend. In

addition, declining range trend has been documented at key areas CC-01, CC-02, and CC-17.

Many riparian areas have been used heavily during the evaluation years. Utilization limits established to maintain watershed cover have been exceeded. Utilization at spring/seep sources has exceeded Nevada Rangeland Monitoring Handbook (NRMH) recommended levels.

Bare soil is present in and around spring/seep areas. Adequate vegetation has not been present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to site characteristics. Survey remarks for many of the spring/seep sources indicated shrinking riparian areas, severe hummocking, stagnated water with excess algae, disturbance due to heavy trampling and hoof action, overgrazing, overall poor condition, water quality insufficient to support wetland plants, bare banks, and invasive plant species present.

Historically the season of use for cattle grazing has been year long in the Cherry Creek Allotment. During summer, cattle tend to concentrate on the riparian areas, which has contributed to the degradation of these areas. Cattle also concentrate on the spring/seep areas within the Goshute Seeding when authorized to use the seeding.

Conclusion: Standard not achieved (lentic). Existing grazing management and levels of grazing use within the Cherry Creek Allotment are significant factors in failing to achieve this objective. Changes in grazing management will be implemented no later than the start of the next grazing year: 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.

Findings: Lotic Sites

Egan Creek was rated functioning-at-risk with trend not apparent in 1998. Most of the factors affecting Egan Creek are outside BLM control, including grazing and mining on private lands.

Goshute Creek was rated functioning-at-risk with an upward trend in 1994. Because the creek has been excluded from grazing for 17 years and because of classification as a Wilderness Study Area, the creek is doing as well as can be expected following major flooding 15 years ago.

Duck Creek (5.5 miles on BLM) was rated proper functioning condition in 1998. Flows in the creek vary greatly between high and low water runoff years.

Conclusion: Standard achieved (lotic).
Refer to the Technical Recommendations section of the evaluation for those proposed grazing management actions or practices to be applied to ensure continued progress toward fulfillment of the standards and 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."

Key forage plant method utilization transects conducted in the allotment for the 1994, 1996, 1997, and 1998 grazing years (see page 30) indicate generally moderate forage utilization, however heavy use of Indian ricegrass is indicated in five instances and severe use in four instances. Heavy use of needlegrass is indicated in one instance and heavy or severe use of alkali bluegrass is indicated three times. Historical heavy and severe utilization is indicated in the range east of the Big Rock Seeding, around the Burgett Ranch (especially south of the ranch), where several meadow areas have degraded to halogeton only, and around the Cordano Ranch.

Frequency trend data shows a significant downward trend in desired plant species occurence at key areas CC-001 and CC-01. Ecological condition studies for thirteen key areas indicate eleven key areas of native range in fair condition and two key areas in good condition. Trend is not apparent at nine key areas, declining at three key areas, and improving at one key area.

Rangeland notes taken from utilization forms during 1995, 1997, and 1998, and 1999 indicate the proliferation of undesirable plant species throughout the native ranges of the allotment. Cheatgrass, halogeton, mustard, Douglas rabbitbrush, rubber rabbitbrush, thistle, poverty weed, and wild iris have all been documented as abundant on the range, where other more benificial and palatable key perennial plant species should be making up the plant communities. The abundance of undesirable plant species indicates that vegetation cover, composition, and production are not appropriate on both the uplands and riparian areas of the allotment. Vegetation structure and distribution are appropriate, according to range observations made while conducting other rangeland monitoring studies throughout the allotment. Many riparian areas are not in proper functioning condition.

Conclusion: Standard not achieved
Existing grazing management and levels of grazing use on the public lands within the Cherry Creek Allotment are significant factors in failing to achieve this standard. Changes in grazing management will be implemented no later than the start of the next grazing year: Refer to the Technical Recommendations section of the evaluation for those proposed actions or practices to be applied to ensure significant progress toward fulfillment of the standards and towards 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.

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: Utilization data for the native range of the Cherry Creek Allotment shows a general pattern of moderate grazing use, with specific areas showing heavy or severe use during some of the evaluation years. Cattle distribution has been good in some areas, such as the Cherry Creek benches, and poor in other locations. Specific areas of cattle concentration have been in the slough near Duck Creek, around the Burgett Ranch and Big Rock Seeding, and around the Cordano Ranch. The yearlong season of use for cattle is resulting in negative impacts to these concentration areas. Ecological status data shows the majority of the allotment is in mid seral (fair) ecological condition with trend not apparent. Trend is declining on three of the key areas in fair condition. Two key areas are in late seral (good) condition with trend not apparent. Ecological status data, frequency trend data, cover studies, and notes from utilization studies all document an abundance of invasive annuals or undesirable perennials throughout much of the allotment. Conversely, many key perennial grasses, shrubs, or forbs are lacking on the range sites. This results in an inappropriate vegetation composition and production.

2. Wild Horse Short/Long Term Objectives

Objective Partially Met

Rationale: Wild horses use two main areas of the allotment (see pages 22, 24). Wild horses in the Antelope Herd use the Woodcamp Pasture to the east of Highway 93. There has been no cattle grazing in the area in many years because of the lack of a highway right of way fence. Wild horses in the Butte Herd use the southern and western portions of the Egan Basin that are north of Black Canyon. Utilization of Indian ricegrass in the Woodcamp Pasture has been measured as heavy during two years of the evaluation. An ecological condition study accompished for key area CC-08 in the Woodcamp Pasture during the summer of 1998 shows the site to be in mid seral (fair) condition with trend not apparent. A rangeland memorandum dated October 29, 1997 indicates the Egan Basin area has a vigorous perennial grass component with slight or less utilization.

3. Mule Deer Short/Long Term Objectives

Objective Met

Rationale: One allotment specific study is currently being used to monitor mule deer use. There are no key areas specifically identified for mule deer in the allotment. Key forage plant method utilization transects conducted in the West Bench area during the evaluation years show generally moderate or less use of key forage species. A rangeland memorandum dated October 29, 1997 in addition to utilization transects completed in the summer of 1998 show areas of the Egan Basin in good condition with generally light or less grazing use. The Woodcamp Pasture west of Becky Peak is currently in mid seral (fair) ecological condition. Mule deer summer and migratory range in the allotment are in good habitat condition.

4. Antelope Short/Long Term Objectives

Objective Partially Met

Rationale: Key forage plant method utilization transects conducted during the evaluation years show a general pattern of moderate grazing use by cattle on the native uplands, with specific areas of heavy use identified. Those shrubs identified as key species for antelope (page 17) have not been overgrazed during the evaluation years. No particular grass or forb is considered a key forage plant for antelope in the allotment.

Ecological condition studies conducted on the allotment show a majority of the range sites on the allotment to be in mid seral (fair) ecological condition, with trend not apparent. Invasive annual weeds and undesirable perennial shrubs are abundant, while more beneficial perennial grasses, forbs, and shrubs are declining. Many riparian areas on the valley bottom are functioning at risk with a downward trend or not functioning.

5. Riparian Areas

Objective Not Met

Rationale: Thirteen spring/seep areas in the allotment have been classified as in proper functioning condition. Thirteen spring/seep areas have been determined to be functioning at risk with a downward trend. Four spring/seep areas have been classified as functioning at risk with trend not apparent. Two areas are non-functional with a downward trend.

Survey remarks for many of the spring/seep sources indicated shrinking riparian areas, severe hummocking, stagnated water with excess algae, disturbance due to heavy trampling and hoof action, overgrazing, overall poor condition, water quality insufficient to support wetland plants, bare banks, and invasive plant species present. Historically the season of use for cattle grazing has been year long in the Cherry Creek Allotment. During summer, cattle tend to concentrate on the riparian areas, which has contributed to the degradation of these areas. Cattle also concentrate on the spring/seep areas within the Goshute Seeding when authorized to use the seeding.

VI. TECHNICAL RECOMMENDATIONS

A. Issues identified on the Cherry Creek Allotment

1. Native plant communities have been overgrazed (allowable use levels exceeded) on specific areas of the allotment (see Table 13 and supporting data on page 32).
2. Range trend static or downward at twelve of thirteen key areas of the allotment, with a significant decline of perennial grasses and shrubs at two key areas.
3. The abundance of undesirable vegetation throughout the allotment, including cheatgrass, mustard, halogeton, rabbitbrush, thistle, whitetop, poverty weed, wild iris, and Russian thistle.
4. Inadequate livestock distribution. Certain areas of the native range have historically been overutilized while the crested wheatgrass seedings have generally been underutilized, particularly the South Egan Seeding and the western portions of the North Egan Seeding and Goshute Seeding. This is in part due to an inadequate water supply to the seedings.
5. A majority of the allotment is in mid seral (fair) ecological condition.
7. The majority (19 of 32) lentic riparian areas in the allotment are not meeting the standard of proper functioning condition (PFC). Improper livestock grazing practices were indicated as the reason for these riparian areas to be in less than PFC. Livestock grazing in the Goshute Seeding has also resulted in the degradation of riparian areas within the seeding.
8. Permittees are in favor of continuing to graze in common on the allotment without specific use areas defined. Coordination amongst the permittees has led to orderly administration of the allotment.
9. Water hauling and pumping of wells by George Irlbeck has contributed to proper utilization levels and improved livestock distribution in the allotment.
10. Sage grouse guidelines for sage grouse and sagebrush ecosystems are currently being prepared by the Bureau of Land Management for the state of Nevada, in response to the possibility that the Western sage grouse will be listed under the Endangered Species Act as a threatened species across its range. Grazing management strategies recommended by this evaluation need to take into account sage grouse habitat requirements and provide for healthy seasonal habitats for sage grouse.

The following recommendations are needed to meet the identified resource objectives and improve the rangeland forage conditions on the Cherry Creek Allotment.

B. Short Term Recommendations

1. Adjust the stocking levels on the native range of the allotment. Stocking level calculations are located in Appendix IX, page 100.

Option A - Set the stocking level at 3,500 AUMs (rounded up from 3,459 AUMs) as indicated by rangeland monitoring studies. The stocking level of 3,500 AUMs for native range would be allocated to the six permittees as follows:

Permittee	Permitted Use (AUMs)
Sterling Wines	324
Herb Stathes	383
Indian Creek Ranch	400
Kay & Mary Lear	189
Kitt Lear	1259
Turner & Irlbeck	945
Total.....	3500

See Appendix IX, page 103 for the calculations that are the basis for the above allocation to native range.

Option B - Set the stocking level at 3,800 AUMs. Permitted use above 3,500 AUMs would be authorized only if the following terms and conditions (specific management practices to distribute cattle use) are followed:

a) Water hauling is required to the sagebrush plant communities on the east facing benches of the Cherry Creek Range generally west of the Salvi Ranch.

b) Slough Well No. 3 (about 4 miles northerly from Cherry Creek, Nevada) will be repaired and pumped and troughs filled to distribute cattle use. Water hauling to the area is required if the well will not work.

c) Water hauling is required to the northeast portion of the allotment.

d) Water hauling is required to the Woodcamp Pasture east of Highway 93 should one of the livestock permittees choose to graze cattle in the area.

The exact location for water hauling to the above locations will be determined by the authorized officer in cooperation with the livestock permittee on an annual basis.

The stocking level of 3,800 AUMs for native range would be allocated to the six permittees as follows:

Permittee	Permitted Use (AUMs)
Sterling Wines	352
Herb Stathes	415
Indian Creek Ranch	434
Kay & Mary Lear	205
Kitt Lear	1367
Turner & Irlbeck	1027
Total.....	3800

See Appendix IX, page 103 for the calculations that are the basis for the above allocation to native range.

2. Change the season of use on the native range of the allotment. Defer grazing use until late spring.

Option A - Change the season of use from yearlong to May 1 - February 28. Authorize a turnout of 10% of permitted use during the period May 1 - May 15. Grazing use would be authorized every year. This recommendation has been agreed upon by the permittees.

Option B - Establish a summer/fall/winter period of use from May 15 - February 28 each year. Authorize a turnout of 10% of permitted use during the period May 15 - May 31. Grazing use would be authorized every year.

3. Continue to administer the allotment as a common use allotment whereby permittees agree to utilize historical grazing areas. This recommendation has been agreed to by the permittees.

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

Rationale: Rangeland monitoring data indicates a need to change cattle grazing management in this allotment in order to meet the Standards and Guidelines and multiple use objectives for the allotment. Allowable use levels on key species have been exceeded on native range, indicating the need to adjust stocking levels, provide for range rest and adjust the duration and distribution of grazing. Many lentic (spring/seep) riparian areas need to recover from grazing impacts. By reducing grazing pressure during the spring months progress can be made towards achieving proper functioning condition on the lentic riparian areas.

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, stabilizing soils and reducing the erosion hazard, and providing for a better age class distribution of plant species. Spring rest during the critical growing period also allows native plant species to store required root reserves. It allows plants

to produce the seed and litter that is much needed on depleted rangelands, and it allows native plants to compete more effectively with invasive species.

Flexibility needs to be provided for in the grazing schedule. The flexibility takes into account the annual fluctuations in the climatic factors and cattle operations. Early spring grazing can have both positive and negative effects on rangeland health. Those years of warm wet springs can result in good productivity of Nevada bluegrass and other bluegrasses on the Cherry Creek benches resulting in a grazing opportunity. Warm wet springs can also provide a grazing opportunity for bottlebrush squirreltail and cheatgrass. Those years of cold dry springs can result in poor bluegrass production as well as poor production of other forage plants. Cattle then feed more on Indian ricegrass, needlegrass, winterfat, and other species. This generally leads to overutilization of those species and declining range condition. Overutilization has been a historical problem in the allotment and has been a problem in certain areas during the evaluation years.

The permittees of the allotment have recommended maintaining the allotment as a common use allotment, without creating specific use areas for each permittee. This allows flexibility in their grazing operations.

4. Increase the forage allocation in the South Egan Seeding by 300 AUMs, as indicated by rangeland monitoring studies. The additional 300 AUMs would be authorized only if water is hauled to underused areas of the seeding to distribute cattle use. The exact location for water hauling to the seeding will be determined by the authorized officer in cooperation with the livestock permittee on an annual basis. The additional 300 AUMs would be allocated to the three permittees authorized to use the seeding as follows:

Permittee	Current Allocation	Additional AUMs	South Egan Seeding Permitted Use
Kitt Lear	235 AUMs	100 AUMs	335 AUMs
Herb Stathes	52 AUMs	100 AUMs	152 AUMs
Sterling Wines	47 AUMs	100 AUMs	147 AUMs

Option A - Authorize the additional forage allocation for fall grazing only.

Option B - Authorize the additional forage allocation for spring and fall grazing.

See Appendix IX, page 100 for calculations that are the basis for the above allocation.

5. Establish a season of use in the South Egan Seeding. Currently, no season of use is listed on the term grazing permit for two of the three operators authorized to use the seeding.

Option A - Establish the season of use from 05/01 - 02/28. Allow flexibility in the season of use when favorable conditions are created by changes in climate or grazing patterns.

Option B - Establish a spring/fall split season of use from 05/01 - 07/15 and 09/01 - 02/28.

6. Set an allowable use level for the South Egan Seeding. Currently, no allowable use level is set for this seeding.

Option A - Establish a use level of 50% for spring grazing and 65% for fall grazing in the seeding. During even numbered years this seeding is grazed in fall only.

Option B - Establish a use level of 60% yearlong for the seeding.

7. Maintain the existing rotation system for the seeding with the Big Rock Seeding Allotment. According to the rotation, the Big Rock Seeding would be grazed in spring even years and the South Egan Seeding would be grazed in spring odd years.

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

Rationale: Rangeland monitoring data indicates that additional AUMs are available in the South Egan Seeding. Data also indicates the necessity of distributing use because of problems with water location and availability. Water supply from nine mile spring to the South Egan Seeding varies in spring or fall, and cattle tend to concentrate in the Telegraph Creek channel in the area of the troughs supplied by the spring on the south end of the seeding.

There is an immediate need to graze the South Egan Seeding in conjunction with water hauling in order to promote and maintain productivity. Allowable use levels on crested wheatgrass of 50% for spring, 65% for fall, and 60% yearlong are consistent with the Nevada Rangeland Monitoring Handbook. Allowable use levels must be established so that future rangeland monitoring data can further determine if the increase to permitted use is appropriate for the seeding. Maintaining a rotation grazing system between the South Egan Seeding and the Big Rock Seeding will promote the vigor, health, and productivity of both seeded areas.

8. Maintain the adjudication to the Goshute Seeding at 459 AUMs and the adjudication to the North Egan Seeding at 400 AUMs as indicated by rangeland monitoring studies. Set allowable use levels for the seedings.

The current adjudicated permitted use (AUMs) in the Goshute and North Egan Seedings is as follows:

Permittee	Goshute Seeding	North Egan Seeding
Indian Creek Ranch	135	
Turner & Irlbeck	150	
Kitt Lear	174	400

Adjudication Option A (Goshute Seeding) - Maintain the adjudication of 459 AUMs to the entire seeding until such time as a pasture division fence is constructed.

Adjudication Option B - Once a pasture division fence is completed, adjudicate 285 AUMs to the west pasture and 174 AUMs to the east pasture (where riparain areas are located), according to the relative acres in each pasture (see stocking rate calculations in Appendix IX page 100). Permitted use (AUMs) for the three operators authorized to use the seeding would be as follows:

Permittee	West Pasture	East Pasture	Total
Indian Creek Ranch	84	51	135
Turner & Irlbeck	93	57	150
Kitt Lear	108	66	174

Use Level Option A - Establish a use level of 50% for spring grazing and 65% for fall grazing in the two seedings.

Use Level Option B - Establish a use level of 60% yearlong for the seedings.

9. Establish a season of use for the Goshute Seeding that would be the same for all three operators authorized to use the seeding. A season of use must be established to protect riparian areas in the seeding. Currently the season of use is listed as beginning May 1 for Kitt Lear and Turner & Irlbeck and 03/01 - 02/28 for Indian Creek Ranch Partnership. Establish a deferred grazing system or rotation grazing system for the seeding.

Option A - Establish the season of use from 05/01 - 02/28 for all permittees authorized to use the seeding until such time that a pasture division fence is completed.

Option B - Once a pasture division fence is completed, set a season of use from 04/01 - 02/28 for the west pasture and from 04/01 - 05/15 and 09/01 - 02/28 for the east pasture.

Option C - Create a simple rotation grazing schedule for the east pasture as follows:
Year one - Graze in spring only with season of use from 04/01 - 05/15.
Year two - Graze in fall only with a season of use from 09/01 - 02/28.

Option D - Create a simple rotation grazing schedule for the west pasture as follows:
Year one - Graze early with a season of use from 04/01 - 02/28.
Year two - Graze late with a season of use from 05/15 - 02/28.

Flexibility in the season of use would be allowed for each option above when favorable conditions are created by changes in climate or grazing patterns.

10. Require water hauling to the west portion of the Goshute Seeding when cattle are authorized to graze the seeding. Require periodic herding of cattle (not total exclusion) away from the spring/seep areas in the seeding. These management practices would be required until such time as a pasture division fence is constructed to protect the spring/seep areas in the south middle portion of the allotment.

11. Establish a season of use for the North Egan Seeding. Currently the season of use is listed as beginning May 1 for Kitt Lear, the one permittee authorized to use the seeding.

Option A - Establish the season of use from 05/01 - 02/28. Allow flexibility in the season of use when favorable conditions are created by changes in climate or grazing patterns.

Option B - Establish the season of use as yearlong (03/01 - 02/28).

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

Rationale: Rangeland monitoring studies show that the 459 AUM allocation to the Goshute Seeding and the 400 AUM allocation to the North Egan Seeding are currently appropriate. Additional grazing pressure would cause overutilization of crested wheatgrass. Establishing seasons of use in the two seedings will provide for the growth and reproduction of crested wheatgrass and will provide for orderly administration of the allotment. Establishing an earlier turnout date than May 1 in the North Egan Seeding will provide rest for native range without compromising the need to rest crested wheatgrass during the early spring period.

Cattle distribution has been documented as a problem in the Goshute Seeding and North Egan Seeding. Hauling water to the west portion of the Goshute Seeding would achieve better utilization of the wolfy, underutilized area. Also, riparian studies indicate that the spring/seep areas within the seeding are in less than proper functioning condition. This problem can be resolved by the new management practices of constructing a pasture division fence, establishing the season of use, and allocating permitted use in each pasture.

Allowable use levels on crested wheatgrass of 50% for spring, 65% for fall, and 60% yearlong are consistent with the Nevada Rangeland Monitoring Handbook.

12. Establish a wild horse Appropriate Management Level (AML) for the Cherry Creek portion of the Antelope HMA at four (4) animals yearlong, or 46 AUMs.

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: The Woodcamp Pasture is an area of approximately 6,000 acres consisting mainly of black sagebrush/ricegrass/needlegrass and shadscale/ricegrass plant communities. Utilization monitoring of the area shows generally moderate or less use of Indian ricegrass and winterfat during the 1994 and 1997 grazing years with heavy use of ricegrass and light heavy use of winterfat during the 1996 grazing year. No livestock have grazed this pasture in several years, due to the lack of a highway right of way fence. Key area CC-08 in the Woodcamp Pasture was found to be in Late Seral (good) condition with trend not apparent during the summer of 1998. Key area CC-08b was found to be in Mid Seral (fair) condition with trend not apparent.

As the wild horse census data on pages 22-23 indicates, from 0 to 14 wild horses have been counted within the Cherry Creek Allotment portion of the Antelope HMA over the years. The average count is 3.5 wild horses censused per year. Wild horses normally water at Woodcamp Spring within the Woodcamp Pasture. Wild horses using the Woodcamp Pasture also normally use the Becky Springs Allotment to the north and the Becky Creek Allotment to the south. An Appropriate Management Level of eight wild horses yearlong (96 AUMs) has been set for the Becky Creek Allotment.

Standards and allotment specific objectives are expected to be met at a level of four wild horses yearlong within that portion of the Antelope HMA in the Cherry Creek Allotment. An AML of four wild horses yearlong within the Cherry Creek Allotment would augment the Antelope HMA total from an AML of 233 to 237 wild horses.

13. Establish a wild horse Appropriate Management Level (AML) for the Cherry Creek portion of the Butte HMA at six (6) animals yearlong, or 72 AUMs.

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: A rangeland memorandum dated October 29, 1997 in addition to utilization transects completed in the summer of 1998 show those areas of the Egan Basin normally used by wild horses to be in good condition, with light or less grazing use.

As the wild horse census data on pages 24-25 indicates, from 0 to 21 wild horses have been counted within the Cherry Creek Allotment portion of the Butte HMA over the years. Wild horses in the Butte HMA foraging in the Cherry Creek Allotment normally water at Ninemile Springs, approximately 3 1/2 miles south of the allotment boundary (Medicine Butte Allotment). Wild horses grazing in the area of the Egan Basin also normally use the Medicine Butte Allotment to the south and west. An AML of 69 wild horses yearlong (822 AUMs) has already been set for that portion of the Butte HMA within the Medicine Butte Allotment.

Standards and allotment specific objectives are expected to be met at a level of six wild horses yearlong within that portion of the Butte HMA in the Cherry Creek Allotment. An AML of six wild horses within the Cherry Creek Allotment would augment the Butte HMA total from an AML of 74 to 80 wild horses.

14. Establish a wild horse Appropriate Management Level for the Cherry Creek Allotment portion of the Cherry Creek HMA at zero (0) animals.

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. Many ground observations in recent years have confirmed that wild horses very rarely use that portion of the Cherry Creek HMA within the Cherry Creek Allotment. Wild horses also do not use the Goshute Basin and Indian Creek Allotments to the west of the Cherry Creek Allotment. AMLs of zero (0) wild horses are also being proposed for those two allotments. Standards and allotment specific objectives are expected to be met at a level of zero wild horses yearlong within that portion of the Cherry Creek HMA in the Cherry Creek Allotment.

15. Convert the 36 AUMs domestic horse permitted use for Gordon Foppiano's grazing permit to 36 AUMs cattle permitted use. The 36 AUMs domestic horse use are included in Gordon Foppiano's 544 AUMs current permitted use.

Guideline: This management action is related to Guideline 3.3. This guideline will be applied to achieve the standards for multiple use.

Rationale: This is a permittee recommended action that is consistent with wild horse regulations and policy. The permittee no longer requires public land grazing for his domestic

horses. This recommendation adds flexibility to the cattle grazing operation.

C. Long Term Recommendations

The following range improvement projects have been brought forth by the BLM or livestock permittees to improve grazing management on the allotment. All recommendations are subject to costraints due to wilderness, water rights, funding, manpower, level of cooperation, and other considerations.

1. Initiate a vegetation conversion in the western portion of Egan Basin in the south Cherry Creek Mountain Range for the following values:
a. To enhance the productivity and vigor of more favorable forage species.
b. To improve the condition of the existing range sites that are being encroached by singleleaf pinyon, Utah juniper, and big sagebrush.
b. To enhance the diversity of species; improve the tree/grass/forb/shrub mix.
c. Improve soil/water relations and groundwater recharge. Promote vegetation cover.
d. Provide forage for livestock, wild horses, and wildlife.
e. Provide for better livestock distribution.
f. Reduce the danger of a catastrophic wildfire.
g. Generally improve the health of the land.

2. Upgrade the Egan Basin Well, develop a water storage facility at Egan Basin Well and pipe water from the well to the troughs in the western portion or more of the North Egan Seeding. This project would be done in cooperation with the permitted cattle operators of the allotment.

3. Construct a riparian protection fence in the Goshute Seeding for the spring/seep complex in the south middle portion of the seeding. The fence would be a pasture division fence creating a two pasture rotation grazing system, or it would be a riparian exclosure constructed around the springs.

4. Redevelop the East Nine Mile Springs and pipe water from the spring to the existing West Nine Mile pipeline development, thus providing a more reliable water source for grazing in the Egan Basin Seedings. Additional troughs could be located in the South Egan Seeding or in both the South and North Egan Seedings. This project would also be done in cooperation with the permitted cattle operators of the allotment.

5. Construct a north/south drift fence of approximately two miles in the area of the town of Cherry Creek Nevada to allow for better cattle utilization of the cheatgrass/perennial grass range that has regrown following the wildfire of several years ago.

6. Construct an east/west fence across the valley portion of the allotment north of the Cherry Creek Highway, allowing for better cattle control and improved utilization of the native range in the area.

7. Pipe water from Indian Creek in the north of the allotment south along the east facing slopes of the Cherry Creek Range to troughs located on the bench to improve cattle disribution in the area.

8. Construct approximately 24 miles of allotment boundary fencing along the east side of the Cherry Creek Allotment to eliminate livestock drift onto adjacent allotments.

9. Redevelop the Log Canyon Spring and water pipeline development to troughs located on the east facing sagebrush benches of the Cherry Creek Range.

10. Construct a spring development and water pipeline to troughs from Halloway Spring to the east facing benches of the Cherry Creek Range.

11. Construct an east/west pasture division fence in the North Egan Seeding and tie it into the upgrade of the Egan Basin Well and water pipeline development. This would improve livestock management and vegetative condition by establishing a deferred rotation grazing system for the seeding.

12. Construct pasture division fencing in the South Egan Seeding and tie it into the Ninemile Spring Development and/or water hauling to improve livestock management and vegetative condition by establishing a deferred rotation grazing system for the allotment.

13. Establish new water haul sites in the native range of the allotment in cooperation with the permittees on an as needed basis to distribute livestock use and improve management of the plant communities of the allotment.

Guidelines: These management actions are related to Guidelines 1.1, 2.1, 2.2, 2.4, 3.2, 3.3, and 3.4. These guidelines will be applied to achieve the standards for multiple use.

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 1/. 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 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 _ 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.

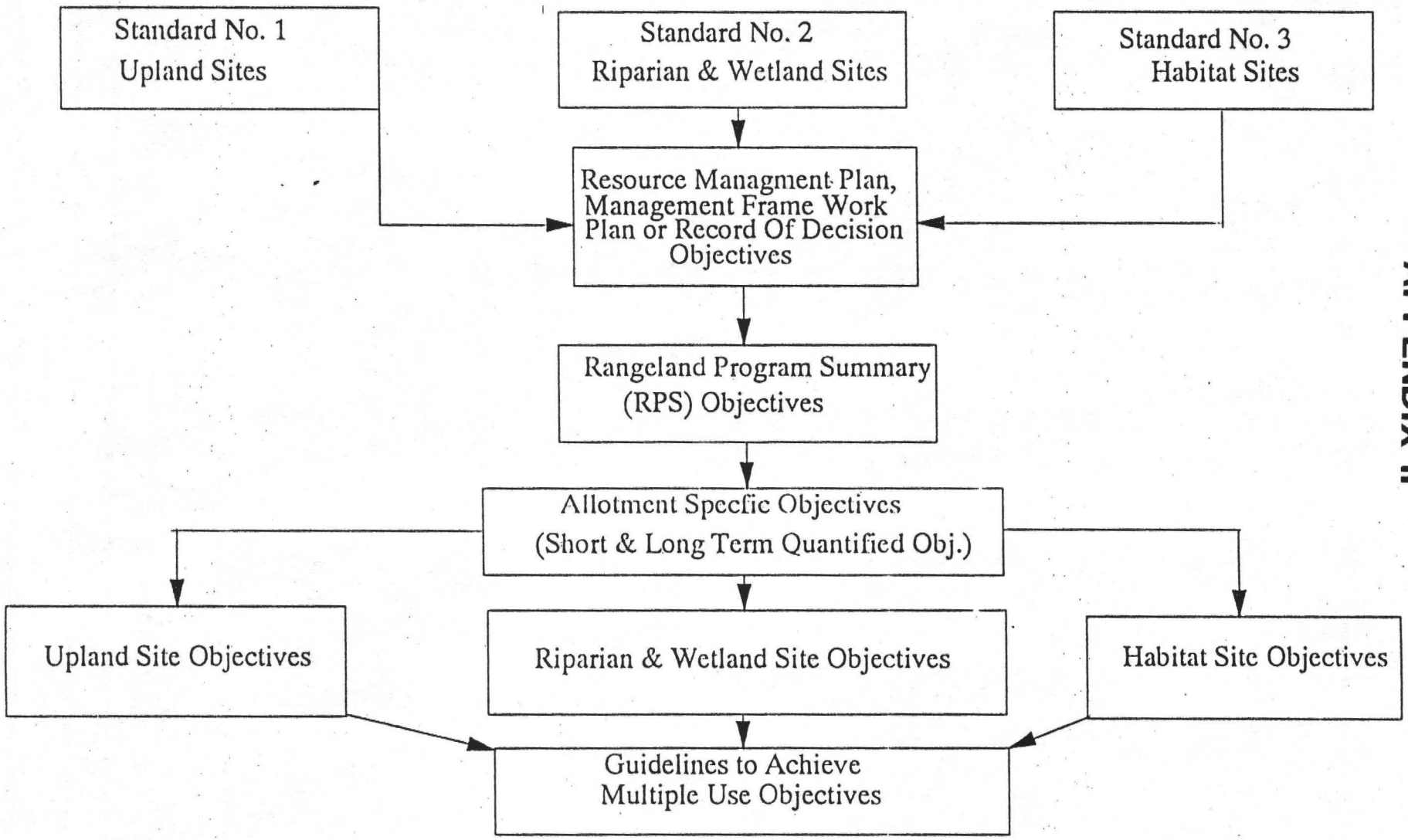
Changes to permitted use are implemented through a documented agreement or by decision. BLM consults with the affected permittee, and the interested publics prior to making changes to permitted use. (Refer to Appendix _ Public Consultation Process).

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.

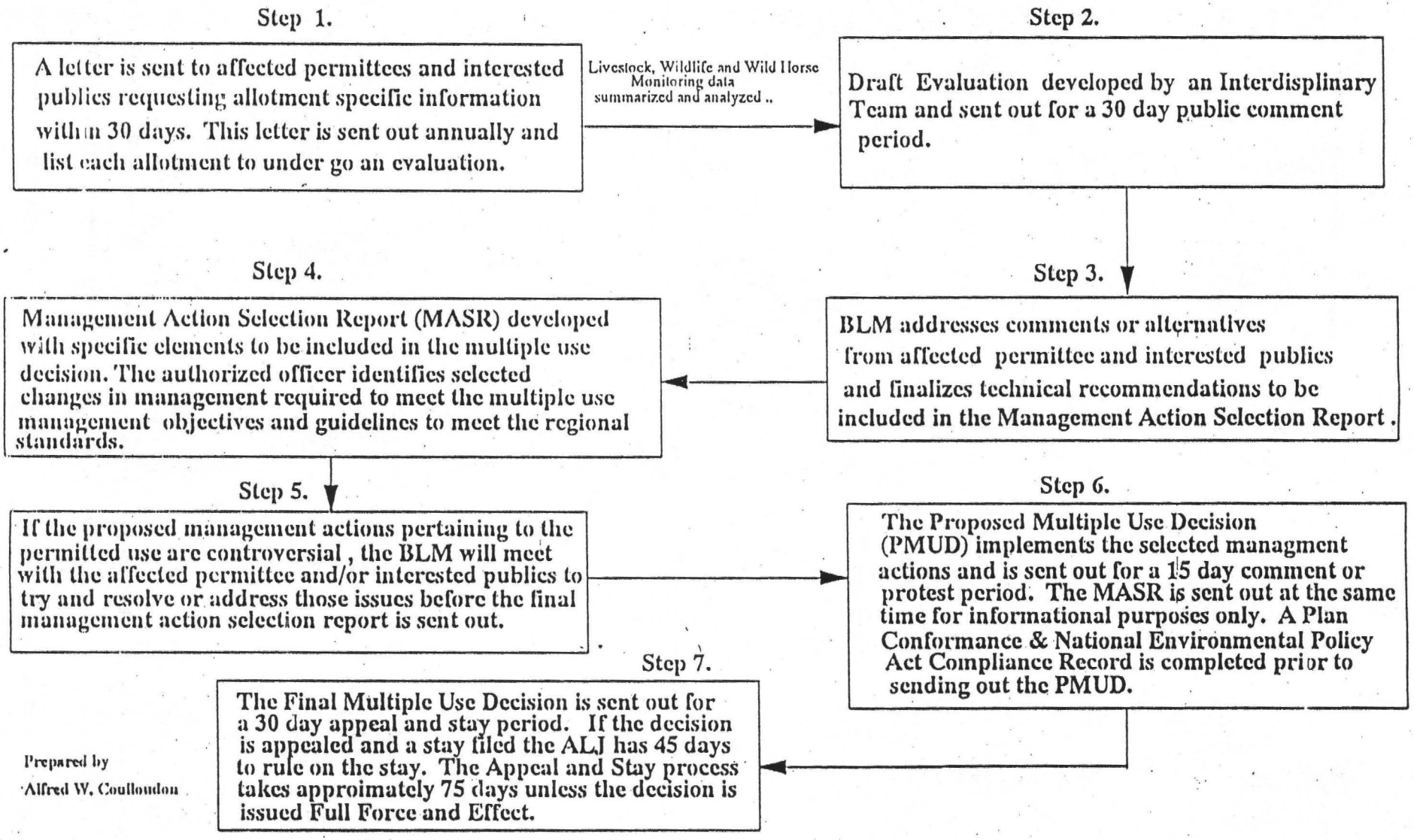
1/ The phrase "the total number of animal unit months of specified livestock grazing" is used in lieu of "permitted use" and "preference". This is associated with the Interim Guidance for Implementation of the Wyoming District Court Ruling on Grazing Regulations (Public Lands Council v. Babbitt, No. 95-CV-165-B D. WYO. June 12, 1996)

ALLOTMENT OBJECTIVE FLOW CHART



APPENDIX III

Public Consultation Process For Ely District Allotment Evaluations



Prepared by
Alfred W. Coulloudon

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.

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.

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.

STANDARD 4. CULTURAL RESOURCES:

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

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.

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.

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.

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

Cherry Creek Allotment - Long Term/Short Term Objectives - Livestock & Wild Horses

				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
CC-001	T. 25N R. 63E Sec. 13 NESE	028BY011NV	ORHY PONE	01% 14%	52% MID SERAL	Improve	05% 20%	>52% MID SERAL	50% ORHY& PONE	Yearlong	Not Met	Measured utilization indicated AUL for ORHY exceeded in 1994, 1996, and 1997. PONE not exceeded.
CC-01	T. 22N R. 63E Sec. 1 SENW	028BY002NV	SPGR POJU	14% 32%	34% MID SERAL	Maintain	14% 30%	≥34% P.Grass >46 Forbs 0-15 Shrubs <8	50% SPGR POJU	Yearlong	Met	Measured utilization indicated 52% or less use on POJU in 1994, 1996, and 1997.
CC-02	T. 23N R. 63E Sec. 1	028BY098NV	CAREX POJU	02% 19%	33% MID SERAL	Maintain	05% 20%	≥33% P.Grass >40% Forbs 5-15 Shrubs 0-5	50% CAREX POJU	Yearlong	Met	Measured utilization indicated 52% or less use on POJU in 1994, 1996, and 1997.
CC-06	T. 24N R. 64E Sec. 19 NE	028BY002NV	CAREX POJU	17% 41%	22% MID SERAL	Maintain	15% 40%	≥22% P.Grass >58% Forbs 5-15 Shrubs 0-5	50% CAREX POJU	Yearlong	Met	Measured utilization indicates this key area has been used light or less in 1994, 1996, and 1997.
CC-07	T. 24N R. 64E Sec. 16 SW	028BY002NV	POJU MURI ELCI	49% 03% 19%	62% LATE SERAL	Maintain	45% 05% 20%	≥62% P.Grass >60% Forbs 0-10 Shrubs T-5	50% POJU MURI ELCI	Yearlong	Met	Measure utilization indicates this key area has been used light or less in 1994, 1996, and 1997.
CC-08	T. 24N R. 65E Sec. 6	028BY011NV	ORHY EULA	03% 22%	42% MID SERAL	Improve	05% 22%	>42% P.Grass >20% Forbs 5-10 Shrubs 25-45	50% ORHY EULA	Yearlong	Not Met	Measured utilization indicates AUL for ORHY exceeded in 1996 & 1997. AUL for EULA exceeded in 1996. Native forbs are missing

Cherry Creek Allotment - Long Term/Short Term Objectives - Livestock & Wild Horses

				PRESENT SITUATION		LONG TERM OBJECTIVES**			SHORT TREM 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
CC-08b	T. 25N R. 65E Sec. 32 W 1/2	028BY011NV	ORHY EULA	01% 15%	25% MID SERAL	Improve	05% 15%	>25% P.Grass >10% Forbs 5-10 Shrubs 15-45	50% ORHY EULA	Yearlong	Not Met	Measured utilization indicates AUL for ORHY exceeded in 1996 & 1997. AUL for EULA exceeded in 1996.
CC-09	T. 24N R. 64E Sec. 9 NE	028BY002NV	POJU MURI ELTR	23% 02% 06%	34% MID SERAL	Maintain	20% 05% 06%	≥34% P.Grass > 30% Forbs 2-10 Shrubs T-5	50% POJU MURI ELTR	Yearlong	Met	Measured utilization indicates this key area has been used light or less in 1994, 1996, and 1997.
CC-10	T. 26N R. 64E Sec. 27	028BY002NV	CAREX MURI POJU SPAI	37% 15% 05% 03%	38% MID SERAL	Improve	40% 15% 10% 05%	>38% P.Grass > 34% Forbs 5-15 Shrubs 2-8	50% CAREX MURI POJU SPAI	Yearlong	Not Met	Measured utilization indicates AUL for POJU and SPAI exceeded in 1996 & 1997.
CC-11	T. 25N R. 64E Sec. 6 SESW	028BY075NV	ORHY ATCO	00% 22%	32% MID SERAL	Improve	05% 30%	>32% P.Grass > 10% Forbs T-5 Shrubs 30-45	50% ORHY	Yearlong	Not Met	Measured utilization indicates AUL for ORHY exceeded in 1994 & 1997.
CC-16	T. 24N R. 63E Sec. 21 SW	028BY011NV	ORHY STCO ARNO	09% 00% 22%	45% MID SERAL	Maintain	10% 02% 25%	≥45% P.Grass >17% Forbs 5-10 Shrubs 25-45	50% ORHY STCO	Yearlong	Met	Measured utilization indicates generally moderate use or less for ORHY and STCO in 1994, 1996, & 1997.
CC-16b	T. 24N R. 63E Sec. 21	028BY075NV	ORHY ATCO	02% 14%	36% MID SERAL	Improve	05% 30%	>36% P.Grass >10% Forbs T-5 Shrubs 25-45	50% ORHY	Yearlong	Met	Measured utilization indicates generally moderate use or less for ORHY in 1994, 1996, & 1997.

Cherry Creek Allotment - Long Term/Short Term Objectives - Livestock & Wild Horses

				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
CC-17	T. 22N R. 63E Sec. 12	028BY002NV	CAREX MUAS POJU ELTR	14% 30%	31% LATE SERAL	Maintain	15% 30%	≥31% P. Grass >25% Forbs 5-15% Shrubs 2-8%	50% CAREX MUAS	Yearlong	Met	Measured utilization indicates moderate or less us of POJU & ELTR in 1994, 1996, & 1997.
GS-01	T. 25N R. 64E Sec. 8 SWSW	N/A Crested Wheat Seeding	AGCR	77%	N/A	Maintain	≥77%	N/A	50% 60% 65%	Spring Yearlong Fall	Met	Measured utilization indicates cattle use well within allowable use levels during the evaluation years.
NES-1	T. 23N R. 62E Sec. 15 SW	N/A Crested Wheat Seeding	AGCR	82%	N/A	Maintain	≥82%	N/A	50% 60% 65%	Spring Yearlong Fall	Met	Measured utilization indicate generally moderate or less use. Small area severe use each year. Less than desired cattle distribution.
SES-1	T. 23N R. 62E Sec 34 NESW	N/A Crested Wheat Seeding	AGCR	90%	N/A	Maintain	≥90%	N/A	50% 60% 65%	Spring Yearlong Fall	Met	Prescribed burn on seeding ir fall of 1996. Very minor cattle utilization during evaluation years.

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. For example, a range site with a 25% composition rating might be rated overall mid seral based upon good diversity and production. 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.

APPENDIX VI

Cherry 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
CC-1 *	T.23N.,R.64E., Sec. 33 NESE	Yearlong	ORHY ARSP	Good-1987 Fair-1991	Maintain	Good to Better	45%	Yearlong	Met	Downward trend, loss of perennial grass and forb frequency (drought), allowable use levels not exceeded
CC-2*	T.23N., R.63E. Sec. 8 center	Yearlong	ORHY ATCO	Established in 1995-Fair. Reread 1998-Fair	Improve	Good to Better	45%	Yearlong	Met	Downward trend, loss of perennial grass and forb frequency (drought), allowable use levels not exceeded
CC-3*	T.24N., R.63E. Sec. 10 NESW	Yearlong	ORHY ARTRW	Established in 1995-Fair	Improve	Good to better	45%	Yearlong	Met	Allowable use levels not exceeded
CC-4**	T.25N., R.63E. Sec. 12 SENW	Yearlong	ORHY ARNO	Established 1979-Good, 1986-Good, 1990-Good, 1994 - Good	Maintain	Good to Better	45%	Yearlong	Met	Allowable use levels not exceeded

* Antelope frequency study
** Antelope and mule deer frequency study

APPENDIX VII

Cherry 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
Lentic No. 635*	North Slough**	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Trend Not Apparent to Down	Achieve Proper Functioning Condition (PFC)	50%	Yearlong	Not Met	Heavy utilization, severe hummocking, and loss of riparian species noted. Wetland zone is shrinking. Disturbance due to hoof action present.
Lentic No. 637	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve Proper Functioning Condition	50%	Yearlong	Not Met	Wetland zone is shrinking, disaturbance due to hoof action present. Hummocking, heavy cattle use, and poor vigor of riparian species noted.
Lentic No. 638	North Slough	Combined Riparian Grasses & Grass Like Spp.	Proper Functioning Condition	Maintain PFC	50%	Yearlong	Met	
Lentic No. 639	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Wetland zone shrinking & riparian species declining. Heavy utilization & overall condition of site is poor. Hummocks present.
Lentic No. 640	North Slough	Combined Riparian Grasses & Grass Like Spp.	Nonfunctional Downward Trend	None - Riparian habitat has been lost				Wetland zone shrinking, hoof actio noted, overall condition is poor. The area is dry and the riparian habitat has been lost
Lentic No. 644	Goshute Seeding	Carex, Poa, Juncus	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Water degraded & stagnated. Heavy tramoling. Severe hummocking. Current year utilization 30%. Area degrades away from the source.
Lentic No. 645	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Hummocking around source. Bare bank at source due to trampling & overgrazing. Mustard & poverty weed present. Overall condition of site good.
Lentic No. 646	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	Proper Functioning Condition	Maintain PFC	50%	Yearlong	Met	

* Lentic riparian areas are areas of standing water. In the Cherry Creek Allotment lentic areas are generally spring/seep areas.

** See the Riparian Studies section of the evaluation on page for the legal locations of the study sites.

Cherry 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
Lentic No. 647	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	Proper Functioning Condition (PFC)	Maintain PFC	50%	Yearlong	Met	
Lentic No. 648	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Water quality not sufficient to support riparian plants. Flow patterns altered by disturbance. Severe hummocking present. Overall condition poor.
Lentic No. 649	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Hummocking present and shoreline exhibits hoof action.
Lentic No. 650R	Goshute Seeding	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 651	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 652R	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 652-1R	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 653	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Hummocks are present & there is no visible flow. Site failing to retain water & salt leaching to surface.

Cherry 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
Lentic No. 654	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	Nonfunctional	None - Riparian habitat has been lost				Riparian area has declined significantly. Seep has dried up & remaining riparian veg has receeded drastically
Lentic No. 671	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve Proper Functioning Condition (PFC)	50%	Yearlong	Not Met	One half of site lost to hummocking. Site severely trampled.
Lentic No. 672	East of Drift Fence	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	About 1/3 of riparian site lost due to hummocking and/or less flow from the source. Sediment being deposited on the spring source from upland erosion.
Lentic No. 711R	Carry Canyon	Riparian Grasses Riparian Shrubs & Trees	PFC Trend Not Apparent	Maintain PFC	50%	Yearlong	Met	Thisis an enclosed spring source of about 50 ft. X 50 ft.
Lentic 678, 679, 680	Carry Canyon	Combined Riparian Grasses & Grass Like Spp.	Functioal at Risk Trend Not Apparent	Achieve PFC	50%	Yearlong	Not Met	Hoof action and hydrologic heaving noted.
Lentic No. 682	Carry Canyon	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Invasion of upland species evident. Trampling and hoof action noted
Lentic No. 685	Carry Canyon	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Trend not Apparent	Achieve PFC	50%	Yearlong	Not Met	Road erosion & hoof action noted. Seep subject to routing by passing vehicles. Some evidence of livestock use.
Lotic No. 686	Lime Kiln Spring	Riparian Grasses Riparian Shrubs & Trees	PFC	Maintain PFC	50%	Yearlong	Met	

Cherry 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
Lentic No. 687	Log Canyon	Riparian Grasses Riparian Shrubs & Trees	Proper Functioning Condition (PFC)	Maintain PFC	50%	Yearlong	Met	
Lentic No. 669	Halloway Spring	Riparian Grasses Riparian Shrubs & Trees	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 712	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Trend Not Apparent	Achieve PFC	50%	Yearlong	Not Met	Hummocking & severe trampling present at south spring head. Banks sloughing. Can not sustain additional grazing pressure.
Lentic No. 713	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Trend Not Apparent	Achieve PFC	50%	Yearlong	Not Met	Spring head shrinking. Banks trampled by cattle. Bare banks present. Hummocks present.
Lentic No. 714	North Slough	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 715	North Slough	Combined Riparian Grasses & Grass Like Spp.	PFC	Maintain PFC	50%	Yearlong	Met	
Lentic No. 716A	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Trend Not Apparent	Achieve PFC	50%	Yearlong	Not Met	Severe hummocking present. Riparian vegetation going out. Current year's utilization about 60%. Abundance of thistle prtesent.
Lentic No. 716B	North Slough	Combined Riparian Grasses & Grass Like Spp.	Functional at Risk Downward Trend	Achieve PFC	50%	Yearlong	Not Met	Very extreme trampling present and hummocking. Riparian zone almost gone. Spring will be lost if correction not taken.

APPENDIX VIII
UTILIZATION TABLES

The following utilization tables are for eight geographic grazing areas of the allotment divided according to topography and similarity of plant communities.

1. Area 1 - West of Drift Fence - 1994 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
17	19%		7%
18	12%		7%
21		22%	
22	3%		
24	3%	4%	
31	42%		9%
32		32%	28%
36		55%	36%
40			22%
64	41%		20%
65	72%	62%	

Area 1 - West of Drift Fence - 1996 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
1		44%	46%
2		50%	56%
4	48%	44%	
6	24%	9%	
9	9%	8%	
11	13%	13%	
13		14%	27%
14	8%		14%
16			33%
17	22%	18%	23%
19			29%
22	45%		22%
23	36%		54%
25		26%	
26			43%

Area 1 - West of Drift Fence - 1997 Grazing Year

Transect Number	Indian Ricegrass	Needlegrass	Other Species
1	38%		
2	42%		Eula 60%
6	23%	32%	
8	21%	16%	
13	8%		
16	27%	22%	
18	38%		
28	27%		
29	31%	38%	
32			Eula 67%
35			Eula 56%

Area 1 - West of Drift Fence - 1998 Grazing Year

Transect Number	Indian Ricegrass	Needlegrass	Other Species
1	52%		
2	56%		
5	<none>		Sihy 80%
6	33%		
7	22%		
9	44%		
12	37%		
13	44%		
17	37%		
19	48%		
21	62%	37%	
23	40%		

Area 2 - East of Drift Fence - 1994 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
16		8%	
19	11%		6%
20	34%	30%	
23		11%	
27	3%	17%	
28		9%	2%
30		39%	
33		40%	48%
34		48%	
35	37%		32%
37	68%	60%	
38	72%	45%	
39			40%
63	33%	24%	
68		31%	

Area 2 - East of Drift Fence - 1996 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
03	21%	22%	36%
05	14%	12%	
07		6%	
08		10%	
10	02%	01%	
15	16%		21%
18		19%	31%
20			23%
21	52%	46%	43%
24	45%		09%
37		34%	
43	53%	28%	
44		56%	
45		20%	
46	10%	7%	
47	33%	21%	
49	29%	13%	
50	26%	18%	

Area 2 - East of Drift Fence - 1997 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Other Species
3	35%	8%	
4	40%	19%	
5	50%	35%	
7	33%		
9		34%	
10		46%	
11		15%	
12	21%	6%	
14		16%	
17	27%		
19	46%	38%	
20	58%	42%	
22	46%		
23		32%	
26	39%	46%	
27	46%		
30	24%		Stco 18%
31		26%	
33			Stco 61%
34	58%		Eula 56%
36	56%		

Area 2 - East of Drift Fence - 1998 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Other Species
3	25%		
4	22%		
8	<none>		
10	27%		
11	46%	35%	
15	23%		Eula 29%
16	58%		
18	58%		
20	70%		
22	48%		Eula 38%
24	<none>		

Area 3 - North Bench - 1994 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
41			40%
42		56%	
44	54%		
46		68%	
47	48%		56%
48		49%	54%
49	62%		
50	56%		40%

Area 3 - North Bench - 1996 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
27		50%	
28	30%	46%	
29	07%	09%	16%
30			46%
31			50%
32	35%	49%	

Area 3 - North Bench - 1997 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Other Species
37		52%	
38		46%	
39		36%	
40	15%	7%	
41	29%		Stco 35%
42		43%	
43	60%		
44	72%		
94	74%		
97	62%		
98	86%		
99	80%		
100	82%		

Area 3 - North Bench - 1998 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Other Species
25	<none>	74%	
26	<none>	72%	
27	57%	60%	
28	76%	69%	
29	<none>	80%	
30		78%	
31	78%	74%	

Area 4 - South Bench - 1994 Grazing Year

Transect Number	Indian Ricegrass
01	50%
02	67%
03	84%
04	82%
05	81%
15B	58%

Area 4 - South Bench - 1996 Grazing Year

Transect Number	Indian Ricegrass	Squirreltail	Bluegrass
55		24%	37%
57	64%	65%	
58	42%	47%	
59	46%	48%	
60		09%	
61		41%	
62	82%	70%	
68	74%	70%	
69	58%	52%	

Area 4 - South Bench - 1997 Grazing Year

Transect Number	Indian Ricegrass	Other Species
63	70%	
64	61%	
65	39%	
66		Spai 19%
67	23%	Sihy 25%
68	24%	
69	33%	
70	88%	
72	59%	
73	50%	
74	54%	
75	52%	
76	19%	
77	25%	
78	17%	
82		Sihy 20% Agsp 23%

Area 4 - South Bench - 1998 Grazing Year

Transect Number	Indian Ricegrass
1	78%
2	64%
3	58%
4	58%
5	52%
6	54%
7	62%

Area 5 - North Slough - 1994 Grazing Year

Transect Number	Alkali Bluegrass	Creeping Wildrye	Alkali Sacaton	Basin Wildrye	Other Species
25	6%	17%			
26				14%	
43			48%		
45		3%	light or less		Sihy 15%
69	14%		22%	22%	

Area 5 - North Slough - 1996 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Basin Wildrye	Other Species
33	84%			
34				Sihy 30%
35	72%	46%		
36		78%		
38		52%		
39		47%	50%	
40			26%	
41		25%	26%	
42			34%	
48	27%			

Area 5 - North Slough - 1997 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Basin Wildrye	Other Species
21		18%	5%	
83			2%	
95		56%		
96	76%			
102	29%			Combined Species 22%
103		25%		
104			60%	Sihy 38%
105		54%.	60%	
106	68%	62%		
107			23%	
108	48%	64%	60%	
109		20%	15%	

Area 5 - North Slough - 1998 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Other Species
1		19%	
2	9%	7%	
3		46%	
4	74%	46%	
5	76%	56%	

Area 6 - South Slough - 1994 Grazing Year

Transect Number	Alkali Bluegrass	Creeping Wildrye	Alkali Sacaton	Basin Wildrye	Other Species
07			slight	23%	
08			18%		Dist 42%
09		21%			
10		11%			Dist 07%
11		10%			Dist 05%
12		5%			
13	09%				
14			01%		
66		06%	46%		
67		21%	24%		

Area 6 - South Slough - 1996 Grazing Year

Transect Number	Alkali Bluegrass	Creeping Wildrye	Alkali Sacaton	Basin Wildrye	Other Species
51	25%				
52	43%	16%			
53			05%	02%	
66			36%		
90					Combined Species 36%
91					Sedge 22%
92				05%	
93	48%				
94				16%	
95	52%				

Area 6 - South Slough - 1997 Grazing Year

Transect Number	Alkali Sacaton	Creeping Wildrye	Other Species
88	25%		Combined species 50%
89	25%		Poju 44%
90	25%		Combined species 42%
91	42%	14%	Poju 52%
92			Combined species 42%
93	27%		
101			Poju 31% Carex 27%

Area 6 - South Slough - 1998 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Combined Species
1		23%	20%
2		11%	29%
3		52%	16%
4	15%		
5	40%		
6	27%		

Area 7 - Woodcamp Pasture - 1994 Grazing Year

Transect Number	Indian Ricegrass	White Sagebrush
51	33%	48%
52	39%	34%
53	30%	18%
54	13%	14%
60	6%	13%
61	16%	20%
62	40%	34%

Area 7 - Woodcamp Pasture - 1996 Grazing Year

Transect Number	Indian Ricegrass	White Sagebrush
70	54%	56%
71	72%	66%
72	48%	44%
73	72%	45%
74	68%	62%
76	70%	62%
77		50%
78	52%	46%

Area 7 - Woodcamp Pasture - 1997 Grazing Year

Transect Number	Indian Ricegrass	White Sagebrush
45	53%	40%
46	48%	36%
47	54%	44%
48	42%	37%
49	23%	34%
50	41%	44%
51		54%
53	56%	40%
54	38%	42%
55	62%	52%

Area 7 - Woodcamp Pasture - 1998 Grazing Year

Transect Number	Indian Ricegrass	White Sagebrush
1	67%	73%
2	72%	66%
3	43%	
4	51%	45%
5	55%	58%
6	67%	
7	51%	38%
8	66%	54%
9	66%	44%

Area 8 - East Windmills Area - 1994 Grazing Year

Transect Number	Alkali Bluegrass	Basin Wildrye
56	26%	7%
57	44%	7%
58	19%	

Area 8 - East Windmills Area - 1996 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Other Species
83	29%		Basin Wildrye 9%
84	20%	15%	
85	52%		
86			Combined Species 48%
87		25%	Combined Species 44%
88	38%	29%	Sedge 33%
89	40%	19%	Creeping Rye 14%
104	24%		Basin Wildrye 8%

Area 8 - East Windmills Area - 1997 Grazing Year

Transect Number	Alkali Bluegrass	Alkali Sacaton	Other Species
56			Ricegrass 5% Winterfat 7%
57			Ricegrass 8% Winterfat 10%
58			Ricegrass 33%
59			Ricegrass 58%
60	40%	22%	Basin Wildrye 30%
61	48%		Basin Wildrye 13%

APPENDIX IX

Stocking Rate Calculations

South Egan Seeding

Twenty forage condition studies were completed in the South Egan Seeding on August 11 and 12, 1998. The results of the studies are as follows:

Total vegetation production ranged from 800 to 3,130 pounds (lbs.) per acre.
Total vegetation production averaged 1,167 lbs. per acre.

Crested wheatgrass (AGCR) production ranged from 664 to 3,114 lbs. per acre.
AGCR production averaged 1,115 lbs. per acre.

Eliminating the high and low transects, AGCR production averaged 1,028 lbs. per acre.

1,028 lbs. X 1,100 acres (digitized) = 1,130,800 lbs. available.
At 800 lbs. per cow/calf month (AUM) = 1,414 AUMs.

At proper use level yearlong of AGCR of 60%, 1,414 X .60 = 848 AUMs available.

In addition, there are 870 acres grazable native range east of the county road (west slopes of Cocomongo Mountain) that are fenced in with the seeding. This is mostly big sagebrush/perennial grass range in good condition with an estimated 20 acres per AUM. This would add 44 AUMs of forage availability.

```
  848
+ 44
  892 AUMs
```

The above data indicates 892 AUMs of forage could be available in the South Egan Seeding. Because the data was collected in a better than average year, and because the seeding was burned in the fall of 1996, a more conservative authorized stocking level of 634 AUMs should be set for the seeding. Monitoring data should continue to be collected in order to reestablish a new stocking level following at least two years of significant use by livestock.

North Egan Seeding

Six forage condition studies were completed in the North Egan Seeding in August of 1998. The results of the studies are as follows:

Total vegetation production ranged from 553 to 1020 pounds (lbs.) per acre.
Total vegetation production averaged 798 lbs. per acre.

Crested wheatgrass (AGCR) production ranged from 453 to 903 lbs. per acre.
AGCR production averaged 712 lbs. per acre.

712 lbs. X 1,000 acres (digitized) = 712,000 lbs. available.
At 800 lbs. Per cow/calf month (AUM) = 890 AUMs

At proper use level of AGCR of 50%, 890 X .50 = 445 AUMs available.
A proper stocking level based upon key forage plant method transects completed in the North Egan Seeding during 1995, 1996, 1997, and 1998 (see page 30) would be as follows:

Year	Raw Utilization	Yield Index	Corrected Utilization	Actual Proper Stocking Use AUMs	Level (AUMs)
1995	35%	1.60	56.0%	400	357
1996	53%	0.58	30.7%	400	651
1997	58%	0.89	51.6%	405	392
1998	56%	1.21	67.8%	400	295

The average proper stocking level is 424 AUMs.

Goshute Seeding

Four forage condition studies were completed in the Goshute Seeding in August of 1998. The results of the studies are as follows:

Total vegetation production ranged from 663 to 1127 pounds (lbs.) per acre.
Total vegetation production averaged 861 lbs. per acre.

Crested wheatgrass (AGCR) production ranged from 561 to 793 lbs. per acre.
AGCR production averaged 668 lbs. per acre.

668 lbs. X 1,100 acres (digitized) = 734,800 lbs. available.
At 800 lbs. Per cow/calf month (AUM) = 919 AUMs

At proper use level yearlong of AGCR of 50%, 919 X .50 = 460 AUMs available.
Current authorized use is 459 AUMs.

The Goshute Seeding Division Fence is currently in the BLM range improvement planning process. The fence location has already been flagged by a task force tour in April, 2000. This would be primarily a north/south fence dividing the fenced seeding into two pastures. Current G.I.S. data shows approximately 932 acres (including about 50 acres native range) in the west pature and 571 acres (including about 120 acres native range) in the east pasture. The east pasture needs riparian protection, and it is also the less productive, more shrubby area. A reasonable adjudication to each pasture of the seeding is as follows:

Pasture	Acres	Percent of Acres		Current Adjudication (AUMs)		Proper Stocking Level (AUMs)
West	932	62%	X	459	=	285
East	571	38%	X	459	=	174

Native Range

Proper stocking levels are calculated based upon a yearlong allowable use level of 50% for Indian ricegrass, alkali bluegrass, and alkali sacaton.

Livestock Actual Use

Livestock actual use reports submitted by grazing permittee were used to determine actual use. When a permittee licensed grazing use but did not submit an actual use report, licensed use was added.

1994 - 2885 AUMs
1996 - 3159 AUMs
1997 - 3482 AUMs
1998 - 3961 AUMs

Year	Raw Utilization	Yield Index	Corrected Utilization	Actual Use AUMs	Proper Stocking Level (AUMs)
1994	56%	0.84	47.0%	2885	3069
1996	59%	0.58	34.2%	3159	4618
1997	58%	0.89	51.6%	3482	3374
1998	59%	1.21	71.4%	3961	2774

The average proper stocking level is 3,459 AUMs permitted use. This will be rounded up to 3,500 AUMs.

The proper stocking level of 3,500 AUMs (option A in Technical Recommendations) would be allocated to the six permittees of the allotment based upon each permittee's percentage of 5,369 AUMs current permitted use on native range as follows, in AUMs:

Permittee	Current Permitted Use	Percentage of Permitted Use		Proper Stocking Level		New Authorization
S. Wines	497	9.26%	X	3500	=	324
H. Stathes	587	10.93%	X	3500	=	383
I.C.R.P.	613	11.42%	X	3500	=	400
K. & M. Lear	290	05.40%	X	3500	=	189
Kitt Lear	1932	35.98%	X	3500	=	1259
Turner & Irlbeck	1450	27.01%	X	3500	=	945
Totals.....	5369	100.0%	X	3500	=	3500

The proper stocking level of 3,800 AUMs (option B in Technical Recommendations) would be allocated to the six permittees as follows:

Permittee	Current Permitted Use	Percentage of Permitted Use		Proper Stocking Level		New Authorization
S. Wines	497	9.26%	X	3800	=	352
H. Stathes	587	10.93%	X	3800	=	415
I.C.R.P.	613	11.42%	X	3800	=	434
K. & M. Lear	290	05.40%	X	3800	=	205
Kitt Lear	1932	35.98%	X	3800	=	1367
Turner & Irlbeck	1450	27.01%	X	3800	=	1027
Totals.....	5369	100.0%	X	3800	=	3800

The following tables summarize the options for permitted use for the native range and seedings of the Cherry Creek Allotment as presented in the Technical Recommendations. Total permitted use is presented for each permittee.

Option A: 3,500 AUM allocation to native range.

Permittee	Native Range	Goshute Seeding	South Egan Seeding	North Egan Seeding	Total Permitted Use
S. Wines	324		147		471
H. Stathes	383		152		535
I.C.R.P.	400	135			535
K. & M. Lear	189				189
Kitt Lear	1259	174	335	400	2168
T. & Irlbeck	945	150			1095

Option B: 3,800 AUM allocation to native range.

Permittee	Native Range	Goshute Seeding	South Egan Seeding	North Egan Seeding	Total Permitted Use
S. Wines	352		147		499
H. Stathes	415		152		567
I.C.R.P.	434	135			569
K. & M. Lear	205				205
Kitt Lear	1367	174	335	400	2276
T. & Irlbeck	1027	150			1177

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 Resources 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. Antelope Herd Management Area Plan (HMAP),
6. Butte Herd Management Area Plan (HMAP),
7. Egan Resource Area Final Wilderness Environmental Impact Statement (EIS), September, 1987.
8. Goshute Creek Habitat Management Plan (HMP), March, 1980.
9. Nevada Rangeland Monitoring Handbook (NRMH), September, 1984.
10. Schell Resource Area Grazing Environmental Impact Statement (EIS), October, 1982.
11. Schell Resource Area Decision Summary and Record of Decision, August, 1983.

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 Scientist
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 the 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;

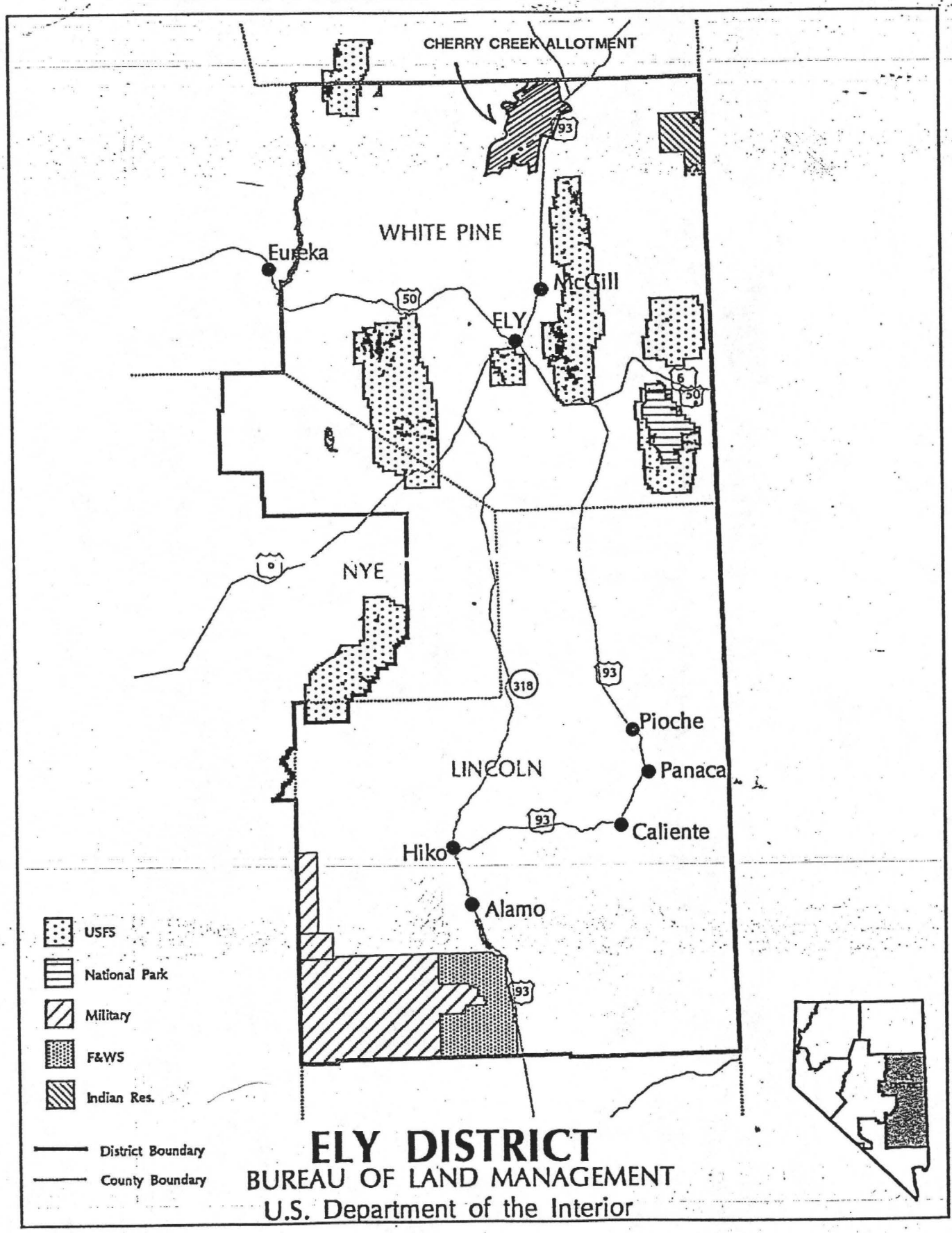
(3) Allowing another party, other than sons and daughters of the grazing permittee or lessee meeting the requirements of § 4130.7(f), to graze on public lands livestock that are not owned or controlled by the permittee or lessee; or

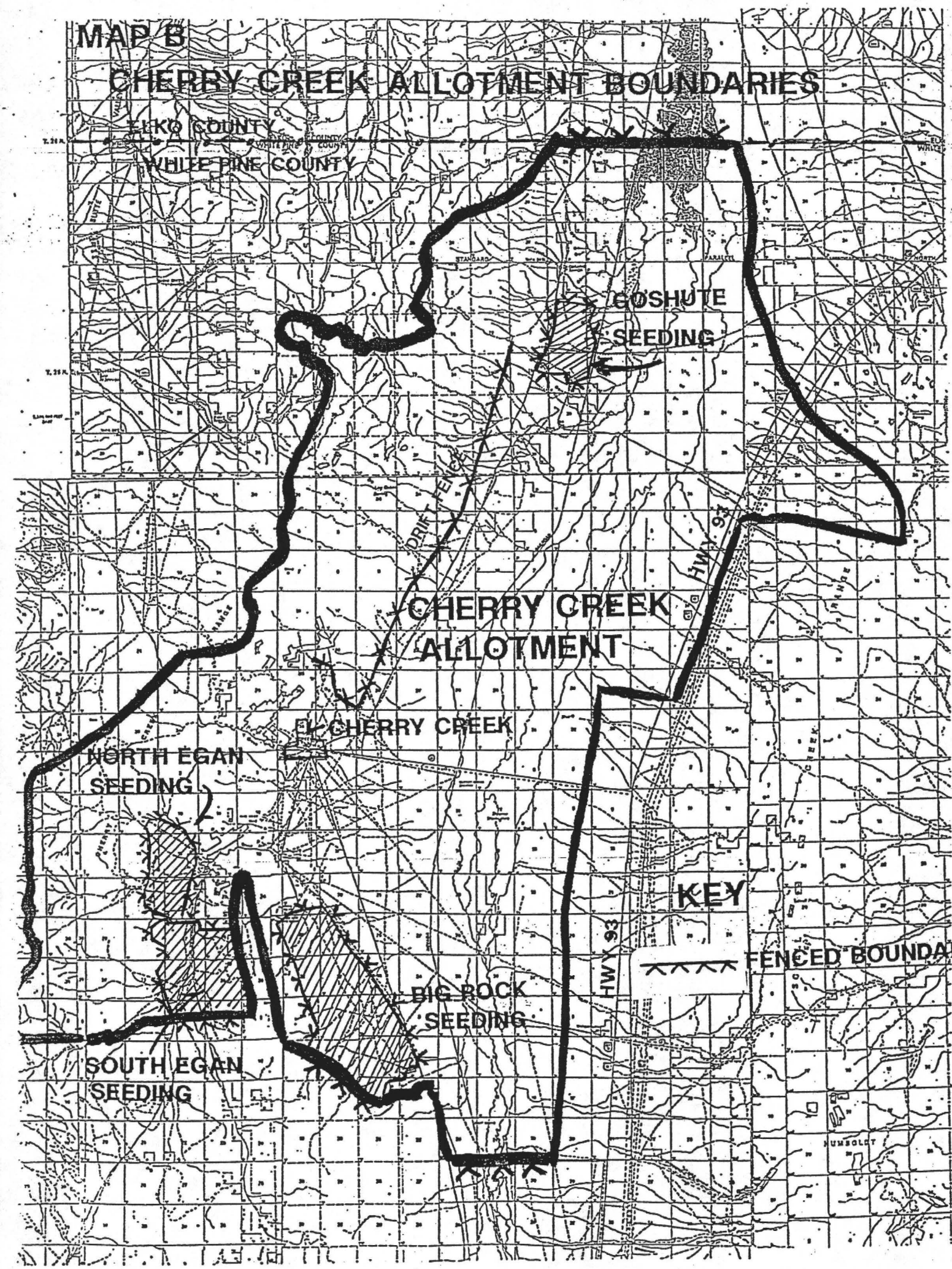
(4) Allowing another party, other than sons and daughters of the grazing permittee or lessee meeting the requirements of § 4130.7(f), to graze livestock on public lands under a pasturing agreement without the approval of the authorized officer.

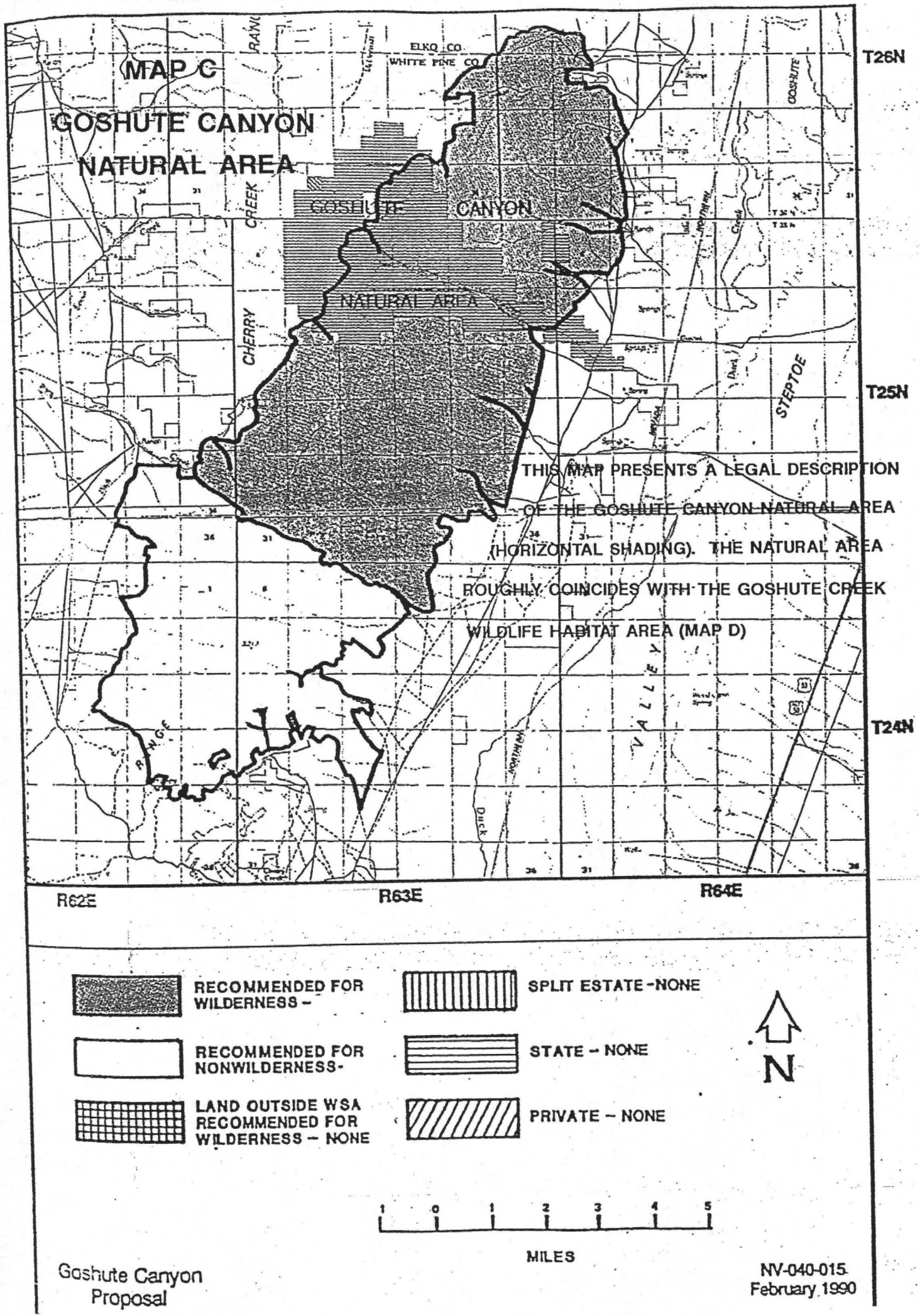
"Utilization" means the percentage of forage that has been consumed by livestock, wild horses and burros, wildlife and insects during a specified period. The term is also used to refer to the pattern of such use.

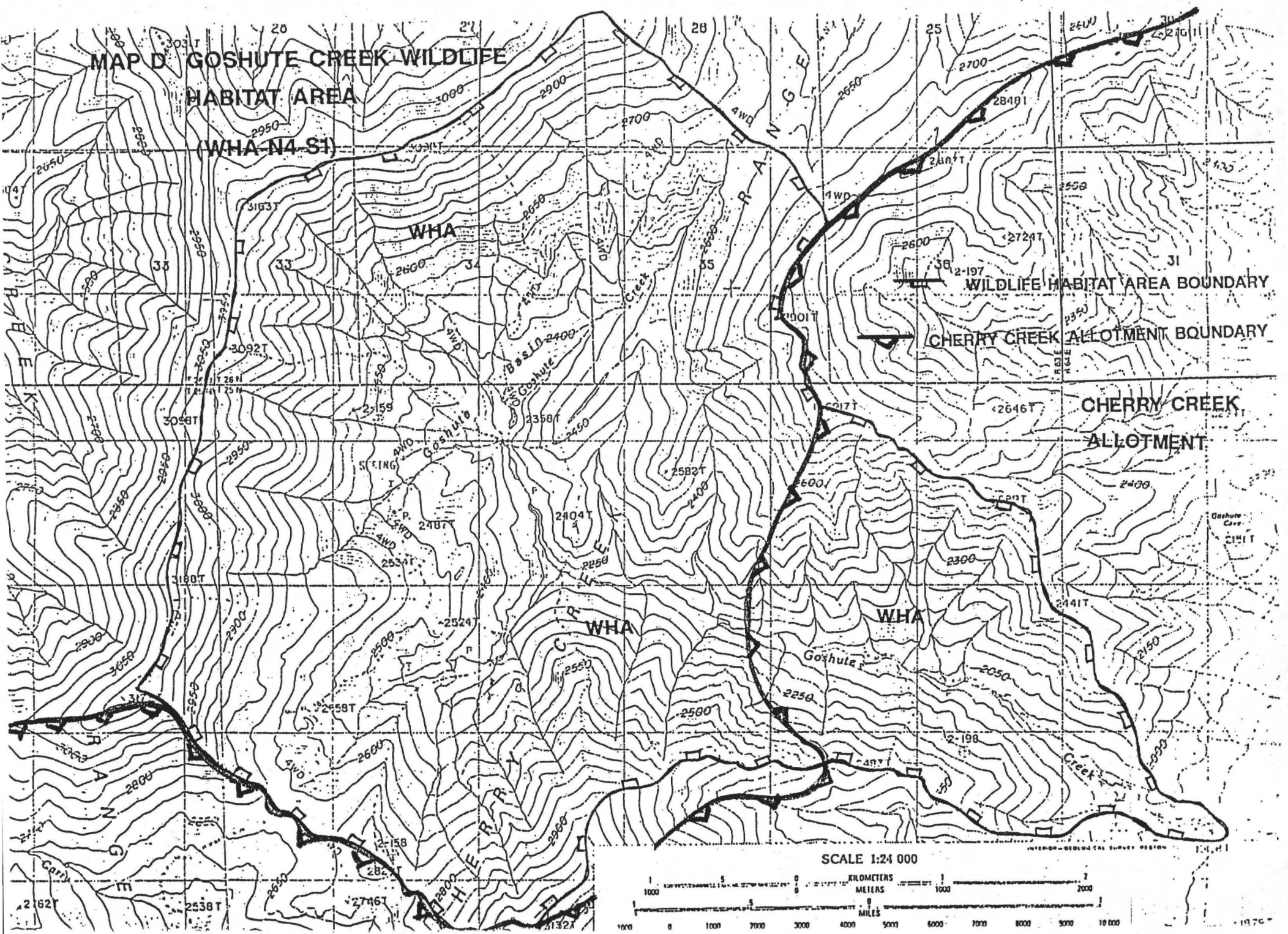
MAP A CHERRY CREEK ALLOTMENT

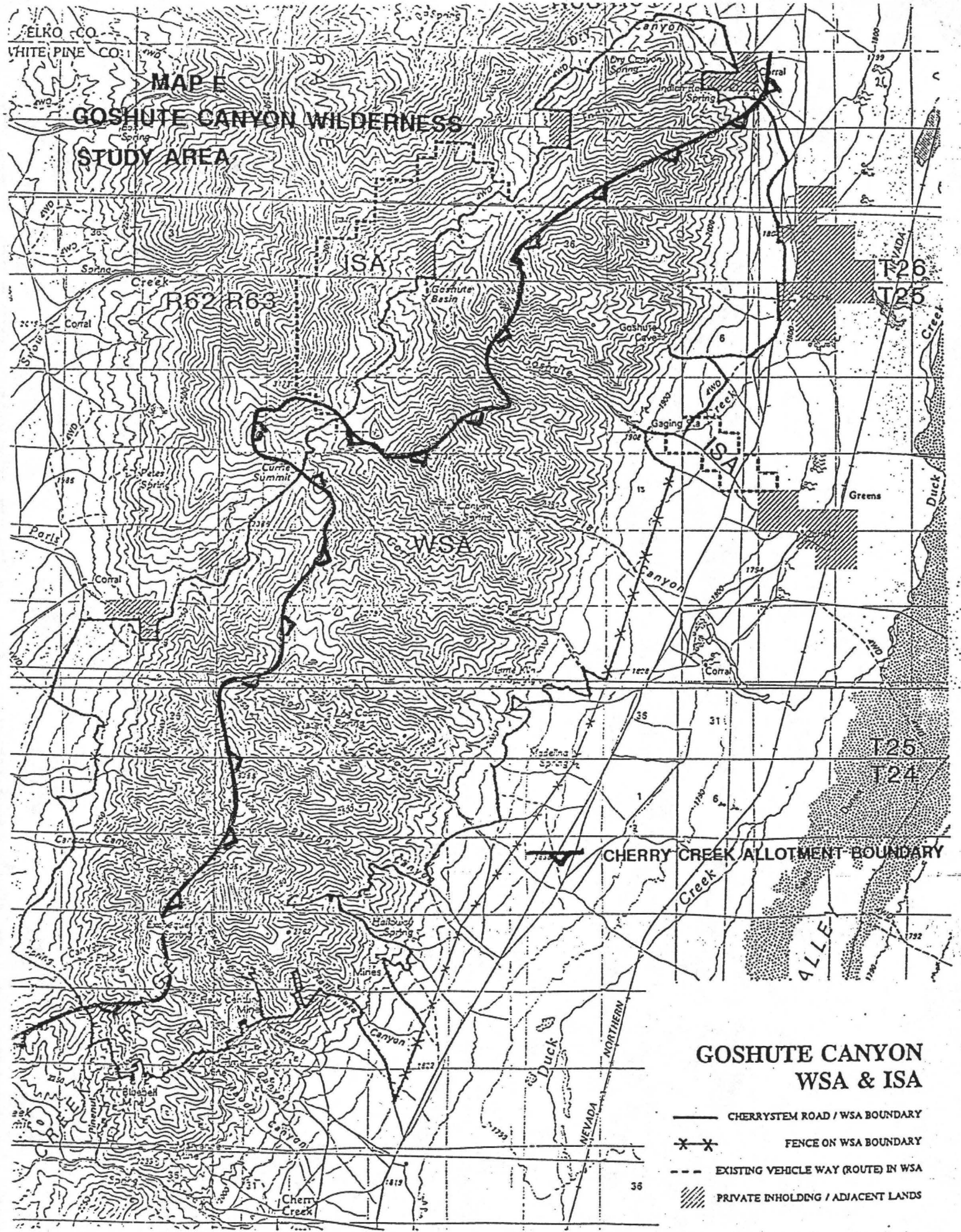
WITHIN THE ELY DISTRICT BLM




MAP B
CHERRY CREEK ALLOTMENT BOUNDARIES
ELKO COUNTY
WHITE PINE COUNTY
COSHUTE SEEDING
DRIFT FENCE
HWY 93
CHERRY CREEK ALLOTMENT
EF CHERRY CREEK
NORTH EGAN SEEDING
KEY
FENCED BOUNDAR
HWY 93
BIG ROCK SEEDING
SOUTH EGAN SEEDING
HUMBOLDT

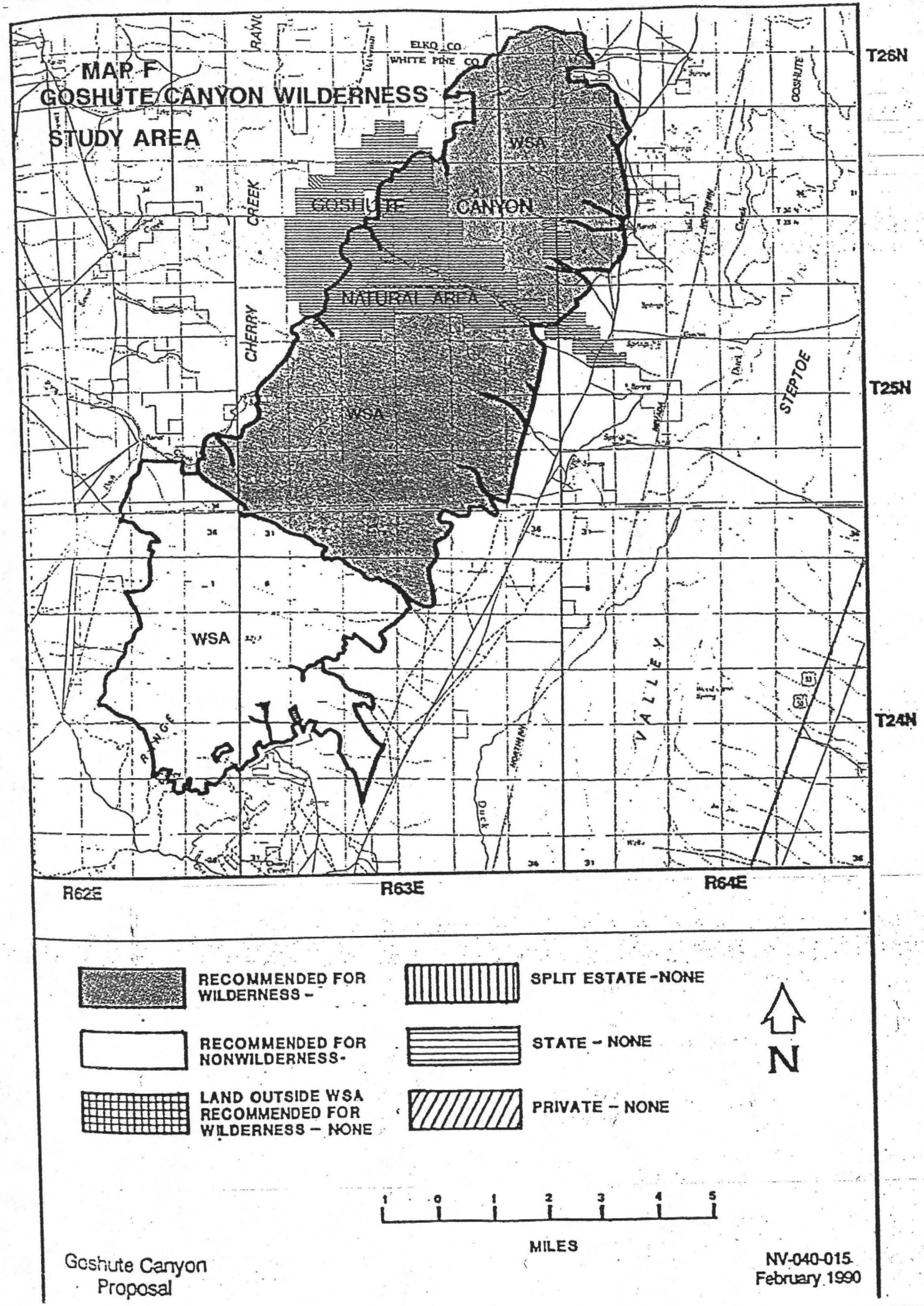

MAP C
GOSHUTE CANYON
NATURAL AREA
ELKO CO.
WHITE PINE CO.
GOSHUTE CANYON
NATURAL AREA
CHERRY CREEK
STEPTOE
T26N
T25N
T24N
R62E
R63E
R64E
THIS MAP PRESENTS A LEGAL DESCRIPTION OF THE GOSHUTE CANYON NATURAL AREA (HORIZONTAL SHADING). THE NATURAL AREA ROUGHLY COINCIDES WITH THE GOSHUTE CREEK WILDLIFE HABITAT AREA (MAP D)
RECOMMENDED FOR WILDERNESS –
RECOMMENDED FOR NONWILDERNESS-
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS – NONE
SPLIT ESTATE-NONE
STATE – NONE
PRIVATE – NONE
N
1 0 1 2 3 4 5
MILES
Goshute Canyon Proposal
NV-040-015
February 1990


MAP D GOSHUTE CREEK WILDLIFE HABITAT AREA (WHA-N4-S1)
WHA
WHA
WHA
CHERRY CREEK ALLOTMENT
WILDLIFE HABITAT AREA BOUNDARY
CHERRY CREEK ALLOTMENT BOUNDARY
SCALE 1:24 000
KILOMETERS
METERS
MILES

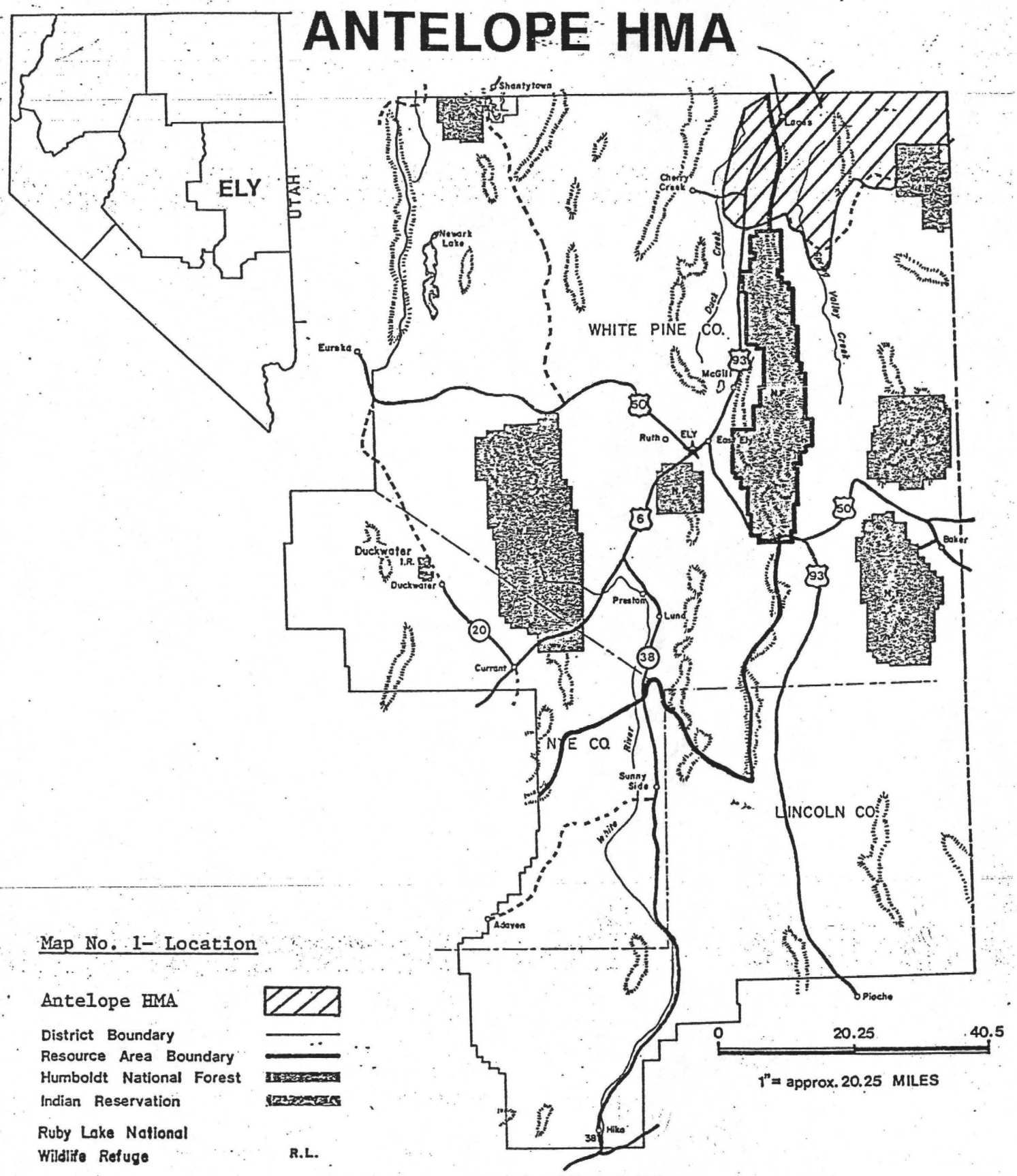


ORKING COPY MAP for field use, SUBJECT TO REVISION. OFFICIAL MAPS showing WSA boundaries are on file at BLM Offices in Ely or Reno.

Cherry Creek Station


MAP F
GOSHUTE CANYON WILDERNESS
STUDY AREA
ELKO CO.
WHITE PINE CO.
WSA
GOSHUTE CANYON
NATURAL AREA
CHERRY CREEK
WSA
WSA
STEPTOE VALLEY
T26N
T25N
T24N
R62E
R63E
R64E
RECOMMENDED FOR WILDERNESS -
RECOMMENDED FOR NONWILDERNESS-
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS – NONE
SPLIT ESTATE -NONE
STATE – NONE
PRIVATE – NONE
N
1 0 1 2 3 4 5
MILES
Goshute Canyon Proposal
NV-040-015
February 1990

MAP G GENERAL LOCATION ANTELOPE HMA



Map No. 1- Location

Antelope HMA

District Boundary

Resource Area Boundary

Humboldt National Forest

Indian Reservation

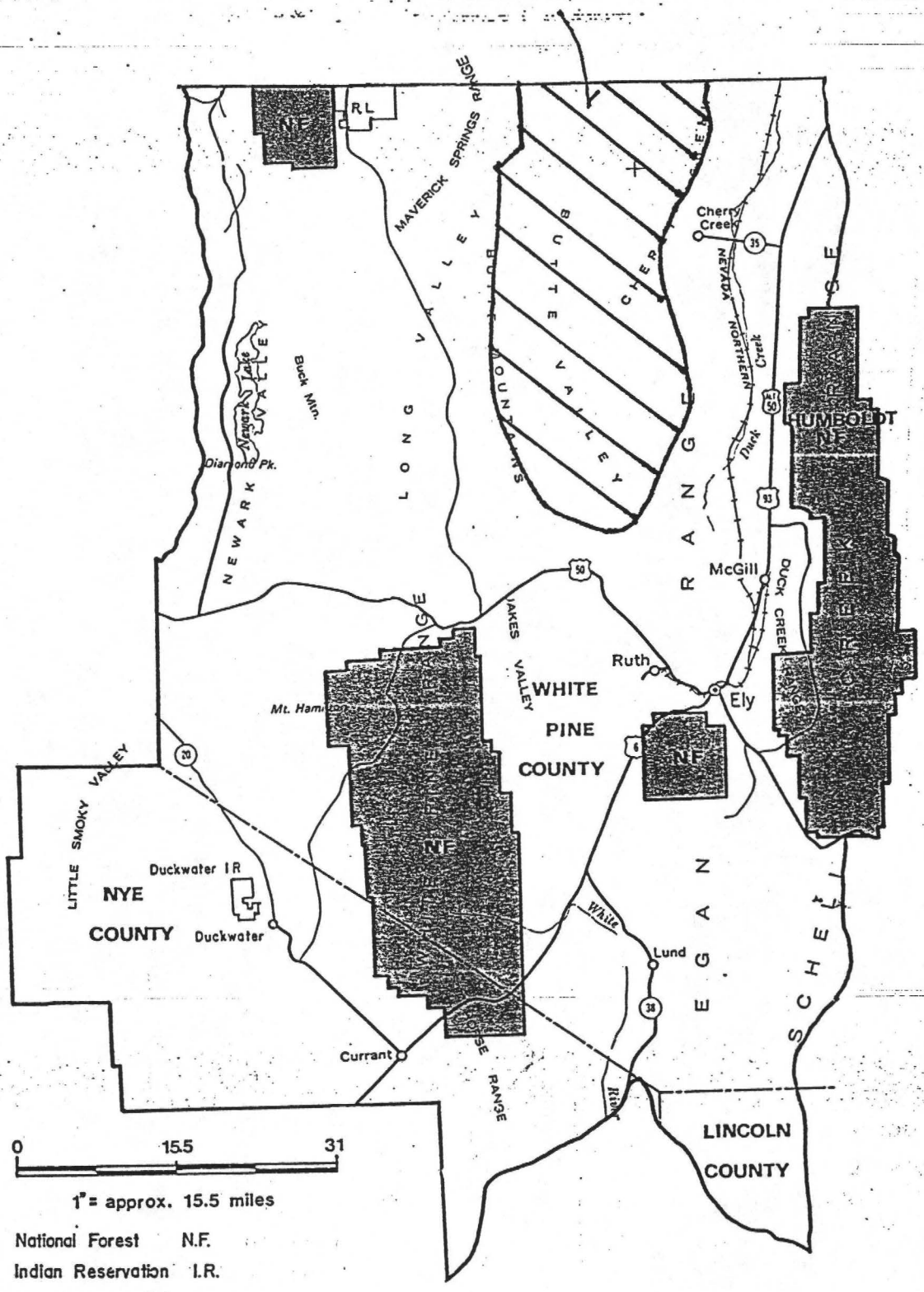
Ruby Lake National Wildlife Refuge R.L.

ELY DISTRICT

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

MAP H GENERAL LOCATION

BUTTE HMA



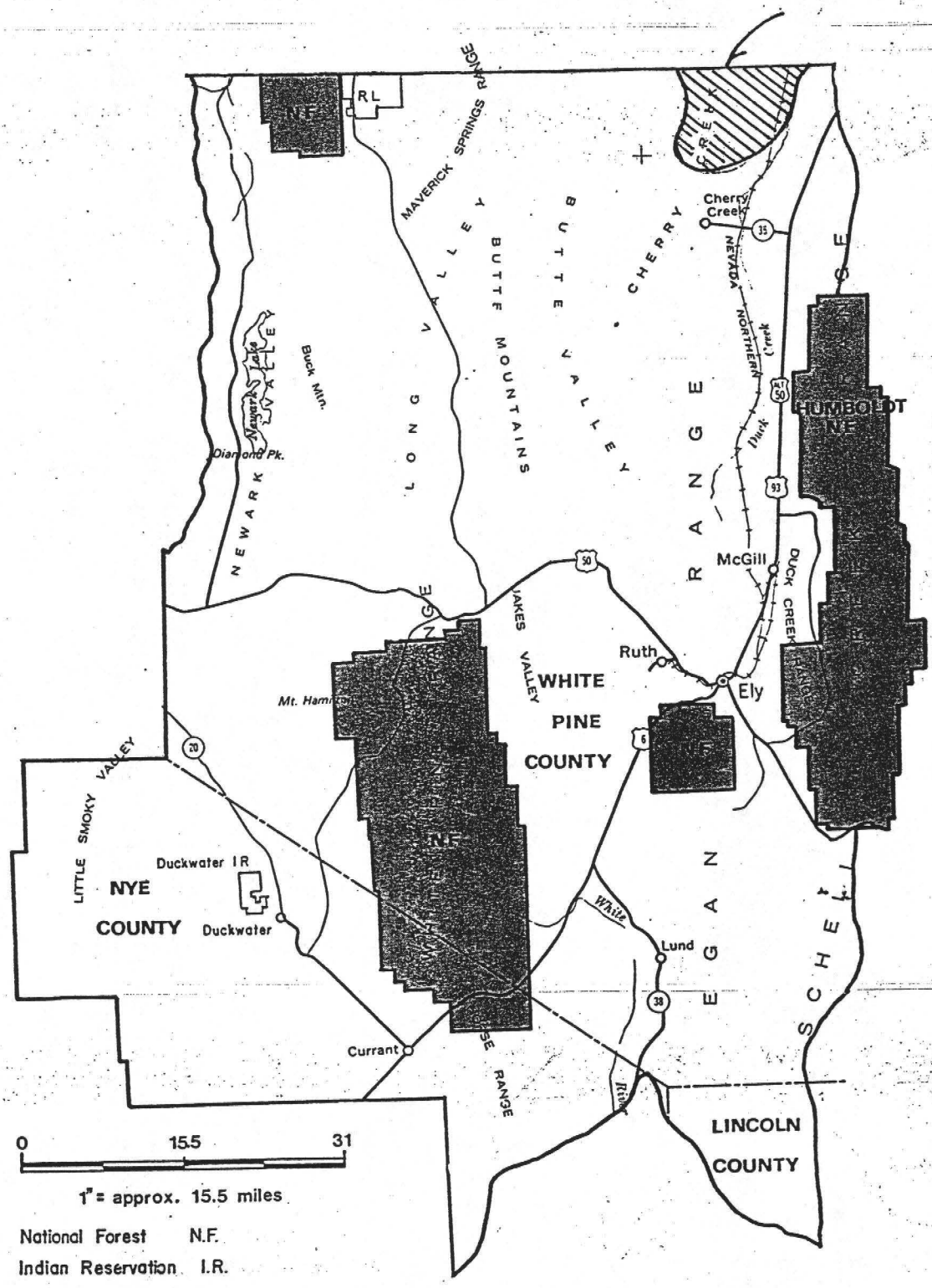
EGAN R.A.

ELY DISTRICT

BUREAU OF LAND MANAGEMENT

U. S. DEPARTMENT OF THE INTERIOR

MAP I GENERAL LOCATION
CHERRY CREEK HMA



EGAN R.A.

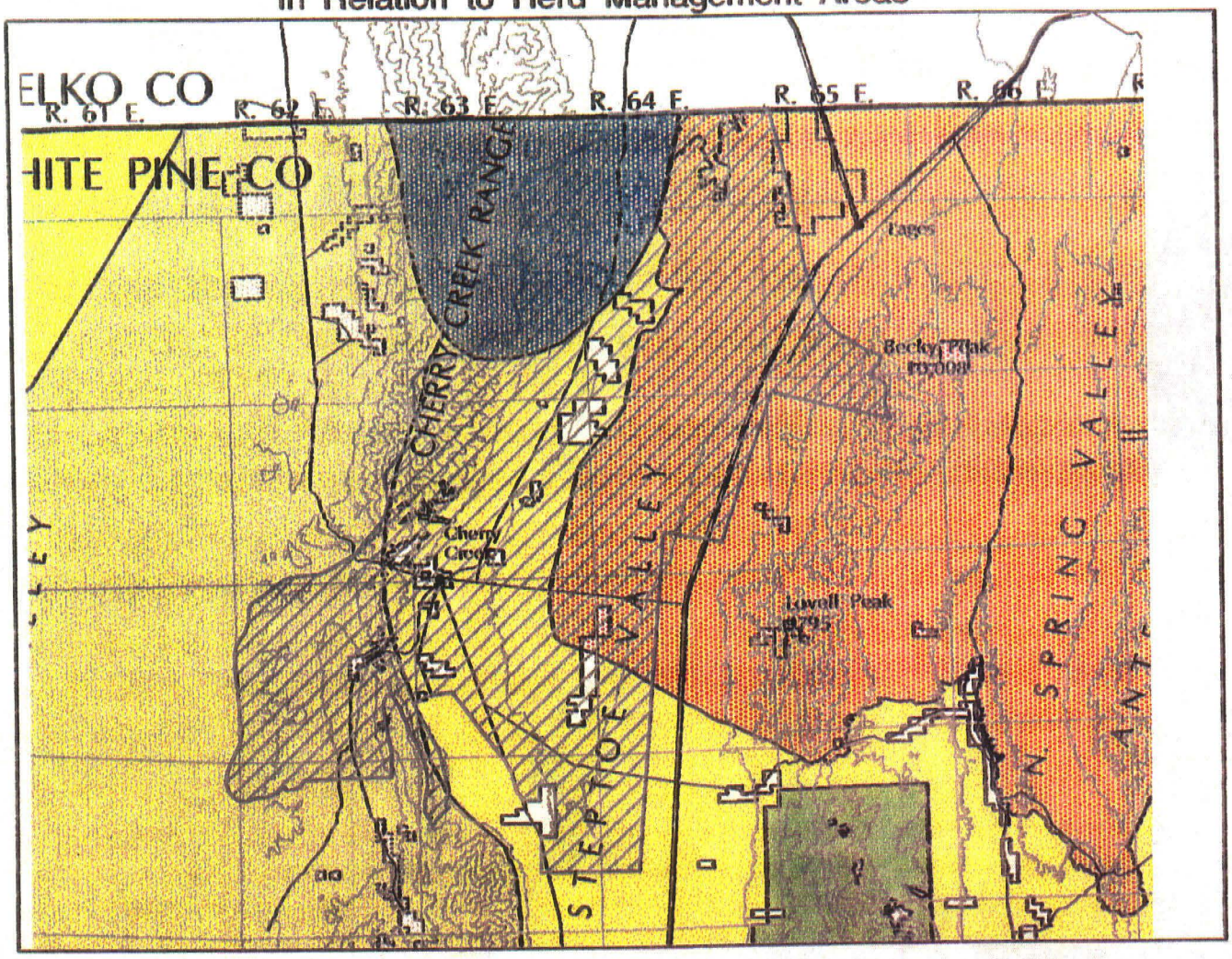
ELY DISTRICT

BUREAU OF LAND MANAGEMENT

U. S. DEPARTMENT OF THE INTERIOR

MAP J

Cherry Creek Allotment
In Relation to Herd Management Areas



6 0 Miles

Cherry Creek Allotment

HERD MANAGEMENT AREAS

ANTELOPE

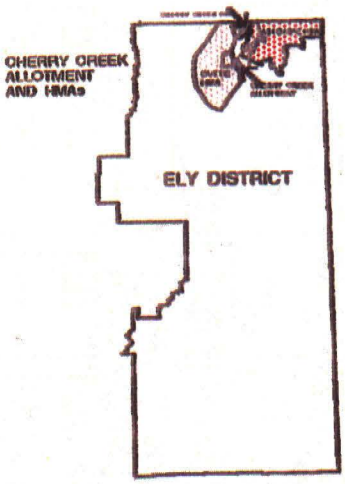
BUTTE

CHERRY CREEK

N

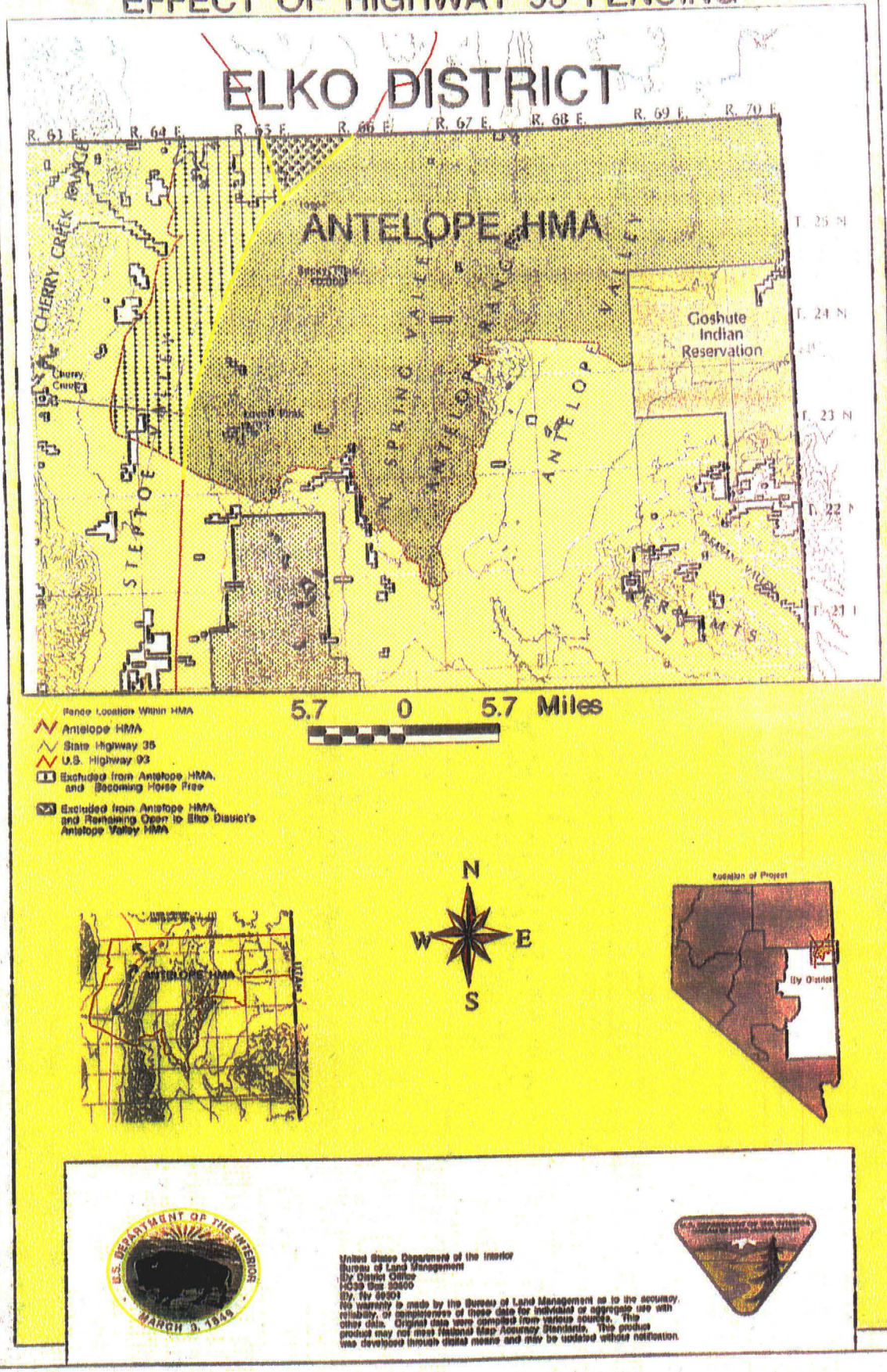
W E

S



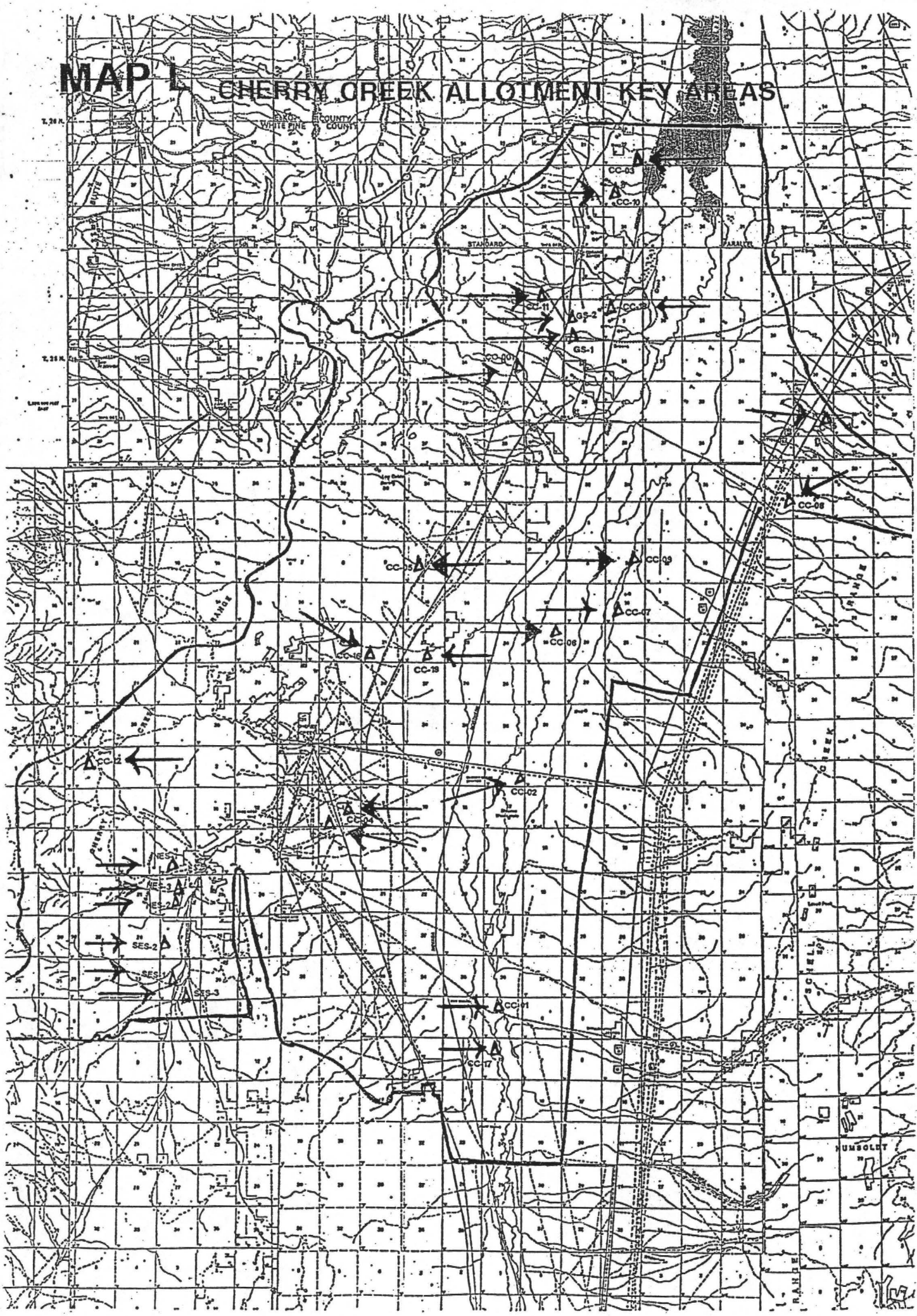
MAP K

EFFECT OF HIGHWAY 93 FENCING



MAP L

CHERRY CREEK ALLOTMENT KEY AREAS



MAP M

CHERRY CREEK ALLOTMENT

SAGE GROUSE LEKS

(STRUTTING GROUNDS) ⊕