United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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1-30-01

NOTICE OF FINAL MULTIPLE USE DECISION FOR THE [redacted]

JAN 30 2001

Certified Mail P 914 142 658
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INTRODUCTION

On October 26, 2000, the Eagle Lake Field Office issued a Proposed Multiple Use Decision for the Twin Peaks Allotment (proposed decision), in accordance with Title 43 of the Code of Federal Regulations (43 CFR) subparts 4160.1 and 4180.1. On November 15, 2000, John Espil Sheep Company, Inc. filed a protest to the proposed decision. Points of protest include, among other things, the implementation of Rangeland Health Guideline 16 and the carrying capacity of the Twin Peaks Allotment. Attached to the protest was a grazing application[1], requesting a significant increase of Animal Unit Months (AUMs) permitted to graze on the Twin Peaks Allotment. This grazing application for an increase in permitted use will be addressed by a separate proposed decision.

In response to the protest the Eagle Lake Office Field is issuing this Final Multiple Use Decision for the Twin Peaks Allotment to formally state the terms and conditions of your grazing permit. The additional terms and conditions of this decision are necessary to progress toward achieving allotment objectives, management objectives, and Rangeland Health Standards.

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[1] On November 28, 2000 John Espil filed a second grazing application that for an increase of 6,739 AUMs, which is equal to the historical suspended non-use stated on their permit. Line 2 of the application requests an additional 5020 AUMs.

The Wild Horse and Burro Management portion of the proposed decision established wild horse and burro appropriate management levels for the Twin Peaks North, Skedaddle, and Dry Valley Rim Home Ranges of the Twin Peaks Herd Management Area. The Wild Horse and Burro Management Decision was issued as a final decision because the 43 CFR 4770.3 regulations do not provide for a 15-day protest period. The regulations allow for an appeal to be filed within 30 days of receipt of the written decision. The appropriate management levels were not appealed and therefore became effective on December 6, 2000.

BACKGROUND INFORMATION

The Cal-Neva Planning Unit Final Environmental Impact Statement Record of Decision (ROD) and the Cal-Neva Management Framework Plan (Land Use Plan) was issued in August 1982. These documents established multiple use goals and objectives that provide management guidance for public lands within the Twin Peaks Allotment. The Land Use Plan objectives were carried forward in the Twin Peaks Allotment Management Plan and the Twin Peaks Herd Management Plan.

Monitoring studies were initially established in 1984 and have been conducted periodically since then, following Bureau policy and regulations. The monitoring studies were summarized in the Twin Peaks Allotment Monitoring Evaluation Report, dated October 24, 2000 (evaluation). The evaluation contains a summary of progress being made toward meeting management objectives and Rangeland Health Standards for the Twin Peaks Allotment. The evaluation also contains management recommendations carried out by this decision necessary to meet Land Use Plan/allotment objectives and Rangeland Health Standards.

STANDARDS FOR RANGELAND HEALTH

On July 13, 2000, the Secretary of Interior approved regional rangeland health standards and guidelines for livestock grazing management for Northeastern California and Northwestern Nevada. According to regulations, the authorized officer shall take appropriate action, as soon as practical but not later than the start of the next grazing year upon determining that current grazing management needs to be modified to meet Rangeland Health Standards. The Rangeland Health Standards for the Twin Peaks Allotment are as follows:

1: Upland Soils

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform, and exhibit functional biological, chemical and physical characteristics.

2: Streams

Stream channel form and function are characteristic for the soil type, climate and landform.

3: Water Quality

Water will have characteristics suitable for existing and potential beneficial uses. Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California and Nevada State Standards, excepting approved variances.

4: Riparian and Wetland Sites

Riparian and Wetland areas are in functioning condition and are meeting regional and local management objectives.

5: Biodiversity

Viable, healthy, productive and diverse populations of native plants and desired plant and animal species, included special status species, are maintained.

CONSULTATION

In July 2000, the Twin Peaks Allotment Draft Monitoring Evaluation Report was sent to allotment permittees, state agencies and interested parties for comment and review. Comments on the draft document were submitted by John Espil Sheep Company, Inc., Nevada Division of Wildlife, and the Sierra Club-Mother Lode Chapter. These comments were considered in the Twin Peaks Allotment Monitoring Evaluation Report and the Notice of Proposed Multiple Use Decision, dated October 26, 2000.

MULTIPLE USE DECISION

I have reconsidered the proposed multiple-use decision in response to the protest received and based upon this review of the reasons for protest and in light of protest meeting held on November 27, 2000 with permittees John and Brent Espil and Bob Schweigert of Intermountain Range Consultations. BLM's response to the protest points is attached in Appendix 3, and incorporated into this decision by reference.

Based upon the analysis of monitoring data for the Twin Peaks Allotment; recommendations from my staff; consultation with the permittees, state agencies, and interested publics; and in consideration of the protest to the proposed decision, the Final multiple Use Decision is as follows:

> The analysis of monitoring data shows that the existing management of livestock and wild horses has contributed to not meeting all the Land Use Plan objectives and Rangeland Health Standards. Therefore, this decision changes livestock management actions, establishes new or modified utilization guidelines, and management objectives. This decision will also restate the new or modified wild horse and burro Appropriate Management Levels(AML) that were elaborated in the proposed decision for home ranges in the Twin Peaks Allotment. Analysis of existing management of wildlife habitats did not suggest that current wildlife populations are contributing to not meeting multiple use objectives or Rangeland Health Standards.

ALLOTMENT UTILIZATION GUIDELINES

The browse utilization guidelines were rewritten and modified for clarification. Monitoring, Resource and Management objectives are included in this decision.

The following are multiple use utilization guidelines for key upland and riparian species in the

Twin Peaks Allotment that will be monitored and evaluated, in accordance with Rangeland Health Guideline 16

A. Upland Utilization Guidelines

1. Utilization of key upland browse species.

Management Objective: There will be no more than 20 percent utilization of annual growth on key browse species prior to October 1 within identified deer concentration areas.

Discussion: These concentration areas are those areas within mule deer habitat where mule deer numbers are most likely to be concentrated during winter season (winter season normally occurs from December through March). These areas have been identified through State Fish and Game Agency fall and spring counts over a period of several years. Maps of these deer concentration areas are on file at the BLM Eagle Lake Field Office.

Resource Objectives:

a. Provide for utilization of bitterbrush, mountain mahogany, and serviceberry without exceeding a maximum proper use factor of 50 - 60%.

b. The overall trend of the browse stands does not fall below adequate[2] (NRCS 1997).

- The reproduction element of browse trend does not fall below "adequate" as defined by the Natural Resources Conservation Service (NRCS1997).

- Hedging or browse line of browse species remains between "moderate" and "not evident."

Monitoring Objective: Measure the utilization of bitterbrush, mountain mahogany, and serviceberry in the Rowland Mountain area, Antelope Basin area, south to Wilcox and Piute Springs area, and the Red Rock area delineated by the Nevada Division of Wildlife (NDOW) in 1996 (Hormay 1943, and USDI 1996). Ensure, with 80 percent confidence that the estimate is within 10 percent of the true utilization value (Krebs 1999, and Elzinga et al. 1998). Measure the utilization in October and again after deer use, in March.

2. Allotment-Wide Utilization (uplands):

The utilization limit is 40-60% for key upland species at the end of the grazing season. Utilization will be measured on the key areas, or determined by use pattern mapping. (Key species are identified in Appendix 1).

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[2] Adequate means sufficient seedling and young plants are present to approximately maintain the appropriate population status of the species in the community.

B. Riparian Utilization Guidelines

1. For those riparian sites determined to be functioning at risk (identified in Appendix 2) [3].

   a. A 4-6" minimum stubble height will remain at the end of the growing season at most riparian sites. The stubble height threshold is intended to provide sufficient residual herbaceous vegetation biomass for improved plant vigor and soil stability.

   b. Utilization limit is 20% on key riparian trees and shrubs species in those areas (identified in Appendix 2) where the presence of woody riparian species is necessary to meet standards. Utilization will be measured at the end of the growing season.

2. For those riparian sites determined to be properly functioning (identified in Appendix 2).

   A 2-4" minimum stubble height will remain at the end of the growing season in most riparian sites[4].

C. Application of Utilization Guidelines

1. The utilization levels will be applied until a current site-specific analysis is completed and new utilization levels are developed and documented in the allotment management plan.

2. Management changes (such as changes in the season of use, timing, duration, and/or intensity; rotational grazing; fencing; herding; and/or adjustments in stocking rates) will be implemented if stubble heights on the average of the key riparian areas across the pasture fall below the guidelines for two consecutive years or in any two years out of every five years. In addition, at least 70 percent of riparian key areas on the allotment are to exceed minimum stubble heights in most years. If any particular key area fails to meet the guidelines for more than two consecutive years, then management action will be taken to remedy the problem area of the allotment that key area represents.

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[3] Appendix 2 has been reformatted to include the status of all riparian functional assessment information collected on the Twin Peaks Allotment. The riparian functional assessment is incomplete and ongoing.

[4] Riparian guidelines to not apply to areas near structural facilities constructed for livestock/wild horse/wildlife water or other purposes. Examples include areas near water troughs, reservoirs, water gaps on fenced or otherwise restricted stream corridors, etc. (Rangeland Health ROD).

ALLOTMENT CARRYING CAPACITY

The combined carrying capacity for livestock, wild horses and burros on public lands is 19,994 Animal Unit Months (AUMs). The carrying capacity allocation is as follows: livestock - 13,430 AUMs; wild horses and burros - 6564 AUMs.

LIVESTOCK MANAGEMENT DECISION

LIVESTOCK CARRYING CAPACITY

Permittee Mandatory Terms and Conditions

John Espil Sheep Company Incorporated:

Number	Kind	Period of Use	% PL	Permitted AUMs
991	Cattle	04/01 to 01/31	100	9,910
4000	Sheep	04/01 to 05/30	100	1,600
2000	Sheep	06/01 to 06/30	100	400
2000	Sheep	09/16 to 09/30	100	200
4000	Sheep	10/01 to 10/25	100	650

Laver Ranches:

Number	Kind	Period of Use	%PL	Permitted AUMs
103	Cattle	04/16 to 10/31	100	670

Other Terms and Conditions
(for both cattle and sheep, as applicable)

Note: Based on the protest to the proposed decision, certain terms and conditions and management refinements were modified or clarified.

Annual grazing authorizations may be modified, but will not exceed the total number of Animal Unit Months of permitted grazing use. Additional forage temporarily available for livestock grazing use may be apportioned on a nonrenewable basis. Modifications must be consistent with rangeland health standards and guidelines for grazing.

Grazing use may be delayed or discontinued based on soil and forage conditions, or because of non-attainment of utilization guidelines. On high shrink-swell soils concentration of livestock while soils are wet[5] will be avoided.

Grazing use is prohibited in Twin Peaks Allotment riparian/wetland and upland exclosures, unless otherwise provided for in writing by the authorized officer. The following list of allotment exclosures was not previously identified in the Twin Peaks

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[5] Wet means when bearing strength of soil results in greater than 2 inch compressions from animal hoof impact.

AMP or decision records. The exclosures are the Pilgrim Lake wetland, Stone Corral, Rocky Table Spring, Parsnip Springs, South Twin Springs (2), Phone Springs, and Coyote Springs.

The Buffalo/Parsnip riparian area will be rested from livestock grazing during 2001 and 2002. In 2003, livestock grazing use will be determined by BLM in coordination with the permittees and other interested publics who want to participate in the management of this area.

Salt and/or mineral blocks if used will be placed at a minimum of one quarter (1/4) mile from any springs, streams, meadows, riparian habitats or aspen stands.

The permittees shall maintain range improvements as required by the terms of cooperative agreements or section 4 range improvement permits before turning out in a pasture as scheduled for grazing use.

Each permittee's certified actual use grazing report, by pasture/use area, is due 15 days after the end of the authorized grazing period.

Allotment Management Plan Refinements

The following management actions amend and add provisions to the 1985 Twin Peaks Allotment Management Plan, as amended. The Rangeland Health Standards and Guidelines are incorporated in the AMP by reference.

AMP B. 3. Allotment Specific Objectives (page 7 of the Twin Peaks AMP)

a. Forage Utilization

Utilization of key upland forage species shall not exceed moderate use level of 40-60%. Utilization guidelines to not apply to areas near structural facilities constructed for livestock/wild horse/wildlife water or for other purposes. Examples include areas near water troughs, reservoirs, water gaps on fenced or otherwise restricted stream corridors.

AMP C 3. Cattle Operation (page 8 of the Twin Peaks AMP)

Basic Grazing Season, April 1 to January 31.

Espil 991 Cattle, 04/01 to 01/31, 9910 AUMs
Laver 103 Cattle, 04/16 to 10/31, 670 AUMs

AMP Basic Grazing System (page 9 of the Twin Peaks AMP)

North Pasture *(turnout years)*

After April 1, cattle can be turned out in the north pasture based on the basic grazing system guidelines and as agreed to during Annual Pre-grazing Coordination. After July 1, cattle may be moved to the south pasture.

South Pasture *(turnout years)*

After April 1, Laver's recommended turnout areas are either East Skedaddle Creek Drainage and/or Spencer Basin. This provision will be deleted following construction of a new drift fence east of Bull Flat (livestock grazing in this area is addressed in Management Guidelines for South Pasture Subdivisions). After July 1, cattle may be moved to the north pasture. Espil's cattle are to be turned out based on the basic grazing system guidelines.

AMP 4. Sheep Operation

The season of use: April 1 to October 25

AMP E. Administration

AMP E. 2. Flexibility/Requirements (page 25 of the Twin Peaks AMP)

Adjustments in grazing use from the basic operation, or as stated on the permit will require BLM prior approval. Proposed adjustments in grazing use will be made by the permittees on the Annual Grazing Application, Form 4130-3a. This form will be provided for BLM approval before livestock turnout.

The combined number of maximum cattle AUMs and sheep AUMs stated in the basic operation section of the AMP cannot exceed active permitted use as stated on their grazing permit, unless authorized by the BLM.

Allotment Management Plan Addendum Changes

C. Management Refinements

2. Lower Smoke Creek Sub-Unit

Up to 400 cattle will be authorized to use the Lower Smoke Creek area from April 1 to May 5, annually, subject to the terms and conditions contained within this addendum. Since the grazing capacity for this area . . .

D. Terms and Conditions Refinements

2. Except for trailing along the Smoke Creek Road, no use shall be made in the Smoke Creek Subunit after May 5. Maximum utilization levels on the Lower Smoke Creek riparian areas are 40 percent (or 4-6 inch minimum stubble height) of total current year production, as determined at the end of the growing season.

Considerations - Smoke Creek Subunit has few physical barriers. The permittees will make diligent effort to remove and keep the livestock from this subunit after May 5, and be promptly responsive to notification from BLM.

4. After April 30, should estimated utilization of riparian-associated plants in the publicly owned portions of the North Fork of Buffalo Creek drainage and Parsnip Creek drainage be determined to be approaching, or to have reached 40 percent utilization (or 4-6 minimum stubble height), as determined by the BLM . . .

III. Monitoring Refinement

2. Monitoring Refinement

BLM will monitor and record grazing utilization on key areas by the *Landscape Appearance Method* , as supplemented by clipping and weighting...

E. Range Improvements

BLM will pursue the means to establish a Bull Flat drift fence, for the purpose of managing cattle in the Bull Flat area, and the West Fork Rush Creek area. Construction of the drift fence is subject to environmental review, funding and other constrains. The livestock permittee will assume maintenance responsibilities following fence construction.

Management Guidelines for North Pasture Subdivisions

The AMP Grazing System Refinements and Guidelines for Cattle Grazing.

Buffalo Subdivision

During north pasture turnout years cattle may be turned out from April 1 thought May 31 in the Buffalo Subdivision. The actual date of cattle movement from the subdivision would depend on soil moisture conditions at the higher elevations where cattle will be herded. Some cattle would drift to the higher elevations after turnouts. However, all cattle will be herded from the subdivision by May 31. The cattle will be trailed across the subdivision in the fall as they are removed from the higher elevations of the allotment.

Buffalo Hills Subdivision

Cattle use the lower slopes of this subdivision within the Buffalo Subdivision. During south pasture turnout years, cattle would be turned out in the higher elevations of this subdivision.

Black Mountain Subdivision

During north pasture turnout years, cattle grazing shall be delayed until June 1. During south pasture turnout years the Black Mountain subdivision will be rested.

Painter Subdivision

Cattle grazing will be deferred each year until about July 1, which is the approximate seed date for perennial grasses on the uplands. To meet the utilization guidelines identified in this decision, controlling cattle use by riding and herding may be necessary in certain riparian and upland areas between Rocky Table Spring and Mixie Flat.

Dry Valley and Salt Marsh Subdivisions

The Dry Valley and Salt March subdivisions may be used as winter range from approximately November 1 to January 31. Cattle use could also occur in early April, when the cattle are herded through the subdivision. Otherwise the subdivision shall be rested from cattle use from February, 1 to October 31.

(Continue to manage Rowland Mountain, Chimney, and Stone Corral Subdivisions as described in the AMP addendum).

Management Guidelines for South Pasture Subdivisions

Dry Valley Rim Subdivision

The Dry Valley Rim subdivision may be grazed by cattle from April 1 to July 1 during south pasture turnout years.

Skedaddle Subdivision

Following the construction of the Bull Flat drift fence, the Skedaddle Subdivision may be grazed by cattle from May 1 to October 31 during south pasture turnout years. During north pasture years the Skedaddle Subdivision may be grazed by cattle from July 1 to October 31.

Five Springs Subdivision

On soils prone to Medusahead infestation, cattle turnout in the Five Spring subdivision shall be delayed until soils are sufficiently dry to prevent soil structure damage from trampling. Following construction of the Bull Flat drift fence, the Bull Flat area will be managed for fall cattle use (August though October) and the West Fork Rush Creek area will be managed for spring cattle use (May through June).

Management Refinement Considerations

The subdivision/subunit boundaries have few interior fences or barriers to control cattle. Management of cattle is dependant upon herding by riders. It is recognized that 100% control of cattle may not be possible. However, the permittees will take diligent efforts to keep cattle in their respective areas.

RATIONALE FOR IMPLEMENTING UTILIZATION AND MANAGEMENT GUIDELINES.

The Rangeland Health standards for riparian/wetland and streams was not met on a combination of 34 sites. The grazing management of cattle and wild horses on the Twin Peaks Allotment are significant factors for failing to achieve or to progress toward meeting riparian/wetland standards on 24 sites, representing 17.88 acres, and 10 stream riparian sites representing 7.38 miles. Appendix 2 lists the management strategies to improve the 34 riparian/wetland sites not meeting riparian standards. The stubble height guidelines for riparian/wetlands and stream-side vegetation is intended to provide sufficient residual herbaceous vegetation biomass for plant vigor, soil stability maintenance, improved seed production, and root reserves. The existing AMP grazing system does not adequately provide for management of riparian and wetland areas that are functioning at risk. This decision applies management guidelines to initiate recovery of riparian resources that are functioning at risk and continued recovery of riparian resources that have an upward trend toward properly functioning condition.

The Annual Pre-grazing Coordination will occur after monitoring data is collected and other

information is made available for determining immediate adjustment to grazing use, as necessary. Adjustments to grazing use will reduce the possibility of cattle grazing practices limiting the recovery of certain riparian areas, by providing for rest periods on a subunit or subdivision basis within the pastures. Unacceptable conditions on riparian areas were generally not attributed to sheep grazing, therefore management guidelines are not applicable to sheep grazing. Management actions for livestock would be coordinated with the BLM, permittees, and the interested public.

Monitoring information and the Rangeland Health Assessment information indicates that the Biodiversity Standard was not met on 12,840 acres. The primary reason this standard was not met on the allotment is because native perennial grass are non-existence or in very low composition in comparison with potential composition of native perennial grass that should be present, as stated in the ecological site description and/or indicated by the ecological reference area. Also considered during the Rangeland Health Assessment was the absence of perennial grass recruitment, and the relative composition of nonnative grasses such as cheatgrass and Medusahead. These exotic annual grasses can inhibit native species recruitment and effect natural ecological systems by increasing wildfire frequency and intensity. The non-attainment Biodiversity and Soils Standards for the Rangeland Health is generally attributed to historic livestock grazing.

The Land Use Plan utilization objective is to not exceed 40-60% utilization of key forage species. From 1993 to 1999, use pattern mapping information shows that this utilization level, or the acreage of heavy use has increased from 2% to an estimated 5% or approximately 10,000 acres within the allotment. Use pattern mapping information indicate the allotment's existing infrastructure is a significant factor that contributes to upland and riparian/wetland utilization guidelines not being met. The large allotment is without major internal structures such as fencing and natural barriers to provide for area-specific management.

In addition to the allotment deferred-rotation grazing system, this decision requires management changes to correct livestock distribution problems. Management changes will reduce trampling damage of clay soils that are prone to nonnative plant infestation. The revised season of use is consistent with this management action by reducing cattle grazing when soils are wet.

RATIONALE FOR ALLOTMENT CARRYING CAPACITY

The analysis and evaluation of existing monitoring data and Rangeland Health Determinations indicate that management objectives and Rangeland Health Riparian/Wetland, Stream Standards are not being met on the Twin Peaks Allotment under current management, despite above-average precipitation levels and favorable forage production conditions since 1993. The monitoring information for the Twin Peaks Allotment also indicates that under current stocking levels the Land Use Plan 40-60% utilization level was exceeded on approximately 10,000 acres in 1999. Objective non-obtainment was attributed to cattle and wild horses.

Much of the allotment was use pattern mapped in the slight to light utilization classes. However, this information does not indicate the amount additional forage that is available on a sustained yield basis for livestock. Lightly utilized areas generally lack water during most of the year, or the topography is steep and rugged and not easily accessible by livestock.

ADMINISTRATION

Permitted grazing use and the Twin Peaks Allotment Management plan dated April 16, 1985 will become modified on the effective date of this final multiple use decision. The terms and conditions of this decision are incorporated into the existing grazing permits.

AUTHORITY: The authority for this decision is contained in Title 43 of the Code of Federal Regulations, which states in pertinent parts:

4100.0-8: "The authorized officer shall manage livestock grazing on public lands under the principles of multiple use and sustained yield and in accordance with applicable land use plans. Land use plans shall establish allowable resource uses (either singly or in combination), related levels of production or use to be maintained, areas of use and resource condition goals and objectives to be obtained. The plans also set forth program constraints and general management practices needed to achieve management objectives. Livestock grazing activities and management actions approved by the authorized officer shall be in conformance with the land use plan as defined at 43 CFR 1601.0-5(b)."

4110.3: "The authorized officer shall periodically review permitted use of a grazing permit or grazing lease and shall make changes in the specified livestock grazing use as needed to manage, maintain or improve rangeland productivity, to assist in restoring ecosystems to properly functioning condition, to conform with land use plans or activity plans, or to comply with the provisions of sub part 4180 of this part. These changes must be supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer."

4110.3-2: (b) "When monitoring or field observations show grazing use or patterns of use are not consistent with the provisions of subpart 4180, or grazing use is otherwise causing an unacceptable level or pattern of utilization or, when use exceeds the livestock carrying capacity as determined through monitoring, ecological site inventory or other acceptable methods, the authorized officer shall reduce [specified livestock] grazing use or otherwise modify management practices."

4130.3-1: "The authorized officer shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. The authorized livestock grazing use shall not exceed the livestock carrying capacity of the allotment."

4130.3-2: "The authorized officer may specify in grazing permits and leases other terms and conditions which will assist in achieving management objective, provide for proper range management or assist in the orderly administration of the public rangelands . . . "

4130.3-3: "Following consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of sub part 4180. To the extent practical, the authorized officer shall provide affected permittees or lessees, States having lands or responsibility for managing resources within the affected area, and the interested public an opportunity to review, comment and give input during the preparation of reports that evaluate monitoring and other

data that are used as a basis for making decisions to increase or decrease grazing use, or to change the terms and conditions of a permit or lease."

4180.1: "The authorized officer shall take appropriate action under subparts 4110, 4120, 4130 and 4160 of this part as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management needs to be modified to ensure that the following conditions exist.

(a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow."

WILD HORSE and BURRO MANAGEMENT DECISION

The following wild horse and burro Appropriate Management Levels are based on monitoring, and should result in a thriving natural ecological balance for the Skedaddle, Dry Valley Rim and the Twin Peaks North home ranges.

Management Unit	Appropriate Management Levels		Forage Amounts
Home Range	HORSE RANGE Numbers	BURRO RANGE Numbers	AUMS
Twin Peaks North	155 - 288	22 - 42	2124 -3960
Skedaddle	58 -108	10 -15	816 -1476
Dry Valley Rim	39 - 72	15 - 22	648 - 1128
Allotment Totals	252 - 468	47 - 79	3588 - 6564

To manage wild horses and burros effectively and economically AML ranges were set on a four-year gather cycle. The optimum numbers of wild horses and burros to maintain a thriving natural ecological balance is the AML high range number. The lower range number level is consistent with maintenance of self-sustaining populations of wild horses and burros. The gather cycle is based on existing herd recruitment rates of approximately 17 percent per year. However, because of droughts, severe winters or other natural events that may affect wild horse and burro populations, the actual number of wild horses and burros gathered would be based on a pre gather census.

RATIONALE FOR APPROPRIATE MANAGEMENT LEVELS

The analysis and evaluation of available monitoring data indicate that management objectives and Rangeland Health Riparian Standards are not being met in the home ranges of the Twin

Peaks Allotment, and despite favorable forage production conditions and above average precipitation levels since 1993. Based on monitoring information, high population levels of year-long wild horses have contributed to not meeting management objectives and Rangeland Health Riparian Standards. Therefore, a reduction in the wild horse population is necessary to progress toward meeting management objectives and Rangeland Health Standards. The Appropriate Management Level range of 269-468 wild horses and 47-79 burros would result in a thriving natural ecological balance for that portion of the Twin Peaks HMA that occurs in the Twin Peaks Allotment. The AML was determined by analysis of utilization, trend, precipitation data and actual use information contained in the Twin Peaks Allotment Evaluation Report, dated October 2000.

The AML's for the three home ranges in the Twin Peaks Allotment will remain consistent with population levels established in the Land Use Plan and by the Buffalo Hills Technical Review Team. The analysis of monitoring information for the Twin Peaks Allotment shows that adjustments of the current population are necessary to meet rangeland health standards. Following attainment of AML, if upland and riparian utilization guidelines continued to be exceeded, or if other monitoring information show that changes are necessary to meet Rangeland Health Standards for home ranges in the Twin Peaks Allotment, then management changes would occur following the reevaluation.

AUTHORITY: The authority for this decision is contained Sec. 3 (a), Wild-Free-Roaming Horse and Burro Act (Public Law 92-195) and in Title 43 of the Code of Federal Regulations, which states in pertinent parts:

4700.0-6 (a): "wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses at the productive capacity of their habitat."

4710.4: "Management of wild horses and burros shall be undertaken with the objectives of limiting the animal's distribution to herd areas. Management shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans."

4720.1 "Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately . . . "

An appeal must be taken within thirty (30) days of receipt of the wild horse and burro management decision in accordance with 43 CFR 4.400 regulations. No appeal was taken for this portion of the proposed Multiple Use Decision for the Twin Peaks Allotment, dated October 26, 2000. Accordingly, wild horse and burro management was implemented on December 6, 2000.

WILDLIFE MANAGEMENT DECISION

Analysis of existing management of wildlife habitats does not suggest that current wildlife populations are contributing to failure in meeting multiple use objectives. Consequently, no change in wildlife use is recommended at this time.

AUTHORITY: The authority for this decision is contained in Title 43 of the Code of Federal Regulations, states in pertinent part:

4180.1 and 4180.2 to address the principles of rangeland health: " Standard 5: Biodiversity Viable, healthy, productive and diverse populations of native plants and desired plant and animal species, included special status species, are maintained."

MONITORING

Some rangeland monitoring studies are established on the allotment. Additional monitoring studies for purposes of measuring vegetation and other resource attributes will be established to determine progress in meeting management objectives and Rangeland Health Standards. BLM will continue to collect monitoring information annually.

APPEAL RIGHTS for the LIVESTOCK MANAGEMENT DECISION

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final livestock grazing portion of this decision may file an appeal for the purpose of a hearing before a Administrative Law Judge. In accordance with Title 43 CFR 4160.3 you are allowed thirty (30) days from receipt of this notice within which to file an appeal with the Bureau of Land Management, Linda D. Hansen, Field Manager, Eagle Lake Field Office, 2950 Riverside Drive, Susanville CA 96130. The appeal shall state the reasons, clearly and concisely, why the appellant thinks the Final Multiple Use Decision is in error. All grounds of error not stated shall be considered as waived (Title 43 CFR 4.470 (a)).

The final decision will become effective at the end of the 30-day comment period despite an appeal, unless the petition for stay is filed with the appeal. A motion for stay of the decision pending final determination of the appeal must be filed within 30 thirty (30) from receipt of this notice. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. The appellant is required to show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied.

(2) The likelihood of the appellant's success on the merits.

(3) The likelihood of immediate and irreparable harm if the stay is not granted.

(4) Whether the public interest favors granting the stay.

The petition for stay must be filed in the office of the authorized officer, as noted above.

Sincerely yours,

Linda D. Hansen
Eagle Lake Field Manager

Enclosures,

Courtesy Copies

By Certified Mail:

California Department of Fish and Game, Frank Hall	Certified Mail P 914 142 672
Friends of the Nevada Wilderness	Certified Mail P 914 142 662
Nevada Division of Wildlife, Doug Hunt	Certified Mail P 914 142 663
Nevada Commission-Preservation of Wild Horses	Certified Mail P 914 142 664
USDA-NRCS, Susanville	Certified Mail P 914 142 665
Lassen County Department Community Develop.	Certified Mail P 914 142 666
Mule Deer Foundation, Reno	Certified Mail P 914 142 667
Sierra Club, Toiyabe Chapter	Certified Mail P 914 142 668
Lassen County Cattlemens Association	Certified Mail P 914 142 669
Organized Sportsmen of Lassen County	Certified Mail P 914 142 670
Sierra Club, Mother Lode Chapter	Certified Mail P 914 142 671

By First Class Mail:
Honorable Wally Herger
Honorable Jim Gibbons
California Department of Fish and Game, Don Koch
California State Office
Intermountain Range Consultants
Lassen County Board of Supervisors
UC Cooperative Extension - Lassen County
Washoe County Board of Commissioners
Washoe County Dept. of Development Review
Sierra Club, Rose Strickland
California Deer Association
Nevada Division of Wildlife, Fallon Office
Northeast California Resource Advisory Council

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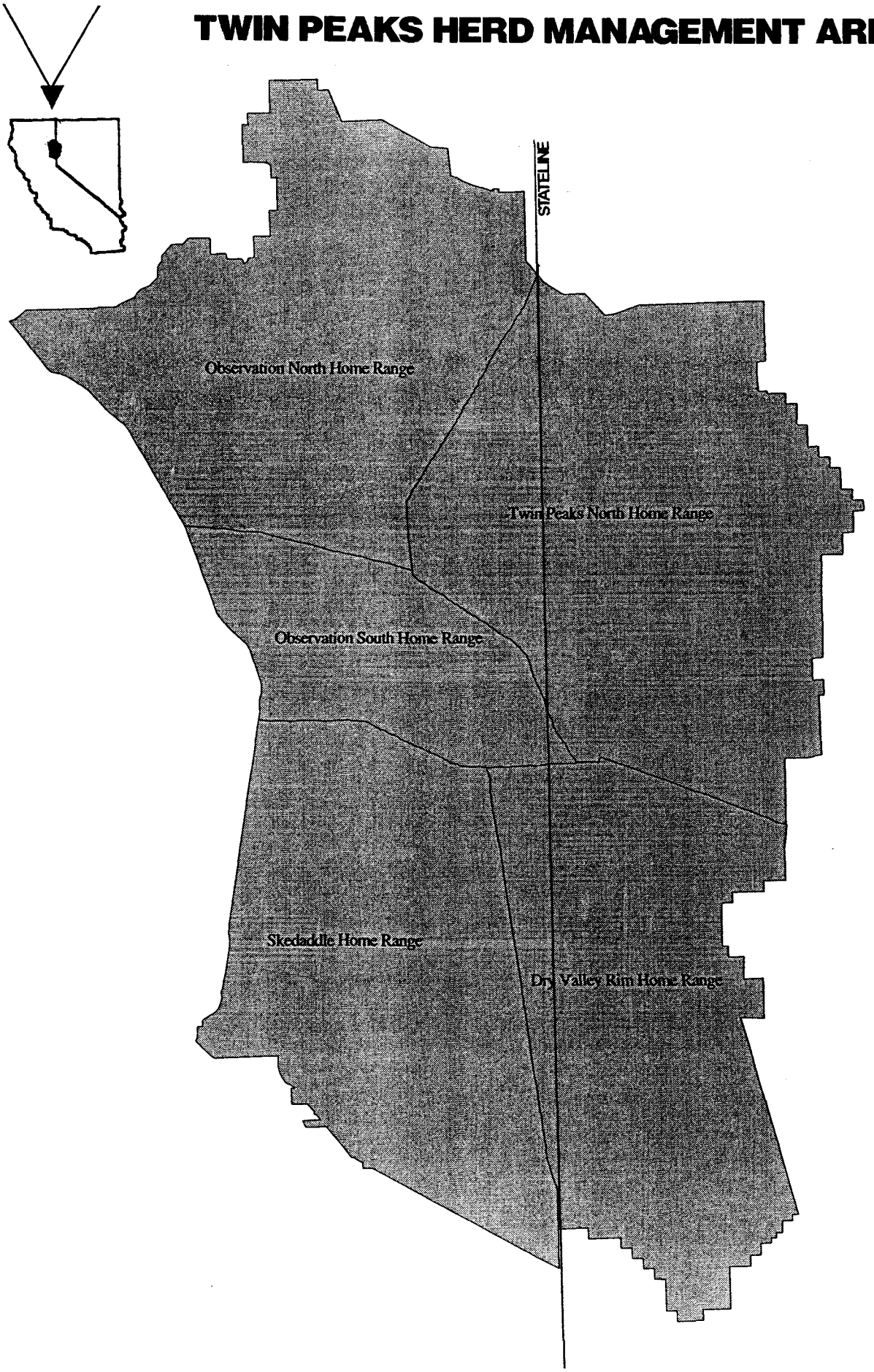
USDI - Bureau of Land Management. Utilization studies and residual measurements. Interagency Tech. Ref. 1734-3. National Applied Resource Sciences Center, Denver, Colo 172 pp.

TWIN PEAKS HERD MANAGEMENT AREA



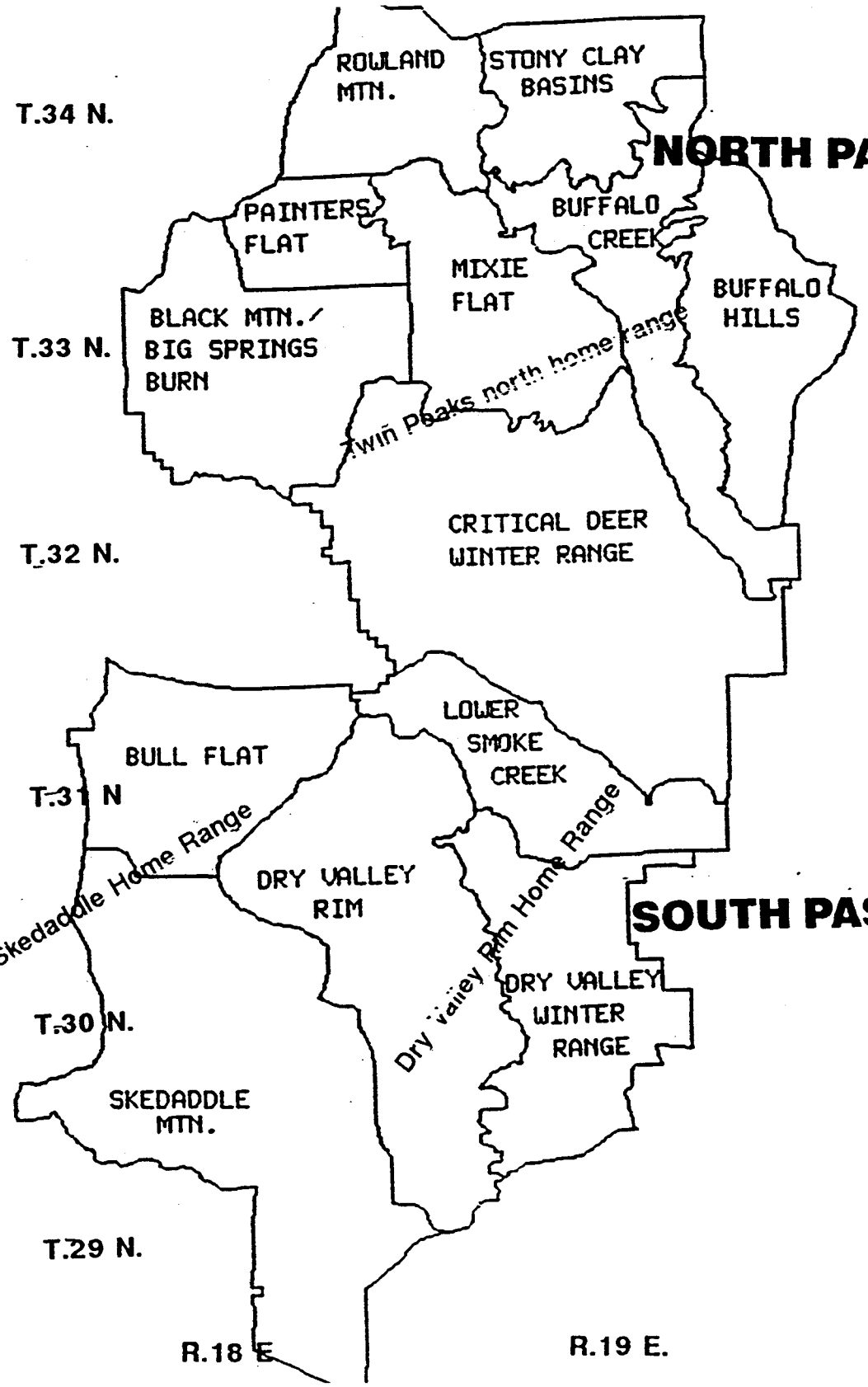
April 11, 1997

THIS MAP WAS PREPARED FOR INTERNAL USE ONLY!
Prepared for the Bureau of Land Management
Eagle Lake Resource Area
NOT FOR RESALE
Compiled by Stan Stinchcomb
Cartographic Tech.

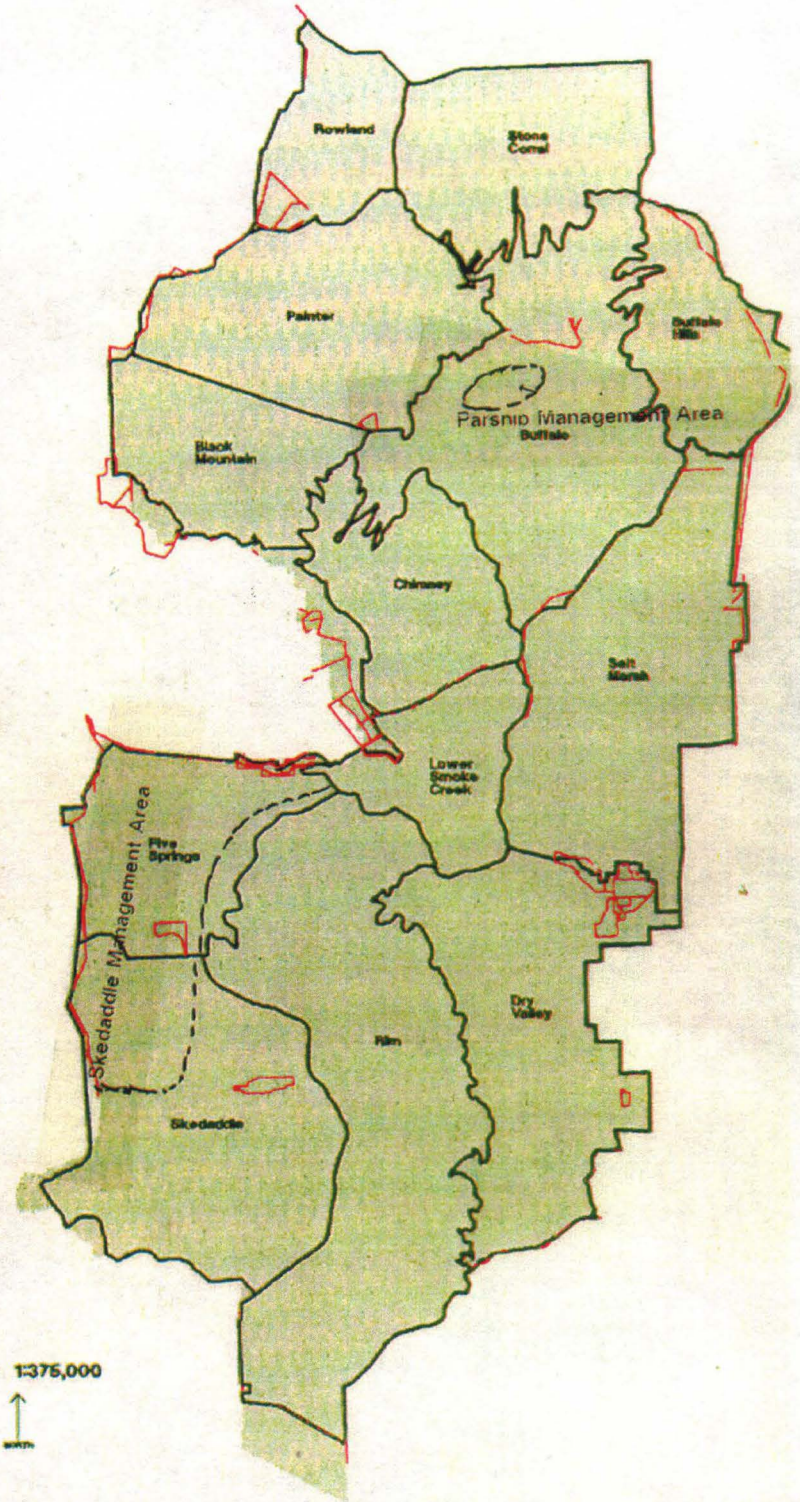
Map Scale = 1:400000

TWIN PEAKS ALLOTMENT
SUBUÑITS
and
HOME RANGES

Map 1



Twin Peaks Allotment



Allotment Subdivisions

— Fences

— Allotment Subdivisions

Scale 1:375,000

Map 2

North Pasture	Ecological Status	Key Species	Native plants Composition by Weight in 1994	Potential Natural Community
719, Burn Spring T 33 N, R 18 E, S. 17, SW ¼, NE ¼.elevation 5750 feet, 5% slope, north exposure.	Loamy 10-12" (023XY020NV) 47%, mid-seral (fair); In 1979, mapped as fair condition. Site burned in 1985 wildfire.	Wyoming sagebrush (63%) *Nevada bluegrass (17%)* cheatgrass (5%)	Grasses 32% Forbs 4% Shrubs 63%	Grasses 60% Forbs 10% Shrubs 30%
720, Rowland Mountain, T 35 N, R 18 E, S. 34, NW ¼, SW ¼. Elevation 6450 feet, 12% slope	Loamy 14-16" (023XY041NV); 58%, late-seral (good); In 1979, mapped as fair condition.	*bitterbrush (10%)* big sagebrush (38%) *Sandberg bluegrass (16%); great basin wildrye (13%)*	Grasses 33% Forbs 17% Shrubs 50%	Grasses 65% Forbs 15% Shrubs 20%
721, near the Norton Place, T 34 N, R 19 E, S.17, NE ¼, NW ¼. Elevation 5950 feet, 2% slope	Churning Clay 10-14" (023XY001NV); 37%, mid-seral (fair); In 1979, mapped as fair condition.	Annual brome grass (18%); Astragalus (18%); *bottlebrush squirreltail (20%); sunflower (21%)*	Grasses 20% Forbs 29% Shrubs 8%,	Grasses 30% Forbs 10% Shrubs 60%
722, near Buffalo Spring T 33 N, R 19 E, S. 3, SW ¼, NE ¼. Elevation 5050 feet, 8% slope.	Very Cobbly Claypan 10-12" (023XY044NV) 2% early-seral (poor); In 1979, mapped as poor condition.	*bottlebrush squirreltail (2%)*; tumble mustard (73%) Russian thistle (151%) Cheatgrass (9%)	Grasses 2% Forbs 0% Shrubs 0%	Grasses 40% Forbs 5% Shrubs 55%
723, Antelope Basin T 34 N, R 18 E, S. 35, NW ¼, SE ¼. Elevation 5500 feet,	Clayey 10 - 14" (023XY033NV) 53% late-seral (good); In 1979, mapped as poor condition.	*bottlebrush squirreltail (23%)*, big sagebrush (39%) sunflower (14%)	Grasses 28% Forbs 16% Shrubs 39 %	Grasses 50% Forbs 5% Shrubs 45%
753, Big Springs burn T 33 N, R 17 E, S. 9, NE ¼,NW ¼. Elevation 5760 feet, 8% slope	Stony Loam 12-16" (021XE004CA) 56% late-seral (good); In 1979 mapped as fair condition. static trend. Site burned in 1985 wildfire.	Rabbitbrush (15%) *great basin wildrye (10%)* cheatgrass (39%) *bottlebrush squirreltail (5%) bluebunch wheatgrass (11%)*	Grasses 27% Forbs 29 % Shrubs 15%	Grasses 60-75% Forbs 5-15% Shrubs 10-25%

1-22-01

KEY AREA	ECOLOGICAL STATUS	KEY SPECIES	Native Plants Composition of grasses, forbs, shrubs in 1994.	Potential Natural Community (PNC) grass, forbs, shrubs
Key Area Number; Nearby landmark Legal Location, elevation and slope	**Ecological site name and #, 1994 Ecological Status Percent, Condition Class compared with 1979 SVIM data**	**Dominant plants or *Key Species* in Italic Percent present by weight in 1994 (T=trace)**		
North Pasture				
715, near Salt Works Well, T 31 N, R 19 E, S 23, NW¼, NW¼, elevation 4,100 ft, 5% slope	Silty 6-8" (023XY14YNV) 51% late-seral (good); In 1979, mapped as fair condition.	*winterfat* (30%); bud sage (15%); spiny horsebrush (3%) *Indian ricegrass (T%)*	Grasses 0% Forbs 0% Shrubs 100%	Grasses 55% Forbs 5% Shrubs 40%
716, east of Smoke Creek Ranch, T 32 N, R 18 E, S 20, SE¼, SW¼; elevation 4550 ft, 11% slope	Loamy 8-10" (023XY006NV) 16%, early-seral (poor); In 1979, mapped as poor condition.	Wyoming sagebrush (6%) cheatgrass (50%) *bottlebrush squirreltail (5%)* tumble mustard (28%) *perennial forbs* (8%)	Grasses 20% Forbs 1% Shrubs 79%	Grasses 60% Forbs 5-% 35%Shrubs
717, Tule Canyon T 33 N, R 19 E, S 24, SW¼, NE ¼; elevation 5150 feet, 10% slope, west exposure.	Cobbly Claypan 8-12". (023XY060NV) 46% mid-seral (fair); In 1979, mapped as poor condition.	*Low sagebrush* (22%); *bottlebrush squirreltail* (2%); *Sandberg's bluegrass* (8%); *perennial forbs (10%); Thurber's needlegrass (4%)*	Grasses 31% Forbs 4 % Shrubs 55 %	Grasses 55% Forbs 10% Shrubs 35%
718, Parsnip Canyon, T 33 N, R 16 E, S 11, SE¼, NW ¼. Elevation 4950 feet, 15% slope.	Loamy 8-10" (023XY006NV) 43%, mid-seral (fair); In 1979, mapped as fair condition.	Wyoming sagebrush (73%); *bottlebrush squirreltail (4%); bluegrass (3%) perennial forbs (3%) Thurber's needlegrass* (8%)	Grasses 9% Forbs 42% Shrubs 47%	Grasses 60% Forbs 5% Shrubs 35%

South Pasture	Ecological Status	Key Species	Native plants % present by weight	Potential Natural Community
712, near Willow Reservoir, T.29N., R.18 E., S.2, NW ¼, NW ¼. Elevation 5600 feet, slope 18%	Cobbly Claypan 8-12" (023XY060NV) 58% late-seral (good); In 1979 mapped as fair condition.	*Low sagebrush (14%) bluebunch wheatgrass (25%) squirreltail (3%); Sandberg's bluegrass (10%) bluegrass (5%)* Cheatgrass (36%)	Grasses 34% Forbs 8 % Shrubs 19 %	Grasses 40% Forbs 5% Shrubs 55%
713, near Lower Smoke Creek Well, T.30N., R.19 E., S.17, SE ¼, SE ¼. Elevation 4800 feet, slope 4%	Sandy 8-12" (023XY051NV) 38% early-seral* (poor); In 1979 mapped as poor condition.	Big sagebrush (53%) *bottlebrush squirreltail (3%); Indian ricegrass (4%) Thurber needlegrass (4%)* Cheatgrass (18%)	Grasses 8% Forbs 11 % Shrubs 62 %	Grasses 65-80% Forbs 10-20% Shrubs 10-20%
714, Rush Creek Reservoir, T.31N., R.17 E., S.34, NW ¼, NW ¼. Elevation 4800 feet, 2% slope	Stony Loam 9-12" (023XF004CA) 29% early-seral* (poor); In 1979 mapped in poor condition.	Wyoming sagebrush (42%); *Sandberg bluegrass (17%)* Nevada bluegrass (1%) *bottlebrush squirreltail (19%); cheatgrass (11%)*	Grasses 19% Forbs 9% Shrubs 55%	Grasses 65-80% Forbs 10-20% Shrubs 10-20%
729, Dry Valley # 1, T.29N., R.19 E., S.20, SW ¼, SW ¼. Elevation 4200 feet, 14% slope	Loamy 4- 6" (027XY13NV) 51% late -seral (good); In 1979 mapped in fair condition.	*Bud sagebrush (25%); shadscale (14%) Nevada bluegrass (1%) bottlebrush squirreltail (7%);* cheatgrass (38%)	Grasses 7% Forbs 9% Shrubs 25%	Grasses 35% Forbs 5% Shrubs 60%
730, Dry Valley # 2, T.29N., R.19 E., S.9, SE ¼, SW ¼. Elevation 4200, slope 10%	Silty 6-8" (027XY14YNV) 47% mid -seral (fair); In 1979 mapped in fair condition.	*Bud sagebrush (9%); winterfat (32%) buck wheat (1%) bottlebrush squirreltail (20%);* cheatgrass (13%)	Grasses 20% Forbs 1% Shrubs 40%	Grasses 55% Forbs 5% Shrubs 40%

*Sites lowered one condition class due to low production, as accordance with section 305.5 (a) of the National Range Handbook.

South Pasture	Ecological Status	Key Species	Native plants % present by weight	Potential Natural Community
707, near Telephone Spring T 29 N, R 17 E, S.24, SE ¼, NW ¼. Elevation 5100 feet, slope 3%.	Clay Upland 9-16" (021XF006CA) 51% late-seral (good); In 1979 mapped in fair condition.	*Big sagebrush* (20%) horsebrush (7%) *buckwheat (10%) bottlebrush squirreltail (11%); balsam root (19%) Thurbers needlegrass (4%)*	Grasses 21% Forbs 39% Shrubs 30%	Grasses 65-75% Forbs 10-20% Shrubs 10-20%
708, near Parker Canyon, T28N, R18E, S.3, SW ¼, SE ¼. Elevation 5000 feet, 6% slope.	Loamy 8-10", (023XY006NV) 59% late-seral (good); In 1979 mapped in poor condition.	Big sagebrush (39%) *bluebunch wheatgrass (9%) Thurber's needlegrass (10%);* cheatgrass (18%) *bottlebrush squirreltail* (13%	Grasses 44% Forbs 23% Shrubs 30%	Grasses 60% Forbs 5% Shrubs 35%
709, Wild Horse Reservoir, T.30N., R.17 E., S.23, SW ¼, SW ¼.; elevation 5100 feet, slope 14% northwest	Stony Loam 9-12" (023XF004CA) 35%, mid-seral (fair); In 1979 mapped as poor condition.	*low sagebrush (58%) bluebunch wheatgrass (9%) Thurber's needlegrass (2%); Sandberg bluegrass (13%) bottlebrush squirreltail (3%) perennial forbs (6%)*	Grasses 47% Forbs 17% Shrubs 34%	Grasses 60% Forbs 10% Shrubs 30%
710, East Fork Skedaddle Creek T.30N., R.18 E., S.16, NE ¼, SE ¼.; Elevation 5450 feet, slope 6% - west	Very Cobbly Claypan 9-12" (023XY044NV); 55%, late-seral (good); In 1979, mapped as fair condition.	*Low sagebrush (31%); Bottlebrush squirreltail (5%); Sandberg's bluegrass (14%); perennial forbs (3%);*	Grasses 31% Forbs 4 % Shrubs 55 %	Grasses 40% Forbs 5% Shrubs 55%
711, near Antelope Spring, T.30N., R.17 E., S.19, NW ¼, NW ¼. Elevation 4800 feet, slope 8%	Stoney Loam 9 - 12" (023XF004 CA). 21% early-seral (poor); In 1979 mapped as poor condition.	*Big sagebrush (44%); Bottlebrush squirreltail* (31%); cheatgrass (23%); perennial forbs (1%);	Grasses 31% Forbs 1 % Shrubs 44 %	Grasses 60% Forbs 10% Shrubs 30%

Appendix 2, Twin Peaks Allotment Riparian Functional Assessment (RFA) Summary of Sites Functioning-at-Risk with Static or Downward Trend.

pMUDAppendix2RiparianFR.wpdDecember 13, 2000

During 1995 and 1996, 129 riparian/wetland sites were assessed for properly functioning condition on the Twin Peaks allotment. From this survey the 35 riparian sites summarized below were determined to be functioning-at-risk (FR) with a static or downward trend[1]. Factors contributing to FR rating are included in this summary, as well management strategies to improve the condition at the riparian site. Since the assessment was completed, 9 riparian/wetland sites have been fenced, or drift fences have been constructed for livestock management purposes.

Riparian number and Name **Planning Compartment (subunit), Pasture**	**Functioning Condition Rating Trend; size or length**	**Factors Contributing to Rating**	**Comments**	**Management Strategy[2] and Comments**
Riparian/Wetland Sites With Management in Place				
0013, Burro Spring Lower Smoke Creek, North Pasture	FR- static .2 acres	grazing impacts by cattle and burros	Riparian area declining, and vegetation vigor is poor	Spring located in lower Smoke Creek subunit, management addressed in AMP addendum (II. C. 3.) rest yearlong after April livestock use.
0014, unnamed spring (below Burro Spring) Lower Smoke Creek, North Pasture	FR- static .3 acres	grazing impacts by cattle, wild horses, burros.	Vegetation composition and diversity not adequate to protect during peak flows, riparian area size declining because of grazing impacts.	Management same as Burro Spring (0013).
0015 unnamed seep (south side of Twin Peaks) Chimney PC (Winter Range) North Pasture	FR- static .1 acres	grazing impacts by cattle, wild horses, burros	Grazing impacts causing riparian area to decline in size; and vegetation cover not adequate to protect site. Flow patterns altered by trampling.	Management livestock as per Twin Peaks Project EA DR: hot season rest every year and spring grazing every other year.

[1] The Rangeland Health Riparian Standard minimum condition rating is *properly functioning condition,* riparian/wetland areas functioning at risk with an static or downward require management changes. Bold indicates primary factor contributing to rating.

[2] Management strategy for wild horses and burros is to maintain populations within AML ranges.

0016, Lost Springs (South Twin Springs # 1) Chimney PC (Winter Range) North Pasture	FR- down 6 acres	grazing impacts by cattle, wild horses	Riparian area declining, and vegetation cover not adequate. Flow patterns altered by trampling.	Riparian site fenced after assessment, vegetation is recovering and trend is up.
0018, South Twin Springs Chimney PC (Winter Range) North Pasture	FR-down .5 acres	grazing impacts by cattle, wild horses and burros	Riparian area declining, and vegetation cover not adequate to protect soils during high flows (site eroding) because of grazing impacts	Riparian site fenced after assessment, vegetation is recovering and trend is upward.
0025, Sheep Trail # 2 Dry Valley Rim, South Pasture	FR- down .3 acres	grazing impacts by cattle, sheep, wild horses	Vegetation cover not adequate to protect soils during high flows (site eroding)	Riparian site fenced after assessment, trend is upward
0045, unnamed spring near East Fork Smoke Creek Chimney PC (Winter Range) North Pasture	FR-down 1.04 acres	grazing impacts by cattle, and wild horses	Site lacks vegetation diversity, riparian size decreasing and flow altered by trampling.	Manage livestock as per Twin Peaks Project EA DR. (hot season rest every year and spring grazing every other year.)
0074, East Fork Smoke Creek Springs Chimney PC (Winter Range) North Pasture	FR-down .4 miles (1.8 acres)	grazing impacts by cattle and wild horses	Site lacks vegetation diversity, and riparian area decreasing in size. Flow patterns altered by trampling	Manage livestock as per Twin Peaks Project EA DR. hot season rest every year and spring grazing every other year
0150, unnamed seep, NE of the Norton Place Stone Corral PC, North Pasture	FR-static .02 acres	grazing impacts by cattle and wild horses	Site lacks vegetation components; excessive trampling has resulted in partial loss of riparian area.	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2.: rest every other year.
0151, unnamed spring near the Norton Place Stone Corral PC, North Pasture	FR-static .03 acres	grazing impacts by cattle and wild horses	Site lacks vegetation components; excessive trampling has resulted in partial loss of riparian area, headcutting and channeling	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2.: rest every other year

0154, unnamed spring near Horse Spring Stone Corral PC, North Pasture	FR-down .1 acres	grazing impacts by cattle and wild horses	Trampling has altered flow patterns and resulted in partial loss of the riparian area. Site dominated by annuals	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2.: rest every other year. Rest every other year
0177, Buffalo Creek (at the confluence of Buffalo and Parsnip creeks) Buffalo PC, North Pasture	FR-static 1.09 miles	grazing impacts by cattle	Stream not in balance with sediment and water supplied by watershed, resulting in excessive erosion. Riparian zone is not vertically stable. Vegetation components not present in sufficient amounts types, age structure, and composition to protect stream banks during high flows events.	This reach was fenced in 1995 to improve cattle management. Rest from cattle use for 2 years, then rest during the hot season.
0155unnamed spring complex near the Norton Place Stone Corral PC, North Pasture	FR-static 2.32 acres	grazing impacts by cattle and wild horses	Upper segment is trampled resulted in partial loss of riparian area, and minor headcut (lower segment is functioning).	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2.: rest every other year.
Riparian/Wetlands Sites Requiring Management Changes				
0002. Parker Lake Salt Marsh PC (winter range sub-unit) North Pasture	FR-down 3.5 acres	season long cattle grazing	Overuse on riparian vegetation on reservoir shore line	Rest during the growing season, graze during the dormant (winter) season.
0040, unnamed spring (near Red Rock Spring) Dry Valley Rim, South Pasture	FR- down .02 acres	grazing impacts by cattle, wild horses	Site lacks vegetation composition, and excessive trampling causing headcut.	Riparian area rested from cattle use from 1997 to 1999, however during this period this riparian site impacted by excessive horse use. Cattle use would be addressed during annual pregrazing coordination.
0042, Red Rock Spring # 2. Dry Valley Rim, South Pasture	FR- Down .45 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition to withstand high flows, causing down cutting and erosion.	Vegetation improve at site, trend up since assessment, cattle use would be addressed during annual pregrazing coordination.

0044, Red Rock Spring # 1 Dry Valley Rim, South Pasture	FR- static .25 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition and diversity, surface flow altered by trampling.	Use adjacent to trough and outside exclosure, cattle use would be addressed in annual pregrazing coordination.
0046, West Fork Rush Creek Five Springs PC (Bull Flat), South Pasture	FR-static 2.4 miles	grazing impacts by cattle and wild horses; trail jeep thru riparian area	Insufficient vegetation composition to withstand high flows, and site not vertically stable, resulting in several headcuts, which is de-watering the riparian system.	Jeep trail scheduled for closure. Defer cattle use during every spring, graze during late summer and fall.
0077, unnamed spring in Spencer Basin Skedaddle, South Pasture	FR-static .04 acres	grazing impacts by wild horses	Spring flow patterns altered by trampling, site eroding and riparian area decreasing in size.	Determine AML, and maintain population within ranges. This riparian area continues to impacted by wild horses since assessment.
0087, Public land portion of Willow Springs Dry Valley Rim, South Pasture	FR-static .11 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition to withstand high flows, and flow patterns altered by trampling.	Manage for hot season rest every year, and graze during the spring and winter every other year.
0091, unnamed spring south end of Buffalo Hills Buffalo PC (Buffalo Hills) North Pasture	FR-down .26 miles	grazing impacts by wild horses	Vegetation cover not adequate to protect site during high flows, site altered by trampling.	Determine AML, maintain population within ranges. Cattle use would be addressed during annual pregrazing coordination.
0092, unnamed spring near Crooked Creek Buffalo PC (Buffalo Hills) North Pasture	FR-static 1. Acres	grazing impacts by wild horses	Vegetation cover not adequate to protect site during high flows.	Determine AML, maintain population within ranges. Cattle use would be addressed during annual pregrazing coordination.
0104, unnamed spring above Buffalo Spring Buffalo PC (Stony Clay Basin) North Pasture	FR-down .02 acres	grazing impacts by cattle and wild horses	Site lacks vegetation composition to protect spring during high flows (active downcutting) and spring altered by trampling.	Defer cattle grazing during the growing season.

0144, Twin Springs (public land portion) Buffalo Hills PC (Buffalo Hills) North Pasture	FR-static 1.18 acres	grazing impacts by cattle and wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotics species.	Provide livestock rest every other year, increase monitoring and compliance (unauthorized use from adjacent allotment). Gather excess wild horses.
0146, Stockade Canyon Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .12 acres	grazing impacts by wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotics species.	Gather wild horses populations above AML range. Re-assess condition following gather.
0148, Stockade Canyon Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .02 acres	grazing impacts by wild horses	site lacks vegetation to withstand high flows events, trampling has altered surface and sub-surface flow events, losing riparian area.	Gather wild horses population above AML range. Re-assess condition following gather.
0172, South Fork Parsnip Wash (upper reach) Buffalo PC, North Pasture	FR-static .27 miles	**jeep trail thru site**; cattle and wild horses grazing impacts	road crosses stream many times: affecting sinuosity and riparian width. Vegetation composition not capable of withstanding high flow events.	Drift fence constructed in 1996 (after assessment) to improve cattle management. Consider re-routing jeep trail though riparian site.
0174/175, Main Fork Buffalo Creek (below Buffalo Meadows Ranch) Buffalo PC, North Pasture	FR, upward, see comments 6.65 miles	grazing impacts by cattle, wild horses and burros	Stream not in balance with sediment and water supplied by watershed. Sinuosity not in balance with watershed, and upland watershed contributing to degradation. Vegetation amount and type not adequate to protect banks during high flows events.	Defer cattle use after June 1, every year. In 1996, creek was assessed as non-functional. In 1999,re-assessed determined creek had improved and is now functioning at risk with an upward trend.

0122, unnamed spring on Skedaddle Mountains- 1 mile SE of Rag House spr	FR-static	grazing impacts by cattle, sheep and wild horses	Riparian area decreasing in size and eroding, and flow patterns altered by excessive trampling.	Defer cattle use during the growing season. Livestock grazing would be determined annually, and addressed in during annual pregrazing coordination.
Skedaddle PC , South Pasture	1.08 acres			
0123, unnamed spring on Skedaddle Mountains	FR-static	grazing impacts by cattle and wild horses	Vegetation composition not adequate to protect site during runoff events and vegetation vigor is poor.	Defer cattle grazing every other year. Livestock grazing would be determined annually, addressed during annual pregrazing coordination.
Skedaddle PC, South Pasture	.5 miles			
0124, unnamed spring on Skedaddle Mountains	FR-static	grazing impacts by cattle and wild horses	Riparian area lacks vegetation composition to protect site during runoff events, spring de-watered by excessive trampling.	Defer cattle use every other year. Livestock grazing would be determined annually, and would be stated during annual pregrazing coordination.
Skedaddle PC, South Pasture	.12 acres			
0135, unnamed seep (near Willow Spring)	FR-static	jeep trail thru spring, over-grazing by cattle & wild horses	Vegetation composition not diverse and dominated by annuals species: will not protect site during high runoff events, excessive trampling has caused erosion. Rested from cattle use in 1995, 1997 and 1999.	Defer cattle grazing every other year. Other actions would be to re-route road. Livestock grazing would be determined annually, and addressed during annual pregrazing coordination.
Dry Valley Rim, South Pasture	.07 acres			
0137, unnamed spring near Jenkins Troughs	FR-down	grazing impacts by wild horses	Riparian vegetation dominated by non-native annuals/other exotics plants; trampling has altered flow patterns and riparian area decreasing in size.	Determine AML, and maintain wild horse population within low and high ranges. Site continues to be impacted by wild horses since assessment.
Dry Valley Rim PC, South Pasture	.11 acres			
0142, Crooked Spring	FR-down	grazing impacts by cattle and wild horses	Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotic species	Defer cattle use every other year. Grazing would be determined annually, and addressed during annual pregrazing coordination.
Buffalo Hills PC (Buffalo Hills) North Pasture	.01 acres			

Twin Peaks Allotment Final Multiple Use Decision, Appendix 2, part 2 - Summary of the 1995-1999 Riparian Functional Assessment Inventory.

October 23, 2000

Lotic means perennial or intermittent creeks or streams; Lentic means wetlands, springs, or seeps. Sites high lighted are not in properly functioning condition (PFC) and are not progressing toward this condition. FR means the site is functioning at risk.

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
000A	Parker Cyn	Lotic	.30	0	PFC	Up	Skedaddle Cr-lower
000B	Smoke Cr	Lotic	2.1	18.	FR	Up	Lower Smoke Cr
000C	Cherry Cr	Lentic	-	.10	FR	Up	Phone Spring
000	Parker Cyn	Lentic	-	.40	PFC	Up	Telephone Spring
001	Smoke Cr	Lentic	-	.05	PFC	Up	Unnamed
002	**Salt Marsh**	**Lentic**	**-**	**3.50**	**FR**	**Down**	**Parker Reservoir**
011	Smoke Cr	Lentic	-	.02	PFC	Static	Unnamed
012	Smoke Cr	Lotic	.25	-	PFC	Static	Unnamed
013	**Smoke Cr**	**Lentic**	**-**	**.20**	**FR**	**Static**	**Burro Spring**
014	**Smoke Cr**	**Lentic**	**-**	**.30**	**FR**	**Down**	**Unnamed**
015	**Smoke Cr**	**Lentic**	**-**	**.10**	**FR**	**Static**	**Unnamed**
016	**Smoke Cr**	**Lentic**	**-**	**6.0**	**FR**	**Down**	**Lost Spring**
017	Smoke Cr	Lentic	-	.30	PFC	Static	Unnamed
018	**Smoke Cr**	**Lentic**	**-**	**.50**	**FR**	**Down**	**South Twin Spring**
019	Smoke Cr	Lentic	-	.20	PFC	Static	Unnamed
020	Smoke Cr	Lotic	.60	-	PFC	Up	Unnamed
022	Red Rock	Lentic	-	.02	PFC	Static	Unnamed
023	Bull Flat	Lentic	-	.10	PFC	Up	Sheep Trail # 1
024	Bull Flat	Lentic	-	.06	PFC	Static	above Sheep Trail # 1
025	**Bull Flat**	**Lentic**	**-**	**.30**	**FR**	**Down**	**Sheep Trail # 2**
026	Bull Flat	Lotic	.20	-	PFC	Static	Unnamed
027	Bull Flat	Lentic	-	.50	FR	Up	Morgan Spring
028	Bull Flat	Lotic	.50	1.60	PFC	Up	Skedaddle Cr-middle
029	Cherry Mtn	Lotic	.90	13.0	PFC	Up	Three Springs drainage

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
030	Cherry Mtn	Lentic	-	.40	PFC	Static	Unnamed
031	Cherry Mtn	Lentic	-	.70	PFC	Up	Unnamed
032	Cherry Mtn	Lentic	-	.80	PFC	Static	Wash Tub Spring
033	Cherry Mtn	Lentic	-	.80	FR	Up	Unnamed
034	Bull Flat	Lotic	.25	-	PFC	Up	Unnamed
035	Bull Flat	Lentic	-	.48	PFC	Up	Jenkins Spring
036	Bull Flat	Lentic	-	2.90	PFC	Up	Antelope Spring
037	Bull Flat	Lentic	-	.10	PFC	Up	Laver Spring
038	Smoke Cr	Lentic	-	.70	PFC	Up	Jenkins Troughs
039	Smoke Cr	Lotic	.40	-	PFC	Up	Unnamed
040	Red Rock	Lentic	-	.20	FR	Down	Unnamed
041	Red Rock	Lentic	-	.05	PFC	Static	Unnamed
042	Red Rock	Lotic	.45	-	FR	Down	Red Rock Spring # 2
043	Red Rock	Lotic	.26	-	PFC	Up	Red Rock Cyn Spring
044	Red Rock	Lentic	-	.25	FR	Static	Red Rock Spring # 1
045	Mixie Flat	Lentic	-	1.04	FR	Down	Unnamed
046	Cherry Mtn	Lotic	2.4	-	FR	Static	West Fork Rush Cr
047	Cherry Mtn	Lotic	.4	-	PFC	Up	Coyote Spring
048	Cherry Mtn	Lentic	-	.70	PFC	-	Unnamed
049	Cherry Mtn	Lentic	-	.10	PFC	-	Unnamed
051	Cherry Mtn	Lotic	.25	.05	PFC	Up	Unnamed
052	Cherry Mtn	Lentic	-	.42	PFC	Up	Rush Canyon Spring
053	Cherry Mtn	Lentic	-	.32	PFC	Up	Unnamed
054	Cherry Mtn	Lotic	.92	-	PFC	Up	Cherry Springs
058	Cherry Mtn	Lotic	.25	-	PFC	Up	Unnamed
066	Al Shinn Cyn	Lentic	-	3.50	PFC	Up	Horne Spring Complex
067	Al Shinn Cyn	Lotic	1.03	-	PFC	Up	Horne Spring
074A	Mixie Flat	Lotic	.30	1.60	FR	UP	East Fork Smoke Cr

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
074B	Mixie Flat	Lotic	.40	1.80	FR	Down	East Fork Smoke Cr
076	Spencer Basin	Lentic	-	.04	FR	Static	Unnamed
077	Spencer Basin	Lentic	-	.30	PFC	Static	Unnamed
078	Spencer Basin	Lentic	-	.01	PFC	Static	Unnamed
085	Cherry Mtn	Lotic	.2	-	PFC	Static	Unnamed
086	Cherry Mtn	Lentic	-	.31	PFC	Static	Unnamed
087	Red Rock	Lotic	.11	-	FR	Static	Willows Springs
088	Cherry Mtn	Lotic	.2	-	PFC	Static	Unnamed
089	Horse Canyon	Lotic	.34	-	FR	Up	Unnamed
090	Horse Canyon	Lentic	-	1.1	PFC	Up	Horse Canyon
091	Horse Canyon	Lotic	.26	-	FR	Static	Unnamed
092	Buffalo Creek	Lentic	-	1.00	FR	Static	Unnamed
093	Buffalo Creek	Lotic	1.50	-	PFC	Up	Tule Springs Drainage
094	Buffalo Creek	Lotic	.40	-	PFC	Static	Trail Canyon
096	Buffalo Creek	Lotic	.64	-	PFC	Up	Trail Canyon-lower
097	Buffalo Creek	Lotic	.30	-	PFC	Up	Wildcat Spring
098	Eddies Garden	Lentic	-	.19	PFC	Up	Wildcat Spring-lower
099	Eddies Garden	Lentic	-	.37	PFC	Up	NF Buffalo-upper
100	Eddies Garden	Lotic	.20	-	PFC	Up	Unnamed
101	Eddies Garden	Lentic	-	.68	PFC	Up	Unnamed
102 A	Eddies Garden	Lotic	.50	-	PFC	Up	Unnamed
102 B	Eddies Garden	Lotic	.20	-	PFC	Up	Unnamed
102 C	Eddies Garden	Lotic	.10	-	FR	Up	Unnamed
103	Eddies Garden	Lentic	-	.20	PFC	Up	Unnamed
104	Eddies Garden	Lentic	-	.02	FR	Down	Buffalo Spr. Complex
105	Eddies Garden	Lentic	-	.05	PFC	Up	Unnamed
106	Eddies Garden	Lentic	.10	.10	PFC	Up	Buffalo Spring
107	HoleInGround	Lotic	1.90	-	PFC	Up	West Fork Buffalo

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
108	HoleInGround	Lentic	-	.27	PFC	Static	Unnamed
109	HoleInGround	Lentic	-	.11	PFC	Static	Unnamed
111	HoleInGround	Lentic	-	.32	PFC	Static	Unnamed
118	Bull Flat	Lentic	-	.34	PFC	Static	Unnamed
119	Bull Flat	Lotic	.3	-	PFC	Static	Horse Trail Spring
120	Bull Flat	Lentic	-	.24	PFC	Static	Cherry Spring-Sked.
121	Bull Flat	Lentic	-	.24	PFC	Static	Unnamed
122	Bull Flat	Lentic	-	1.08	FR	Static	Unnamed
123	Bull Flat	Lotic	.05	-	FR	Static	Unnamed
124	Bull Flat	Lotic	.12	-	FR	Static	Unnamed
133	Red Rock	Lentic	-	.10	PFC	Static	Unnamed
134	Red Rock	Lentic	-	.37	PFC	Static	Willow Spring
135	Red Rock	Lentic	-	.07	FR	Static	Unnamed
136	Red Rock	Lentic	-	.10	FR	Up	Snow Pit Seep
137	Smoke Creek	Lentic	-	.11	FR	Down	Unnamed
138	Smoke Creek	Lotic	.30	-	PFC	Static	Unnamed
139	Smoke Creek	Lentic	-	.21	PFC	Up	Unnamed
140	Horse Canyon	Lotic	.80	-	PFC	Up	Unnamed
141	Buffalo Creek	Lotic	.40	-	PFC	Static	Unnamed
142	Buffalo Creek	Lentic	-	.01	FR	Down	Crooked Springs
143	Buffalo Creek	Lentic	-	.50	PFC	Static	Unnamed
144	Buffalo Creek	Lotic	1.18	-	FR	Static	Twin Springs
145	Eddies Garden	Lotic	.51	-	PFC	Static	Unnamed
146	Eddies Garden	Lentic	-	.12	PFC	Static	Unnamed
147A	Eddies Garden	Lotic	.09	-	PFC	Static	Unnamed
147B	Eddies Garden	Lotic	1.06	-	FR	Up	Unnamed
148	Eddies Garden	Lentic	-	.02	FR	Down	Stockade Canyon Spr.

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
149	Eddies Garden	Lotic	.52	-	PFC	Static	Unnamed
150	Eddies Garden	Lentic	-	.02	FR	Static	Unnamed
151	Eddies Garden	Lentic	-	.30	FR	Static	Unnamed
152	Eddies Garden	Lotic	.10	-	PFC	Static	Unnamed
153	Eddies Garden	Lentic	-	.02	FR	Static	Unnamed
154	Eddies Garden	Lentic	-	.10	FR	Static	Unnamed
155	HoleInGround	Lentic	-	2.23	FR	Static	Norton Spring
156	HoleInGround	Lentic	-	1.05	PFC	Static	Unnamed
157	HoleInGround	Lentic	-	1.05	PFC	Static	Unnamed
158	HoleInGround	Lotic	.60	-	PFC	Up	Unnamed
159	HoleInGround	Lotic	1.90	-	PFC	Up	West Fork Buffalo
160	HoleInGround	Lentic	-	1.05	PFC Complex	Up	Norton Spring
161	Eddies Garden	Lotic	3.2	-	PFC	Up	Middle Fork Buffalo
162	HoleInGround	Lotic	2.64	-	PFC	Up	Unnamed
166	Al Shinn Cyn	Lotic	3.40	-	PFC	Up	Smoke Cr- upper
167	Al Shinn Cyn	Lotic	3.10	-	PFC	Up	Smoke Cr-middle
168	Al Shinn Cyn	Lotic	.80	-	PFC	Up	Unnamed
169	Buffalo Creek	Lotic	1.30	-	FR	Up	Parsnip Wash-upper
170	Mixie Flat	Lentic	-	.68	PFC	Up	Parsnip Spring
171	Mixie Flat	Lotic	.35	-	PFC	Up	Parsnip Spring-upper
172	Mixie Flat	Lotic	.27	-	FR	Static	So. Fork Parsnip
173	Buffalo Creek	Lotic	1.56	-	PFC	Up	So. Fork Parsnip-lower
174	Buffalo Creek	Lotic	6.65	-	FR	Up	Buffalo Creek
176	Eddies Garden	Lotic	.90	-	FR	Up	Buffalo Creek-upper
177	Buffalo Creek	Lotic	1.09	-	FR	Static	Parsnip/Buffalo Cr

Appendix 6 part 2, Twin Peaks Allotment Riparian Functional Assessment Inventory Summary.

Appendix 3, Responses To Protest From John Espil Sheep Company, Inc. Dated November 14, 2000, Concerning the Proposed Multiple Use Decision, for the Twin Peaks Allotment

The Eagle Lake Field Office has carefully reviewed and considered the John Espil Sheep Company, Inc protest on the proposed Multiple Use Decision for the Twin Peaks Allotment. Our response to protest points is based, in part on comments made during the consultation meeting held with John Espil Sheep Company, Inc of November 27, 2000. The protest points and BLM's response are listed below.

A. *UTILIZATION RESTRICTIONS AND STUBBLE HEIGHT REQUIREMENTS:*

1. *The PMUD [Notice of Proposed Multiple Use Decision, Twin Peaks Allotment] assigns arbitrary utilization restrictions to bitterbrush and serviceberry within the allotment. The BLM has presented no scientific data or monitoring information which supports the restrictions, but relies rather upon a "rangeland health guideline 16".*

Response: Scientific information used to establish utilization guidelines is contained in the Annotated Bibliography in the Rangeland Health Standard and Guideline for California and Northwestern Nevada Final EIS (Final EIS). The utilization guidelines, and stubble height criteria are not arbitrary. The utilization guidelines, and stubble height criteria are necessary to progress towards or to meet Rangeland Health Standards.

a. The data, research, and information available to the BLM regarding the Twin Peaks Allotment do not biologically support the application of such guideline to this allotment. In short, 20% utilization restriction does not define the biological threshold above which the health of bitterbrush may be impaired.
b. If the BLM's purpose is such restriction is to "save" the bitterbrush and serviceberry for deer, then the restriction is still biologically unfounded, because:

(1) Deer eat much more than bitterbrush and serviceberry, and the forage base on the allotment is abundant.

Response: Deer do eat more than bitterbrush and serviceberry during the winter. Grazing on forbs and grasses is usually an opportunist response to mid-winter temporary thaw and short response green-up of these vegetative forms. All data, however, indicates that deer are primarily browsers during the winter months. The function and structure provided by bitterbrush, serviceberry, and mountain mahogany are an integral part of deer habitat needs for forage as well as cover. Your reference to our restricting our concern to bitterbrush and serviceberry did remind us that we left out mountain mahogany.

(2) Bitterbrush and serviceberry are highly palatable species to deer, and in an adjacent allotment, with no livestock grazing, <u>resident deer</u> consumed the bitterbrush to a 90% utilization level.

Response: The adjacent allotment you are referring to, is apparently the Tuledad Allotment. Based on discussions with the Surprise Field Office, you are partially correct. The 90% utilization occurred within a focal or concentration area extending from the Cottonwood Mountains to Rowland Mountain prior to the heavy die-off ending with the winter of 1992/1993. Since then the utilization from deer has not been as consistently high. The 90% utilization did not often occur outside this concentration area before or after the last major die-off. Your point is well taken, to review livestock utilization levels on important shrubs within focus areas such as Rowland Mountain south, monitoring, management, and resource objectives were included in the final decision.

c. The utilization restriction would act to unreasonably restrict livestock use on the allotment, particularly in light of the fact that resident mule deer occupy the allotment year-round, in the same areas as the "winter concentration areas". Additionally, much of this "winter concentration area" has extremely spare bitterbrush and serviceberry, which will mean that livestock use will potentially be curtailed upon the basis of a relative handful of individuals, rather than the abundance of available forage species and individuals.

The PMUD adopts only the single, simplistic, and unreasonable approach of utilization restriction, rather than identifying and adopting any of myriads of other alternatives. This adoption of a single, one-size-fits-all solution is a violation of NEPA, LUP provision, and common sense, and is contrary to the information which exists regarding the allotment itself.

While resident mule deer do occupy the allotment year-round, and in the same areas as the "winter concentration areas", the resident mule deer population is very low, and forage utilization by mule deer is not significant in comparison with wild horse and livestock use. Based on your concerns the final decision utilization guidelines were rewritten. Utilization of key upland browse species now includes management, objective, resource objective and monitoring objective. The management and monitoring objectives added to the final decision were developed to determine livestock and wildlife effects on the vegetation. We disagree with the contention that this approach violates NEPA, utilization guidelines were analyzed in the draft and final EIS. We presume that your reference to a Land Use Plan (LUP) is to the Cal-Neva Management framework Plan. The Record of Decision prepared by the Bureau of Land Management, California State Office, signed by the Acting State Director June 14, 1999 established that, upon signature of the Secretary of The Interior on the Record Of Decision (ROD), signed July 13, 2000, where existing LUPs in Northeastern California and Northwestern Nevada conflicted with the Northeastern California and Northwestern Nevada Standards and Guidelines for Livestock Grazing the LUPs were amended to consistency with the ROD.

2. The PMUD assigns arbitrary utilization restriction to indentified "key riparian trees and shrubs species", and at locations not identified, or improperly and incorrectly identified in the PMUD. The BLM has presented no scientific data or monitoring information which supports the restrictions, but relies rather upon a "rangeland health guideline 16".

a. The data, research, and information available to the BLM regarding the Twin Peaks Allotment do not biologically support the application of such guideline to this allotment. In short, a 20% utilization restriction does not define the biological threshold above which the health of any riparian brush species may be impaired.

b. The PMUD refers to "Appendix 2" as identifying the areas where the presence of woody riparian species is necessary to meet standards. However, Appendix 2 incorrectly identifies seeps, springs, and lentic and lotic meadow complexes that do not have such potential and/or are areas where woody riparian species are NOT necessary to achieve rangeland standards.

c. The utilization restriction would act to unreasonably restrict livestock use of the allotment.

The PMUD adopts only the single, simplistic, and unreasonable approach of utilization restriction, rather than identifying and adopting any of a myriad of other alteratives, including fencing of the sites, season of use alternatives, etc. This adoption of a single, one-size-fits-all solution is a violation of NEPA, LUP provisions, and common sense, and is contrary to the information that exists regarding the allotment itself.

Response to 2. There is considerable research that supports the application of utilization guidelines to improve vigor of woody riparian species. The utilization guidelines stated in the final decision are necessary to improve those riparian sites that are functioning at risk, as identified in Appendix 2. When properly functioning condition is achieved the guideline can be modified to maintain that condition. These guidelines may change over time as more specific desired future conditions are determined for the riparian areas. The PMUD correctly applies changes in management that are required to meet Land Use Plan objectives, and Rangeland Health Standards and Guidelines.

3. *The PMUD assigns arbitrary stubble height minimums to unidentified, or improperly and incorrectly identified areas deemed "functioning at risk". The PMUD refers to Appendix 2 as identifying the areas where the stubble heights would apply. However, Appendix 2 identifies that:*
   a. *Satisfactory livestock management is already in place on almost all of the sites listed in Appendix 2, and additional restriction are therefore unnecessary and unreasonable;*
   b. *Wild horses are solely responsible for several of the sites' rating. However, the stubble height restrictions would, and any "penalties" for exceeding heights, would almost certainly fall upon the livestock operator, notwithstanding the fact that horses are solely responsible for "unsatisfactory" rating in those locations.*

The PMUD adopts only the single, simplistic, and unreasonable approach of stubble height, rather than identifying and adopting any of a myriad of other alteratives, including fencing of the sites, season of use alternatives, etc. This adoption of a single, one-size-fits-all solution is a violation of NEPA, LUP provisions, and common sense, and is contrary to the information that exists regarding the allotment itself.

Response: These are the same arguments presented by the John Espil Sheep Company, Incorporated in their letter of August 31, 1997 commenting on the Draft Environmental Impact Statement *Rangeland Health Standards and Guidelines for California and Northwestern Nevada* dated May 27, 1997, and their letter of protest to the Director, Bureau of Land Management dated June 22, 1998.

The Bureau of Land Management responded to the August 31, 1997 letter in the Final Environmental Impact Statement *Rangeland Health Standards and Guidelines for California and Northwestern Nevada* in Chapter 5, Pages 87 through 90. This response referred to the general response on utilization in Section 5.4.1 of Chapter5, the complete discussion on utilization in Appendix 20, and the Annotated Bibliography on Utilization within the Final EIS. In responding to the protest of Guideline 16 in the letter of protest dated June 22, 1998 the Bureau of Land Management expressed the logic and research which was used to establish the utilization and stubble height criteria.

B. *CARRYING CAPACITY*

4. *The PMUD arbitrarily and incorrectly identifies what is the carrying capacity available for livestock use. The livestock carrying capacity is far greater than that identified in the PMUD. We enclose an application for increasing our livestock authorization, which application is within the carrying capacity available for livestock within the allotment. See attached grazing application. This application is for authorization above and beyond our present livestock authorization.*

Response to Carrying Capacity: Attached to the protest letter dated November 14, 2000 is an Grazing Application dated November 4, 2000. This Grazing Application was replaced by an application dated November 28, 2001, which was provided to the BLM following the protest meeting. Line -1 of this Grazing Application is for 6,939 AUM's, which is the approximate level of historic suspended non-use identified on the John Espil Sheep Company, Inc. grazing permit. Line No. 2 is for 5,020 AUM's. There is no rationale provided for this additional level of AUM use except that "The livestock carrying capacity is far greater than that identified in the PMUD." The protest letter or the grazing application provides no supporting information, or data necessary for a detailed analysis of carrying capacity. Information to support such a request may include, but not limited to rangeland forage surveys, suitability criteria for kind and class of livestock based on percent slope, water availability, and classification of present vegetation or the successional status, forage conditions, and weather information precipitation. Forage production estimates should also be adjusted for present or projected distribution patterns of livestock, class of kind of livestock, season of use, and forage needs for wildlife, wild horses and burros.

The monitoring information collected on the Twin Peaks Allotment indicates that current stocking levels have resulted in heavy utilization on over 10,000 acres in 1999. The activation of the grazing use requested on the grazing application would increase the acreage of heavy utilization, and would not improve riparian/wetland, and stream conditions in the Twin Peaks Allotment. Utilization Objective non-obtainment was attributed to livestock and wild horse, and in several instances

objective non-obtainment was attributed to sheep and burros.

Rangeland Health Standards for Riparian/Wetland, Streams, Biodiversity, and Soils are not being met on the Twin Peaks Allotment. Therefore, the grazing application is not consistent with CFR 4180.1 - Fundamentals of rangeland health. The non-attainment of the Rangeland Health Biodiversity and Soil Standards was attributed to historic livestock grazing, that was suspended in the 1960's. The grazing application requests to activate this historic suspended nonuse that led to overgrazing in the allotment.

C. *TERMS AND CONDITIONS*

5. *The first Terms and Conditions is arbitrary and capricious and would act to violate the provisions of the Code of Federal Regulations which allows the authorization of Temporary Grazing Permits for forage which is available on a temporary basis (or, the temporary authorization of forage which data has shown to be available on a sustained-yield basis).*

Response: This Term and Condition was rewritten and clarified in the final decision to state the following: The Code of Federal Regulations allows for the nonrenewable grazing use authorizations for additional forage that is temporarily available. Nonrenewable authorizations must be consistent with multiple-use objectives and pertains to forage that is temporarily available.

6. *The second Term and Condition is not permitted by the Code of Federal Regulations, which does not provide that grazing use may be discontinued or delayed based upon non-attainment of utilization guidelines.*

Response: We disagree with this protest point. In accordance with 43 CFR 4130.3-2, (a) through (h), Terms and Conditions may be specified in grazing permits or leases, which will assist in achieving management objectives, and provide for proper range management. The BLM may temporarily delay, discontinue or modify use authorizations: to facilitate riparian area improvement; to achieve proper functioning condition; or to prevent compaction of wet soils.

D. *MANAGEMENT REFINEMENTS*

7. *The PMUD arbitrarily removes the reference to "water sacrifice areas" contained in the AMP. The PMUD itself refers to areas exempt from riparian guidelines, including examples of "water troughs, reservoirs, water gaps on fenced or otherwise stream corridors", and the reference to "water sacrifice areas", while it may be politically incorrect, is exactly what the PMUD itself identifies.*

Response: The term "water sacrifice areas" in not defined in the Twin Peaks Allotment Management Plan. The PMUD describes those areas where riparian guidelines do not apply and thereby improves communication among all parties involved, and properly applies Standards and Guidelines for Rangeland Health to the Twin Peaks Allotment.

8. *We do not protest the listed changes to the cattle basic grazing season to April 1-January 31. However, we would request that the season of use for the allotment be identified as March 1-February 28, with the current period of use for cattle being April 1-January 31. Our reason for this request is that we have identified some tentative desired changes to the use period of cattle, if certain management scenarios come to be in the next few years. Some of these may involve removing the livestock to private lands (if they can be obtained) during part of the "hot season" but placing cattle on the allotment during the current dormant "off time" of February and March. Identifying the season of use as year-round would help facilitate such period of use change, if it comes to be.*

Response: We believe the proposal to reduce hot season grazing use is consistent with improving riparian/wetland, and streams on the allotment. Upon receipt of your grazing application for a change of season of use we will process the application. As always, this change in management would be subject to normal NEPA review procedures.

9. *We protest the assignment of 991 cattle and 9910 AUMs as the authorized use, because the available data show that the livestock carrying capacity is far in excess of the listed numbers. See B.4., above, and see also our attached grazing application.*

See response to B.4. above.

10. *We protest the inclusion of the provision for an Annual Operating Plan each year, throughout the document.*

a. *Such provision for an annual plan would render the AMP meaningless and without value, and thereby render our livestock operation without stability, because the AOP would be used to 'trump" the management provisions clearly delineated by the AMP. This family, this permit, this allotment has been subjected to the political whims of the BLM, NDOW, and CDF&G in the past, which required multiple court actions by us, including a federal district court lawsuit. We do not agree to relinquish the stability of our livestock operation to the political vagaries of the agencies.*

b. *Such provision is not necessary to the orderly administration of the range, because, within the framework of the AMP, we have always worked with BLM to make adjustments in areas of use , etc. on an annual basis. This close coordination does not require a mandatory AOP.*

c. *The Code of Federal Regulations governing actions on BLM-administered lands contains no provision for Annual Operating Plans.*

During the protest meeting, we agreed to an annual pre-grazing coordination meeting for the purpose of laying out future livestock grazing on the allotment. We believe this coordination improves communication among all parties involved with the management of this allotment, and is necessary to meet land use plan objectives, standards and guidelines for rangeland health. The Code of Federal

Regulations state that the Field Manager may specify in grazing permits, terms and conditions which will assist in achieving management objectives, provide for proper range management or assist in the orderly administration of the public rangelands.

11. *We protest the reduction of the sheep basic operation from March 1 - December 31 to April 1 - October 25. We need to have the flexibility to move sheep that are lambing into the allotment in March before the bulk of the lambing begins. Additionally, there is not reason expressed in the PMUD or Evaluation for shortening the time available for fall grazing from through December to October 25. The two-ended shortening of our available season is not supported by the monitoring data, or by any need on account of orderly administration of the range.*

Response: The March 1 -December 31 season of use for sheep stated in the Twin Peaks Allotment Management Plan is not in conformance with the Cal-Neva Land Use Plan, and livestock management decisions that followed this plan. In accordance with 43 CFR Part 1600 all subsequent more detailed or specific activity plans must conform with the approved land use plan. Applications for changes in season of use would be considered prior to livestock turnout by the authorized officer.

12. *We protest the addition of the 4-6 inch stubble height requirement to all of the stream areas, which have utilization requirements.*

a. *The listed stubble heights does not define a threshold below which resource damage will occur, or above which improvement of the resource will occur, and therefore has no validity to resource management.*

b. *Neither the PMUD nor the Evaluation presents an information that the 4-6 inch stubble height equates to 40% utilization, notwithstanding BLM's assertion of such.*

c. *The 4-6 inch stubble height restriction is not warranted by the upward trend of Lower Smoke Creek.*

During the November 27, 2000 protest meeting, agreement was reached concerning the application of stubble height measurements for utilization determinations. The 4-6 stubble height guidelines are widely accepted in resource management as being adequate vegetation residue to maintain or improve riparian systems. Generally, the 4-6 inch stubble height will not equate to 40% utilization, but often equates to greater than 40% utilization.

13. *The provision for delay of cattle turnout into areas prone to Medusahead in the Five Springs Subdivision is no longer necessary, since cattle turnout has changed to April 1. This provision should be removed.*

During the protest meeting it was agreed that Espil does not turn cattle out in the Five Springs Subdivision.

14. *The rationale for stubble height threshold is not supported by the facts of research, ongoing monitoring of this allotment, or the existing livestock operation in place on the allotment, which includes various period of use and rotation livestock management. The health and vigor of riparian herbaceous species is NOT defined by the listed stubble heights. The rationale that cattle shift their dietary preference to shrubs when stubble heights of riparian herbaceous reach 3 inches is unfounded in the data collected of the allotment.*

Response: The General Technical Report INT-263 Managing Grazing of Riparian Areas in the Intermountain Region, provides a summary of research to support the residual plant cover (stubble heights) for the purpose of streambank protection and aid in improving stream riparian vegetation. Stubble heights at the end of the growing season is critical to maintain or improve riparian conditions and improve water quality.

15. *The rationale that the allotment's infrastructure is a significant factor that contributes to upland and riparian utilization guidelines not being met is misleading, inappropriate and wrong. While it is true that not many fences exist in the allotment which separate the "subdivisions", nevertheless:*

a. *The vast majority of the allotment uplands have been utilized far below allowable utilization levels. The implication that upland utilization levels are exceeded on an allotment-wide basis is wrong.*

b. *The vast majority of the allotment riparian areas are either in PFC or Functional/Upward Trend; or are under specific livestock management designed to account for their maintenance and improvement. Those that are not are impacted by wild horses and/or a minuscule portion of the allotment and are in fact a minuscule portion of the allotment riparian mileage and/or acreage: SEE ATTACHED SUMMARY.*

Response to 15. and a.: Use pattern maps continue to indicate areas were livestock tend to concentrate and this use contributes to heavy utilization. This heavy utilization could be reduced by increased management.

Response to 15 b.: We find that nearly 7.4 miles of streams and 18 acres of riparian/wetland habitats are functioning at risk with either static or downwards trend. This represents a significant portion of the riparian areas in the allotment, and the importance of this habit to livestock, and wildlife can not be overstated in an arid environment.

We protest the intention of BLM to create an "annual operating plan" in conformance with a purported "holistic management package developed for the Twin Peaks Allotment in 1994." Such document was never agreed to as guiding any management action within the Twin Peaks Allotment. The AMP remains the guiding management document of the Allotment.

Response: We agree the holistic management package was never finalized, however the draft document provides an overview of management strategies for improving resource conditions on the Twin Peaks Allotment. In accordance with the Public Rangelands Improvement Act of 1978, the

field officer manager may revise or terminate AMPs or develop new AMPs in consultation, coordination and cooperation with the permittees and other interested parties.

16. *The PMUD does not, but should, strike the works "No cattle are to be turned out in the Skedaddle Management Areas prior to June 1 (see enclosed map 2 for location)." This management area was an original consideration in the AMP, but developments and changes for the purpose of riparian management and livestock rotation make this provision impossible to comply with, as we are to be out of the Lower Smoke Creek area by or before May 5.*

Response: The final decision addresses this protest point. BLM agrees to drop this provision following the construction of additional drift fences in the Bull Flat area. This provision is related to 17, c. (below).

17. *The PMUD does not, but should, authorize (subject to NEPA) certain range improvement projects to facilitate livestock management, as we have discussed with Susanville personnel in recent meeting:*

a. *The maintenance of several water holes/reservoirs in the Painter Subdivision. These will permit better livestock distribution in this area, and allow livestock to be pushed off the "hot spots" identified in the evaluation document. Note: This action may or may not influence wild horses in the area of the "hot spots".*

b. *Additional fencing of private waters and keeping them turned off for certain periods of the years may help influence livestock and wild horse use in the "hot spots" of Painter Subdivision.*

c. *A drift fence between rimrock/steep terrain, located between Bull Flat and the West Fork of Rush Creek. This would facilitate moving cattle off of the West Fork of Rush Creek and keeping them moved out for certain periods of the year. Some drift might still occur, but this fence, like the other drift fences we have coordinated with BLM, would facilitate movement of large numbers of cattle off of the area for certain periods. Note: this will not influence the road in the bottom of the WF Rush Creek. Even though BLM has ripped the road, including within and through the stream channel, vehicular traffic continues on the ripped areas.*

d. *Seedings of crested wheatgrass were never completed in the allotment per the LUP and AMP provisions. These should be completed, and several thousand acres should be achieved. This would add management flexibility to the livestock operation and would facilitate livestock removal from other portions of the allotment at certain times.*

e. *Seedings of forage kochia on the uplands of the "deer winter crucial area". This is a species which:*

- *has proven itself capable of competing with cheatgrass;*
- *is capable of occupying areas of low rainfall and shallow soils;*
- *is resistant to fairly heavy utilization*
- *greens up early and stays green late;*
- *is highly nutritious and palatable to deer and to livestock;*
- *a large-scale seeding of which would provide late-season nutrition to wintering deer in the 'crucial area", which is ecologically incapable of otherwise providing tall thermal cover or*

highly nutritious native species (such as bitterbrush), because of its shallow soils and light rainfall.

We have experimentally seeded forage kochia on some of our private lands within the "crucial area", and welcome BLM, NDOW, and CDF&G to view those land (they are shallow soiled, have had most of our livestock through them annually, and have a good stand of kochia).

Response to 18 a. b. and c.: During the protest meeting, BLM agreed to determine the feasibility of water improvement projects in the Painter Flat area for the purpose of improving livestock, and wild horse distribution. Additional drift fencing in the Bull Flat area was also agreed too, subject to NEPA, and Wilderness Study Area review, etc.

Response to 18 e. and d.: Beyond BLM's *Policy on the Use of Native Plant Materials in California,* there are reasons for caution in relation to planting or seeding native rangeland with exotic species.

Scientists do not fully understand the roles and functions of native species within native rangeland ecosystems. One thing which seems to be certain is that by evolving within native ecosystems each species does serve some purpose because there are no known lose ends in ecosystems. Without a full understanding of these functions we are not capable of determining the long term affects of replacing native vegetation species with those species who evolved in other eco-regions.

Recent work has documented the changes crested wheatgrass makes to soil and soil nutrients which give it a highly competitive advantage over native species in the Great Plains. Although such work has not been completed in the Great Basin/Sagebrush Steppe we must use caution before it is determined whether crested wheatgrass has become "naturalized" to the sagebrush ecosystem or if crested wheatgrass changes its Great Basin/Sagebrush Steppe micro-habitat to better fit its environmental needs. Since its introduction to the western United States cheatgrass has proven to be highly competitive and successful in displacing native vegetation species when an opportunity arises. We must, however, use extreme caution in using vegetative species which evolved with, and appears to "out compete" cheatgrass. This concern is predicated on the knowledge that cheatgrass, an exotic species, has proven to be highly invasive and competitive, and not knowing what the long term impacts of another introduced species, which is reported to out compete cheatgrass, will be on the rangeland ecosystems and their health.

Attached is the Grazing Application dated November 28, 2000.

RECEIVED
NOV 28 2000
BUREAU OF LAND MANAGEMENT
SUSANVILLE, CALIFORNIA

Form 4130-1
(September 1989)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GRAZING APPLICATION
GRAZING SCHEDULE

FORM APPROVED
OMB NO. 1004-0005
Expires: October 31, 1991

FOR BLM USE ONLY

Name *(last, first, middle initial)*
John Espil / Sheep Co, Inc

Address *(include street, city, State, and zip code)*
Drawer N
Susanville, CA 96130

State
Office
Operator No.
Schedule No.
Billing Code
Special Bill Code

I hereby apply for the following grazing use on the public lands and/or other lands administered by the Bureau of Land Management

(1) LINE NO.	(2) ALLOTMENT NAME	(2) ALLOTMENT NO.	(3) PASTURE NO.	(4) LIVESTOCK NUMBER	(5) KIND	(6) PERIOD BEGIN	(6) PERIOD END	(7) % PL USE	(8) TU	(9) AUM'S	(10) TYPE LAND
01	Twin Peaks			see attached					A	16739	
02	Twin Peaks								A	5083	
	This application replaces and supercedes the application filed 11/4/00.										
	This application is for use authorization effective March 1, 2001 grazing season. See AMP, Addendum EA DR's & unprotested/unappealed portions of PMUD/FMUD for seasons, rotations, and other terms & conditions.										
	See attached proposed implementation schedules for #'s of Sheep AUMs, #'s of Cattle AUMs and acceptable implementation time frame.										

Show your recorded brands, earmarks, and wattles
on file

Show reason for nonuse, if requested: ☐ conservation and protection of the public lands; ☐ annual fluctuation of livestock operations: ☐ financial or other reasons beyond control of the operator; or ☐ livestock disease or quarantine.

Signature
John Espil

Date
11-28-00

Reason for nonuse: ☐ Approved ☐ Disapproved *(Decision Required)*

Signature of Authorized Officer

Date

Title 18, U.S.C., Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any

Proposed AUM allocation:

2626 AUMs for Espil Sheep
9133 AUMs for Espil Cattle

Proposed and acceptable increase implementation schedules, Twin Peaks Allotment

Sheep:

Year 1: 3049 sheep 4/1-6/30; 9/16-10/25

Or;

Year 1: 1525 sheep 4/1-6/30; 9/16-10/25
Year 3: 1524 sheep 4/1-6/30; 9/16-10/25

Cattle:

Year 1: 908 cattle 4/1-1/31

Or;

Year 1: 303 cattle 4/1-1/31
Year 3: 303 cattle 4/1-1/31
Year 5: 302 cattle 4/1-1/31

Or;

Year 1: 182 cattle 4/1-1/31
Year 2: 182 cattle 4/1-1/31
Year 3: 182 cattle 4/1-1/31
Year 4: 181 cattle 4/1-1/31
Year 5: 181 cattle 4/1-1/31

This implementation schedule may be modified or terminated in any year (if implemented over time) if monitoring indicates that allotment utilization reaches the "moderate" utilization (i.e. 50%) average utilization.

10-26-00

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
2950 Riverside Drive
Susanville, California 96130

In Reply
Refer to:
(CA-350)
AF 00701

OCT 25 [illegible]

Dear Reader:

Enclosed is the Notice of Proposed Multiple Use Decision for the Twin Peaks Allotment, and the Twin Peak Allotment 2000 Monitoring Evaluation Report. This proposed decision and the allotment evaluation was conducted in accordance with BLM policy and regulations, and is based on monitoring data collected on the allotment between 1984 and 1999.

Comments to the draft allotment evaluation were carefully considered for this final evaluation. Copies of the comment letters are available upon request. BLM's response to the comments is contained in the allotment evaluation. Errors and inconsistencies in the text were corrected. Because additional monitoring information was requested, Appendix 6 includes a complete summary of the Riparian Functional Assessment Inventory collected on the Twin Peaks Allotment. Utilization information was updated in Appendix 4, and use pattern maps are attached to the allotment evaluation.

Please review the proposed decision and direct any questions or comments to Steve Surian or me at the above address and phone.

Sincerely,

Linda D. Hansen
Field Manager

Enclosures: as stated.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Eagle Lake Field Office
2950 Riverside Drive
Susanville, California 96130
(530) 257-0456

OCT 26 2000

John Espil Sheep Company, Inc. c/o John Espil Drawer N Susanville, CA 96130	Certified Mail P 914 142 641 Return Receipt Requested	In Reply Refer to: 4160 (CA-350) CF 2017 CF 2035
John Espil Sheep Company, Inc. c/o Brent Espil PO Box 150 Gerlach, NV 89	Certified Mail P 914 142 642 Return Receipt Requested	
Laver Ranches c/o Ron Laver PO Box 346 Litchfield, CA 96117	Certified Mail P 914 142 643 Return Receipt Requested	
Laver Ranches c/o Nancy Satica PO Box 395 Standish, CA 94901	Certified Mail P 914 142 644 Return Receipt Requested	

NOTICE OF PROPOSED MULTIPLE USE DECISION
TWIN PEAKS ALLOTMENT

BACKGROUND INFORMATION

The Cal-Neva Planning Unit Final Environmental Impact Statement Record of Decision (ROD) and the Cal-Neva Management Framework Plan (Land Use Plan) was issued in August 1982. These documents established multiple use goals and objectives that provide management guidance for public lands within the Twin Peaks Allotment. The Land Use Plan objectives were carried forward in the Twin Peaks Allotment Management Plan and the Twin Peaks Herd Management Plan.

Monitoring studies were initially established in 1984 and have been conducted since then following Bureau policy and regulations. In October 2000, BLM issued the Twin Peaks Allotment Monitoring Evaluation Report. This document contains monitoring

information analyzed and evaluated to decide progress in meeting management objectives and Rangeland Health Standards for the Twin Peaks Allotment. The Twin Peaks Monitoring Evaluation Report also contains management adjustments necessary to meet management objectives, and Rangeland Health Standards.

STANDARDS FOR RANGELAND HEALTH

On August 21, 1995, BLM grazing rules codified fundamentals of Rangeland Health. Among other things, the rule required BLM to develop and carry out regional standards for rangeland health and guidelines for livestock grazing. On July 13, 2000, the Director approved regional rangeland health standards for Northeastern California and Northwestern Nevada and guidelines for livestock grazing management. Livestock grazing related actions must conform with or make significant progress toward meeting the standards. The following are Rangeland Health Standards for Northeastern California and Northwestern Nevada.

1: Upland Soils

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform, and exhibit functional biological, chemical and physical characteristics.

2: Streams

Stream channel form and function are characteristic for the soil type, climate and landform.

3: Water Quality

Water will have characteristics suitable for existing and potential beneficial uses. Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California and Nevada State Standards, excepting approved variances.

4: Riparian and Wetland Sites

Riparian and Wetland areas are in functioning condition and are meeting regional and local management objectives.

5: Biodiversity

Viable, healthy, productive and diverse populations of native plants and desired plant and animal species, included special status species, are maintained.

CONSULTATION

In July 2000, the Twin Peaks Allotment draft Monitoring Evaluation Report was sent to allotment permittees, state agencies and interested parties for comment and

review. Comments to the draft document were submitted by John Espil Sheep Company, Inc. Nevada Division of Wildlife, and the Sierra Club-Mother Lode Chapter. These comments were considered in the Twin Peaks Allotment Monitoring Evaluation Report and this Notice of Proposed Multiple Use Decision.

MULTIPLE USE DECISION

Based upon the analysis of monitoring data for the Twin Peaks Allotment, recommendations from my staff, and consultation with the permittees, state agencies and other interested publics, the proposed multiple use decision is as follows:

The analysis of monitoring data shows that the existing management of livestock and wild horses has contributed to not meeting all the Land Use Plan objectives and Rangeland Health Standards. Therefore, this decision changes livestock management actions, establishes new or modified utilization guidelines, and management objectives. This decision also establishes wild horse and burro Appropriate Management Levels(AML) for home ranges in the Twin Peaks Allotment. Analysis of existing management of wildlife habitats does not suggest that current wildlife populations are contributing to failure in meeting multiple use objectives or Rangeland Health Standards.

ALLOTMENT UTILIZATION GUIDELINES

Accordance with Rangeland Health Guideline 16, the following are multiple use utilization guidelines for key upland and riparian species that the Twin Peaks Allotment will be monitored and evaluated:

1. Upland Utilization Guidelines

   A) Utilization of key upland browse species

   Utilization of annual growth on key browse species (bitterbrush and serviceberry) will be no more than 20 percent before October 1 within identified deer concentration areas. These concentration areas are those areas within mule deer habitats where mule deer numbers are most likely to be concentrated during the winter season (winter season normally occurs from December 16 through March 31). These areas have been identified through State Fish and Game Agency fall and spring counts over a period of several years. Maps of these deer concentration areas are on file at the BLM Eagle Lake Field Office.

   B) Allotment-Wide Utilization:

   The utilization limit is 40-60% for key species at the end of the grazing season. Utilization will be measured on the key areas, or determined by use pattern mapping. (Key species are identified in Appendix 1).

2. Riparian Utilization Guidelines

A) For those riparian sites determined to be functioning at risk[1] (identified in Appendix 2)

(1) A 4-6" minimum stubble height will remain at the end of the growing season in most riparian. The stubble height threshold is intended to provide sufficient residual herbaceous vegetation biomass for improved plant vigor, and soil stability.

(2) Utilization limit is 20% on key riparian trees and shrubs species in those areas (identified in Appendix 2) where the presence of woody riparian species is necessary to meet standards. Utilization will be measured at the end of the growing season.

B) For those riparian sites determined to be properly functioning.

A 2-4" minimum stubble height will remain at the end of the growing season in most riparian areas[2].

3. Application of Utilization Guidelines

A) The utilization levels will be applied until a current site-specific analysis is completed and new utilization levels are developed and documented in the allotment management plan

B) Management changes (such as changes in the season of use, timing, duration, and/or intensity; rotational grazing; fencing; herding; and/or adjustments in stocking rates) will be implemented if stubble heights on the average of the key riparian areas across the pasture fall below the guidelines for two consecutive years or in any two years out of every five years. In addition, at least 70 percent of riparian key areas on the allotment are to exceed minimum stubble heights in most years. If any particular key area fails to meet the guidelines for more than two consecutive years, then management action will be taken to remedy the problem in the area of the allotment that key area represents.

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[1] It is noted that the riparian functional assessment is incomplete and ongoing.

[2] Exempt to riparian guidelines are structural facilities constructed for livestock/wild horse/wildlife water or other purposes. Examples include areas near water troughs, reservoirs, water gaps on fenced or otherwise stream corridors (Rangeland Health ROD).

ALLOTMENT CARRYING CAPACITY

The combined carrying capacity for livestock, wild horses and burros on public lands is 19,994 Animal Unit Months (AUMs). The carrying capacity allocation is as follows: livestock - 13,430 AUMs; wild horses and burros - 6564 AUMs.

LIVESTOCK MANAGEMENT DECISION

LIVESTOCK CARRYING CAPACITY

Permittee Mandatory Terms and Conditions

John Espil Sheep Company Incorporated:

Number	Kind	Period of Use	% PL	Permitted AUMs
971	Cattle	04/01 to 01/31	100	9,769
4000	Sheep	04/01 to 05/30	100	1,578
2000	Sheep	06/01 to 06/30	100	395
2000	Sheep	09/16 to 09/30	100	197
4000	Sheep	10/01 to 10/25	100	658

Laver Ranches:

Number	Kind	Period of Use	%PL	Permitted AUMs
102	Cattle	04/16 to 10/31	100	667

Other Terms and Conditions
(for both cattle and sheep, as applicable)

Annual grazing authorizations may be modified, but will not exceed the total number of Animal Unit Months of permitted grazing use. Modifications must be consistent with Rangeland Health Standards and Guidelines.

Grazing use maybe delayed or discontinued based on soil and forage conditions, or because of non attainment of utilization guidelines. On high shrink-swell soils concentration of livestock while soils are wet[3] will be avoided.

Grazing use is prohibited in Twin Peaks Allotment riparian/wetland and upland exclosures, unless otherwise provided for in writing by the authorized officer. The following list of allotment exclosures was not previously identified in the Twin Peaks AMP or decision records. The exclosures are the Pilgrim Lake wetland, Stone Corral Exclosure, Rocky Table Spring, Parsnip Springs, South Twin Springs (2), Phone Springs, and Coyote Springs. The area enclosed by the Buffalo/Parsnip exclosure will be rested from livestock during 2001 and

---

[3] Wet means when bearing strength of soil results in greater than 2 inch compressions from animal hoof impact.

2002. In 2003, livestock use will be determined by BLM in coordination with the permittees and any other interested publics who want to participate in the management of this area.

Salt and/or mineral blocks if used will be placed at a minimum of one quarter (1/4) mile from any springs, streams, meadows, riparian habitats or aspen stands.

The permittees shall maintain range improvements as required by the terms of cooperative agreements or section 4 range improvement permits before turning out in a pasture as scheduled for grazing use.

Each permittee's certified actual use grazing report, by pasture/use area, is due 15 days after the end of the authorized grazing period.

Management Refinements

The following management actions amend, repeal, and add provisions to the 1985 Twin Peaks Allotment Management Plan, as amended; therefore, existing grazing provisions proposed to be deleted are printed in ~~strikeout type~~ and new provisions proposed to be added are printed in *italic type* to indicate that they are new.

AMP B. 3. Allotment Specific Objectives (page 7 of the Twin Peaks AMP)

a. Forage Utilization

Utilization of key forage species shall not exceed moderate use level of 40-60% ~~exclusive of water sacrifice areas.~~

AMP C 3. Cattle Operation (page 8 of the Twin Peaks AMP)

Basic Grazing Season, ~~March 1 to December 31.~~ *April 1 to January 31.*

Espil 991 Cattle, ~~3/01 to 12/31~~ *4/01 to 01/31*, 9910 AUMs
Laver 102 Cattle, 04/16 to 10/31, 667 AUMs

AMP Basic Grazing System (page 9 of the Twin Peaks AMP)

North Pasture *(turnout years)*

~~Prior to April 1, all cattle, both Espil's and Laver's are to be turned out in the area east of Buffalo Creek and northeast of Burro Mtn. (see enclosed map 2 for Espil's north pasture turn out area).~~ After April 1, cattle can be turned out in ~~any location of~~ the north pasture ~~except the management area (see enclosed map 2 for location)~~*based on Annual Operating Plan (AOP) basic grazing system guidelines.* After July 1, cattle can be moved to the south pasture.

South Pasture *(turnout years)*

~~Prior to April 1, all cattle both Espil's and Laver's are to be turned out in the area east of Dry Valley Rim and east and south of Burro Mtn. (see enclosed map Espil's south pasture turnout area). Prior to June 1 and~~ after April 1, Laver's ~~recommended~~ turnout areas are either E. Skedaddle Creek Drainage and/or Spencer Basin. No cattle are to be turned out in the *Skedaddle* Management Area prior to June 1 (see enclosed map 2 for location). *After July 1, cattle can be moved to the north pasture. Espil's cattle are to be turned out based on the AOP basic grazing system guidelines.*

AMP 4. Sheep Operation

The season of use: ~~March 1 to December 31~~ *April 1 to October 25*

AMP E. Administration

AMP E. 2. Flexibility/Requirements (page 25 of the Twin Peaks AMP)

A. *Adjustments in grazing use from the basic operation will require BLM approval. The adjustments in grazing use will be made by the permittees on the Annual Grazing Application, Form 4130-3a. This form will be provided to the BLM before livestock turnout.*

The combined number of maximum cattle AUMs and sheep AUMs stated in the basic operation section of the AMP cannot exceed active preference as stated on their grazing permit, unless authorized by the BLM.

Changes to the March 6, 1992 AMP Addendum

C. Management Refinements

2. Lower Smoke Creek Sub-Unit

Up to ~~200~~ 400 cattle will be authorized to use Lower Smoke Creek area from ~~March 1, to April 30~~ *April 1 to May 5*, annually, subject to the terms and conditions contained within this addendum. Since the grazing capacity for this area . . .

D. Terms and Conditions Refinements

2. Except for trailing along the Smoke Creek Road, no use shall be made in the Smoke Creek Subunit after ~~April 30~~ *May 5.* Maximum utilization levels on the Lower Smoke Creek riparian areas are 40 percent *(or 4-6 inch minimum stubble height)* of total current year production, as determined at the end of the growing season.

Considerations - Smoke Creek Subunit has few physical barriers. The permittees will make diligent effort to remove and keep the livestock from this subunit after ~~April 30~~ *May 5*, and be promptly responsive to notification from BLM.

4. After April 30, should estimated utilization of riparian-associated plants in the publicly owned portions of the North Fork of Buffalo Creek drainage and Parsnip

Creek drainage be determined to be approaching, or to have reached 40 percent utilization, *(or 4-6 minimum stubble height)* as determined by the BLM . . .

Management Guidelines for North Pasture Subdivisions

The AMP Grazing System Refinements and Annual Operating Plan Guidelines for Cattle Grazing.

Buffalo Subdivision

During north pasture turnout years cattle would be turned out from April 1 thought May 31 in the Buffalo Subdivision. The actual date of cattle movement from the subdivision would depend on soil moisture conditions at the higher elevations where cattle would be herded. Some cattle would drift to the higher elevations after turnouts. However, all cattle would be herded from the subdivision by May 31. The cattle would be trailed across the subdivision in the fall as they are removed from the higher elevations of the allotment.

Buffalo Hills Subdivision

Cattle use the lower slopes of this subdivision with the Buffalo Subdivision. During south pasture turnout years, cattle would be turned out in the higher elevations of this subdivision.

Black Mountain Subdivision

During north pasture turnout years, cattle grazing would be delayed until June 1. During south pasture turnout years the Black Mountain subdivision would be rested.

Painter Subdivision

Cattle grazing would be deferred each year until about July 1, or the approximate seed date for perennial grasses on the uplands. To meet the utilization guidelines identified in this decision, controlling cattle use by riding and herding may be necessary in certain riparian and upland areas between Rocky Table Spring and Mixie Flat.

Dry Valley and Salt Marsh Subdivisions

The Dry Valley and Salt March subdivisions would be used as winter range from approximately November 1 to January 31. Cattle use could also occur in early April, when the cattle are herded through the subdivision. Otherwise the subdivision would be rested from cattle use from February, 1 to October 31.

(Continue to manage Rowland Mountain, Chimney, and Stone Corral Subdivisions as described in the AMP addendum).

Management Guidelines for South Pasture Subdivisions

Dry Valley Rim Subdivision

The Dry Valley Rim subdivision would be grazed by cattle from April 1 to July 1 during south pasture turnout years.

Skedaddle Subdivision

The Skedaddle Subdivision would be grazed by cattle from June 1, to October 31 during south pasture turnout years, and may be grazed by cattle from July 1, to October 31 during north pasture years.

Five Springs Subdivision

On soils prone to Medusahead, cattle turnout in the Five Spring subdivision would be delayed until soils are sufficiently dry to prevent to soil structure damage from trampling.

Management Refinement Considerations

The subdivision/subunit boundaries have few or if any interior fences or barriers to control cattle. Management of cattle is dependant upon herding by riders. It is recognized that 100% control of cattle may not be possible. However, the permittees will take diligent efforts to keep cattle in their respective areas.

Rationale for Implementing Utilization and Management Guidelines.

The Stubble height threshold present on riparian/wetlands and stream-side is intended to provide sufficient residual herbaceous vegetation biomass for plant vigor, soil stability maintenance, improved seed production, and root reserves. Stream banks may be inadequately protected because of heavy use in anyone year. Stubble heights below 3 inches result in cattle shifting their preference to shrubs, and stubble heights below 2 inches in anyone year will require a management change in the following year.

Short term monitoring information suggests the allotment's existing infrastructure is a significant factor that contributes to upland and riparian/wetland utilization guidelines not being met. The large allotment is without major internal structures such as fencing, and natural barriers, to provide for area-specific management. This decision provides for increased intensity of management to reduce the effects of livestock and wild horses in riparian areas without additional structures. Management guidelines allow for the recovery and improvement of riparian resources that are functioning at risk in the Twin Peaks Allotment and continued recovery of riparian resources that have an upward trend. The Annual Operating Plan (AOP) will document necessary changes to management expected to lower riparian utilization levels as established in the Rangeland Health ROD. The existing AMP grazing system does not

adequately provide for management of riparian/wetlands and creeks that are functioning at risk. Management changes will also reduce trampling damage of clay soils that are prone to nonnative plant infestation. The revised season of use is consistence with this management action. The AOP would be written after reviewing monitoring data and other information available for immediate adjustment to grazing use. This will reduce the possibility of cattle grazing practices limiting the recovery of certain riparian areas, by providing for rest periods within the pastures for improving plant vigor. Unacceptable conditions on riparian areas were not attributed to sheep grazing. Management action for livestock would be coordinated with the BLM, permittees, and the interested public. The management guidelines would be carried out on subunit or subdivision basis, and conform with a draft holistic management package developed for the Twin Peaks Allotment in 1994. This draft document was developed in coordination and consultation with the Cooperative Extension advisors from California and Nevada, the BLM, Twin Peaks Allotment permittees, and other interested parties.

Reevaluation

Some rangeland monitoring studies are established on the allotment. Additional monitoring studies for purposes of measuring vegetation and other resource attributes to find the progress in meeting management objectives, and Rangeland Health Standards. BLM will continue to collect monitoring information annually. BLM will conduct a reevaluation in 2005 to analyze progress toward achieving management objectives, and Rangeland Health Standards. At a minimum, BLM will use the ecological site method to decide if desired plant community objectives are being met. If resource problems are identified, or if management objectives are not being met, such as over utilization of key species, a reevaluation may be conducted sooner.

ADMINISTRATION

Permitted grazing use and the Twin Peaks Allotment Management plan dated April 16, 1985 will become modified on the effective date of this multiple use decision. The terms and conditions of this decision are also incorporated into the existing grazing permits.

AUTHORITY: The authority for this decision is contained in Title 43 of the Code of Federal Regulations, which states in pertinent parts:

4100.0-8: "The authorized officer shall manage livestock grazing on public lands under the principles of multiple use and sustained yield and in accordance with applicable land use plans. Land use plans shall establish allowable resource uses (either singly or in combination), related levels of production or use to be maintained, areas of use and resource condition goals and objectives to be obtained. The plans also set forth program constraints and general management practices needed to achieve management objectives. Livestock grazing activities and management actions approved by the authorized officer shall be in conformance with the land use plan as defined at 43 CFR 1601.0-5(b)."

4110.3: "The authorized officer shall periodically review the [specified livestock grazing use] in a grazing permit or grazing lease and shall make changes in the specified livestock grazing use as needed to manage, maintain or improve rangeland productivity, to assist in restoring ecosystems to properly functioning condition, to conform with land use plans or activity plans, or to comply with the provisions of sub part 4180 of this part. These changes must be supported by monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer."

4110.3-2: (b) "When monitoring or field observations show grazing use or patterns of use are not consistent with the provisions of subpart 4180, or grazing use is otherwise causing an unacceptable level or pattern of utilization or, when use exceeds the livestock carrying capacity as determined through monitoring, ecological site inventory or other acceptable methods, the authorized officer shall reduce [specified livestock] grazing use or otherwise modify management practices."

4130.3-1: "The authorized officer shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. The authorized livestock grazing use shall not exceed the livestock carrying capacity of the allotment."

4130.3-2: "The authorized officer may specify in grazing permits and leases other terms and conditions which will assist in achieving management objective, provide for proper range management or assist in the orderly administration of the public rangelands . . . "

4130.3-3: "Following consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of sub part 4180. To the extent practical, the authorized officer shall provide affected permittees or lessees, States having lands or responsibility for managing resources within the affected area, and the interested public an opportunity to review, comment and give input during the preparation of reports that evaluate monitoring and other data that are used as a basis for making decisions to increase or decrease grazing use, or to change the terms and conditions of a permit or lease."

WILD HORSE and BURRO MANAGEMENT DECISION

The following wild horse and burro Appropriate Management Levels are based on monitoring, and should result in a thriving natural ecological balance for the Skedaddle, Dry Valley Rim and the Twin Peaks North home ranges.

Management Unit	Appropriate Management Levels		Forage Amounts
Home Range	HORSE RANGE Numbers	BURRO RANGE Numbers	AUMS
Twin Peaks North	155 - 288	22 - 42	2124 -3960
Skedaddle	58 -108	10 -15	816 -1476
Dry Valley Rim	39 - 72	15 - 22	648 - 1128
Allotment Totals	252 - 468	47 - 79	3588 - 6564

To manage wild horses and burros effectively and economically AML ranges were set on a four-year gather cycle. The optimum numbers of wild horses and burros to maintain a thriving natural ecological balance is the AML high range number. The lower range number level is consistent with maintenance of self-sustaining populations of wild horses and burros. The gather cycle is based on existing herd recruitment rates of approximately 17 percent per year. However, because of droughts, severe winters or other natural events that may affect wild horse and burro populations, the actual number of wild horses and burros gathered would be based on a pre gather census.

RATIONALE FOR APPROPRIATE MANAGEMENT LEVELS

The analysis and evaluation of available monitoring data indicate that management objectives and Rangeland Health Riparian Standards are not being met in the home ranges of the Twin Peaks Allotment, and despite favorable forage production conditions and above average precipitation levels since 1993. Based on monitoring information, high population levels of year-long wild horses have contributed to not meeting management objectives and Rangeland Health Riparian Standards. Therefore, a reduction in the wild horse population is necessary to progress toward meeting management objectives and Rangeland Health Standards. The Appropriate Management Level range of 269-468 wild horses and 47-79 burros would result in a thriving natural ecological balance for that portion of the Twin Peaks HMA that occurs in the Twin Peaks Allotment. The AML was determined by analysis of utilization, trend, precipitation data and actual use information contained in the Twin Peaks Allotment Evaluation Report, dated October 2000.

The AML's for the three home ranges in the Twin Peaks Allotment will remain consistent with population levels established in the Land Use Plan and by the Buffalo Hills Technical Review Team. Analysis of monitoring information for the Twin Peaks Allotment shows that adjustments in the AML are not necessary to meet rangeland health standards. In the future, if upland and riparian utilization guidelines are exceeded, or if other monitoring information show that changes are necessary to meet resource objectives in the Twin Peaks Allotment home ranges, then

management changes would occur following the reevaluation.

AUTHORITY: The authority for this decision is contained Sec. 3 (a), Wild-Free-Roaming Horse and Burro Act (P.L. 92-195) and in Title 43 of the Code of Federal Regulations, which states in pertinent parts:

4700.0-6 (a): "wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses at the productive capacity of their habitat."

4710.4: "Management of wild horses and burros shall be undertaken with the objectives of limiting the animal's distribution to herd areas. Management shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans."

4720.1 "Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately . . .

PROTEST/APPEAL: "According to 43 CFR 4770.3 which states in part: "Any person who is adversely affected by a decision of the authorized officer in the administration of these regulations may file an appeal in accordance with 43 CFR 4.4 . . . "

WILDLIFE MANAGEMENT DECISION

Analysis of existing management of wildlife habitats does not suggest that current wildlife populations are contributing to failure in meeting multiple use objectives. Therefore, no change in wildlife use is recommended at this time.

AUTHORITY: The authority for this decision is contained in Title 43 of the Code of Federal Regulations, states in pertinent part:

4180.1 and 4180.2 to address the principles of rangeland health: " Standard 5: Biodiversity Viable, healthy, productive and diverse populations of native plants and desired plant and animal species, included special status species, are maintained."

LIVESTOCK MANAGEMENT APPEAL RIGHTS

Any applicant, permittee, lessee or other person whose interest is adversely affected by the livestock grazing portions of this proposed decision may file a protest. The protest shall state the reasons, clearly and concisely, why the appellant thinks the proposed decision is in error. The protest must be filed within fifteen (15) days following receipt of this proposed decision. This is filed with Linda Hansen, Manager, Eagle Lake Field Office, 2950 Riverside Drive, Susanville CA 96130

In the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice.

Any applicant, permittee lessee or other person whose interest is adversely affected by the livestock grazing portions of this final decision may file an appeal and petition for stay of the decision pending final determination on appeal. The appeal must be filed with Linda Hansen, Manager, Eagle Lake Field Office, as noted above, within 30 days following receipt of the final decision, or 30 days after the date the proposed decision becomes final.

The appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision is in error.

Should you wish to file a motion for stay, the appellant shall show sufficient justification based on the following standards under Sec. 43 CFR §4.21 and §4.470:

(1) The relative harm to the parties if the stay is granted or denied.
(2) The likelihood of the appellant's success on the merits.
(3) The likelihood of immediate and irreparable harm if the stay is not granted.
(4) Whether the public interest favors granting the stay.

The petition for stay must be filed in the office of the authorized officer, as noted above.

WILDLIFE, WILD HORSE AND BURRO MANAGEMENT APPEAL RIGHTS

Within thirty (30) days of receipt of this decision for wild horse and/or wildlife management, you have the right of appeal to the Board of Land Appeals, Office of the Secretary, in accordance with the regulations of 43 CFR 4.400. If an appeal is taken, the following procedures outlined in the enclosed form, 1842-1, Information on Taking Appeals to the Board of Land Appeals. Within thirty (30) days after your appeal, you are required to provide a statement of Reasons to the Board of Land Appeals and a copy to the Regional Solicitor's Office listed in Item 3 on the form.

DECISION STATEMENT

The final decision will become effective at the end of the 30-day comment period despite an appeal unless: 1) an appellant is granted a stay by the Interior Board of Land Appeals for the wild horse and burro portion of this decision; and 2) an appeal and petition for stay are filed with the authorized officer.

Sincerely yours,

Linda Hansen
Eagle Lake Field Manager

Enclosures,

Courtesy Copies

By Certified Mail:

California Department of Fish and Game	Certified Mail P 914 142 645
Friends of the Nevada Wilderness	Certified Mail P 914 142 646
Nevada Division of Wildlife, Doug Hunt	Certified Mail P 914 142 717
Nevada Commission-Preservation of Wild Horses	Certified Mail P 914 142 648
USDA-NRCS	Certified Mail P 914 142 649
Lassen Dept. Community Development	Certified Mail P 914 142 650
Mule Deer Foundation, Reno	Certified Mail P 914 142 651
Sierra Club, Toiyabe Chapter	Certified Mail P 914 142 652
Lassen County Cattlemens Association	Certified Mail P 914 142 653
Organized Sportsmen of Lassen County	Certified Mail P 914 142 654
Sierra Club, Mother Lode Chapter	Certified Mail P 914 142 655

By First Class Mail:

Honorable Wally Herger
Honorable Jim Gibbons
Frank Hall, California Department of Fish and Game
California State Office
Intermountain Range Consultants
Lassen County Board of Supervisors
UC Cooperative Extension - Lassen County
Washoe County Board of Commissioners
Washoe County Dept. of Development Review
Rose Strickland -Sierra Club
California Deer Association

SUBPART 1821.2--OFFICE HOURS; TIME AND PLACE FOR FILING

Sec. 1821.2-1 Office hours of State Offices. (a) State Offices and the Washington Office of the Bureau of Land Management are open to the public for filing of documents and inspection of records during the hours specified in this paragraph Monday through Friday of each week, with the exception of those days where the office may be closed because of a national holiday or Presidential or other administrative order. The hours during which the State Offices and the Washington Office are open to the public for the filing of documents and inspection of records are from 10 a.m. to 4 p.m., standard time or daylight saving time, whichever is effective at the city in which each office is located.

* * * * *

Sec. 1821.2-2(d) Any document required or permitted to be filed under the regulations of this chapter, which is received in the State Office or the Washington Office, either in the mail or by personal delivery when the office is not open to the public shall be deemed to be filed as of the day and hour the office next opens to the public.

(e) Any document required by law, regulation, or decision to be filed within a stated period, the last day of which falls on a day that the State Office or the Washington Office is officially closed, shall be deemed to be timely filed if it is received in the appropriate office on the next day the office is open to the public.

* * * * *

Form 1842-1
(February 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS

1. This decision is adverse to you,
   AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

1. NOTICE OF APPEAL . . . . . Within 30 days file a *Notice of Appeal* in the office which issued this decision (see 43 CFR Secs. 4.411 and 4.413). You may state your reasons for appealing, if you desire.

2. WHERE TO FILE NOTICE OF APPEAL . . . . . **Area Manager, Eagle Lake Resource Area**
Bureau of Land Management
2950 Riverside Drive
Susanville, CA 96130

SOLICITOR ALSO COPY TO . . . . . **Regional Solicitor, Pacific Southwest Region**
U.S. Department of the Interior
2800 Cottage Way, Room E-2753
Sacramento, CA 95825

3. STATEMENT OF REASONS. . Within 30 days after filing the Notice of Appeal, file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of the Secretary, Board of Appeals, 4015 Wilson Blvd., Arlington, Virginia 22203 (see 43 CFR Sec. 4.412 and 4.413). If you fully stated your reasons for appealing when filing Notice of Appeal, no additional statement is necessary.

SOLICITOR ALSO COPY TO . . . . . **Regional Solicitor, Pacific Southwest Region**
U.S. Department of the Interior
2800 Cottage Way, Room E-2753
Sacramento, CA 95825

4. ADVERSE PARTIES . . . . . Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of (a) the Notice of Appeal, (b) the Statement of Reasons, and (c) any other documents filed (see 43 CFR Sec. 4.413). Service will be made upon the Associate Solicitor, Division of Energy and Resources, Washington, D.C. 20240, instead of the Field or Regional Solicitor when appeals are taken from decisions of the Director (WO-100).

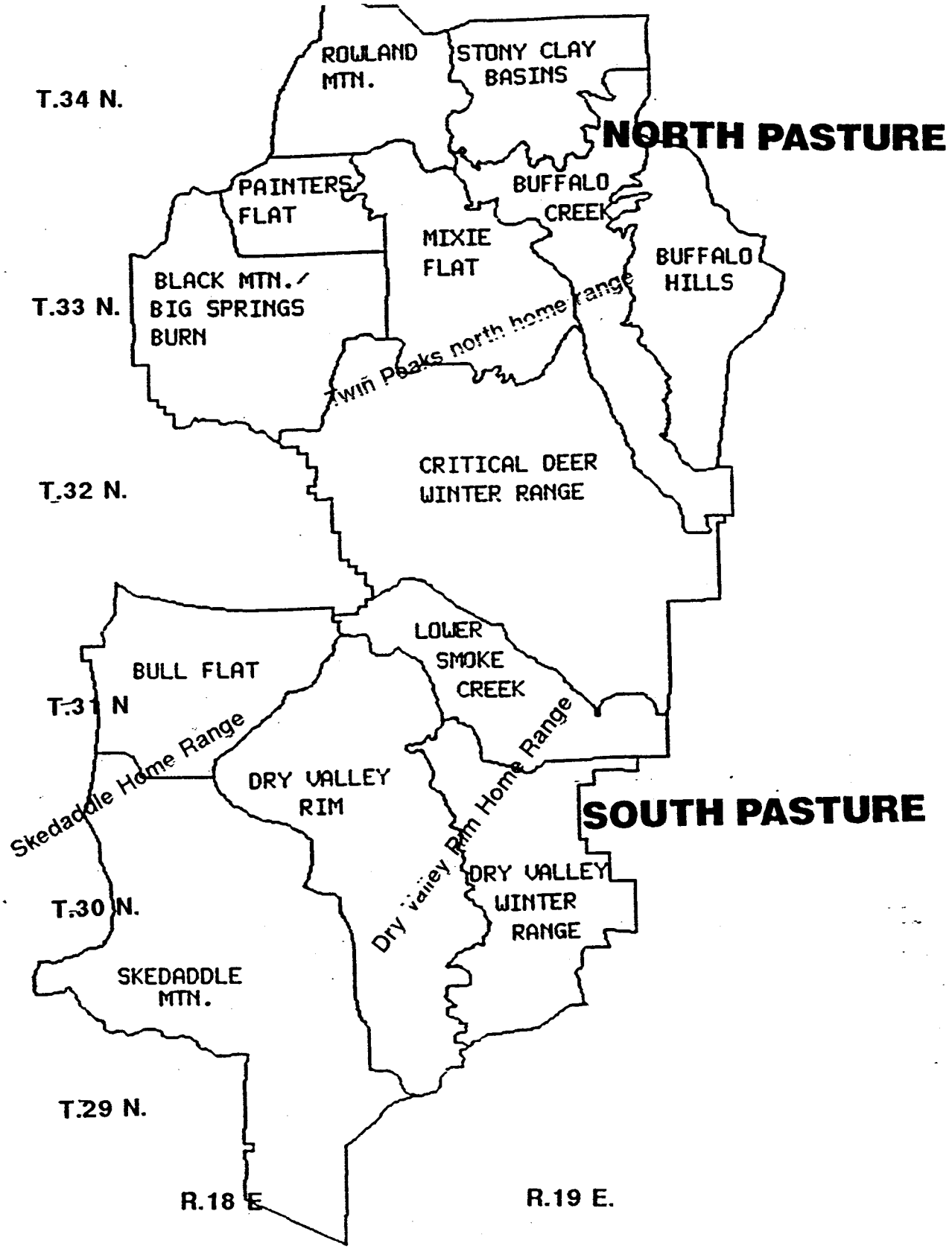
5. PROOF OF SERVICE . . . . . Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of the Secretary, Board of Land Appeals, 4015 Wilson Blvd., Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (see 43 CFR Sec. 4.401(c)(2)).

Unless these procedures are followed your appeal will be subject to dismissal (see 43 CFR Sec. 4.402). Be certain that all communications are identified by serial number of the case being appealed.

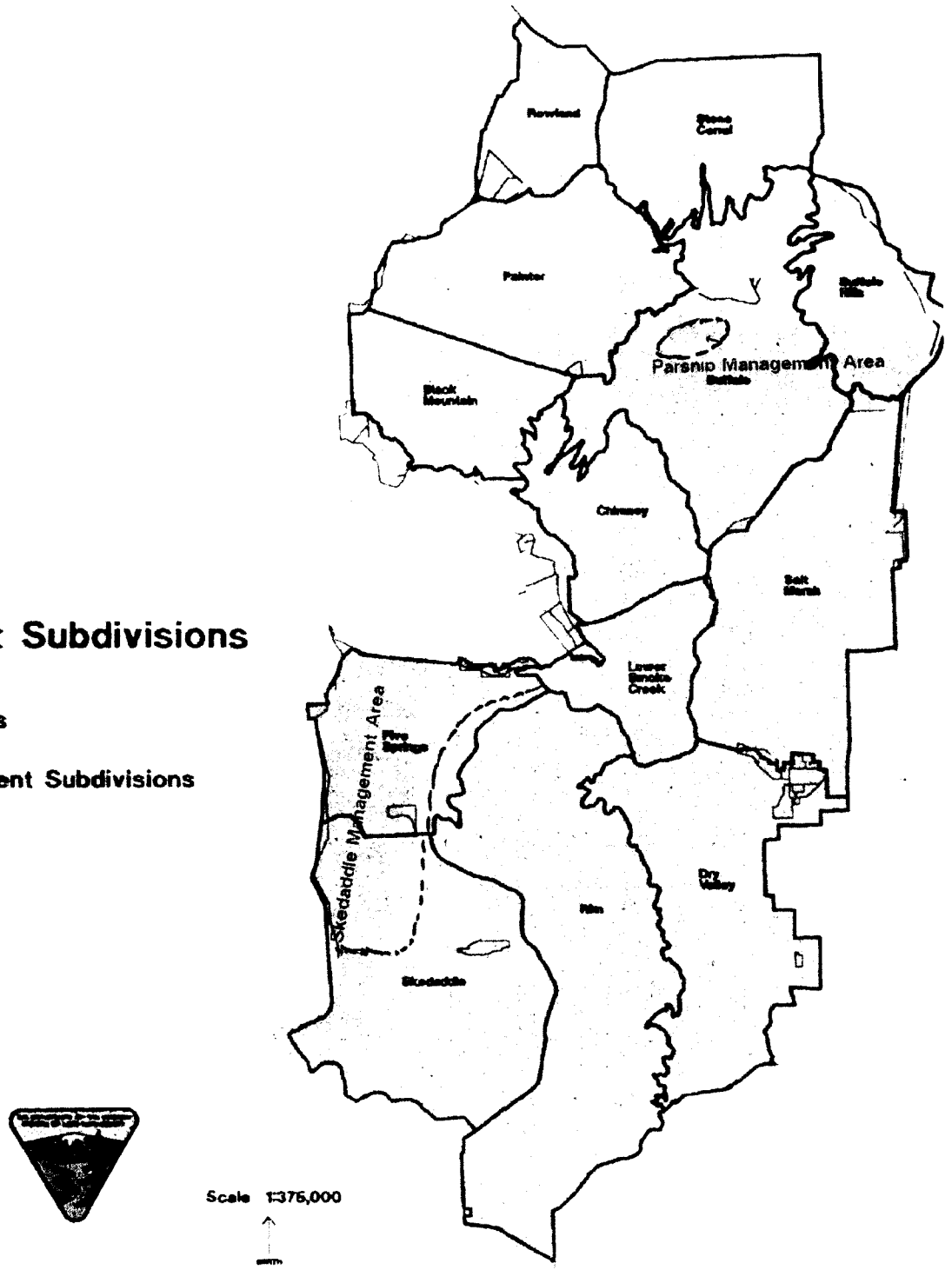
NOTE: A document is not filed until it is actually received in the proper office (see 43 CFR Sec. 4.401(a))

TWIN PEAKS ALLOTMENT
SUBUÑITS
and
HOME RANGES

Map 1



Twin Peaks Allotment



Allotment Subdivisions

— Fences

— Allotment Subdivisions

Map 2

KEY AREA	ECOLOGICAL STATUS	KEY SPECIES	Native Plants Composition of grasses, forbs, shrubs in 1994.	Potential Natural Community (PNC) grass, forbs, shrubs
Key Area Number; Nearby landmark Legal Location, elevation and slope	**Ecological site name and #, 1994 Ecological Status Percent, Condition Class compared with 1979 SVIM data**	**Dominant plants or *Key Species* in Italic Percent present by weight in 1994 (T=trace)**		
North Pasture				
715, near Salt Works Well, T 31 N, R 19 E, S 23, NW¼, NW¼, elevation 4,100 ft, 5% slope	Silty 6-8" (023XY14YNV) 51% late-seral (good); In 1979, mapped as fair condition.	*winterfat* (30%) *bud sage (15%)* spiny horsebrush (3%) *Indian ricegrass (T%)*	Grasses 0% Forbs 0% Shrubs 100%	Grasses 55% Forbs 5% Shrubs 40%
716, east of Smoke Creek Ranch, T 32 N, R 18 E, S 20, SE¼, SW¼; elevation 4550 ft, 11% slope	Loamy 8-10" (023XY006NV) 16%, early-seral (poor); In 1979, mapped as poor condition.	Wyoming sagebrush (6%) cheatgrass (50%) *bottlebrush squirreltail (5%)* tumble mustard (28%) *perennial forbs* (8%)	Grasses 20% Forbs 1% Shrubs 79%	Grasses 60% Forbs 5-% 35%Shrubs
717, Tule Canyon T 33 N, R 19 E, S 24, SW¼, NE ¼; elevation 5150 feet, 10% slope, west exposure.	Cobbly Claypan 8-12". (023XY060NV) 46% mid-seral (fair); In 1979, mapped as poor condition.	*Low sagebrush* (22%); *bottlebrush squirreltail* (2%); *Sandberg's bluegrass* (8%); *perennial forbs (10%); Thurber's needlegrass (4%)*	Grasses 31% Forbs 4 % Shrubs 55 %	Grasses 55% Forbs 10% Shrubs 35%
718, Parsnip Canyon, T 33 N, R 16 E, S 11, SE¼, NW ¼. Elevation 4950 feet, 15% slope.	Loamy 8-10" (023XY006NV) 43%, mid-seral (fair); In 1979, mapped as fair condition.	Wyoming sagebrush (73%); *bottlebrush squirreltail (4%); bluegrass (3%) perennial forbs (3%) Thurber's needlegrass* (8%)	Grasses 9% Forbs 42% Shrubs 47%	Grasses 60% Forbs 5% Shrubs 35%
719, Burn Spring T 33 N, R 18 E, S. 17, SW ¼, NE ¼.elevation 5750 feet, 5% slope, north exposure.	Loamy 10-12" (023XY020NV) 47%, mid-seral (fair); In 1979, mapped as fair condition. Site burned in 1985 wildfire.	Wyoming sagebrush (63%) *Nevada bluegrass (17%)* cheatgrass (5%)	Grasses 32% Forbs 4% Shrubs 63%	Grasses 60% Forbs 10% Shrubs 30%

North Pasture	Ecological Status	Key Species	Native plants Composition by Weight in 1994	Potential Natural Community
720, Rowland Mountain, T 35 N, R 18 E, S. 34, NW ¼, SW ¼. Elevation 6450 feet, 12% slope	Loamy 14-16" (023XY041NV); 58%, late-seral (good); In 1979, mapped as fair condition.	*bitterbrush (10%)* big sagebrush (38%) *Sandberg bluegrass (16%); great basin wildrye (13%)*	Grasses 33% Forbs 17% Shrubs 50%	Grasses 65% Forbs 15% Shrubs 20%
721, near the Norton Place, T 34 N, R 19 E, S.17, NE ¼, NW ¼. Elevation 5950 feet, 2% slope	Churning Clay 10-14" (023XY001NV); 37%, mid-seral (fair); In 1979, mapped as fair condition.	Annual brome grass (18%); Astragalus (18%); *bottlebrush squirreltail (20%); sunflower (21%)*	Grasses 20% Forbs 29% Shrubs 8%,	Grasses 30% Forbs 10% Shrubs 60%
722, near Buffalo Spring T 33 N, R 19 E, S. 3, SW ¼, NE ¼. Elevation 5050 feet, 8% slope.	Very Cobbly Claypan 10-12" (023XY044NV) 2% early-seral (poor); In 1979, mapped as poor condition.	*bottlebrush squirreltail (2%)*; tumble mustard (73%) Russian thistle (151%) Cheatgrass (9%)	Grasses 2% Forbs 0% Shrubs 0%	Grasses 40% Forbs 5% Shrubs 55%
723, Antelope Basin T 34 N, R 18 E, S. 35, NW ¼, SE ¼. Elevation 5500 feet,	Clayey 10 - 14" (023XY033NV) 53% late-seral (good); In 1979, mapped as poor condition.	*bottlebrush squirreltail (23%)*, big sagebrush (39%) sunflower (14%)	Grasses 28% Forbs 16% Shrubs 39 %	Grasses 50% Forbs 5% Shrubs 45%
753, Big Springs burn T 33 N, R 17 E, S. 9, NE ¼,NW ¼. Elevation 5760 feet, 8% slope	Stony Loam 12-16" (021XE004CA) 56% late-seral (good); In 1979 mapped as fair condition. static trend. Site burned in 1985 wildfire.	Rabbitbrush (15%) *great basin wildrye (10%)* cheatgrass (39%) *bottlebrush squirreltail (5%)* *bluebunch wheatgrass (11%)*	Grasses 27% Forbs 29 % Shrubs 15%	Grasses 60-75% Forbs 5-15% Shrubs 10-25%

South Pasture	Ecological Status	Key Species	Native plants % present by weight	Potential Natural Community
707, near Telephone Spring T 29 N, R 17 E, S.24, SE ¼, NW ¼. Elevation 5100 feet, slope 3%.	Clay Upland 9-16" (021XF006CA) 51% late-seral (good); In 1979 mapped in fair condition.	*Big sagebrush* (20%) horsebrush (7%) *buckwheat (10%) bottlebrush squirreltail (11%); balsam root (19%) Thurbers needlegrass (4%)*	Grasses 21% Forbs 39% Shrubs 30%	Grasses 65-75% Forbs 10-20% Shrubs 10-20%
708, near Parker Canyon, T28N, R18E, S.3, SW ¼, SE ¼. Elevation 5000 feet, 6% slope.	Loamy 8-10", (023XY006NV) 59% late-seral (good); In 1979 mapped in poor condition.	Big sagebrush (39%) *bluebunch wheatgrass (9%) Thurber's needlegrass (10%)*; cheatgrass (18%) *bottlebrush squirreltail* (13%	Grasses 44% Forbs 23% Shrubs 30%	Grasses 60% Forbs 5% Shrubs 35%
709, Wild Horse Reservoir, T.30N., R.17 E., S.23, SW ¼, SW ¼.; elevation 5100 feet, slope 14% northwest	Stony Loam 9-12" (023XF004CA) 35%, mid-seral (fair); In 1979 mapped as poor condition.	*low sagebrush (58%) bluebunch wheatgrass (9%) Thurber's needlegrass (2%); Sandberg bluegrass (13%) bottlebrush squirreltail (3%) perennial forbs (6%)*	Grasses 47% Forbs 17% Shrubs 34%	Grasses 60% Forbs 10% Shrubs 30%
710, East Fork Skedaddle Creek T.30N., R.18 E., S.16, NE ¼, SE ¼.; Elevation 5450 feet, slope 6% - west	Very Cobbly Claypan 9-12" (023XY044NV); 55%, late-seral (good); In 1979, mapped as fair condition.	*Low sagebrush (31%); Bottlebrush squirreltail (5%); Sandberg's bluegrass (14%); perennial forbs (3%);*	Grasses 31% Forbs 4 % Shrubs 55 %	Grasses 40% Forbs 5% Shrubs 55%
711, near Antelope Spring, T.30N., R.17 E., S.19, NW ¼, NW ¼. Elevation 4800 feet, slope 8%	Stoney Loam 9 - 12" (023XF004 CA). 21% early-seral (poor); In 1979 mapped as poor condition.	*Big sagebrush (44%); Bottlebrush squirreltail* (31%); cheatgrass (23%); perennial forbs (1%);	Grasses 31% Forbs 1 % Shrubs 44 %	Grasses 60% Forbs 10% Shrubs 30%
712, near Willow Reservoir, T.29N., R.18 E., S.2, NW ¼, NW ¼. Elevation 5600 feet, slope 18%	Cobbly Claypan 8-12" (023XY060NV) 58% late-seral (good); In 1979 mapped as fair condition.	*Low sagebrush (14%) bluebunch wheatgrass (25%) squirreltail (3%); Sandberg's bluegrass (10%) bluegrass (5%)* Cheatgrass (36%)	Grasses 34% Forbs 8 % Shrubs 19 %	Grasses 40% Forbs 5% Shrubs 55%

South Pasture	Ecological Status	Key Species	Native plants % present by weight	Potential Natural Community
713, near Lower Smoke Creek Well, T.30N., R.19 E., S.17, SE ¼, SE ¼. Elevation 4800 feet, slope 4%	Sandy 8-12" (023XY051NV) 38% early-seral* (poor); In 1979 mapped as poor condition.	Big sagebrush (53%) *bottlebrush squirreltail (3%)*; *Indian ricegrass (4%)* *Thurber needlegrass (4%)* Cheatgrass (18%)	Grasses 8% Forbs 11 % Shrubs 62 %	Grasses 65-80% Forbs 10-20% Shrubs 10-20%
714, Rush Creek Reservoir, T.31N., R.17 E., S.34, NW ¼, NW ¼. Elevation 4800 feet, 2% slope	Stony Loam 9-12" (023XF004CA) 29% early-seral* (poor); In 1979 mapped in poor condition.	Wyoming sagebrush (42%); *Sandberg bluegrass (17%)* Nevada bluegrass (1%) *bottlebrush squirreltail (19%); cheatgrass (11%)*	Grasses 19% Forbs 9% Shrubs 55%	Grasses 65-80% Forbs 10-20% Shrubs 10-20%
729, Dry Valley # 1, T.29N., R.19 E., S.20, SW ¼, SW ¼. Elevation 4200 feet, 14% slope	Loamy 4- 6" (027XY13NV) 51% late -seral (good); In 1979 mapped in fair condition.	*Bud sagebrush (25%)*; *shadscale (14%)* *Nevada bluegrass (1%)* *bottlebrush squirreltail (7%)*; cheatgrass (38%)	Grasses 7% Forbs 9% Shrubs 25%	Grasses 35% Forbs 5% Shrubs 60%
730, Dry Valley # 2, T.29N., R.19 E., S.9, SE ¼, SW ¼. Elevation 4200, slope 10%	Silty 6-8" (027XY14YNV) 47% mid -seral (fair); In 1979 mapped in fair condition.	*Bud sagebrush (9%); winterfat (32%)* *buck wheat (1%)* *bottlebrush squirreltail (20%)*; cheatgrass (13%)	Grasses 20% Forbs 1% Shrubs 40%	Grasses 55% Forbs 5% Shrubs 40%

*Sites lowered one condition class due to low production, as accordance with section 305.5 (a) of the National Range Handbook.

Appendix 2, Twin Peaks Allotment Riparian Functional Assessment (RFA) Summary of Sites Functioning-at-Risk with Static or Downward Trend.

pMUDAppendix2RiparianFR.wpdSeptember 11, 2000

During 1995 and 1996, 129 riparian/wetland sites were assessed for properly functioning condition on the Twin Peaks allotment. From this survey the 35 riparian sites summarized below were determined to be functioning-at-risk (FR) with a static or downward trend[1]. Factors contributing to FR rating are included in this summary, as well management strategies to improve the condition at the riparian site. Since the assessment was completed, 9 riparian/wetland sites have been fenced, or drift fences have been constructed for livestock management purposes.

Riparian number and Name **Planning Compartment (subunit), Pasture**	**Functioning Condition Rating Trend; size or length**	**Factors Contributing to Rating**	**Comments**	**Management Strategy[2] and Comments**
0002. Parker Lake Salt Marsh PC (winter range sub-unit) North Pasture	FR-down 3.5 acres	season long cattle grazing	Overuse on riparian vegetation on reservoir shore line	Rest during the growing season, graze during the dormant (winter) season.
0013, Burro Spring Lower Smoke Creek, North Pasture	FR- static .2 acres	grazing impacts by cattle and burros	Riparian area declining, and vegetation vigor is poor	Spring located in lower Smoke Creek subunit, management addressed in AMP addendum (II. C. 3.) rest yearlong after April livestock use.
0014, unnamed spring (below Burro Spring) Lower Smoke Creek, North Pasture	FR- static .3 acres	grazing impacts by cattle, wild horses, burros.	Vegetation composition and diversity not adequate to protect during peak flows, riparian area size declining because of grazing impacts.	Management same as Burro Spring (0013).
0015 unnamed seep (south side of Twin Peaks) Chimney PC (Winter Range) North Pasture	FR- static .1 acres	grazing impacts by cattle, wild horses, burros	Grazing impacts causing riparian area to decline in size; and vegetation cover not adequate to protect site. Flow patterns altered by trampling.	Management livestock as per Twin Peaks Project EA DR: hot season rest every year and spring grazing every other year.

[1] The Rangeland Health Riparian Standard minimum condition rating is *properly functioning condition*, riparian/wetland areas functioning at risk with an static or downward require management changes. Bold indicates primary factor contributing to rating.

[2] Management strategy for wild horses and burros is to maintain populations within AML ranges.

0016, Lost Springs Chimney PC (Winter Range) North Pasture	FR- down 6 acres	grazing impacts by cattle, wild horses	Riparian area declining, and vegetation cover not adequate. Flow patterns altered by trampling.	Riparian site fenced after assessment, vegetation is recovering and trend is up.
0018, South Twin Springs Chimney PC (Winter Range) North Pasture	FR-down .5 acres	grazing impacts by cattle, wild horses and burros	riparian area declining, and vegetation cover not adequate to protect soils during high flows (site eroding) because of grazing impacts	Riparian site fenced after assessment, vegetation is recovering and trend is upward.
0025, Sheep Trail # 2 Dry Valley Rim, South Pasture	FR- down .3 acres	grazing impacts by cattle, sheep, wild horses	Vegetation cover not adequate to protect soils during high flows (site eroding)	Riparian site fenced after assessment, trend is upward
0040, unnamed spring (near Red Rock Spring) Dry Valley Rim, South Pasture	FR- down .02 acres	grazing impacts by cattle, wild horses	Site lacks vegetation composition, and excessive trampling causing headcut.	Riparian area rested from cattle use from 1997 to 1999, however during this period this riparian site impacted by excessive horse use.
0042, Red Rock Spring # 2. Dry Valley Rim, South Pasture	FR- Down .45 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition to withstand high flows, causing down cutting and erosion.	Vegetation improve at site, trend up since assessment, cattle use would be addressed in annual operating plan.
0044, Red Rock Spring # 1 Dry Valley Rim, South Pasture	FR- static .25 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition and diversity, surface flow altered by trampling.	Use adjacent to trough and outside exclosure, cattle use would be addressed in annual operating plan.
0045, unnamed spring near East Fork Smoke Creek Chimney PC (Winter Range) North Pasture	FR-down 1.04 acres	grazing impacts by cattle, and wild horses	Site lacks vegetation diversity, riparian size decreasing and flow altered by trampling.	Management livestock as per Twin Peaks Project EA DR. (hot season rest every year and spring grazing every other year.)

0046, West Fork Rush Creek Five Springs PC (Bull Flat), South Pasture	FR-static 2.4 miles	grazing impacts by cattle and wild horses; trail jeep thru riparian area	Insufficient vegetation composition to withstand high flows, and site not vertically stable, resulting in several headcuts.	Jeep trail scheduled for closure. Defer cattle use during every spring, graze during late summer and fall.
0074, East Fork Smoke Creek Springs Chimney PC (Winter Range) North Pasture	FR-down .4 miles (1.8 acres)	grazing impacts by cattle and wild horses	Site lacks vegetation diversity, and riparian area decreasing in size. Flow patterns altered by trampling	Management livestock by per Twin Peaks Project EA DR. hot season rest every year and spring grazing every other year
0077, unnamed spring in Spencer Basin Skedaddle, South Pasture	FR-static .04 acres	grazing impacts by wild horses	Spring flow patterns altered by trampling, site eroding and riparian area decreasing in size.	Determine AML, and maintain population within ranges. Site continues to impacted by wild horses since assessment.
0087, Public land portion of Willow Springs Dry Valley Rim, South Pasture	FR-static .11 miles	grazing impacts by cattle and wild horses	Site lacks vegetation composition to withstand high flows, and flow patterns altered by trampling.	hot season rest every year and spring grazing and winter grazing every other year.
0091, unnamed spring south end of Buffalo Hills Buffalo PC (Buffalo Hills) North Pasture	FR-down .26 miles	grazing impacts by wild horses	Vegetation cover not adequate to protect site during high flows, site altered by trampling.	Determine AML, maintain population within ranges.
0092, unnamed spring near Crooked Creek Buffalo PC (Buffalo Hills) North Pasture	FR-static 1. Acres	grazing impacts by wild horses	Vegetation cover not adequate to protect site during high flows.	Determine AML, maintain population within ranges
0104, unnamed spring above Buffalo Spring Buffalo PC (Stony Clay Basin) North Pasture	FR-down .02 acres	grazing impacts by cattle and wild horses	Site lacks vegetation composition to protect spring during high flows (active downcutting) and spring altered by trampling.	Defer cattle use during the growing season.

0122, unnamed spring on Skedaddle Mountains- 1 mile SE of Rag House spr Skedaddle PC , South Pasture	FR-static 1.08 acres	grazing impacts by cattle, sheep and wild horses	Riparian area decreasing in size and eroding, and flow patterns altered by excessive trampling.	Defer cattle use during the growing season. Grazing use would be determined annually, addressed in annual operating plan.
0123, unnamed spring on Skedaddle Mountains Skedaddle PC, South Pasture	FR-static .5 miles	grazing impacts by cattle and wild horses	Vegetation composition not adequate to protect site during runoff events and vegetation vigor is poor.	Defer cattle use every other year. Grazing use would be determined annually, addressed in annual operating plan.
0124, unnamed spring on Skedaddle Mountains Skedaddle PC, South Pasture	FR-static .12 acres	grazing impacts by cattle and wild horses	Riparian area lacks vegetation composition to protect site during runoff events, spring de-watered by excessive trampling.	Defer cattle use every other year. Grazing use would be determined annually, and would be stated in annual operating plan.
0135, unnamed seep (near Willow Spring) Dry Valley Rim, South Pasture	FR-static .07 acres	jeep trail thru spring, over-grazing by cattle & wild horses	Vegetation composition not diverse and dominated by annuals species: will not protect site during high runoff events, excessive trampling has caused erosion.	Defer cattle use every other year, re-route road. Actual use would be determined annually, addressed in annual operating plan. Rested from cattle use in 1995, 1997 and 1999.
0137, unnamed spring near Jenkins Troughs Dry Valley Rim PC, South Pasture	FR-down .11 acres	grazing impacts by wild horses	Riparian vegetation dominated by non-native annuals/other exotics plants; trampling has altered flow patterns and riparian area decreasing in size.	Determine AML, and maintain wild horse population within ranges. Site continues to be impacted by wild horses since assessment.
0142, Crooked Spring Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .01 acres	grazing impacts by cattle and wild horses	Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotic species	Defer cattle use every other year. Actual use would be determined annually, addressed in annual operating plan.
0144, Twin Springs (public land portion) Buffalo Hills PC (Buffalo Hills) North Pasture	FR-static 1.18 acres	grazing impacts by cattle and wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotics species.	Provide rest every other year, increase monitoring and compliance (unauthorized use from adjacent allotment). Gather excess wild horses.

0146, Stockade Canyon Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .12 acres	grazing impacts by wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, site dominated by annuals and exotics species.	Gather wild horses populations above AML range. Re-assess condition following gather..
0148, Stockade Canyon Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .02 acres	grazing impacts by wild horses	site lacks vegetation to withstand high flows events, trampling has altered surface and sub-surface flow events, losing riparian area.	Gather wild horses population above AML range. Re-assess condition following gather.
0150, unnamed seep, NE of the Norton Place Stone Corral PC, North Pasture	FR-static .02 acres	grazing impacts by cattle and wild horses	lacks vegetation components; excessive trampling has resulted in partial loss of riparian area.	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2., rest every other year.
0151, unnamed spring near the Norton Place Stone Corral PC, North Pasture	FR-static .03 acres	grazing impacts by cattle and wild horses	lacks vegetation components; excessive trampling has resulted in partial loss of riparian area, headcutting and channeling	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2., rest every other year
0154, unnamed spring near Horse Spring Stone Corral PC, North Pasture	FR-down .1 acres	grazing impacts by cattle and wild horses	Trampling has altered flow patterns and resulted in partial loss of the riparian area. Site dominated by annuals	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2., rest every other year. Rest every other year
0155unnamed spring complex near the Norton Place Stone Corral PC, North Pasture	FR-static 2.32 acres	grazing impacts by cattle and wild horses	Upper segment is trampled resulted in partial loss of riparian area, and minor headcut (lower segment is functioning).	Riparian spring area addressed in AMP addendum - management refinements, part II.C.2., rest every other year.
0172, South Fork Parsnip Wash (upper reach) Buffalo PC, North Pasture	FR-static .27 miles	**jeep trail thru site**; cattle and wild horses grazing impacts	road crosses stream many times: affecting sinuosity and riparian width. Vegetation composition not capable of withstanding high flow events.	Drift fence constructed in 1996 (after assessment) to improve cattle management. Re-route jeep trail.

0174/175, Main Fork Buffalo Creek (below Buffalo Meadows Ranch)	FR, upward, see comments	grazing impacts by cattle, wild horses and burros	Stream not in balance with sediment and water supplied by watershed. Sinuosity not in balance with watershed, and upland watershed contributing to degradation. Vegetation amount and type not adequate to protect banks during high flows events.	Defer cattle use after June 1, each year. In 1996 creek was assessed as non-functional. In 1999,re-assessed determined creek had improved and is now functioning at risk with an upward trend.
Buffalo PC, North Pasture	6.65 miles			
0177, Buffalo Creek (at the confluence of Buffalo and Parsnip creeks)	FR-static	grazing impacts by cattle	Stream not in balance with sediment and water supplied by watershed, resulting in excessive erosion. Riparian zone is not vertically stable. Vegetation components not present in sufficient amounts types, age structure, and composition to protect stream banks during high flows events.	This reach was fenced in 1995 to improve cattle management. Rest from cattle use for 2 years, then rest during the hot season.
Buffalo PC, North Pasture	1.09 miles			

United States Department of the Interior
The Bureau of Land Management
Eagle Lake Field Office

October 24, 2000

TWIN PEAKS ALLOTMENT
2000 MONITORING EVALUATION REPORT
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TWIN PEAKS ALLOTMENT
2000 MONITORING EVALUATION REPORT

1. Introduction and Background Planning Information

The purpose of this evaluation is to decide if the existing grazing management of livestock, wildlife and wild horses and burros are meeting, or if satisfactory progress is being made toward meeting land use plan objectives, and rangeland health standards. This evaluation will also review the allotment carrying capacity for livestock, wild horses and burros. Where Land Use Plan objectives or Rangeland Health standards are not being met, subsequent management actions will be started through a multiple-use decision.

Management levels, goals and objectives for livestock, wildlife, wild horse and burro grazing were established in August 1982 by the Record of Decision (ROD) for the Cal-Neva Management Framework Plan (MFP). The ROD and a subsequent management decision issued in June 1983, established the Twin Peaks Allotment and provided guidance for the Allotment Management Plan (AMP) which was issued in March 1985. In 1992, an addendum to the AMP modified livestock grazing practices on certain riparian and wildlife habitats. The Twin Peaks Allotment is the highest priority for the Cal-Neva area and the ROD selective management category is Improve (I).

The monitoring process for the Cal-Neva area was initiated by the ROD and the 1983 Livestock Management Decision stated in pertinent part:

> "When an AMP is implemented BLM will commence monitoring studies which will include actual use, utilization, precipitation and range trend. The studies will provide data for evaluating progress toward meeting objectives for the allotment and determining modification of grazing use. Such as, amount of use, the season of use, areas of use . . . Of specific concern will be livestock trampling of saturated soils. If monitoring studies justify changing livestock use, your [permittee] authorized use will be modified by subsequent decision . . . "

On August 21, 1995, the Secretary of the Interior issued a final rule for grazing administration that codified fundamentals of rangeland health. In July 2000 the Secretary approved regional standards and guidelines for Northeastern California and Northwestern Nevada. Permitted livestock management is required to conform with, or make significant progress toward meeting regional standards for rangeland health and guidelines for livestock grazing. In 1997, an initial determination was made for standard attainment. All allotments were screened, and classified into categories based on existing monitoring information and professional judgement. The Twin Peaks Allotment was placed into rangeland health standard categories one and four, which means livestock grazing and other factors may be contributing to not meeting all the standards.

1.1 Allotment Evaluation Status

This evaluation will review riparian functional assessments and upland health assessments

information collected since 1995, and traditional monitoring information such as rangeland utilization, precipitation, actual use data and trend/frequency data collected since 1983. An overview of the evaluation process, the multiple use decision process, and a glossary are contained in Appendix 1. The following reference documents contain additional information related to the management of the allotment. These documents are available at the Eagle Lake Field Office.

1.1.1 Reference Documents

Cal-Neva Management Framework Plan, March 3, 1982 (MFP)

Cal-Neva Planning Unit Land Use Plan Summary, Rangeland Program Summary, and Grazing Environmental Impact Statement Record of Decision, July 9, 1982.

Cal-Neva Livestock Management Grazing Decision, June 24, 1983.

Twin Peaks Allotment Management Plan, April 17, 1985 (AMP).

Twin Peaks Herd Management Area Plan, June 30, 1989 (HMAP).

Environmental Assessment CA-026-92-07: Concerning Grazing in the Twin Peaks Allotment, Decision Record, March 6, 1992.

Twin Peaks Allotment Grazing Decision, March 6, 1992 (AMP Addendum).

Removal and Initial Structuring of the Twin Peaks North Home Range of the HMAP, decision, and gather plans, concerning FY 1993, Environmental Assessment CA-026-93-09.

1992-1993 Twin Peaks Allotment Evaluation Summary.

1996 Twin Peaks Allotment Projects Environmental Assessment CA-026-95-07.

Standards for Rangeland Health and Guidelines for Livestock Grazing Management on BLM Administered Lands in Northeastern California and Northwestern Nevada, Final EIS, April 1998; and ROD, December 1998.

Report to the Fish and Game Commission, An Assessment of Mule and Black-tailed Habitats and Populations in California, Collaborative Effort and Document preparation, February 1998.

1.2 Allotment Profile

The Twin Peaks Allotment (allotment) is in eastern Lassen County and west-central Washoe County, and encompasses 379,628 acres of public land, 24,388 acres of private land and 280 acres of state land. The allotment boundaries are generally the Surprise Field Office division fence and Tuledad allotment to the north, and the west boundaries are the Deep Cut and Observation allotments. Honey Lake Valley, and Smoke Creek Desert are the south and southeast boundaries. The east boundary is the Winnemucca Division fence and the Buffalo Hills allotment.

Elevation varies from 7,600 ft. in the Skedaddle Mountains in the southern end of the allotment, to 7,200 ft at Rowland Mountain in the northern end of the allotment. Elevation in most of the

allotment is between 4,500 ft. and 6,000 ft. Approximately 15% of the allotment is below 4380 ft., which was maximum shoreline elevation of Pleistocene (pluvial) Lake Lahontan about 18,000 years ago. This area includes Honey Lake Valley and Smoke Creek Deserts. Landforms and soils developed by this lake include terraces, gravel bars and desert playas. Vegetation on these areas is generally described as salt desert shrub. The soils in the remainder of the allotment were primarily influenced by volcanic activities that produced basalt, abdesites, and rhyolitic ash-flows tufts. The topography consists of many drainages with steep side slopes and narrow ridges combined with rock outcrops, talus flows and volcanic rims make the terrain extremely rough in much of the allotment. In the northwest portion of the allotment topography consists of undulating plateaus and small basins.

1.3 Allotment Acreage by Pasture and State (based on GIS data, includes private land).

Pasture	Acres	Allotment %	California Acres	Nevada Acres
North Pasture	223,067	54.56%	36,909 (9.03%)	186,158 (45.53%)
South Pasture	185,827	45.44%	92,462 (22.61%)	93,365 (22.83%)

Total allotment acreage is 408,894 acres.

1.4. Riparian/Wetland Habitat

Riparian habitats are common in the allotment. During 1995 and 1996, 128 riparian/wetlands sites were inventoried, representing approximately 53 miles of streams, and 70 springs or seeps. Smoke Creek and Buffalo Creek and their tributaries are the allotment's primary perennial creeks. Many creeks have perennial reaches that can become intermittent or ephemeral. Most of the creeks are generated from springs and are greatly influenced by weather cycles.

The 1983 Upper Smoke Creek Aquatic Habitat Management Plan applies to the public land portion of Smoke Creek upstream from the private lands of Smoke Creek Ranch. The primary goal of this plan is to protect and enhance seven miles of stream and riparian habitat critical for wildlife. This goal would be accomplished by constructing several fences, in combination with natural barriers to exclude livestock and wild horses from the creek. This corridor fencing was completed in 1997.

1.5 Wilderness Study Areas (WSA)

The Federal Land Policy and Management Act of 1976 (FLPMA), Section 603 (2) directed the BLM to review areas of public lands determined to have wilderness characteristics and to report their suitability for preservation as wilderness to the President. The law directed the Bureau to use the Wilderness suitability criteria given by Congress in the Wilderness Act of 1964. To accomplish this mandate, BLM adopted the Wilderness Review Program consisting of three phases: inventory, study and reporting. The study included consideration of all values, resources, and uses to decide land suitability for wilderness designation. The Secretary of the Interior reported his recommendation to the President in January 1992 regarding the suitability of Wilderness Study Area (WSA) for wilderness designation. The U.S. Congress has taken no

action to decide when, and which WSA or portions thereof will be designated as wilderness. According to the provisions of FLPMA, WSA is managed by Interim Management Policy - Guidelines for Lands Under Wilderness Review and other applicable laws and policies until released from interim wilderness management or designated as wilderness by Congress. The interim policy states that livestock grazing may continue at existing levels. However, any changes in grazing use must not cause a decline in range condition or cause degraded conditions to an extent that would affect a WSA eligibility for wilderness designation. New projects such as water developments, fences, or other structural improvements within WSA boundaries must enhance wilderness values. Wilderness designation could constrain future project development and the maintenance of existing range facilities. The Final Intensive Inventory (December 1979) for the Cal-Neva planning area identified six WSAs in the area that later became the Twin Peaks Allotment. The allotment WSA's are summarized in Table 1.5.

Table 1.5 Allotment WSA Acreage

WSA Name	Acres	Percentage of WSA in Twin Peaks Allotment
Five Springs	49,206	36% (17,904 acres)
Skedaddle	62,010	70% (43,693 acres)
Dry Valley Rim	94,308	100%
Buffalo Hills	37,823	82% (31,015 acres)
Poodle Mountain	142,050	18% (26,182 acres) administrated by the Winnemucca field office
Twin Peaks	90,791	100%
		303,893 acres of WSA in the allotment

1.6 Special Status Plants

Three Special Status plants occur within the allotment. These plants require management consideration under BLM policy. This means that any proposed activity in the allotment should not contribute to listing these plants as threatened or endangered. There presently are no known impacts from livestock to the special interest plants that occur within the allotment under the existing grazing practices. No known threatened or endangered plant or animal species occur within the Twin Peaks Allotment. The Special Status Plants within the allotment are listed in table 1.6:

Table 1.6 Special Status Plants and Special Interest Plants

Plant Name (Special Status Plants)	Plant Location
Silverleaf milkvetch *(Astragalus argophyllus var. argophyllus)*	near Rush Creek
Suksdorf's milkvetch *(Astragalus pulsiferae var. suksdorfii)*	near Three Springs
Holmgrem's skullcap *(Scutellaria holmgreniorum)*	east of Shinn Ranch

Several special interest plants occur within the allotment. These plants are of concern only in the California portion of the allotment. Although BLM policy does not require specific management consideration for these plants, their presence is acknowledged and managed where possible. Special interest plants have the potential to become listed as BLM Sensitive Plants. If they become listed as BLM Sensitive, management considerations would then be required. At this time, grazing by livestock, wild horses and burros is not affecting the special interest plants.

The following special interest plants are known to occur within this allotment:

Great Basin onion - *Allium atrorubens* var. *atrorubens*
Pine Creek evening-primrose - *Camissonia boothii* ssp. *alyssoides*
Great Basin downingia - *Downingia laeta*
Bailey's ivesia - *Ivesia baileyi* var. *baileyi*
Raven's lomatium - *Lomatium ravenii*
Spiny milkwort - *Polygala subspinosa*
Entire-leaved thelypody - *Thelypodium integrifolium* ssp. *campanulatum*

1.7 Noxious and Invasive Weeds.

Noxious weed introduction and proliferation are growing concerns in the region. Noxious weeds are nonnative invasive plants that have a variety of negative impacts on the environment. The weeds can reduce native plant diversity and production, and under the right circumstances can dominate habitats varying upland from rangelands to wetland meadows. Most weeds on the allotment are often on roadside areas, and are apparently being spread by vehicles or by weed infested hay. Several noxious weeds require active control treatments to slow potential expansion. Perennial pepperweed (tall whitetop) and yellow star thistle are widespread in Honey Lake Valley, and probably have the greatest potential for future expansion and impacts. Currently these weeds are isolated to sites of less than 1/4 acre on the allotment. Control treatments and mapping of newly infested sites is on going. An integrated weed management plan was written by more than two dozen agencies to address the control and eradication of weeds in Northeastern California. Control treatments are being actively applied to the noxious weeds listed in Table 1.7.

Table 1.7, Treated Weeds on the Allotment.

Weed Name	Weed Locations
Bull thistle	various spring sites throughout allotment
Scotch thistle	near Horne Springs
Yellow Starthistle	Horne Springs, and Rush Canyon Spring
Perennial Pepperweed (Tall Whitetop)	Bull Flat
Russian Knapweed	Antelope/Jenkins Springs, and Bull Flat

Medusahead rye (*Taeniatherum asperum*) is an exotic annual grass invasive on clay textured

soils and on shrink-swell soils. Rangelands dominated by Medusahead and other annual grasses will likely increase the natural wildfire frequency. Following burning these weeds can out compete native plant species and can dominate the site. Medusahead is palatable for livestock when it first emerges but it quickly develops fine spines and becomes unpalatable. This exotic annual grass reduces the carrying capacity of rangelands by 40 to 90 percent. Early spring grazing (when the soils are wet) on high shrink-swell soils may damage soil structure, and can contribute to weed expansion. Currently, several research efforts are underway to find rehabilitation methods for rangelands degraded by Medusahead, and other nonnative annual grasses.

2. ACTIVITY PLANS AND STOCKING LEVELS

2.1 Wild Horse and Burro Management.

The 1989 Twin Peaks Herd Management Area Plan (HMAP) guides the management of wild horses and burros within the Cal-Neva EIS area. The Twin Peaks Allotment comprises approximately 60% of the HMAP. In 1988, the Buffalo Hills Technical Review Team recommended the HMAP be divided and managed as five individual sub herds or home ranges, because there is limited exchange of horses between herds as the result of topographic barriers and fences. The Twin Peaks Allotment encompasses all of the Twin Peaks North home range, most of the Dry Valley Rim and the Skedaddle home ranges.

Wild horses and burros generally occupy the same areas throughout the year. Wild horses often inhabit higher elevations and their greatest concentrations are in remote areas. Wild horse migration patterns are generally based on forage conditions and snow cover. Burros often use lower elevation year-long. Refer to map 1 (attached) for wild horse HMAP boundaries.

The Dry Valley Rim and Skedaddle home range's Appropriate Management Level (AML) was established in the LUP pursuant to the forage allocation described on page 23 of the Initial Rangeland Program Summary. The Dry Valley Rim and Skedaddle home ranges were last gathered in 1991. The Twin Peaks North home range was last gathered in 1995. The Twin Peaks North home range AML was redetermined in 1992 by a monitoring analysis. The combined wild horse and burro AML for all three home ranges within the Twin Peaks Allotment are 428 animals or 5,136 AUMs. Current population levels and home range AML's are contained in Table 2.1

The primary HMAP objective is to manage wild horses and burros as a viable population of healthy animals. This is accomplished primarily by determining AML by the monitoring process, and by gathering wild horses and burros from time to time to maintain the population within the AML ranges. Current removal policy, known as selective removal, returns wild horses older than five years back to the home range following the gather. Wild horses five years old or less is placed in the adoption program. Selective removal policy is intended to reduce the length of time the horses spend in BLM holding facilities, because younger horses are more desirable by adopters.

2.2 Wildlife Use

2.2.1 Native Species

Habitat management for wildlife use is guided by the Rangeland Health Standard for native species (43CFR § 4810.1). Criteria that show success in meeting this standard were established by the Northeast Resource Advisory Council under the Biodiversity standard. A listing of wildlife species is found in Environmental Assessment CA-026-92-07: Concerning Grazing in the Twin Peaks Allotment and Decision (BLM, 1992).

2.2.2 Flagship Species

Mule Deer

The Interagency Report on Mule Deer in California stated mule deer populations in northeastern California steadily declined since the late 1970s. The population appears to have bottomed out during the winter of 1992-1993. Since then, mule deer numbers have increased slightly(Appendix 3). This decline was most dramatic in California. Nevada reported similar declines but recovery may be more rapid than in northeastern California.

Pronghorn Antelope

Pronghorn populations appear to mimic mule deer, and some recovery (Appendix 3) has occurred in both California and northwestern Nevada. It has been reported that pronghorn populations in northeastern California remain lower than expected (Frank Hall, CDFG personal communication).

Sage Grouse

The BLM and State wildlife agencies have identified 36 sage grouse leks in the allotment. There are 24 active leks in the south pasture and 6 active leks in the north pasture. The Skedaddle Mountains are considered to have outstanding populations of sage grouse. Generally sage grouse numbers are up in recent years (Skedaddle Springs Wildlife area, Conceptual Area Acquisition Plan CDFG). Estimates of sage grouse population were not available for this evaluation. There is building concern for the loss of sage grouse habitats, particularly the loss of large big sagebrush/perennial grass habitats. Preliminary rangeland health information suggests that potential big sagebrush/perennial grass habitats have been converted to annual grasses.

Mountain Sheep

The CDFG, John Espil Sheep Company, Inc., and the BLM have been discussing the potential for reintroduction of mountain sheep into the Skedaddle Mountains. The potential expansion of a reintroduced population of mountain sheep extends from the Skedaddle Mountains north to Shinn Mountain, west to highway 395, and east to the western edge of the Smoke Creek Desert. A Draft Release Plan is being prepared to establish objectives, before reintroduction. This Plan will be reviewed by all parties involved.

Table 2.1, Wild Horse and Burro Appropriate Management Level (AML) and Population Information

Management Unit	Appropriate Management Levels (numbers)		Population and Census Information (numbers)					
HOME RANGE/ PASTURE	Horses Management Levels	Burros Management Levels	Horses (mules)	Burros	Horses (mules)	Burros	Horses (mules)	Burros
			1999 Population Census* Adults & Foals > 6 months		August 1997 Census Adults/Foals		Prior Census Information	
Twin Peaks North/North Pasture	82-169	22-42	608 (+8 mules)	80	370/97=467	12/6= 18	132 Jan 1995	20
Skedaddle/ South Pasture	75-108	10-15	350 (+2)	10	182/24=206 (9)	8/1=9	156 (13) Oct.1994	11
Dry Valley Rim/South Pasture	50-72	15-22	304 (+26)	35**	205/37=242 (3)	10	98 (5) Oct.1994	37
Totals	207-349	47-79	1262 (+36)	125	757/158 = 915	30/7 = 37	404	68

* Population estimates are based on a December 15, 1999-helicopter census.

** During October 1999, 47 burros were gathered from the Dry wildfire area to allow for vegetation recovery.

2.3 Livestock Management

2.3.1 Livestock Forage Amounts

Permitted livestock use is 13,063 Animal Unit Months (AUMs). Current terms and conditions for permitted livestock grazing are as follows:

John Espil Sheep Company Incorporated:

Number	Kind	Period of Use	% PL [1]	Active AUMs
971	Cattle	03/01 to 12/31 [2]	100	9,769
4000	Sheep	04/01 to 05/30	100	1,578
2000	Sheep	06/01 to 06/30	100	395
2000	Sheep	09/16 to 09/30	100	197
4000	Sheep	10/01 to 10/25	100	658

Laver Ranches:

Number	Kind	Period of Use	% PL	Active AUMs
102	Cattle	04/16 to 10/31	100	667

2.4 Grazing Management Background.

The 1964 range forage survey established livestock carrying capacity, and season of use for livestock was based primarily on elevation. The Cal-Neva permittees grazed livestock in common on either the summer or winter allotments. However, internal fencing was not adequate to manage livestock. This contributed to unacceptable conditions on various areas of the allotment. Unauthorized grazing use was also identified as an ongoing problem. In 1979, the Soil Vegetation Inventory Method (SVIM) identified most of the rangeland in the Cal-Neva area as either in poor or fair condition, because of low perennial grasses composition. Based on this information, the primary goal of the Cal-Neva ROD was to improve range condition by enhancing the vigor and production of perennial grasses. This required greater control and management of livestock, and resulted in the division of the Cal-Neva Common Summer and Winter allotments into Twin Peaks, Observation, Winter Range and Deep Cut allotments. Allotment management plans were written to identify grazing systems and implement new range improvement projects. The Twin Peaks Allotment Management Plan (AMP) was issued in 1985. The plan was started in 1986, when allotment boundary fences and water developments were mostly completed.

In 1987, it became apparent following several severe winters that winter range habitat for mule

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[1] PL means the allotment is permitted as 100% public land. There is no exchange of use agreement for unfenced and intermingled private lands.

[2] In 1995, by agreement the period of use has changed to 04/01 to 01/31

deer was insufficient to sustain the population. The Buffalo Hills Technical Review Team (TRT) was formed to review the AMP grazing practices and resource conditions on the allotment. Interested parties believed a revision in the AMP grazing practices could improve wildlife habitats and lessen the chance of future catastrophic die-offs of mule deer. Several recommendations were agreed upon by the TRT concerning wilderness study area consideration, range improvements, wild horse and burro management. In 1989, a follow-up group consisting of permittees, state agencies and members of the public formed the AMP review committee. The primary focus was vegetation potential on winter ranges. The "Seven Step Objective Setting Process" was used to establish resource objectives and key plant species were identified on a sub unit basis. The subunit boundaries were delineated based on soils types, vegetation inventory data, and field trips. A summary of long term objectives developed by the committee was included in the 1992 Decision Record for the Environmental Assessment Concerning Grazing on the Twin Peaks Allotment. The subunit names are listed below and identified on Map 2.

North Pasture Subunits: Rowland Mountain, Stony Clay Basin, Buffalo Creek*, Buffalo Hills, Painter, Painters Flat, Black Mountain and Big Springs Burn, Mixie Flat, ~~Critical~~ *crucial* Deer Winter Range.

South Pasture Subunits: Bull Flat**, Skedaddle Mountains**, Lower Smoke Creek, Dry Valley Rim, and Dry Valley Winter Range.

* This subunit contains the Parsnip Management Area.

**This subunit contains portions of the Bull Flat/Skedaddle Management Area.

In March 1992, an addendum to the AMP modified livestock grazing practices on certain upland browse communities, aspen communities, on the three highest priority riparian streams (Lower Smoke Creek, South Fork of Parsnip Creek and North Fork of Buffalo Creek), and on sage grouse leks. An interdisciplinary monitoring action plan was also written to document the schedule and monitoring techniques for the allotment.

In 1992 and 1994, monitoring reports showed that the utilization objective was being exceeded on most riparian areas by a combination of livestock, and wild horses grazing. To reduce these grazing impacts, decision records were issued in 1993 and 1996, directing construction of riparian management fences for 10 streams or stream reaches and to build eighteen riparian spring exclosures. The decision record also set up grazing provisions for the Chimney area, and stated that livestock, wild horse and burro use would be excluded within the exclosures. These riparian fences were completed by 1998.

2.4.1 AMP Basic Cattle Operation

The AMP grazing provisions guides livestock management activities on the allotment. The two permittees in the allotment graze in common. The allotment grazing system is a two-pasture (north and south pastures) deferred-rotation. The deferment date is July 1, based on the key grass species phenology stage for seed scatter. After July 1, cattle may be herded to the

deferred pasture, except certain areas as provided for in the AMP grazing provisions.

Espil's typical operation is to turnout cattle on or after April 1, on the lower elevations of the allotment. Cattle turnout is ordinarily completed by May 1. During the grazing season, cattle are herded to various areas as provided for by the AMP grazing provisions. Some cattle may be herded to private lands for livestock husbandry reasons. In October and November, cattle are gathered from the summer ranges and herded to the winter ranges. Cattle are removed from the allotment by January 31. In 1995, an annual operating plan was initiated for improving management and communication among the BLM, permittees and interested public. This plan considers previous years' utilization levels and patterns, water conditions and other resource information for determining the intended grazing use on the allotment.

Laver Ranches often delays the turnout of cattle, sometimes as late as July 1. Since 1992, the Lavers have grazed their cattle only in the south pasture on Five Springs Mountain and Skedaddle Mountain.

2.4.2 Allotment Grazing Provisions

The Twin Peaks allotment livestock grazing provisions, as stated in the 1985 AMP, 1992 AMP addendum, and the 1996 Projects Decision Record (EA CA-026-95-07), as are follows:

2.4.3 AMP Grazing Provisions

- During north pasture turnout years, cattle can be turned out in any location of the north pasture except the Parsnip Management Area, but are generally turned out east of Buffalo Creek and northeast of Burro Mountain.

- After July 1, cattle may be moved to the deferred pasture.

- In even numbered years, [south pasture turnout year] up to 225 Espil cattle will be authorized to graze in the north pasture from April 15 to December 31 provided that the total number of Espil cattle grazing the allotment does not exceed the numbers provided for in the basic operation and flexibility sections of the AMP.

- In even-number years, any cattle using Rowland Mountain Sub unit will be placed east of Rowland Mountain, including the Hole-In-The-Ground with minimal use of the Norton Place. Cattle movement and drift to the west largely will be restricted by rim-rocks on the east side of Rowland Mountain.

- In odd-numbered years, any cattle using Rowland Mountain Subunit will be placed on the west side of Rowland Mountain, thus avoiding east Rowland Mountain and the Hole-In-The-Ground area with some use of the Norton Place.

- Up to 200 cattle will be authorized to use Lower Smoke Creek area from March 1, to April 30, annually, subject to the terms and conditions of the permit.

- Chimney Area (Chimney, and East Fork drainages) grazed in April and/or May, every other year, for approximately six weeks, with 200-400 cow/calf pairs. In mid-October, drift fence gates are

opened, and the cattle are gathered periodically to remove strays.

- Grazing by cattle and sheep is excluded from the following fenced areas: Wild Horse Spring, Morgan Springs, Three Springs, Two Springs, Washtub Spring, Sheep Trail Spring I and II, Jenkins Trough Spring, and the area enclosed by the East Upper Smoke Creek Fence.

2.4.4 Cattle Grazing Provisions for South Pasture Turnout Years.

- Prior to April 1, all cattle (both Espil and Laver) are to be turned out in the area east of Dry Valley Rim and south of Burro Mountain.
- Prior to June 1, Laver's recommended turnout areas are either East Fork of Skedaddle Creek and/or Spencer Basin.
- Prior to June 1, no cattle can be turned out in the Bull Flat/Skedaddle Basin Management Area.

2.4.5 Sheep Grazing Provisions (allotment-wide)

Sheep use the allotment primarily for spring lambing and secondary for fall trailing. Sheep can use the entire allotment except for the following management provisions:

- When cattle turn out in the south pasture and a lamb band can stay through the full season (7/1 to 9/15), one band will not be able to use the management areas (Parsnip, Bull Flat/Skedaddle) before June 1.
- The 500 head dry band may use Skedaddle Mountains every other year between June 15, and August 1. Alternate areas of use are Dry Valley Rim, Five Springs Mountain, and the north pasture of Twin Peaks Allotment.
- Sheep will not be driven into, or bedded or shaded in aspen stands.
- Sheep camps and bedding grounds shall not be located on known active sage grouse strutting grounds.
- In the Rowland Mountain Sub-Unit, sheep use will be restricted after July 15 to a total of 10 days trailing through the subunit.

3. MANAGEMENT EVALUATION, SUMMARY OF STUDIES DATA

3.1 Livestock Actual Use

Livestock actual use is based on certified actual use reports submitted by the permittees, or from grazing billing and field compliance records. During the evaluation period, actual use by sheep has increased slightly, while cattle actual use has decreased slightly. Most of the cattle actual use occurs in the turnout pasture while the deferred pasture often receives limited cattle use. Since 1995, the south pasture was mostly rested from cattle use during north pasture turnout years. Sheep use is about 10% higher in the north pasture. A summary of allotment actual use from 1989 to 1999 is contained in Appendix 2.

3.2 Actual Use from Wild Horses and Burros

Determination of wild horse and burro actual use is based on periodic helicopter census information conducted on a home range basis. Based on local experience, census accuracy varies from 85% to 95% for wild horses, and about 50% to 90% for burros. Annual Animal Unit Month (AUM) use is determined by multiplying the number of wild horses and burros counted during the census by 12 months. One adult wild horse or one mare and foal than less 6 months old is considered one AUM. Census information shows that the Twin Peaks herd population increases at an average rate of 17% annually, and the herd can double in four years. Survival rates are influenced by periods of prolonged snow cover, such as the winter of 1992/1993, when death losses of 10-15% occurred. These types of died-offs usually include high percentage of young and older horses. During mild snow free winters the death loss is 3-4%. Long term death loss is estimated at 5-7%. Since 1993, there has been a considerable increase in the number of wild horses on the allotment because of mild winters, above average annual precipitation, and improved forage production. The following chart shows livestock, wild horse and burro actual use by pasture and home range since 1989. This information is also contained in Appendix 2.

Twin Peaks North Pasture, and Twin Peaks North Home Range.

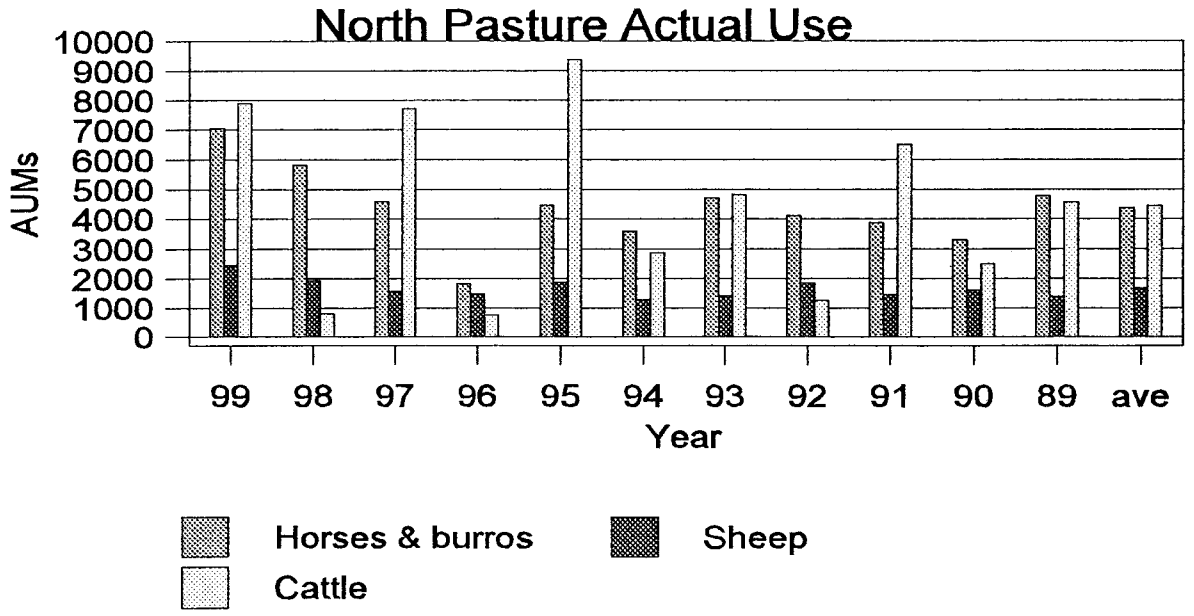
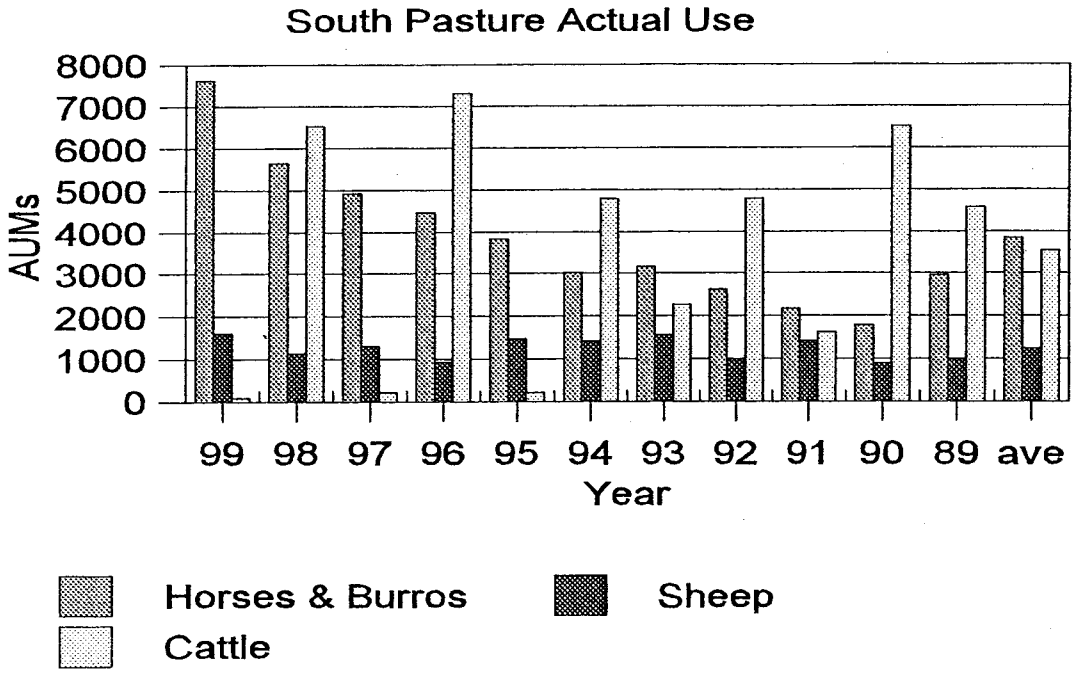


Figure 1

Twin Peaks South Pasture includes the Skedaddle, Dry Valley Rim Home Ranges.



3.3 Wildlife Use

3.3.1 Native Wildlife

A comprehensive analysis of potential species diversity within the Twin Peaks Allotment is being prepared using the California Wildlife Habitat Relationships Data Base. Results of this analysis will be available by the end of Fiscal Year 2000.

3.3.2 Flagship Species

Mule Deer

The California Department of Fish and Game (CDFG) estimated deer population by Deer Assessment Units (DAU) for the period 1990-1996. Annual variation in specific deer population estimates may be quite high due to localized changes in environmental conditions, so it is appropriate to have at least a several-year period upon which to evaluate trends (stable, upward, or downward). The DAU system fits well with the late 1940's assessment conducted by Longhurst et al. (1952), and their estimate of population is included for each of the specific DAU sections (Longhurst numbers do not reflect the ultimate high point deer numbers that continued to increase into the 1960s, then began trending downward to present levels). The population was declining in DAU 2. The Twin Peaks Allotment is in DAU 2, and which includes California management unit X5b and Nevada Unit 015. Mule deer population graphs and habitat information are contained in Appendix 3.

Pronghorn

Refer to Appendix 3 for an analysis of population fluctuations.

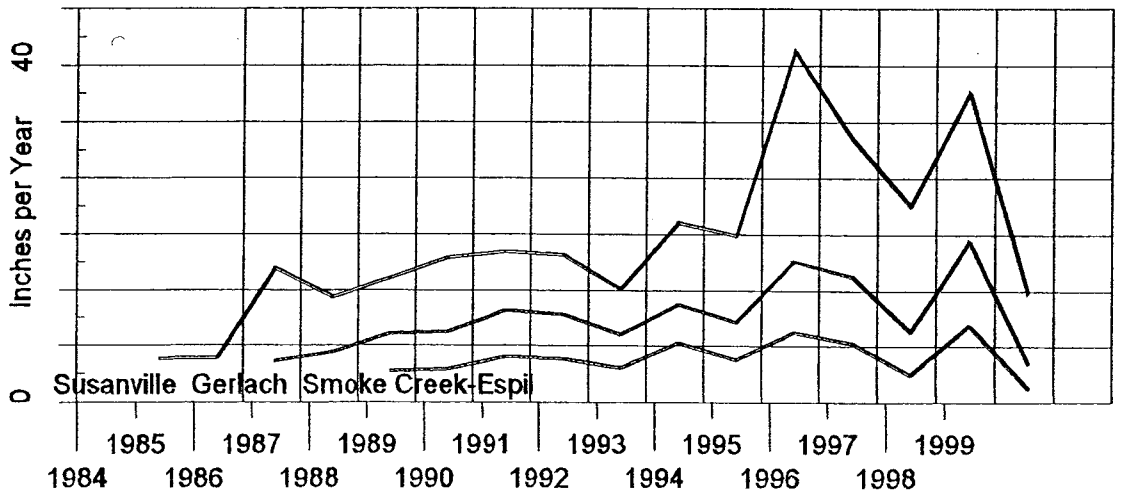
Sage Grouse

As reported earlier in this document sage grouse numbers are up locally. The management of big sagebrush/perennial grass habitats is the primary focus for maintaining and increasing sage grouse populations. The CDFG has taken the lead in preparing and carrying out a Conservation Plan in cooperation with the BLM. The Northeast California Resource Advisory Council and all affected interests will also be included in the development of this plan. The Eagle Lake Field Office is currently field testing a remotely sensed analysis of potential important sage grouse habitats throughout its area, including the Twin Peaks Allotment.

3.4 Precipitation Data

Allotment average annual precipitation ranges from 6-8 inches in the salt-desert shrub areas to more than 14 inches at the highest elevations. Precipitation information from the Susanville Airport Weather Station was used to represent regional weather trends on the Twin Peaks Allotment. Long term weather records dating from 1890 are also available from this station. From 1987 to 1992, precipitation was 72% of the long term average. This is considered the driest period recorded in the western Great Basin. Since 1993, precipitation has averaged 158% of normal or about 22.82 inches per year, significantly above the long term average of 14.5 inches per year. The wettest years with an abundance of spring growing precipitation were 1995 and 1997. Precipitation in1995 was 37.29 inches, which broke the 1889 record of 36.26 inches. The following chart contains annual precipitation for Susanville, Gerlach, Smoke Creek-Espil stations during the evaluation period.

Annual Precipitation from Susanville, Gerlach, Smoke Creek-Espil



Appendix 8 contains Susanville's precipitation history, dating from 1889, and average weather information.

3.5 Grazing Utilization Information

Upland plant utilization is determined by the Landscape Appearance Method (formerly Key Forage Plant Method). In 1984 and 1985, 20 upland key areas were established to measure trend, and utilization. Key areas are representative portions of the allotment that livestock graze. Key area utilization data, along with actual use and climatic information can be interpreted to assess the causes of trend direction. Photographs are also taken at the transects. Small moveable 4 ft cages were placed at key areas to evaluate the end of grazing season ungrazed forage production.

In 1992, a three-way exclosure was established on Rowland Mountain to find out relative utilization by livestock, wild horses and mule deer. In 1994, bitterbrush browse use information was collected using the Cole Browse Method. Riparian utilization was determined by using stubble height method. In 1992, seven stream reaches were also identified for annual utilization determinations.

During the evaluation period, utilization levels measured at upland key areas generally declined, except in 1999, when the moderate utilization objective (41% - 60%) was exceeded on three key areas. Most of the allotment was in the slight to light class (5% - 40%), and the moderate utilization objective (41% - 60%) was not exceeded in 1998 on sites measured. Appendix 4 contains key area utilization information.

3.5.1 Use Pattern Mapping

Use pattern mapping information is employed to identify stocking rate problem areas, and can identify opportunities to improve livestock distribution. Use patterns are influenced by percent slope, weather conditions, the season of use, and soil surface conditions. The standard time to conduct use pattern mapping is at the end of the grazing season. Use-pattern maps were developed for portions of the allotment from 1987 through 1994, and from 1998 through 1999. Mapping intensity varies from four classes to eight utilization classes, as follows: no use (0-5%), slight use (6-20%), light use (21-40%), moderate use (41-60%), heavy use (61-80%), severe use (81-100%), low production or annual production, and area not mapped.

Most of the allotment has been mapped in the slight class and light class. Upland utilization exceeds moderate utilization on less than 2 percent of the acreage sampled during most years. Utilization levels are often higher on the uplands in the turnout pasture than on the deferred pasture. The acreage of heavy use has increased recently in the south pasture, and is sometimes noted next to riparian areas where horses and cattle often concentrate during hot and dry conditions. During 1995, 1997, and 1999, the south pasture averaged 168 AUMs of cattle actual use. Therefore, any grazing impacts during these years would be contributed to wild horses or sheep. Several isolated riparian areas and scattered springs and small creeks were affected by wild horses in 1997 and 1999.

The use pattern data is displayed at a scale of either one half or one inch to the mile and is available at the Eagle Lake Field Office. Letter size use pattern maps are attached to the evaluation. Appendix 4 contains a summary of utilization information collected on the allotment.

3.6 Upland Trend Information

3.6.1 Upland Frequency Data[3]

The Modified Pace Frequency Method was used to detect presence or absence of vegetative species as outlined in the Twin Peaks AMP. This method also includes collecting vegetation cover, litter cover, canopy height, and taking photographs at key areas. This information is collected at 3-10 year intervals and the results are then compared to detect a change. An increase of key species would be interpreted as an upward trend when compared with other more specific data such as ecological status. Climatic and utilization information and management activities such as the season of use, class of livestock, wild horse and burro populations are also interpreted to establish cause and effect of trend data.

Key plant species were identified when the sites were established in 1983 or 1985. On May 24, 1990, the AMP Review Committee developed additional key species for the allotment. The 1992 AMP addendum and decision record listed the key species on a sub unit basis.

There are 20 upland study sites in the Twin Peaks Allotment. The initial data (frequency, etc.) were collected on 19 sites in 1983, and during 1985, the same data were collected on all 20 sites. All sites were again sampled in 1991 and 1994. See Appendix 9 for the site characteristics for the Twin Peaks upland trend sites, and frequency graphs of vegetation grouping.

3.6.2 Rangeland Ecological Status

Ecological status refers to the kinds and amounts of vegetation that the rangeland currently produces compared with the potential vegetation of the site. Soils, topography, and climate are the primary elements of site potential. Each ecological site supports a native plant community typified by an association of species that differs from that of other range sites in the kind or proportion of species or in total production. The Potential Natural Community (PNC) is called the potential climax vegetation rating without abnormal disturbances and physical site deterioration. The ecological status condition classes are early seral, mid-seral, late seral, and PNC. Ecological status is expressed as a percentage, for example PNC is 76-100%. The ecological status rating refers to the specific plant community's status in relation to its potential. This rating may not reference management goals or values produced.

The overall site potential for the allotment, accounting for natural events such as fire and drought is generally 50-80% grass, 10-15% forbs, and 10-25% shrubs. In 1979, much of the allotment was classified in early and mid-seral ecological status, or poor and fair conditions, respectively,

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[3] The Interagency Technical Reference, Sampling Vegetation Attributes (1996, National Applied Resources Sciences Center) contains description of Frequency Methods that BLM employs.

because of low perennial grasses composition, and high shrub composition compared with the ecological site description. In 1994, ecological status baseline data was determined at the key areas establishing a basis for trend analysis. Appendix 8 contains a summary of key area ecological status information and other pertinent features of key areas.

3.7 Range Survey Data

The 1979 Soil and Vegetation Inventory Method (SVIM) shows there are 20,243 AUMs available for livestock, wildlife, wild horses and burros grazing. The SVIM is described in BLM Technical Reference 4400-5, Section XI of Supplemental Studies (USDI-BLM, 1992). This document is available for review at the Eagle Lake Field Office.

3.8 Rangeland Health Assessment

The Upland Rangeland Health Assessment process is a qualitative procedure to account for the functional state of up to 20 indicators to interpret and assess rangeland health. The procedure uses a summary rating of indicators (including both plant and soil components) to arrive at a degree of departure the assessed area is from the ecological site description and/or ecological reference area. This process can provide an early warning of resource problems, or the process can provide information for areas of concern that need special attention or monitoring. The rangeland health assessment procedure requires an experienced interdisciplinary team of soil, vegetation, wildlife and habitat specialists.

Examples of Rangeland Health Indicators are:

Water Flow Patterns	Litter Movement	Compaction Layer
Litter Amount	Rills	Soil Surface Organic Matter
Gullies	Annual Production	Noxious and Invasive Plants
Bare Ground	Plant Pedestals	Plant functional/Structure Groups
Plant Mortality	Perennial Plant	Reproduction Capability

In 1999, upland health assessments were completed on approximately 70,000 acres in the Twin Peaks Allotment. The acres reported in Table 4.1 are inventoried applicable acres. This acreage is considered representative of the rangeland health conditions on the allotment. Field assessment locations were stratified into those areas where the interdisciplinary term believed additional information was needed based on soil and rangeland health issues identified in the past. Additional field assessments have been scheduled for the allotment. Appendix 5 contains the results of the inventory, and interprets other monitoring data such as utilization information, actual use, ecological condition, frequency, and trend data for determining if Rangeland Health Standards are being met.

Table 4.1. The 1999 Upland Health Assessment Acres Inventoried.

Twin Peaks Allotment	Physical Environment (Acres)			Biotic Integrity (Acres)		
	Functioning	At Risk	Improperly Functioning	Healthy	At Risk	Unhealthy
Total applicable acres-69,463	65,042	4,421	0	41,407	27,283	773
Trend Up		4,421			14,443	773
Trend static					12,840	0
Trend down					0	0
Acres Not Responsive to Management within 30 years					6371	0

Note: Acres not responsive to management are trend static acres. In all likelihood these acres will not show an upward trend in condition within 20 years, even under the most intensive grazing management system or with no grazing. These acres often lack native plant seed sources, and are dominated by exotic annual plant species.

3.9 Riparian Trend

In 1992 and 1993, stream riparian trend transects were established using the greenline method as outlined in Technical Reference 1737-8. The greenline method provides a general impression of quality and condition of riparian habitats for a particular reach of the stream. Greenline transects were established for Chimney Creek, Painter Creek, Parsnip Wash, Lower Smoke Creek, Middle Fork Buffalo Creek, North Fork Buffalo Creek and West Fork Buffalo Creek. The Greenline transects will be read in the future to detect what changes may have occurred since 1992/1993.

3.9.1 Riparian Functional Assessment Inventory

The process of assessing riparian-wetland functioning condition requires an interdisciplinary team of vegetation, wildlife and soil specialists. BLM Technical References 1737-9 and 1737-11 (USDI-BLM, 1993 and 1994) describe this technique, and provide the definition of proper functioning condition as: "when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality, filter sediment, capture bedload, and aid floodplain develop . . . the functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water and vegetation." Properly functioning condition is the *minimum standard.* This condition is not a reference of wildlife habitat conditions or that desired plant community or desired vegetation structure is occurring on the riparian/wetland area.

Starting in 1995, 129 riparian/wetland sites were assessed, representing about 95% of the riparian sites on the allotment. Besides determining functioning condition for each riparian wetland, the

Lake Field Office collected plant structure and habitat condition information, developed a plant species list for each riparian site, and photograph the area. Riparian attributes such as location, stream length and acreage were determined by global positioning system (GPS). Riparian functioning condition with trend determinations for the allotment is summarized in the following figure. This information is also contained in Appendix 6. The legend for the chart is: (FR) functioning at risk; (NF) nonfunctional; (PFC) Properly functioning condition. Springs/seeps' and creeks are combined.

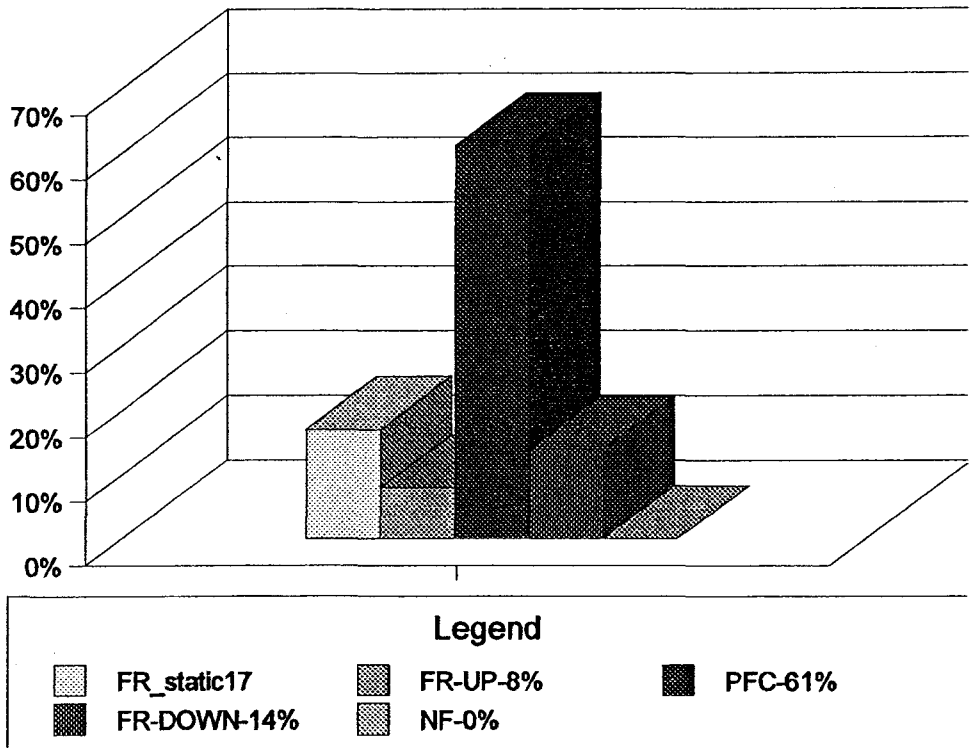

Figure 3

4. CONCLUSIONS-OBJECTIVE ATTAINMENT DETERMINATION

The conclusions section discusses attainment of the land use plan objectives, activity plan objectives and rangeland health standards affected by grazing of livestock, wildlife, wild horses and burros.

4.1 Rangeland Health Standards

1. Upland Soil: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform, and exhibit functional biological, chemical and physical characteristics.

2. Streams: Stream channel form and function are characteristic for the soil type, climate and landform.

3. Water Quality: Water will have characteristics suitable for existing or potential beneficial uses.

2. Streams: Stream channel form and function are characteristic for the soil type, climate and landform.

3. Water Quality: Water will have characteristics suitable for existing or potential beneficial uses. Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California and Nevada State standards, excepting approved variances.

4. Riparian and Wetland Sites: Riparian and Wetland areas are in functioning condition and are meeting regional and local management objectives.

5. Biodiversity: Viable, healthy, productive and diverse populations of native plants and desired plant and animal species, including special status species, are maintained.

4.1.1 Rangeland Health Standards Attainment

Determining rangeland health standards included the assessment of soil/site stability, watershed function, and integrity of the biotic community. Functional status is determined by departure from the ecological site description and/or ecological reference area. Acreage assessed "at risk, or improperly functioning or unhealthy" are not meeting the standard. Trend and probable cause of rating was determined by examining monitoring information. Functioning or healthy acres are considered as meeting the soils and biodiversity standards.

Attainment of Soils Standard

Findings.

Soil Erosion - Based on the Rangeland Universal Soil Loss Equation monitoring conducted at range trend sites showed no significant erosion. The "A" values (soil loss in tons/acre/year) generally were about a magnitude less that the "T" value (NRCS Tolerance Value) for the soil being evaluated. Observations throughout the allotment also confirmed that upland erosion was not an issue, and this indicator was met for rangeland health standards.

Soil Productivity - Based on Upland Health Assessments there has been little to no loss of productivity resulting from current management, therefore this indicator was met for rangeland health standard. However, but one area of concern is associated with medusahead invasions. Soil studies have suggested that there has been as much as 50% reduction in microbial numbers and diversity. A BLM study suggests a comparable 50% reduction in nutrient availability. Another study by Young and Blank shows the importance of maintaining the aeolian vernier on soils that exhibits this characteristic.

Conclusions

Based on monitoring information and the Rangeland Health Assessment information, upland soil standard was met on the allotment, and biodiversity standard was not met on 12,840 acres. The

primary reason the standard was not met on these acres was low composition of native perennial grass in comparison with potential composition of native perennial grass stated in the ecological site description and/or the ecological reference area. The absence of perennial grass recruitment, and the relative composition of nonnative grasses such as cheatgrass and Medusahead was also considered during the assessment. Exotic annual grasses can inhibit native species recruitment and effect natural ecological systems by increasing frequency and size of wildfires. Rangelands below 5,000 feet in elevation that have burned in the recent past are sometimes dominated by exotic annual species. Sometimes early spring grazing can reduce the composition of exotic annual plants. However, grazing management actions alone may not significantly improve areas dominated with exotic annual plants because of long recovery periods.

Current permitted stocking level on the public lands in the Twin Peaks Allotment was not identified as significant factor in failing to achieve soils and biodiversity standards. In recent years, slight to light utilization occurred on those areas not meeting the Rangeland Health Standards. The low composition of native perennial grasses is the result of past livestock grazing practices.

Regional Rangeland Health Standards (continued)

2. Streams: Stream channel form and function are characteristic for the soil type, climate and landform.

3. Water Quality: Water will have characteristics suitable for existing or potential beneficial uses. Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California and Nevada State standards, excepting approved variances.

4. Riparian and Wetland Sites: Riparian and Wetland areas are in functioning condition and are meeting regional and local management objectives.

Findings.

The criterion used to find out if stream, riparian and wetland standards were being attained was based on riparian/wetland functioning condition assessment, and utilization data collected since 1995. Stream function is a component of the riparian-wetland functioning stream (lotic) assessment process. During the riparian/wetland assessment the following condition categories were classified: 1) properly functioning condition (PFC), 2) functional-at-risk (FR) (with trend determinations), and 3)nonfunctional condition (NF). The survey found that 84 riparian/wetland sites on the allotment are in properly functioning condition or are functioning at risk with an upward trend. The standard was not met on a combination of 34 riparian/wetland and stream sites. During the assessment most sites did not meet the standard because of riparian vegetation impacts caused by livestock and wild horses. Several sites were affected by roads. Appendix 6 lists the proposed management strategies to improve the 34 riparian/wetland sites not meeting riparian standards.

Several riparian sites, fenced since the assessments, are also documented in Appendix 6. These sites are now believed to be meeting the standard, but a reassessment has not been completed.

For those riparian sites where management actions have not been carried out, changes are proposed and listed in Appendix 6. The proposed management actions would be started on the effective date of the Multiple Use Decision for the Twin Peaks Allotment. Table 4.1.1 contains a summary of the riparian sites including acres and miles assessed on the Twin Peaks Allotment.

Table 4.1.1 Twin Peaks Allotment Riparian Functioning Condition Summary

Habitat Types	Units	Proper Functioning Condition	Functioning At-Risk			Non-functional	Totals
Trend			up	static	down		
Standard Obtainment		Meeting Standard		Not Meeting Standard			
Riparian wetland Springs Seeps	Number of sites	43 (62%)	2 (3%)	11 (16%)	13 (19%)	0	69
	Acres	24.79	.2	5.66	12.22	0	42.87
Creeks	Number of sites	41 (71%)	9 (12%)	8 (14%)	2 (3%)	0	60
	Miles	33.36	12.03	6.53	.85	0	52.77

Findings, Standard 3.

Water Quality - Grab samples for water quality were collected extensively in the early 1980s and again in the early 1990s. A comparison of the data did not indicate a significant change. This would indicate that both California and Nevada's anti degradation policy is being met. The condition and trend of the riparian and upland areas (as indicated by the Riparian Assessments and Upland Health Assessments) suggest that there has been an improvement in water quality over the years. It should be noted that the grab sampling scheme used was not meant to evaluate individual water bodies; rather, it was designed to provide a general characterization of the range of water quality conditions in the resource area.

Skedaddle Creek is the only water body in the allotment classified as "impaired" by the state of California. While the Lahontan Water Quality Control Board lists Skedaddle Creek as a low priority-impaired watershed due to coli form bacteria levels resulting from livestock, the board apparently has no documentation suggesting that there has ever been any actual impairment. BLM also has no documentation to support the impairment status. The distribution of livestock makes it unlikely that coli form bacteria levels exceed state standards.

Smoke Creek has received increased water quality monitoring since the development of the Habitat Management Plan. Temperature, dissolved oxygen, turbidity, and bacteria samples indicate that while the water entering BLM administered lands exceeds Nevada state standards, the water

quality improves through the BLM administered section in Nevada. Note that the degraded water quality is the result of water draining a private ranch where livestock are concentrated. While livestock number and duration is limited on BLM lands, subsurface inflow water is likely partially responsible for the improved water quality through the BLM section of Smoke Creek. Additional monitoring will be needed to identify the contribution from subsurface inflow.

Conclusions

The grazing management of cattle and wild horses on the Twin Peaks Allotment are significant factors for failing to achieve or to progress toward meeting riparian/wetland standards on 24 sites, representing 17.88 acres, and 10 stream riparian sites representing 7.38 miles. Note that of the 34 sites identified in Table 4.1.1 (on page 22), 4 sites have been fenced since the assessment and these sites are now believed to have an upward trend, or are meeting the riparian standards. Drift fences were also constructed for several stream reaches, and improved livestock management, by herding cattle out of riparian areas during the hot season has resulted in upward trends on the allotment. Favorable weather conditions have also contributed to improved riparian conditions on the allotment.

Several riparian sites have improved without fencing. In 1996, several reaches of lower Buffalo Creek were rated as non functioning condition (not included in the above table). In 1999, the creek was reassessed, and it was determined to be functioning at risk with an upward trend. Improved cattle management and increased stream flow contributed to this improved rating. Significant vegetation improvement has occurred at Red Rock Spring # 2 in the south pasture, rated in 1995 as functioning at risk with a static trend. However, three other riparian sites in the vicinity of Red Rock Spring 2, have not improved. In 1999, these springs were negatively impacted by wild horses. The proposed management practices as listed in Appendix 6 are being applied for riparian/wetland and stream sites not meeting standards. These proposed management practices are in conformance with the guidelines for Livestock Grazing Management for Northeastern California and Northwestern Nevada. The management of existing populations of wild horses and burros is addressed by the appropriate management levels as shown in Table 5.3.2 in the technical recommendation section of this evaluation.

Rationale

The riparian sites functioning at risk with static or downward trends have highest management priority because these sites generally have the greatest potential for vegetation response. Management actions are also necessary to prevent these riparian areas from becoming non functioning. To alleviate the impacts of wild horses and burros, the proposed action is to maintain the population within the recommended appropriate management levels identified in Table 5.3.2. Fencing may be an option for several riparian/wetlands areas impacted by livestock, wild horses and burros. The following is a summary of livestock management actions for riparian sites functioning at risk.

1. Exclosures were constructed for three riparian spring areas since the assessment. These sites are now believed to be meeting the standard.

2. Drift fences were constructed for 5 riparian spring sites since the assessment. Management actions are to deferred livestock use during the hot season.

3. The Parsnip/Buffalo Creek reach functioning at risk with a static trend was fenced in 1995. To improve the condition of this reach, 2 years of rest is recommended.

4. On the West Fork of Rush Creek, a four-wheel drive road that contributed to the functioning at risk rating is scheduled for closure.

5. Deferment periods would be set up for 11 unprotected riparian spring sites. Specific management actions will be addressed in the annual operating plan.

6. Riparian sites functioning at risk with a static or downward trend identified in Appendix 6 would be subject to utilization guidelines consistent with Rangeland Health Guideline 16. A 4-6 inch minimum stubble height will remain at the end of the growing season in most riparian areas. The utilization levels will be applied unless a current site-specific analysis is completed and new utilization levels are developed and documented in the allotment management plan.

4.2. Cal-Neva ROD/Activity Plan Objectives Determinations and Rationale

(1) Utilization: The short term objective is to have utilization levels of key forage species not exceed 40-60% (LUP Decision 10). This is further defined in the Grazing EIS (1982) for two-pasture deferred rotation grazing systems as is implemented on the Twin Peaks Allotment where the objective for utilization levels is not to exceed 40% in the early use pasture and 60% in the late use (deferred) pasture.

Objective Attainment Determination and Rationale: partially met.

At key areas, the utilization objective was exceeded on 3 of 20 transects measured in 1999. Use pattern data shows the objective was not achieved on Mixie Flat, Horse Corral Spring/Burn Spring area, and near Buffalo Well in the north pasture. The utilization objective was exceeded by a combination of cattle, sheep and wild horse grazing. During 1998 and 1999, the south pasture utilization levels were exceeded in Spencer Basin, the southern end of Dry Valley Rim, and near Three Springs. Utilization in these areas was attributed to wild horses. In 1998, cattle contributed to utilization levels being exceeded in the upper Skedaddle Creek area. However, during 1997 and 1998, the utilization objective was not exceeded on key area transects measured. From 1993 to 1999, use pattern mapping information shows that the acreage of heavy use has increased from 2% to an estimated 5% of the allotment. Higher utilization levels are also attributed to doubling of wild horse population since the early 1990's. However, slight utilization was recorded for most of the allotment. Utilization information is summarized in Appendix 4.

(2) Trend: The long term objective is to improve 28% of the 176,155 acres in poor to fair range condition, and 36% of the 158,180 acres in fair to good, and maintain 25,165 acres in good and excellent range condition. Allow winter livestock grazing at levels to minimize conflicts with wintering wildlife. (ROD/AMP)

Objective Attainment Determination and Rationale: partially met.

Rangeland trend determinations were based on comparing the 1994 key area ecological status (ES) data with the1979 Soil Vegetation Inventory Method (SVIM) Ecological Status stratification maps. This comparison of ES information provides general indication of upland trends on the allotment, because the 1994 ES key area locations are different from 1979 SVIM transect locations. The initial correlation suggests that approximately 7,500 acres (4%) have improved from poor to fair condition (early seral to mid-seral stage), approximately 34,877 acres (22%) have improved from fair to good condition (mid-seral to late seral stages), and approximately 5,000 acres (3%) have improved from poor to good condition. The 25,165 acres in good and excellent condition were maintained. Approximately 10,000 acres remained in fair condition and 54,155 remained in poor condition. This accounts for only about 35% of the entire allotment. The condition of the remaining 65% of the allotment had not been determined.

In analyzing the ES data, there is no discernable correlation between changes in ES, and either elevation, precipitation zones or site productivity. Also, there was no strong correlation between trend and utilization measured at key areas.

Trend-Frequency Information

Frequency information gathered and analyzed from 1983 to1994 showed that allotment wide there is a general decline in shrubs, forbs increased, and grasses were static. The following frequency summary is of perennial plant grouping by number of key area transects. Further analysis of frequency information is included in Appendix 7, 1983 to 1994 Summary of Trend Frequency information for the Twin Peaks Allotment.

FREQUENCY	FORBS	GRASSES	SHRUBS
Moderate Increase	5*	-	-
Strong Increase	1	-	-
Static (not apparent)	14	19	11
Moderate Decrease	-	1	9
Strong Decrease	-	-	-

* key areas represented.

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(3) AMP Objective - Riparian Stream Utilization:

On the North Fork of Buffalo Creek, South Fork of Parsnip Wash and Lower Smoke Creek, utilization of riparian associated plant species is 40% of current years' growth.

Objective Attainment Determination and Rationale: partially met.

The stubble height measurements taken at key area transects for the above seven creeks varied significantly. In 1999, 1 inch stubble heights were measured on the lower transects of the north fork of Buffalo Creek. This utilization was attributed to wild horses. On the South Fork of Parsnip Wash, the upper transects had a stubble height of 2.5 inches, and this utilization was attributed to cattle and wild horses. On Lower Smoke Creek the objective was met during most years. In 1994 the utilization level was exceeded on 3 of 5 transects measured on these priority streams. Based on use pattern mapping information, in 1992 and 1993, the utilization objectives were exceeded. The stubble height method is widely used for riparian areas as an alternative to percentage of forage removed methods. The stubble height method is easy to perform and provides accurate data. Stubble heights of 4-6 inches at the end of the growing season are generally considered adequate for plant vigor and streambank protection during high flows. Additional stream riparian transects were established on Chimney Creek, West and Middle Forks of Buffalo Creek, and Painter Creek. Utilization information is contained in Appendix 7.

(4) AMP Objective - Key Mountain Browse Utilization:

> Utilization of key mountain browse and grass species in the upland habitats shall not exceed 60%.

Objective Attainment Determination and Rationale: partially met.

In 1999 utilizations of key browse species (*bitterbrush*) was exceeded on two key area transects measured. Utilization on bitterbrush was not determined from 1995 to 1998. In 1994, the utilization objective was exceeded on 3 of 18 Cole Browse Transects. Also in 1994, mule deer use on bitterbrush was 33% in the Pilgrim Lake area (Rowland Subunit). In 1993, bitterbrush utilization was not exceeded on the measured transects. In 1992, utilization objectives for bitterbrush were exceeded on nearly all transects. Spring grass and forb production was extremely low in 1992 due to very dry conditions, contributing to browse overuse.

An updated habitat rating has not been conducted since the MFP was issued, but it is believed that the mule deer transition and winter habitat condition may be less than optimum in some areas of the allotment. Mule deer habitat condition is affected by the decline of shrubs during the late 1980's, and insufficient thermal cover because of site potential on some winter ranges. Other factors contributing to the low habitat rating include an increase in cheatgrass and other annual plants following a wildfire, particularly on lower elevations of the allotment. Ecological status information from several key areas indicates a decrease in preferred forage species for mule deer, i.e., primarily sagebrush or antelope bitterbrush, and a corresponding increase in perennial grass species. The overall site potential for the allotment that accounts for natural events such as fire and drought is generally 15-30% shrubs, 10-15% forbs, and 50-80% grass.

East Lassen Management Area Deer numbers from 1978 to 1999, are shown in Appendix 3 (Note that Twin Peaks Allotment includes approximately 28% percent of the East Lassen Area). Following a sharp decline during the winter 1992/1993, there has been a gradual increase in numbers.

The analysis of frequency data suggests that shrubs as a group are on a downward trend in the allotment. In 1994 the Cole Browse studies suggested that most of the bitterbrush is decadent. Objective numbers of mule deer may be very high from the standpoint of these habitat changes within the allotment.

Since 1995, the majority of the allotment was in the slight to light utilization class. This data suggests that forage availability is not limiting the herd population size. A mule deer forage quality study is currently being carried out within the Nevada portion of the Eagle Lake Field Office area in cooperation with the Natural Resources Conservation Service, and Texas A&M University. Quantifying the actual available habitat based upon wildlife use has not been determined. Factors affecting habitat for mule deer objective numbers include changes of habitat shrub component because of wildfires such as the Big Springs burn and the Twin burn of the 1980's. The vegetation is recovering naturally on the higher elevation Big Springs burn, and the reproduction of bitterbrush and sage brush is increasing. However, the Twin burn occurred at a lower elevation and is still dominated by exotic annual plants, and generally sage brush and other shrubs are not reestablished. A natural recovery of this burn may be forestalled by soil conditions and lower precipitation.

Pronghorn antelope numbers have increased since 1993 in North Washoe County Management Areas 011-015. In 1999, a high recruitment rate of 50 fawns per 100 does was reported in 015 unit by Nevada Division of Wildlife. However, a determination was not made about whether mule deer and pronghorn antelope Land Use Plan population "objective" numbers are being met on allotment.

(7) Wildlife Habitat - Enhance and maintain aspen groves in good condition.

Objective Attainment Determination and Rationale: partially met.

In 1992, the Eagle Lake Field Office initiated an inventory of the quaking aspen (*Populus tremuloides*) communities within the Cal-Neva Planning Unit. This inventory was designed to find: 1) understory composition, 2) understory cover, 3) stand area, 4) stem density, and 5) size of trees and the condition of those trees. This study included nine aspen stands in the planning unit. See this report for findings and assessment of aspen communities.

(8) Aquatic Habitat Management Plan Objectives for Upper Smoke Creek

Objective Attainment Determination and Rationale

The goal is to restore and maintain the capability of Upper Smoke Creek to provide habitats suitable for the survival and reproduction of trout and to increase habitat quality for all species associated with riparian habitats. The general management goal is intended to provide for full riparian vegetation expression based on site potential, and to increase the woody plant composition. Protecting riparian vegetation by fencing was completed on approximately 99% of the public land portion of the creek by 1997. Water gaps were constructed in the fence to allow access for livestock and wild horses to water. In 1995, the Riparian Functional Assessment Survey was completed on Upper Smoke Creek, and the creek was determined to be in properly functioning condition. Habitat information collected during the survey found that the riparian/wetland area is

dominated by herbaceous vegetation and that shrubs and trees were generally scarce along the creek

(9) Twin Peaks Herd Management Area Objectives

The long term objective is to manage the wild horses and burros in the Twin Peaks HMAP as a viable population of healthy animals.

Objective Attainment Determination and Rationale: partially met.

Wild horses and burros are in good condition with minimum death losses and high reproduction rates. Based on the census information, wild horses have increased at an average rate of 17% per year, and burros have increased at 14% per year. The herd has doubled since the early 1990's, despite two gathers in the Twin Peaks North Home Range. This high recruitment rate implies that wild horses and burros have a high survival rate and are very well adapted to the habitat in this herd management area.

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5. TECHNICAL RECOMMENDATIONS

This section summarizes issues and proposed management actions for the allotment. Several management actions are specific to pastures, subdivisions or subunits.

5.1 Allotment Issues

- Rangeland health streams and riparian/wetland standards are not being met on thirty (30) riparian/wetland stream sites that are functioning at risk with a static or downward trend. This determination is based on riparian functional assessment data and utilization information collected at riparian/wetlands areas (springs, seeps and streams) on the allotment. Current livestock management, and the current population of wild horses and burros have contributed to not meeting the riparian standards on the allotment. The following Table 5.1, shows actual use by livestock and wild horses and burros.

Table 5.1, 1989 to 1999 Actual Use Summary for Livestock, Wild Horses and Burros.

Twin Peaks North Pasture, and Twin Peaks North Home Range Use (AUMs)

User	99	98	97	96	95	94	93	92	91	90	89	ave
Horses Burros	7036	5820	4584	1824	4464	3588	4728	4116	3861	3300	4794	4374
Sheep	2448	1935	1577	1482	1874	1273	1427	1846	1452	1614	1395	1666
Cattle	7901	808	7728	763	9378	2878	4817	1252	6497	2499	4565	4440

Twin Peaks South Pasture, Skedaddle and Dry Valley Rim Home Ranges Actual Use (AUMs)

User	99	98	97	96	95	94	93	92	91	90	89	ave
Horses Burros	7631	5664	4920	4468	3819	3012	3156	2619	2173	1804	2952	3838
Sheep	1614	1145	1299	919	1476	1410	1567	1008	1415	889	983	1248
Cattle	80*	6528	212	7305	213	4781	2274	4795	1624	6515	4565	3536

* estimated unauthorized use by a non-permittee

- Use pattern mapping data indicates that the heavy utilization on the upland rangelands increased from approximately 1% in 1992/1993 to 4% in 1999. Actual use data indicates the population of wild horse population has doubled during the 1990's, while livestock actual use was generally unchanged and wildlife use was down. However, upland key area utilization is generally in the slight to light class during the 1990's.

- Significant portions of the allotment are classified in low or mid seral ecological status condition. The lack of perennial grass composition and/or recruitment of perennial grass, and nonnative plants due to past grazing practices have contributed to this condition.

- Certain AMP grazing provisions which allow for cattle grazing in the north pasture each year during the growing season are not consistent with the Cal-Neva LUP. These AMP grazing provisions may be contributing to lower perennial grass vigor and composition in certain areas of the allotment.

- The existing AMP does not provide management strategies for certain riparian areas that are functioning at risk, and where an expected change in management would result in Rangeland Health Standards being met.

5.2 Management Refinements (Changes to AMP Grazing Provisions)

The following management actions amend, repeal, and add provisions to the 1985 Twin Peaks Allotment Management Plan, as amended; therefore, existing grazing provisions proposed to be deleted are printed in ~~strikeout type~~ and new provisions proposed to be added are printed in *italic type* to indicate that they are new.

AMP B. Goals and Objectives (page 7)

AMP 3. Allotment Specific Objectives

a. Forage Utilization

Utilization of key forage species shall not exceed moderate use level of 40-60% ~~exclusive of water sacrifice areas.~~

AMP C. Grazing System (page 8)

AMP 3. Cattle Operation

Basic Grazing Season, ~~March 1 to December 31.~~ *April 1 to January 31.*

Espil	991 Cattle ~~3/01 to 12/31~~ *4/01 to 01/31*	9910 AUMs
Laver	102 Cattle 04/16 to 10/31	667 AUMs

AMP Basic Grazing System (page 9)

North Pasture *(turnout years)*

~~Prior to April 1, all cattle, both Espil's and Laver's are to be turned out in the area east of Buffalo Creek and northeast of Burro Mtn. (see enclosed map 2 for Espil's north pasture turn out area).~~ After April 1, cattle can be turned out in ~~any location of~~ the north pasture ~~except the management area (see enclosed map 2 for location)~~*based on Annual Operating Plan (AOP) basic grazing system guidelines.* After July 1, cattle can be moved to the south pasture.

South Pasture *(turnout years)*

~~Prior to April 1, all cattle both Espil's and Laver's are to be turned out in the area east of Dry Valley Rim and east and south of Burro Mtn. (see enclosed map Espil's south pasture turnout area). Prior to June 1 and~~ after April 1, Laver's ~~recommended~~ turnout areas are either E. Skedaddle Creek Drainage and/or Spencer Basin (see enclosed map 2 for locations of both areas). No cattle are to be turned out in the *Skedaddle* Management Area prior to June 1 (see enclosed map 2 for location). *After July 1, cattle can be moved to the north pasture. Espil's cattle are to be turned out based on the AOP basic grazing system guidelines.*

The Annual Operating Plan for Cattle Grazing. Description Guidelines for North Pasture Subdivisions

Buffalo Subdivision

During north pasture turnout years cattle would be turned out from April 1 through May 31 in the Buffalo Subdivision. The actual date of cattle movement from the subdivision would depend on soil moisture conditions at the higher elevations where cattle would be herded. Some cattle would drift to the higher elevations after turnouts. However, all cattle would be herded from the subdivision by May 31. Concentration of cattle and wild horses on riparian areas during the hot season is not allowing for regrowth and continued recovery of riparian systems in the subdivision. The cattle would be trailed across the subdivision in the fall as they are removed from the higher elevations of the allotment.

Buffalo Hills Subdivision

Cattle use the lower slopes of this subdivision with the Buffalo Subdivision. During the summer, several higher elevation drainages such as Crooked and Trail canyons receive cattle use. However, most of this subdivision has limited cattle use because of steep slopes and rocky terrain.

Black Mountain

During north pasture turnout years, cattle use would be delayed until June 1. During south pasture turnout years the Black Mountain subdivision would be rested.

Painter Subdivision

Cattle use would be deferred each year until about July 1, or the approximate seed date for perennial grasses on the uplands. Deferring use each year would maintain the vigor and production of perennial grasses. Controlling cattle use by riding and herding to prevent over grazing on certain riparian and upland areas between Rocky Table Spring and Mixie Flat will be necessary.

Dry Valley and Salt Marsh Subdivisions

The Dry Valley and Salt Marsh subdivisions would be used as winter range from approximately November 1 to January 31. Cattle use could also occur in early April, when the cattle are herded through the subdivision. Otherwise the subdivision would be rested from cattle use from February, 1 to October 31.

The AOP Livestock Grazing Guidelines for South Pasture Subdivisions

Dry Valley Rim Subdivision

The Dry Valley Rim subdivision would be grazed by cattle from April 1 to July 1 during south pasture turnout years.

Skedaddle Subdivision

The Skedaddle Subdivision would be grazed by cattle from June 1, to October 31 during south pasture turnout years, and may be grazed by cattle from July 1, to October 31 during north pasture years.

Five Springs Subdivision

On soils prone to Medusahead, cattle turnout in the Five Spring subdivision would be delayed until soils are sufficiently dry to prevent soil structure damage from trampling.

(Continue to manage Rowland Mountain, Chimney, and Stone Corral Subdivisions as described in the AMP grazing provisions).

AMP 4. Sheep Operation

Season of use: ~~March 1 to December 31~~; *April 1 to October 25*

AMP E. Administration (page 25)

AMP 4. Sheep Operation

Season of use: ~~March 1 to December 31~~; *April 1 to October 25*

AMP E. Administration (page 25)

AMP 2. Flexibility/Requirements

A. Adjustments in use without BLM approval

- Increase livestock numbers up to 15% from basic operation
- Reduce livestock numbers up to 30% from basic operation

Adjustments in grazing use from the basic operation will be made by the permittees on the Annual Grazing Application, Form 4130-3a. This form will be provided to the BLM prior to livestock turnout.

The combined number of maximum cattle AUMs and sheep AUMs stated in the basic operation section of the AMP cannot exceed active preference as stated on their grazing permit, unless otherwise provided for in writing by the authorized officer.

AMP Addendum Changes

C. Management Refinements

1. North Pasture

In even numbered years, up to 225 Espil cattle will be authorized to graze in the north pasture from April 15 to December 31 provided that the total number of Espil cattle grazing the allotment does not exceed the numbers provided for in the basic operation and flexibility sections of the AMP (This grazing provision is modified by the AOP guidelines).

2. Lower Smoke Creek Sub-Unit

Up to ~~200~~ *400* cattle will be authorized to use Lower Smoke Creek area from ~~March 1, to April 30~~ *April 1 to May 5*, annually, subject to the terms and conditions contained within this addendum. Since the grazing capacity for this area . . .

D. Terms and Conditions Refinements

2. Except for trailing along the Smoke Creek Road, no use shall be made in the Smoke Creek Subunit after ~~April 30~~ *May 5*. Maximum ~~allowable use~~ *utilization* levels on the Lower Smoke Creek riparian

to be approaching or to have reached 40 percent utilization, *(or 4-6 minimum stubble height)* as determined by the BLM . . .

Additional Management Refinements

Implement management actions specific to riparian/wetland and streams identified in Appendix 6, for improving the functional condition of riparian/wetlands and streams not meeting the rangeland health riparian standards.

Riparian sites functioning at risk with static or downward trends (identified in Appendix 6) would be subject to utilization guidelines consistent with Rangeland Health Guideline 16. A 4-6 inch minimum stubble height will remain at the end of the growing season in most riparian areas. The utilization levels will be applied until a current site-specific analysis is completed and new utilization levels are developed and documented in the allotment management plan.

Utilization limit is 20% on key riparian trees and shrubs species in those areas (identified in Appendix 6) where the presence of woody riparian species is necessary to meet standards. Utilization will be measured at the end of the growing season.

Grazing by cattle and sheep is excluded from areas enclosed by fences in the following areas: Stone Corral Exclosure, Rocky Table Spring, Parsnip Springs, South Twin Springs (2), Phone Springs, Pilgrim Reservoir, and Coyote Springs. (Note this term and condition have been applied to other projects as in the project decision records).

The area enclosed by the Buffalo/Parsnip exclosure will be rested from livestock grazing during 2001 and 2002. In 2003, livestock use will be determined by BLM in coordination with the permittees and any other interested publics will want to participate in the management of this area.

Application of Utilization Guidelines

The utilization levels will be applied until a current site-specific analysis is completed and new utilization levels are developed and documented in the allotment management plan

Management changes (such as changes in the season of use, timing, duration, and/or intensity; rotational grazing; fencing; herding; and/or adjustments in stocking rates) will be implemented if stubble heights on the average of the key riparian areas across the pasture fall below the guidelines for two consecutive years or in any two years out of every five years. In addition, at least 70 percent of riparian key areas on the allotment are to exceed minimum stubble heights in most years. If any particular key area fails to meet the guidelines for more than two consecutive years, then management action will be taken to remedy the problem in the area of the allotment that key area represents.

The mean stubble height on key riparian species will be estimated at each riparian key area and used to decide if the guidelines have been met. The median may be a better statistic to use than the mean; we will calculate both statistics from the same data sets and decide which statistic to use after examining the data over a period of a few years.

Rationale for Implementing the Annual Plan of Operation Grazing Guidelines.

The existing AMP grazing system does not address the management of riparian/wetlands functioning at risk. The Annual Operating Plan (AOP) purpose is to document and achieve necessary changes to management expected to lower riparian utilization levels as established in the Rangeland Health ROD. The AOP would be written after reviewing monitoring data and other information available for immediate adjustment to grazing use. The AOP initiates recovery and improvement of riparian resources that are functioning at risk in the Twin Peaks Allotment and continued recovery of riparian resources that have an upward trend. The AOP will reduce the possibility of livestock grazing practices limiting the recovery of certain riparian areas, by providing for rest periods within the pastures for improving plant vigor. The AOP assures that livestock management is actively expressed and coordinated with BLM, permittees, and the interested public. The management guidelines would be implemented on a subunit or subdivision basis. The AOP guidelines conform with a draft holistic management package developed for the Twin Peaks Allotment in 1994. This draft document was developed in 1993 and 1994, in coordination and consultation with the Cooperative Extension advisors from California and Nevada, the BLM, Twin Peaks Allotment permittees, and other interested parties.

Rationale for AMP Grazing Provision Changes

Short term monitoring information suggests that the allotment's existing infrastructure is a significant factor that contributes to riparian/wetland utilization objectives not being met. The large allotment, is without major internal structures such as fencing, and natural barriers, to provide for area-specific management. However, there are several management opportunities that can be used to reduce the effects of livestock and wild horses in riparian areas without additional structures. Riparian areas that are open to grazing by cattle, and wild horse, tend to be less affected during the spring period. These animals will travel greater distances from water sources when the upland forage is more palatable and air temperatures are cooler. Grazing impacts to riparian/wetland areas tend to occur during the hot season. If these areas are rested during the hot season or for the remainder of the year, there would be sufficient time to allow for regrowth and riparian residual vegetation to increase, particularly if the grazing period ends by late July. This management strategy has resulted in notable improvements on several riparian areas on the allotment. For the Lower Smoke Creek subunit grazing use occurs in April, and the stream is rested for the remainder of the year to allow for herbaceous vegetation regrowth, and woody species increases. This vegetation provides for stream banks' stability during periods of high runoff. The Chimney Creek area is also used for spring season grazing (during April and May), and then rested during the summer (hot season) months to allow for vegetation regrowth. This area is then grazed during the late fall season and early winter (after mid-October).

Application of the proposed management changes would reduce trampling damage to soil structure of vertisol soils that are prone to medusahead invasions. These clay soils occur on the north and east benches above Upper Smoke Creek in the Black Mountain subunit, and on the lower benches of Five Springs Mountains. Because these soils are prone to exotic plant's invasion and dominance, cattle would be turned out after April 15, or when soils are sufficiently dry to prevent

trampling damage. This grazing guideline is consistent with AMP range condition objectives (3.B.g.) preventing the expansion of Medusahead.

Rationale for season of use changes.

The season of use change would reduce the likelihood of trampling damage to soils, and would reduce cattle grazing during the early growing season on salt desert shrubs. Winter use areas would correlate to the Dry Valley and Salt Marsh subdivisions. Most of the grazing in the winter range would occur during plant dormancy, having relatively little impact on the vegetation, particularly for grasses. The revised season of use is consistence with the Cal-Neva Land Use Plan directives.

Rationale Eliminating the flexibility in the existing 2-pasture deferred grazing system.

Retain the existing the grazing system but eliminate flexibility in the AMP that allows cattle use in the deferred pasture before the deferment date of 7/1. This grazing use does not provide for adequate rest on several areas in the allotment because of considerable grazing overlap by cattle, sheep, wild horses and burros. This flexibility is not consistent with LUP decision that requires one season of growing season rest, for each grazing season.

Rationale for Riparian Stubble Height Utilization Guidelines

Determining riparian utilization by the stubble height method or the height of ungrazed herbage provides reliable information between samplers. The stubble height of 4-6 inches is generally considered adequate for streambank protection and plant vigor.

5.3 Allotment Carrying Capacity

The allotment carrying capacity for livestock and wild horses on public lands is 19,994 AUMs. The allocation for cattle and sheep is 13,430 AUMs and for wild horses are 5,616 AUMs and for Burros is 948 AUMs.

5.3.1 Livestock Carrying Capacity

The livestock forage allocations and mandatory terms and conditions are shown below:

John Espil Sheep Company Incorporated:

Number	Kind	Period of Use	Permitted AUMs
971	Cattle	04/01 to 01/31	9,769
4000	Sheep	04/01 to 05/30	1,578
2000	Sheep	06/01 to 06/30	395
2000	Sheep	09/16 to 09/30	197
4000	Sheep	10/01 to 10/25	658

Laver Ranches:

Number	Kind	Period of Use	Permitted AUMs
102	Cattle	04/16 to 10/31	667

5.3.2 Wild Horse and Burro Management

The wild horse and burro appropriate management levels are identified in Table 5.3.2. The lower population level is based on a four-year gather cycle. The current population of wild horse and burro would be reduced to the minimum levels, and then allowed to increase to the high range.

Table 5.3.2 Twin Peaks Allotment Wild Horse and Burro Appropriate Management Levels

MANAGEMENT UNITS	APPROPRIATE MANAGEMENT LEVELS	
Home Range	HORSE RANGE	BURRO RANGE
Twin Peaks North	155 - 288	22 - 42
Skedaddle,	58 -108	10 -15
Dry Valley Rim	39 - 72	15 - 22
Allotment Totals	269 - 468	47 - 79

Rationale for Management Levels

Monitoring information indicates that current year-long population of wild horses is contributing to overgrazing and trampling of certain riparian/ wetland areas on the allotment. This population of wild horses, and livestock grazing has contributed to overgrazing of key perennial grasses on certain upland areas in the allotment. In several instances, utilization objectives were exceeded by wild horses when the pasture was rested from cattle use. Heavy utilization has slowed the recovery of native perennial grasses in certain areas and the recovery of vegetation at several riparian spring sites. As the population of wild horse and burro continue to increase, grazing impacts are expected to increase, particularly during the hot dry season when animals tend to concentrate on riparian spring sites.

The wild horse and burro Appropriate Management Level (AML) maximum range identified in Table 5.3.2. represents the optimum number of wild horses and burros of each home range. These AML's are identified in the Twin Peaks Herd Management Plan. The minimum number is based on a four-year gather cycle, and an annual recruitment rate of approximately 17percent. The recommended AML would continue to provide for viable herds, and would also provide for a thriving natural ecological balance in the home ranges. These conclusions are based on the analysis and

interpretation of monitoring data such as utilization information and precipitation information, actual use, riparian functional assessment, and rangeland health assessments. In the rested pasture, some riparian areas may continue to receive heavy use from wild horses and burros, however the acreage of heavy utilization levels is expected to decrease overall.

Monitoring information suggests that with livestock management changes, Rangeland Health Standard ROD utilization guidelines would be met under recommended stocking levels for livestock and wild horses and burros. Note that stocking levels were not determined using formulas such as the desired stocking rate formula. The proposed livestock management changes to the AMP would improve livestock distribution in the areas where utilization objectives have not been met in the past. In the long term there should be improvements in native plant vigor and ensure sufficient residual vegetation to improve water infiltration and maintain soil moisture on rangelands. The proposed grazing guidelines reduce the likelihood of grazing impacts on vertisol soils.

5.3.3 Wildlife Management

Wildlife habitat management strategies will be established according to the appropriate (Native Species or Biodiversity) Rangeland Health Standard. Mule deer, and sage grouse issues are being addressed on a regional basis, with regional information, and will include recommendations for reaching habitat objectives. The updated Guidelines for Sage Grouse Management, which includes updated habitat requirements and guidelines will be applied by the BLM were feasible. Feasibility will be determined based on providing healthy sagebrush/perennial grass habitats, and legislative direction.

5.4 Proposed Projects - Long Term Solutions

Skedaddle Mountain Aspen Project: This proposed project includes fencing and burning a two-acre aspen stand to promote regeneration of this decadent stand.

Chimney Area Rehabilitation Project: Restore native rangeland and improve fuel management on approximately 200 acres within the 1985 Twin wildlife area. Currently this area is dominated by cheatgrass and other exotic annual plants.

Research of Medusahead Control Methods and Restoration Project: Researchers will study the effects of soil amendments, and fire regimes for medusahead control. Native seed mix will be tested for site restoration on 2 small plots near Five Springs Mountain. Study is over a 3-year period.

Determine the feasibility of constructing additional water sources in Painter Flat area.

Determine the feasibility of constructing the following fences:

A north/south drift fence on the east side of Bull Flat for the purpose of managing livestock grazing for the improvement riparian conditions in the West Fork of Rush Creek area.

A drift fence(s) in the vicinity of Horse Corral Spring and Spur Spring to improve the management livestock and wild horses.

A drift fence in the vicinity of Burro Creek for purposes of managing livestock use in the Lower Smoke Creek area.

5.5 Future Monitoring and Evaluations.

The Eagle Lake Field Office will continue to monitor all existing studies and establish additional studies shown below for purposes of measuring vegetation and other resource attributes. The monitoring data collected in the future would provide necessary information to detect progress in meeting management objectives and Rangeland Health Standards. If monitoring information identifies resource problems, changes would be made annually.

> Assess existing upland key areas for adequacy of information gathered.

> Reassess ecological status on key areas, and collect cover and litter information at 5-7 year intervals using the appropriate methodology described in BLM technical references. Frequency data may not be collected in the future because this information is of limited utility in assessing Rangeland Health. Cover and litter are important vegetation characteristics for determining habitat conditions, and for determining the integrity of the biotic community.

> Continue to collect riparian "Greenline" information for assessing riparian condition and trend.

> Reexamine riparian sites determined to be functioning at risk with static or downward trends in 1995/96. Collect additional riparian functionality data on sites not assessed.

> Utilization pattern mapping would continue to occur on the allotment for at least 1 grazing cycle, following the application of the proposed management changes.

▸ Continue to collect utilization data on the priority and key riparian spring wetlands, and streams.

6. Consultation

In August 1996, the Twin Peaks Allotment interested publics list was updated by soliciting to all known interested publics a request requiring positive written response to reaffirm their desire to be involved with the management of the allotment. Based on the response to this letter, eight entities are recognized as interested public, not including permittees and state agencies.

Conclusions of this allotment evaluation were based upon monitoring data collected and consultation with the livestock permittees, wild horse and burros interests, state wildlife agencies and other interested parties. On July 28, 2000, a draft copy of this report was mailed to the above participants. Written comments to the draft report were received from Intermountain Range Consultants for John Espil Sheep Company, Inc.; Sierra Club, and the Nevada Division of Wildlife

(NDOW). BLM's response to their comments is provided below.

Response to NDOW's Comments:

Background Planning Information, concerning Allotment Carrying Capacity

The carrying capacity for the Cal-Neva Planning Unit was established by the Grazing Decision of June 24, 1983, and was based on a range inventory conducted in 1979. This decision also established permitted livestock use levels, wild horse and burro appropriate management levels for the Twin Peaks Allotment.

The allotment monitoring data, such as use pattern information and upland key area utilization transect information shows that most of the allotment is in the slight to light utilization class. The moderate objective established in the land use plan was exceeded on less than 5% of the allotment. This information implies that current carrying capacities established for livestock, wild horses and burros are reasonable and consistent with land use plan management objectives.

If this information is not consistent with your observation, we will accept any monitoring data or other information that should be considered in this monitoring report and the proposed multiple use decision for the Twin Peaks Allotment.

1.3 Allotment Pastures

On March 6, 1992, BLM issued a grazing decision implementing an "Agreement Concerning the Twin Peaks Allotment Management Plan"(addendum) and a Decision Record for the environmental assessment "Concerning Livestock Grazing on the Twin Peaks Allotment." These decisions incorporated 13 subunits in the AMP developed by the 1989 Twin Peaks AMP Review Committee. The subunit's boundaries were based on resource issues, such as soil complexes or vegetation types. The subunit's descriptions were also intended to improve communication for present and future management. While the addendum refers to annual adjustments in livestock use by subunit or pasture, basis, the subunit's boundaries generally are unfenced, and are not necessarily use areas, or pastures for setting stocking levels. It has been our experience that stocking rates established or otherwise validated by the desired stocking rate formula requires specific parameters, such as a large fenced valley of similar soils and vegetation types. Setting stocking levels by using actual use and utilization (the necessary elements of the desired stocking rate formula) is not always effective in reducing overuse on small isolated unfenced riparian areas and stream riparian zones. Factors such as uneven topography, annual variability in precipitation, and open boundaries between subunits add to the complexity of determining the appropriate stocking rate. We are proposing to start management guidelines that provide for rotation grazing and hot season rest for certain riparian areas. Given the large acreage of less than 40% utilization in the Twin Peaks allotment, the existing carrying capacity is reasonable and sustainable.

1.7 Invasive Weeds

We are not aware of extensive research describing the extent of Medusahead invasions into Nevada. Please send us any information or data concerning this exotic weed.

2.1 Wild Horse Management

Recommended Appropriate Management Levels (AML) are contained in Section 5.3.2. of the evaluation. The high ranges (optimum number), were established at the pre-1992 AML for the home ranges in the allotment. The minimum number was adjusted for a four year gather cycle, rather than the current three year gather cycle. The population range was calculated using existing information on herd recruitment of 17% annually.

2.2.1 Native Species

Habitat management for wildlife use is guided by the Rangeland Health Standard for Biodiversity developed according to 43 CFR 4180.2(b), documented in the Northeastern California and Northwestern Nevada Standards for Rangeland Health and Guidelines for Livestock Grazing Management, prepared by the Bureau of Land Management, California State Office, June 1999, and approved by the Secretary of The Interior, July 13, 2000. The Standard reads as follows:

STANDARD 5: BIODIVERSITY

> *Viable, healthy, productive, and diverse populations of native and desired plant and animal species, including special status species, are maintained.*

Meaning That:

Native and other desirable plant and animal populations are diverse, vigorous, able to reproduce and support nutrient cycles and energy flows.

Criteria to Meet Standard:

1. Wildlife habitats include seral stages, vegetation structure, and patch size to promote diverse and viable wildlife populations.

2. A variety of age classes is present for most species.

3. Vigor is adequate to maintain desirable levels of plant and animal species to ensure reproduction and recruitment of plants and animals when favorable events occur.

4. Distribution of plant species and their habitats allow for reproduction and recovery from localized catastrophic events.

5. Natural disturbances such as fire are evident but not catastrophic.

6. Nonnative plant and animal species are present at acceptable levels.

7. Habitat areas are sufficient to support diverse, viable, and desired populations and are connected adequately with other similar habitat areas.

8. Adequate organic matter (litter and standing dead plant material) is present for site protection and decomposition to replenish soil nutrients and maintain soil health.

The Rangeland Health Standards are listed in Section 4. Conclusions-Objective Attainment Determination. The list referred to in the draft evaluation (Environmental Assessment CA-026-92-07) was prepared using the California Wildlife Habitat Relationship System (CWHR). While CWHR is very helpful in preparing lists of potential wildlife species occurrence over a wide area, it does have shortcomings as described in the California Wildlife Habitat Relationship System User's Manual. The two major errors are commission; listing species which do not actually occur within the inquiry area, and omission; (not listing species which do occur within the inquiry area). A test for these errors performed by the California Department of Fish and Game found the following:

Life Form	Commission Error	Omission Error
Amphibians	73%	2%
Birds	37%	13%
Mammals	56%	8%
Reptiles	55%	10%

A more accurate listing of species was prepared for the Cal-Neva Unit Resource Analysis portion of the Cal-Neva Grazing Environmental Impact Statement. We will be using this listing to establish a species list data file for future CWHR inquiries. A copy of this list is available upon request.

2.2.2 Flagship Species

Mule Deer

NDOW has provided specific mule deer data on several occasions. We are not sure which of these data you are requesting be put into the evaluation. Please contact Donald Armentrout of my staff at (530) 257-0456 to confirm your specific data request.

Sage Grouse

A copy of the 1992 lek data is being sent to Donald Armentrout by your Habitat Staff Specialist to insure we are addressing the proper report.

The discussion on Page 9 concerning sage grouse and degraded sagebrush habitats needs clarification. Sage Grouse numbers reported by the California Department of Fish and Game shows a slight local increase in northeastern California and northwestern Nevada which encompasses Twin Peaks Allotment. Across the West, however, there is a reported decline in sage grouse numbers, and loss of habitats. Historically sagebrush habitats have been degraded within the Twin Peaks Allotment. Current information suggests this historic loss is being held in check.

3.5.1 Use Pattern Mapping

Use pattern mapping information was collected for most of the allotment in 1999, and for south pasture in 1998. In 1999 the south pasture was rested from cattle use. This utilization information can be compared with and without cattle to decide relative utilization by various animals. Attached to the evaluation report are use pattern maps for 1999, 1994, 1993, and 1992. The 1998 use pattern map is available for review at the Eagle Lake Field Office.

Generally during the evaluation period, mid-season utilization inspections were made at upland areas where utilization problems have been identified in the past, and riparian areas (North Fork Buffalo Creek, South Fork Parsnip Wash, and on Lower Smoke Creek) identified with 40% utilization guidelines. We believe those annual utilization measurements taken at or near the end of the grazing season are the best estimates of current years' production grazed or damaged by grazing animals. However, because of limited access to certain areas of the allotment, particularly following inclement weather, utilization measurements on the higher elevations of the allotment are usually taken in November. This utilization information may not fully account for all use on the allotment and could under estimate the utilization of wild horses in areas where they tend to concentrate during the winter months.

Use pattern mapping indicates that the acreage of heavy utilization has increased from approximately 2% of the allotment in 1994 to approximately 5% in 1999. During this period, actual use for livestock has been constant, while wild horse and burro actual use has doubled since 1995. This information suggests the increase in utilization is contributed to wild horses. However, based on field notes, cattle and wild horses have both contributed to this over utilization on certain upland areas and riparian areas. With changes to livestock management and adjustments of wild horse and burros populations, grazing impacts would be alleviated on certain riparian areas not meeting Rangeland Health Standards.

3.6.2 Rangeland Ecological Status

Responses of ecological sites, and individual species to fire and drought is very complex. Some species are killed by fire while others respond vigorously. Those sites which have evolved with fire and are in Late Seral or Potential Natural Community status should recover from fire rapidly and retain their community status. Drought complicates the response of ecological sites to disturbance even further. The presence or absence of exotic invasive species also works to limit the response of ecological sites to disturbances such as fire or drought. A more in-depth discussion of the influence of fire on various habitats can be found in the *Influence of Fire on Wildlife Habitat in the Great Basin: A Position Statement by the Nevada Chapter - The Wildlife Society, August 16, 1998,* Transactions of the Western Section of The Wildlife Society, 1998, Volume 34 pp. 42-57. Because the Twin Peaks Allotment has the potential for encompassing approximately 90 ecological sites, we need specific examples of ecological sites to provide specific answers.

3.9.1 Riparian Functional Assessment

Wildlife habitat is characterized in conjunction with the Riparian Functional Assessment (RFA) by including the collection of plant cover and median height for each species present. These data will

be classified into habitat types using a differentiating species form of divisive cluster analysis. The collection of these data and their analysis are not part of the RFA but an additional layer of data collected while visiting each site. As explained to the NDOW Region I representatives in our May 29, 1996 coordination meeting, the RFA itself does not reflect wildlife habitat condition. The RFA reflects the hydrological health of the riparian/wetland site being assessed. Because of this limitation, we collected the supplemental habitat data.

Dominance of upland vegetation species is not in themselves an adverse impact to RFA ratings. Three criteria must be present for a riparian/wetland determination. These criteria are hydric soils, hydrologic function, and vegetation typically adapted for life in saturated soil conditions (USDA 1994). Wetlands dominated by Facultative Upland (FACU) Plant Species are addressed in Technical Reference 1737-11 titled *Riparian Area Management - Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas*, dated 1994, as follows:

> *Since wetlands often exist along a natural wetness gradient between permanently flooded substrates and better drained soils, the wetland communities sometimes may be dominated by FACU species. Although FACU-dominated plant communities are usually uplands, they sometimes become established in wetlands. To decide whether a FACU-dominated plant community constitutes hydrophytic vegetation, the soil and hydrology must be examined. If the area meets the hydric soil and wetland hydrology criteria, then the vegetation is hydrophytic.*

Of the 69 riparian/wetland (lentic) sites assessed in the Twin Peaks allotment, 61 (88%) met the vegetation criteria. The remaining eight sites (12%) did not. Of the 59 streams (lotic) sites 55 (93.5%) of the sites assessed met the vegetation criteria. Of the four which did not meet the vegetation criteria most did not meet the criteria because of rock lined courses. Domination by bare ground would not result in a PFC rating. Those sites which had a high percentage of bare ground were, perhaps, viewed after summer utilization and recovered the following spring after rest. Utilization mapping in1999 identified three wetland/riparian sites, which had heavy utilization. Of these, two sites are repeats of previous years (Spenser Basin and Horse Spring between Painter and Mixie Flat). These are being addressed in the evaluation in relation to utilization by wild horse and burro with livestock use. We would appreciate specific locations for those wetlands cited as dominated by bare ground.

4.1 Rangeland Health Standards

No portion of the Twin Peaks Allotment qualifies as ephemeral rangeland as defined in 43 CFR §4100.0-5. Ephemeral rangeland, as defined, occurs in hot desert regions.

Extrapolation of Upland (Rangeland) Health Assessment data across the allotment based on 70,000 acres of assessment in 1999 and 16,000 acres in 2000 is not biologically or statistically appropriate. As previously stated Twin Peaks allotment has the potential for encompassing approximately 90 different ecological sites which, when aggregated into habitat types, as defined by the Natural Resources Conservation Service, has the potential for 64 habitat types. The habitat types should respond to the same stimulus in

basically the same manner, assuming all other conditions remain equal. In an area the size of the Twin Peaks Allotment there can be several local weather patterns and climatic events. These spatial differences can account for too many significant deviations in responses to stimuli to support simple extrapolation. This would be somewhat akin to stating unequivocally that mule deer are equally distributed across a 370,000 acre landscape.

Nine of the 17 indicators used in assessing rangeland health are used to detect departure of biotic integrity attributes from that expected in that specific ecological site or reference area. Any combination of indicator departure from the expected can be found on the same soil, in the same ecological site in the variety of locations the site may occur on the landscape. Note: A copy of the *Interpreting Indicators of Rangeland Health Version 3.0 (July 2000) Handbook* has been sent to Dave Pullium, Habitat Staff Specialist. This is an advance copy of the final Handbook. A copy ready version of this Handbook is available upon request. A rating of Moderate (At Risk) for either soil/site stability, biotic integrity, or hydrologic function means the site is at risk of crossing a threshold into the Moderate to Extreme or Extreme departure from the expected. It does not, in its self, reflect impacts of current management, and should not be interpreted as indicating more than the state of the site in relation to indicators of rangeland health.

5.3 Allotment Carrying Capacity

Carrying capacity computations based on stocking rate formulas were not generated for the evaluation. The rationale for maintaining existing wild horse and burro AML for the home ranges within the Twin Peaks allotment is based on monitoring data. Specifically utilization data suggests the current carrying capacity established by the 1979 range survey is reasonable for the allotment.

5.3.3 Wildlife Management

Any multiple use decision issued will be consistent with the Standards for Rangeland Health approved by the Secretary of the Interior. This includes the Biodiversity standard.

Your comments reference a possible tour of the Twin Peaks Allotment. We believe a timely tour of the allotment would accomplish much in the way of increasing understanding between our agencies, and the livestock operators on how we look at the land. The tour would require three days, and specific objectives to be successful. Our objectives for such a tour would be:

- Visit several sites which have been assessed by the upland health assessment I.D. Team. These sites would be an array of levels of rangeland health including ecological reference areas and ecological representative sites.

- Visit those sites referred to in your comments as less than healthy, and applying the rangeland health assessment, or proper functioning condition assessment as described by BLM protocol.

- Visit representative areas within key mule deer, and sage grouse habitat, and discuss site potentials for producing habitat requirements.

Response to Comments Received from Intermountain Range Consultants.

2. Sage Grouse

Page 9 "Conversion's" of sagebrush habitats: It is true that part of the conversion discussed did occur because of wildfires which were not rehabilitated. It is also true that part of the conversion is a result of historic improper grazing practices. As recently as the 1970s the BLM took legal action to remove John Casey from the Twin Peaks Allotment because of consistently ignoring proper grazing practices. If the John Espil Sheep and Cattle Company, Inc. is interested in helping the BLM obtain funding for rehabilitation of depleted rangelands their efforts would be greatly appreciated.

Recent successful rehabilitation efforts using native species have been reported in the Great Basin Naturalist (now titled as the Western North American Naturalist). As a food source forage kochia has lower levels of digestible protein than several native shrub and half-shrub species. Structurally forage kochia does not meet the structural requirements for mule deer hiding or thermal cover. Monoculture seeding of crested wheatgrass result in fragmentation of shrub habitats and overall loss of shrub dependent wildlife species with an influx of grassland dependent species.

3. Mountain Sheep

On November 17, 1998 at a "Whistle Stop" mountain sheep presentation at the Susanville Depot, Donald Armentrout, Wildlife Management Biologist accurately stated before approximately 30 persons including John Espil Jr. that domestic sheep grazing would have to cease in the area identified as mountain sheep habitat before an introduction could occur. The cessation of domestic sheep grazing would have to be voluntary because; "the BLM is not going to put anyone out of the sheep grazing business simply to reintroduce mountain sheep." This statement was repeated on January 27, 1999 during the same presentation to the Rotary Club of Susanville. The purpose in preparing the Site Release Plan is to document the steps necessary to accomplish a successful reintroduction of mountain sheep into the Skedaddle Mountains. Important points will include showing the extent of the habitat any reintroduced mountain sheep will probably occupy, the need for Land Use Plan amendments prior to reintroduction, and the voluntary cessation of domestic sheep grazing. These issues were discussed with John Espil Jr. during our meeting Friday, September 8, 2000.

4. Grazing Management Background

Change of the term "critical" to "Crucial" on Page 11: As discussed in our meeting, Friday, September 8, 2000 use of the term "critical" to describe habitats on federal lands is only

appropriate when discussing lands which have been formally designated as critical by the U.S. Fish and Wildfire Service for a federally listed species according to the Endangered Species Act of 1973, as amended. The term crucial carries approximately the same weight with the BLM for non-listed species on public Land as critical habitat for listed species.

5. Wildlife Use

Predator control in the Twin Peaks Allotment probably does contribute beneficially to sage grouse. The level of significance has not been quantified. In fairness, if we are going to credit predator control in one allotment, we must discuss the potential adverse impacts of temporarily increasing predator density in areas adjoining the Twin Peaks allotment resulting from predator control. Sage grouse concerns are regional rather than local to one allotment, and must be addressed on a regional basis.

6. Interpretation of Utilization and Trend Information

The statement was rewritten for clarification: Utilization information can be used to establish cause and effect interpretations of range trend data, along with actual use, and climatic information.

7. Riparian Functional Condition

Table 4.1.1 was modified to include acres of riparian/wetland sites, and miles of stream in the various functional conditions. The table reports that approximately 53 miles of streams were inventoried on the allotment. We believe this inventory represents an estimated 95 percent of all streams in the allotment. Your figure of 100 miles of stream in the allotment may not have included the results of field inventories, and may have also included streams on private lands.

8. We agree that the majority of the riparian/wetland spring sites and stream reaches in the allotment are functioning or functioning at risk with an upward trend and are therefore meeting or progressing toward meeting riparian Rangeland Health Standards. PFC rating does not imply that habitat conditions are being met on the allotment. Properly functioning condition rating (PFC) is the minimum threshold. After achieving PFC, management should progress toward achieving a desired plant community, and then achieving a desired future condition, which would include habitat conditions. Generally, the BLM goal is to achieve an advanced ecological status, except where resource management objectives would require earlier successional stages. As you know, the process of establishing desired plant communities would be based on management objectives developed through an interdisciplinary approach, and incorporated in the allotment management plan. In the short-term, we are required to carry out Guideline 16 according to the Record of Decision for the Standards and Guidelines for Rangeland Health in NE California and NW Nevada. Guideline 16 states that stubble height of 4-6 inches will occur for 2 consecutive years or in any 2 years out of every 5 years. This guideline applies to riparian areas that are nonfunctional or functional at risk and where

these lighter utilization levels would be expected to move these riparian areas toward meeting the standard.

9. Cal-Neva ROD/Activity Plan Objectives Determinations and Rationale

Self contradictory c: This statement appears to reflect the conundrum of interpreting ecological site status in relation to specific wildlife species needs. Assuming sagebrush canopy cover is the only condition for sage grouse management, we would have to presume that the ROD and Activity Plan Objectives did result in a decline in sagebrush cover. These objectives are an example of the problem being cited by those concerned with sage grouse declines. ROD and Activity Plan objectives being set without regard for sage grouse habitat needs have been cited as a major cause for habitat decline. The total sagebrush/perennial grass ecosystem needs to be addressed as a whole to find out if the decline in sagebrush canopies is the key to the decline in useful sage grouse habitats.

10. Technical Recommendations

The grazing decision of June 24, 1983 required that AMP's use grazing systems to meet allotment objectives. There is no evidence that season long grazing is consistent with meeting allotment objectives or rangeland health standards, and is contrary to results of most rangeland management research. The Cal-Neva MFP and the final Cal-Neva EIS discuss the detrimental effects of allowing animals to concentrate in certain areas. Proper livestock distribution and growing season deferment to improve the vigor of perennial grasses are well documented.

The 1992 AMP addendum states that livestock actual use will be provided to the BLM on a subunit basis for purposes of determining the proper carrying capacity by using the desired stocking rate formula (the weighted average formula is stated in your comments). The application of stocking rate formulas to establish carrying capacities is credible when actual use by livestock, wild horses and burros can be determined with some level of certainty for that particular area. Since 1992, cattle turn out areas have been generally provided to the BLM on a subunit basis. However given the open subunit boundaries it is unclear when the cattle drift from the subunit or were herded to and from the various subunits. Actual use of sheep has never been provided to the BLM on a subunit basis. Lacking these essential variables makes computations of carrying capacities meaningless. Other factors such as uneven topography of the allotment and extreme variability in weather of recent years add to the complexity of determining appropriate carrying capacities based on stocking rate formulas.

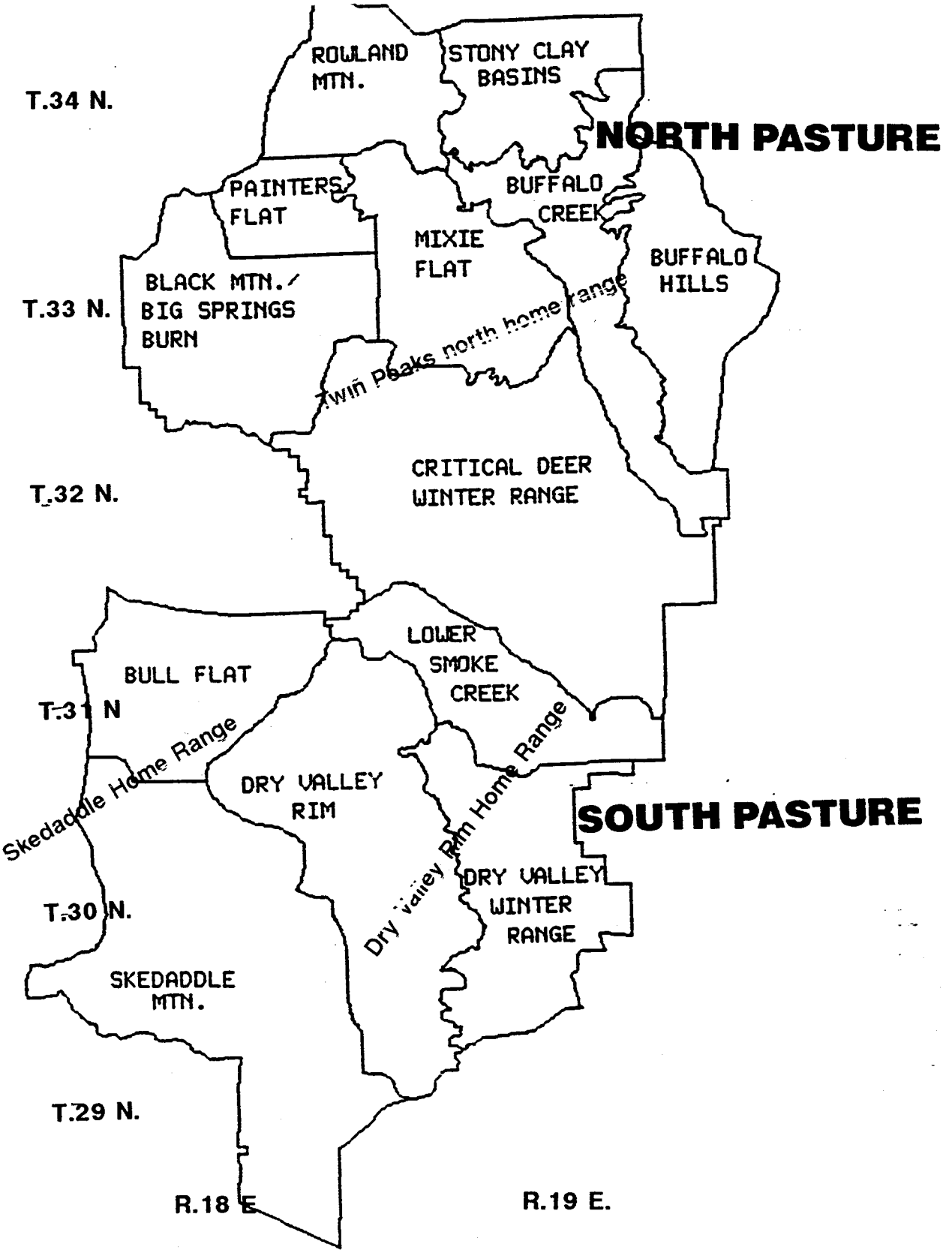
Comments from the Sierra Club are noted.

7. NEPA Review

A NEPA review will be conducted to decide if the management actions developed through the evaluation process are in conformance with the range of alternatives identified in the Cal-Neva Land Use Plan Final Environmental Impact Statement, the Environmental Assessment CA-026-92-07: Concerning Grazing in the Twin Peaks Allotment, Decision Record, March 6, 1992; and The Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS.

TWIN PEAKS ALLOTMENT
SUBUNITS and HOME RANGES

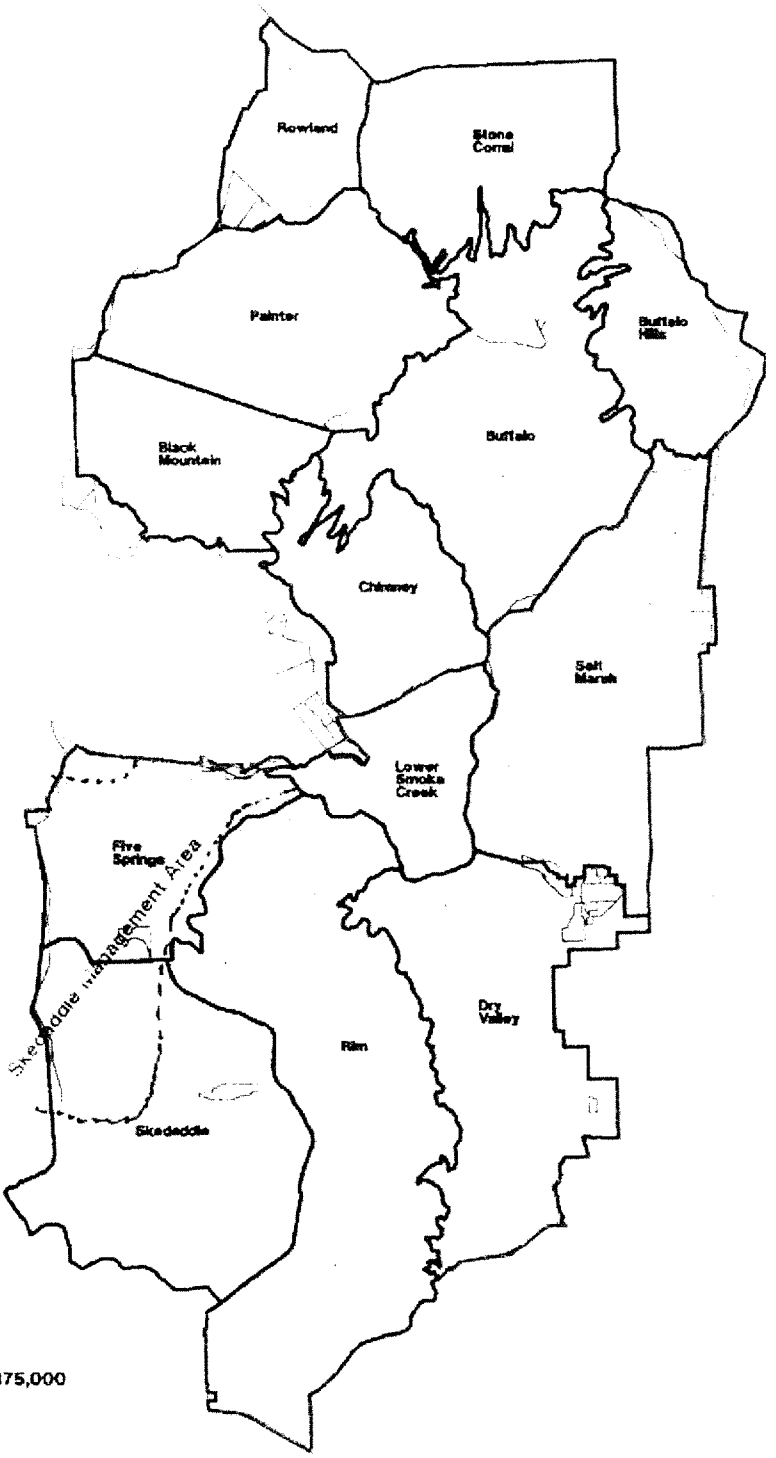
Map 1



Twin Peaks Allotment

Allotment Subdivisions

- Fences
- Allotment Subdivisions



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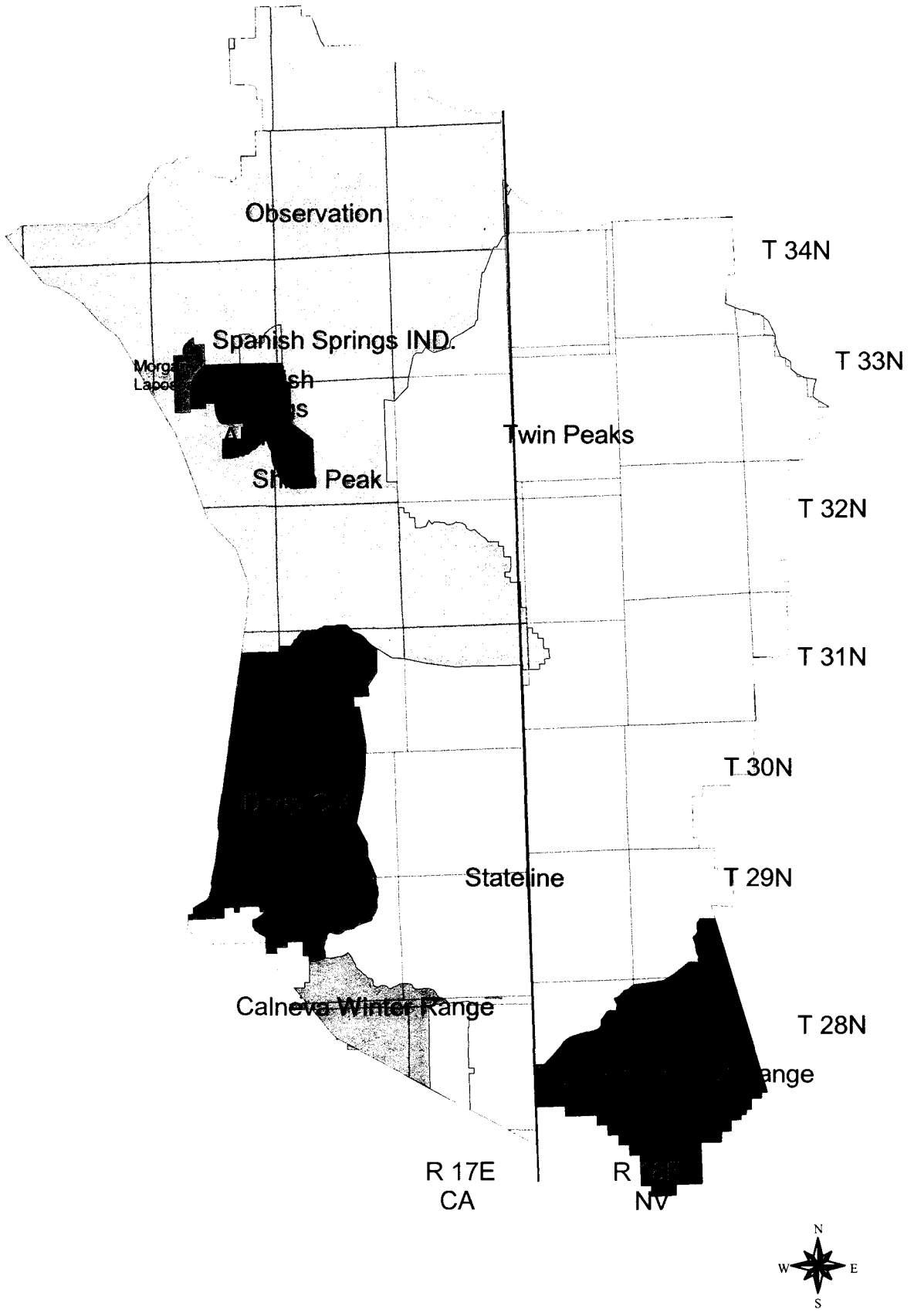
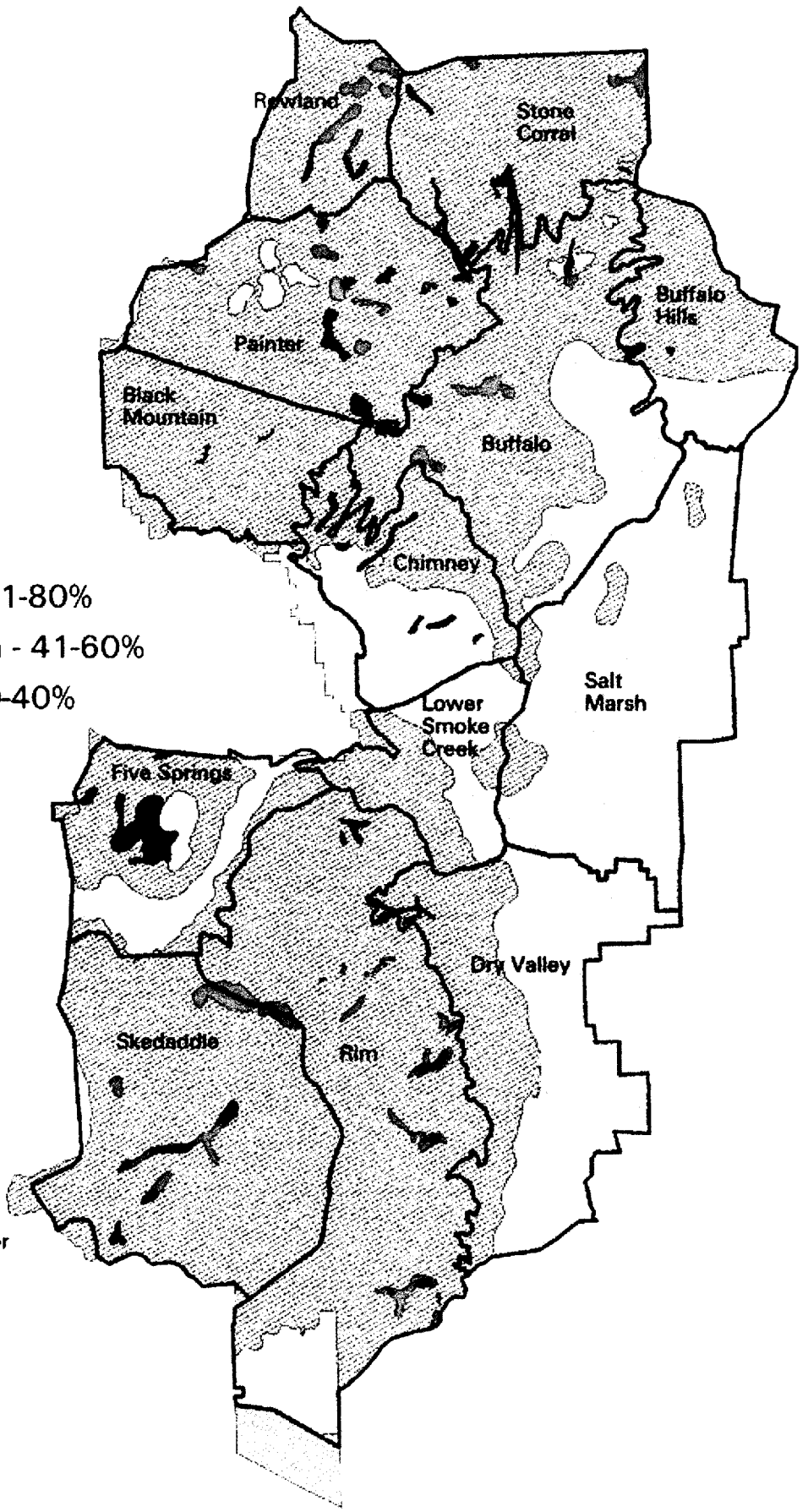
MAP 2

Grazing Allotments/ CALNEVA



Twin Peaks Allotment



Grazing Utilization 1992

- Heavy Utilization - 61-80%
- Moderate Utilization - 41-60%
- Light Utilization - 10-40%
- Low Production
- Area Not Mapped

Scale

5 0 Miles

1 : 316087.20

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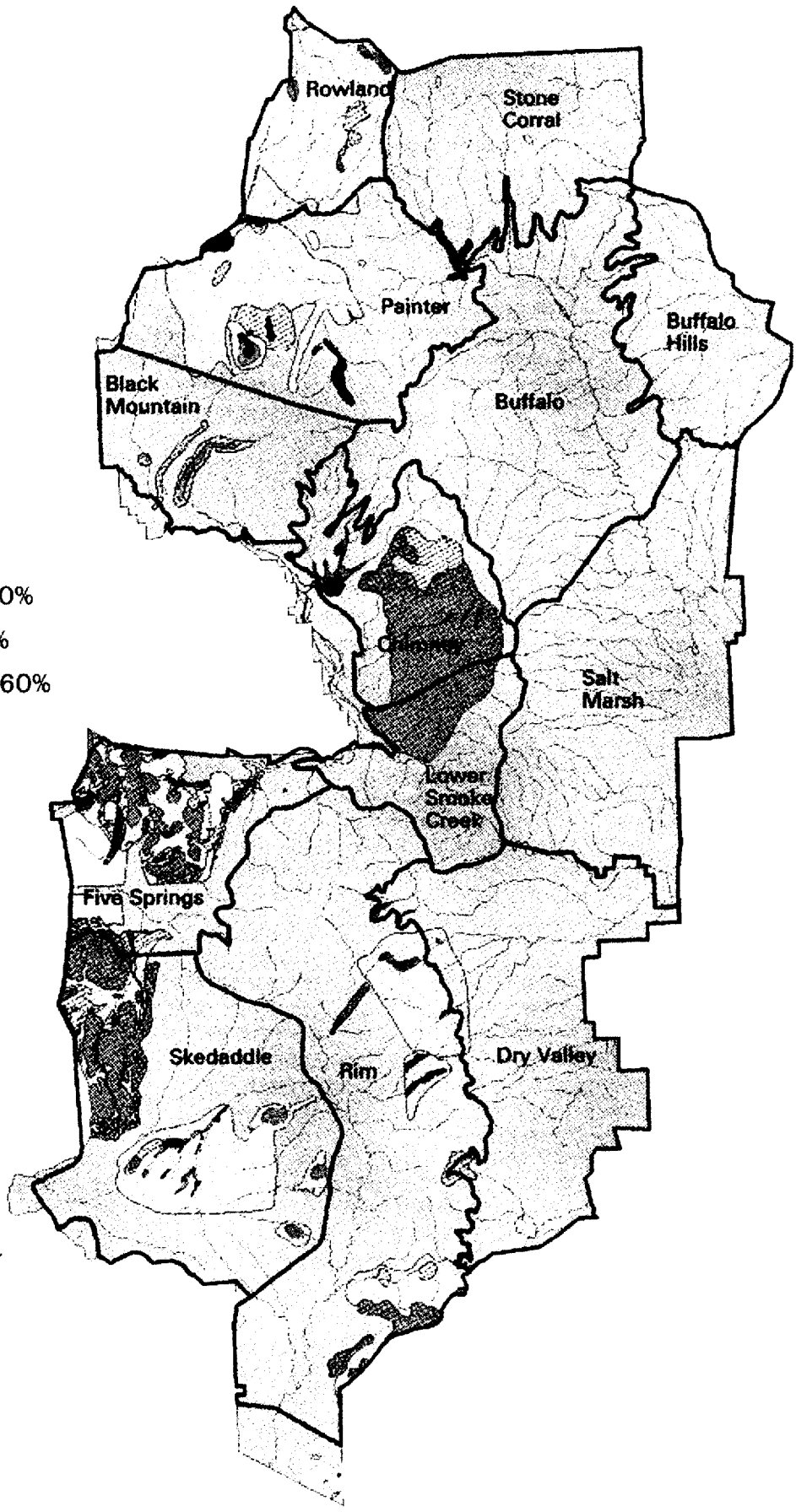
Bureau of Land Management
Susanville District
Eagle Lake Resource Area

1/16/95

Twin Peaks Allotment



Grazing Utilization 1993

- Severe Utilization - 81-100%
- Heavy Utilization - 61-80%
- Moderate Utilization - 41-60%
- Light Utilization - 21-40%
- Slight Utilization - 6-20%
- No Utilization - 0-5%
- Low Production
- Area Not Mapped

Scale

5 0 Miles

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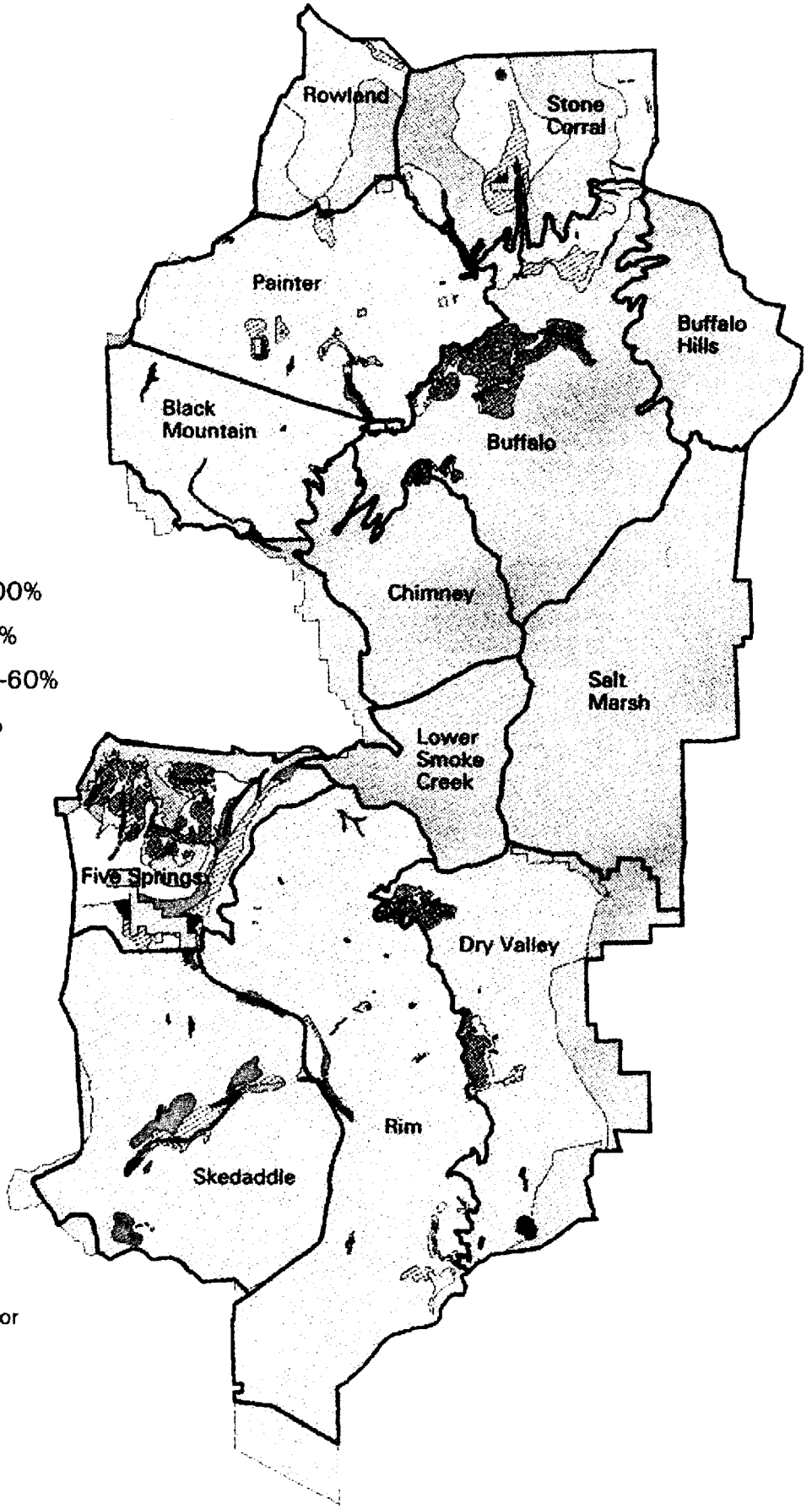
United States Department of Interior
Bureau of Land Management
Susanville District
Eagle Lake Resource Area

1/16/95

Twin Peaks Allotment



Grazing Utilization 1994

- Severe Utilization - 81-100%
- Heavy Utilization - 61-80%
- Moderate Utilization - 41-60%
- Light Utilization - 21-40%
- Slight Utilization - 6-20%
- No Utilization - 0-5%
- Low Production
- No Forage
- Area Not Mapped

Scale

5 0 Miles

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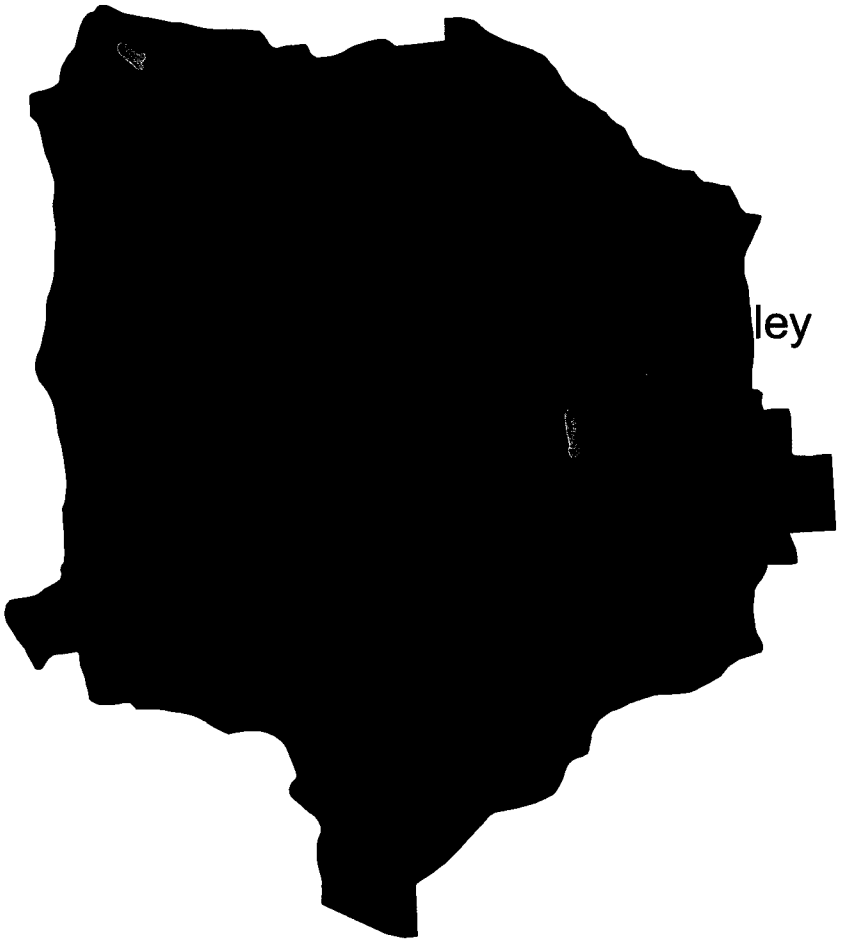
Bureau of Land Management
Susanville District
Eagle Lake Resource Area

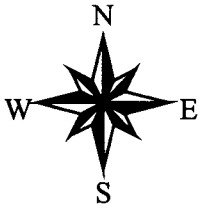
1/16/95

Twin Peaks Allotment
South Pasture

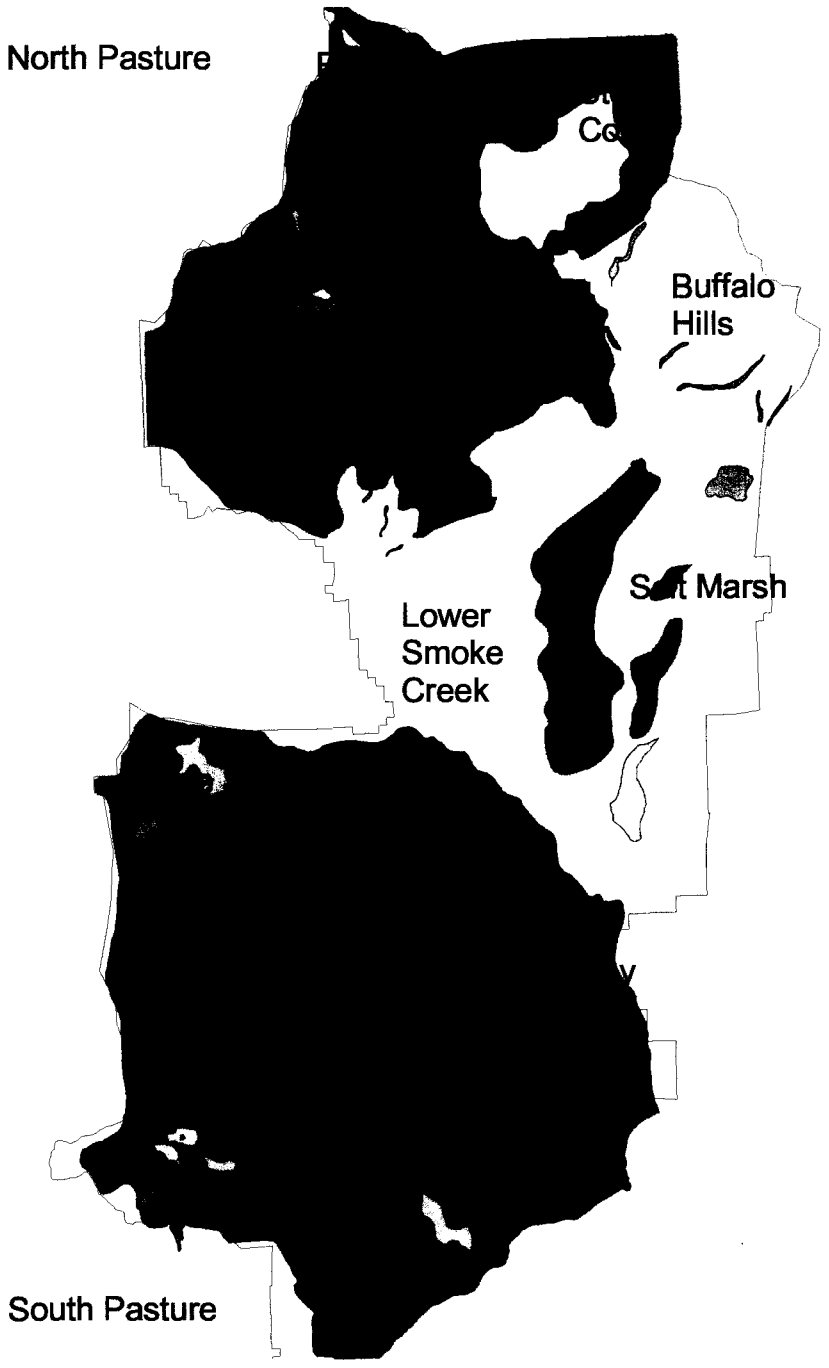


Grazing Utilization
1998

	Acres
Light 0-40	164,908
Heavy 61+	3,413
Moderate 41-60	376



Twin Peaks Allotment



Grazing Utilization 1999

Acres

- Not mapped
- Heavy 61+
- Moderate 41-60
- Light 0-40

United States Department of Interior
Bureau of Land Management
Eagle Lake Resource Area
8/29/00

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Appendix 1, Land Use Planning Information and Glossary

A. Land Use Plan Objectives: October 13, 2000

1. The following list of decisions from the Land Use Plan Record of Decision (ROD) may affect the management of livestock, wildlife, wild horses and burros in the Cal-Neva.

– "Adjust wild horse and burros populations to 600 horses and 75 burros. Allow populations to build to 850 and 110, respectively, when range condition improves.

- Divide the Cal-Neva Summer Allotment into three use areas [allotments].

- Implement intensive grazing systems on the Cal-Neva Summer, Cal-Neva Winter, Spanish Springs AMP, and Shinn Mountain Individual Allotments. Develop systems to give particular consideration toward improving and maintaining riparian, wetland, and meadow habitat to enhance and protect wildlife and watershed values. Monitor key areas to determine to what degree the systems are meeting the resource objectives.

- Provide a minimum of one season's rest from cattle during the growing season for every year's grazing during the growing season.

- Establish grazing seasons to meet plant and soil needs.

- Establish moderate use limitations of 40 percent to 60 percent use during the grazing season.

- Authorizations near existing livestock use of 25,248 AUM's for cattle and 4,766 AUM's for sheep. Adjust future stocking levels as range conditions and trend improves and production increases.

- Allow partial conversion of cattle to sheep use.

- To allocate forage for "reasonable" and "objective" wildlife populations (deer -12,900 winter and 10,700 non-winter, and antelope - 2,000 winter and 1,300 resident non-winter) as determined by the Nevada Department of Wildlife and the California Department of Fish and Game.

- To maintain or enhance soil, within its potential as a growing medium for range plants, to provide for the sustained yield of desirable range plants. Generally on range lands, 2 tons/acre/year are considered tolerable surface soil loss.

2. General Land Use Goals for the Twin Peaks Allotment

- Develop an intensive grazing system which will eventually achieve the following: Fair ecological range condition and upward trend or stable trend on those sites already in good condition.

- Improve water distribution to obtain better dispersement of livestock, horses and burros.

- Provide habitat for objective deer and antelope populations as well as maintain or improve condition of fawning and kidding grounds.

- Improve important wildlife habitat including riparian and meadow areas.

- Maintain or enhance soil to provide for the sustained yield of desirable range plants with no more than 2 tons/acre/year soil loss.

- Manage wild horse and burro populations to assure healthy herd condition as well as to prevent undue destruction of the range from over population.

- Maintain or increase water quality and quantity.

- Protect archaeological resources and areas potentially suitable for wilderness consideration as

required by law."

B. Standards and Guideline Implementation Process.

Implementation of Rangeland Health Standards and Guidelines will follow four basic steps, including initial screening, monitoring, additional inventory or assessment, and management change. Since it is not possible to complete assessments of rangeland health and to take the appropriate corrective action as necessary on all public rangelands. BLM prioritized allotments based on management needs and by using the Selective Management system established in Cal-Neva EIS ROD. Each allotment was classified into categories, based upon available data, and professional judgement of the staff. There is a total of four allotment categories:

1. Areas where one or more standards are not being met, or significant progress is not being made toward meeting the standard(s), and livestock grazing are a significant contributor factor to the problem;

2. Areas where all standards are being met, or significant progress is being made toward meeting the standard(s);

3. Areas where the status for one or more standards is not known, or the cause of the failure to not meet the standard(s) is not known;

4. Areas where one or more standards are not being met, or significant progress is not being made toward meeting the standard(s), but some factor other than livestock grazing is the primary contributor to the problem.

Monitoring process is used to determine whether there is satisfactory progress toward meeting resource objectives, and Rangeland Health Standards. Monitoring is conducted in accordance with procedures and methodologies identified in BLM and Interagency Technical References and the 1992 Twin Peaks Allotment Monitoring Action Plan. The monitoring process involves the analysis and interpretation of resource data, and should establish cause and effect - determining what animal is causing a specific resource condition or resource deterioration, if any. Monitoring is intended to be a continuing land use planning process, whereby new monitoring data will be used to periodically update the forage allocation decisions for wild horses, wildlife and livestock. Management objectives dictate the types of monitoring studies that are initiated. The evaluation process recommends management actions that are needed to accomplish specific management objectives.

C. Background Information for the Multiple Use Decision Process

The modification or changes to terms and conditions of the permit will be implemented by a multiple use grazing decision (MUD). The basis of the decision is the analysis of monitoring data collected on the allotment. This decision process will be used to establish AML's for wild horses and burros within the allotment, and any actions that may be necessary for wildlife habitat or population management. Issues of livestock, wild horses and burros grazing are all interrelated, primarily because of dietary overlap. This necessitates forage allocation for all the users of the vegetation resources, rather than separate adjudications. Protest or appeals of livestock, wildlife, wild horse and burro decisions would be consolidated for the purpose of a holding one hearing

The amount of grazing use authorized by the BLM is based on available forage as established in the land use plans, activity plans or by monitoring analysis and is expressed in animal unit months (AUMS). This is referred to as Permitted Use. Permitted use is specified in grazing permits or grazing leases. Active use or authorized grazing use made by a permittee annually may include a portion or all of the permitted use. Active use may also vary by grazing year and could be less than the permitted use. Any changes required to the amount of grazing use are made from permitted use (an increase or decrease and/or modification to management practices) are implemented through a documented agreement or by decision. 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. Changes to permitted use are made in consultation with the affected permittees, and the interested public.

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.

The Cal-Neva Land Use Plan established Wild Horse and Burro Appropriate Management Levels (AML), permitted use levels, management objectives, and stated monitoring would occur on an allotment basis. At that time forage allocations were based on a one point in time inventory. In 1989 the Interior Board of Land Appeals (IBLA) Decision found that AML would be established after inventory and monitoring over time, and not only by a one-point in time inventory.

D. NEPA Compliance and Conformance

Proposed actions associated with the evaluation process are analyzed through the NEPA process to determine if they are in conformance with the scope of alternatives identified in either the Cal-Neva Management Framework Plan of August 1982; the Environmental Assessment Concerning Grazing in the Twin Peaks Allotment dated February 28, 1992; and the Rangeland Health Standards and Guidelines for California and Northwestern Nevada grazing environmental impact statements dated April 1998. In those cases, where elements of the proposed action is not covered by an existing NEPA documentation, then an environmental assessment is completed with a variety of alternatives. In coordination with the public consultation process, development of management actions may occur up to the point of incorporation into the final multiple use decision (FMUD).

E. 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 (TGA) 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 decision making 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.

		ACTUAL USE by LIVESTOCK (AUMs)				ACTUAL USE WILD HORSE BURRO (AUMs)	TOTAL ACTUAL USE (AUMs)	REMARKS
YEAR	PASTURE	ESPIL SHEEP	ESPIL CATTLE	LAVER CATTLE	PASTURE TOTAL			
1990	NORTH	1614	2499	0	4113	3492	7605	South pasture turnout for cattle; wild horse and burro actual use estimated by adding 17% annual recruitment rate to the 1989 census.
	SOUTH	889	5831	665 19 EOU	7404	3456	10860	
	ALLOTMENT TOTAL	2503	8330	684	11517	6948	18465	
1991	NORTH	1452	7282 262 EOU	545 32 EOU	9573	5040	14613	North pasture turnout for cattle; wild horse and burro use estimated at 17% annual recruitment rate. Skedaddle, & Dry Valley Rim Home Ranges gathered.
	SOUTH	1415	*	0	1415	4043	5458	
	ALLOTMENT TOTAL	2867	7544	577	10988	9083	20071	
1992	NORTH	1846	1252	0	3098	6528	9626	South pasture turnout for cattle; livestock drought closure in October; wild horse and burro use estimated at 17% annual recruitment rate. Espil EOU agreement terminated.
	SOUTH	1008	4212	499 84 EOU	5803	2702	8505	
	ALLOTMENT TOTAL	2854	5464	583	8901	9230	18131	
1993	NORTH	1427	4817	0	6244	4226	10470	North pasture turnout for cattle; wild horse and burro use was based on April, 1993 census. North home range gathered.
	SOUTH	1567	1792	444 38 EOU	3841	3256	7097	
	ALLOTMENT TOTAL	2994	6609	482	10085	7482	17567	
1994	NORTH	1273	7878	0	4151	3290	7441	South pasture turnout for cattle; wild horse and burro use is based on October 1994 census. Laver EOU agreement terminated.
	SOUTH	1410	4517	264	6191	3204	9395	
	ALLOTMENT TOTAL	2683	7395	264	10342	6494	16836	

*actual use information not available by pasture.

APPENDIX # 2, TWIN PEAKS ALLOTMENT ANNUAL ACTUAL USE FOR LIVESTOCK, WILD HORSES and BURROS

		ACTUAL USE by LIVESTOCK (AUMs)				ACTUAL USE WILD HORSE AND BURRO (AUMs)	TOTAL ACTUAL USE (AUMs)	REMARKS
YEAR	PASTURE ALLOTMENT	ESPIL SHEEP	ESPIL CATTLE	LAVER CATTLE	PASTURE TOTAL			
1985	NORTH	1900	*	0	*	1956	*	South pasture turnout for cattle; wild horse and burro use based on July, 1985 census. EOU = exchange of use; * Actual use information not available by pasture.
	SOUTH	1500	*	825 84 EOU	*	1776	*	
	ALLOTMENT TOTAL	3400	9506	909	13815	3732	17547	
1986	NORTH	1273	*	0	*	3600	*	Interim grazing system called for use in the south pasture due Big Springs & Twin wild fires in north pasture; wild horse and burro use based on November 1986 census.
	SOUTH	1410	*	731 84 EOU	*	1500	*	
	ALLOTMENT TOTAL	2683	10541	815	14039	5100	19139	
1987	NORTH	1256	8524 266 EOU	499 84 EOU	10629	4248	14877	North pasture turnout for cattle; wild horse and burro use was estimated by adding 17% annual recruitment rate to the 1986 census.
	SOUTH	1253	*	0	1253	1770	3023	
	ALLOTMENT TOTAL	2509	8790	583	11882	6018	17900	
1988	NORTH	1585	*	0	*	4536	*	South pasture turnout for cattle; wild horse and burro use based on August, 1988 census.
	SOUTH	1073	*	597 37 EOU	*	2664	*	
	ALLOTMENT TOTAL	2658	8344	634	11636	7200	18836	
1989	NORTH	1395	8253 265 EOU	571 41 EOU	10525	4794	15319	North pasture turnout for cattle; wild horse and burro use based on August, 1989 census.
	SOUTH	983	*	0	983	2952	3935	
	ALLOTMENT TOTAL	2378	8518	612	11508	7746	19254	

Appendix 2. Twin Peaks Allotment Actual Use by Pasture and Subdivision, based on December 15, 1999 Helicopter Census of Wild Horses, Burros, and Cattle in the Twin Peaks Allotment.

Management Unit: North Pasture/Twin Peaks North Home Range			
Allotment subdivisions	Wild Horse Numbers adults/foals	Burro Number adults/foals	Cattle (approximate numbers)
Rowland	65	0	0
Stone Corral	45	0	0
Black Mountain	117	0	54
Painter	24; 2 mules	1	19
Buffalo	48; 4 mules	4	0
Buffalo Hills	232	0	0
Chimney	77; 2 mules	6	207
Lower Smoke Creek	0	2	0
Salt Marsh	0	67	not counted
home range/pasture subtotals	608; 8 mules	80	280
Management Unit: South Pasture/Twin Peaks Allotment Portion of Skedaddle Home Range			
Five Springs	31; 21 mules	35	0
Skedaddle	350; 2 mules	0	0
home range subtotals	381; 23 mules	35	0
Management Unit: South Pasture/Twin Peaks Allotment Portion of Dry Valley Rim Home Range			
Dry Valley Rim	273; 5 mules	0	0
Dry Valley	0	0	0
home range subtotals	273; 5 mules	0	0
South Pasture totals	654; 28 mules	35	0
Allotment totals	1262; 36 mules	115	280

YEAR	PASTURE	ACTUAL LIVESTOCK (AUMs) ESPIL SHEEP	ESPIL CATTLE	LAVER CATTLE	PASTURE TOTAL	ACTUAL WILD HORSE BURRO (AUMs)	TOTAL USE (AUMS)	REMARKS
1995	NORTH	1874	9378	o	11252	4464	15716	North pasture turnout for cattle; south pasture wild horse and burro use estimated. North home range gathered.
	SOUTH	1476	0	213	1689	3819	5508	
	ALLOTMENT TOTAL	3350	9378	213	12941	8283	21224	
1996	NORTH	1482	763	0	2245	1824	4069	South pasture turnout for cattle; wild horse and burro use estimated by adding 17% recruitment rate the 1995 census.
	SOUTH	919	7065	240	8224	4468	12692	
	ALLOTMENT TOTAL	2634	7828	240	10469	6292	16761	
1997	NORTH	1577	7728	0	9305	4584	13889	North pasture turnout for cattle; wild horse and burro actual use based on 1997 census.
	SOUTH	1299	0	212	1511	4920	6431	
	ALLOTMENT TOTAL	2876	7728	212	10816	9504	20320	
1998	NORTH	1925	808	0	2733	5820	8563	South pasture turnout for cattle; wild horse and burro use estimated by adding 17% recruitment rate to the 1997 census.
	SOUTH	1145	6528	0	7673	5664	13337	
	ALLOTMENT TOTAL	3080	7336	0	10406	11484	21900	
1999	NORTH	2448	7901	0	10349	7036	17385	North pasture turnout for cattle; wild horse and burro use was based on December 1999 census.
	SOUTH	1614	0	0	1614	7241	8855	
	ALLOTMENT TOTAL	4062	7901	0	11963	14277	26240	

Twin Peaks Allotment Actual Use Information by Pasture and Subdivision, based on August 18, 19 and 22, 1997, Helicopter Census of Wild Horses, Burros and Cattle counted in the Twin Peaks Allotment.

Management Unit: Twin Peaks North Home Range/North Pasture			
Allotment subdivisions	Wild Horse Numbers adults/foals	Burro Number adults/foals	Cattle (approximate numbers)
Rowland	50/10	0	0
Stone Corral	31/9	0	227
Black Mountain	22/5	0	85
Painter	48/19	0	350
Buffalo	60/19 + 1 mule	7/3	165
Buffalo Hills	146/97	5/3	0
Chimney	13/1	0	31
Lower Smoke Creek	0	0	0
Salt Marsh	0	0	0
home range/pasture subtotals	370/97=467	12/6=18	869
Management Unit: Skedaddle Home Range/South Pasture			
Five Springs	47/6=53, + 9 mules*	24/7**	33
Skedaddle	126/18= 144	8/1=9	10
home range subtotals	182/24=206	36	43
Management Unit: Dry Valley Rim Home Range/South Pasture			
Dry Valley Rim	205/37=242 +3 mules*	3	4
Dry Valley	0	0	0
home range subtotals	208/37=245	3	4
South pasture totals	390/61=451	38/4=42	47
Allotment totals	760/158=918	50/10=60	916

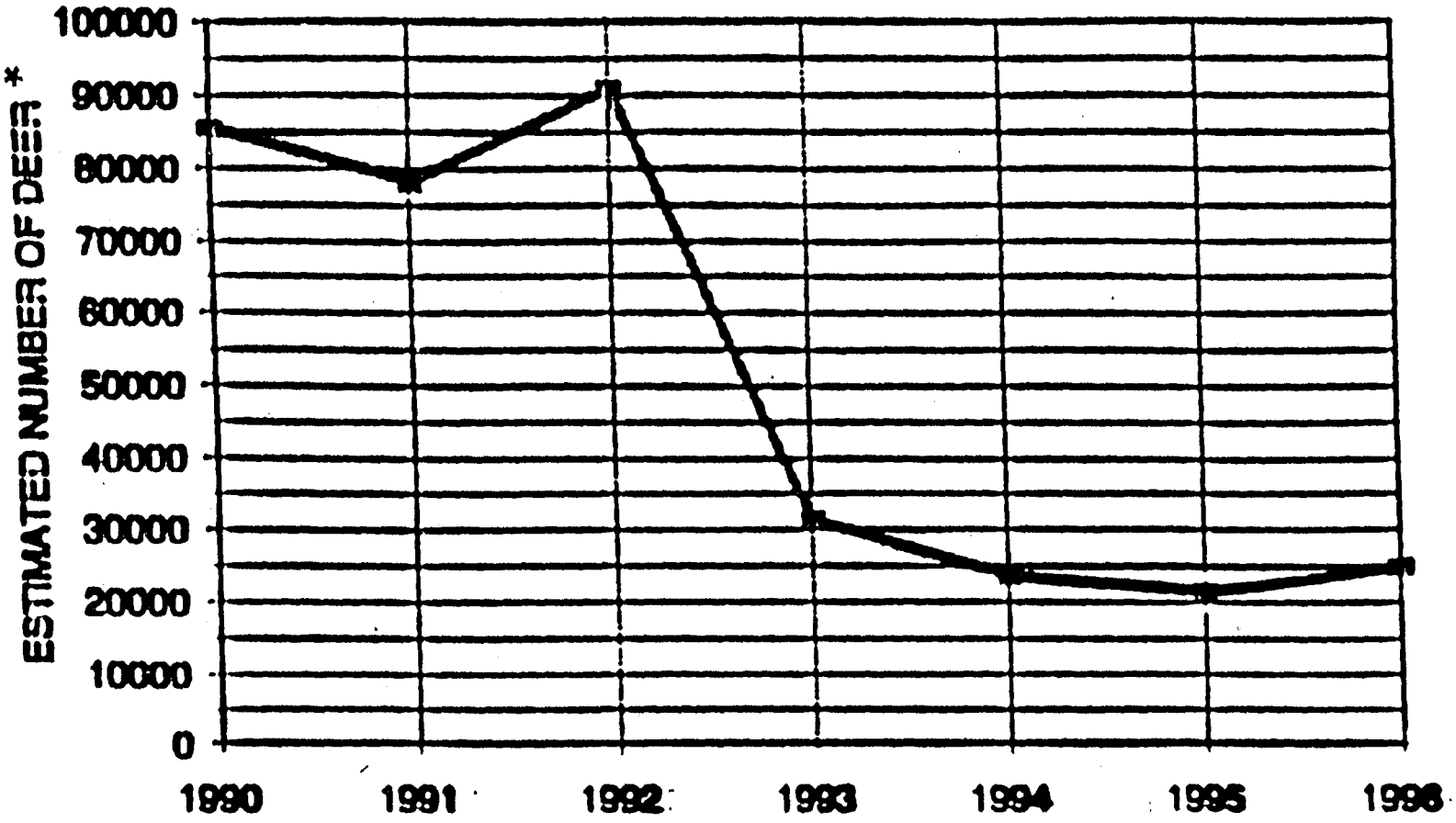
* Actual mule count is slightly higher.

** Includes burros in the Deep Cut allotment.

Twin Peaks Allotment Actual Use Information by Pasture and Subdivision, based on October 11 and 12, 1994 Helicopter Census of Wild Horses, Burros and Cattle counted in the Twin Peaks Allotment.

Management Unit: Twin Peaks North Pasture/Home Range			
Allotment subdivisions	Wild Horse Numbers adults/foals	Burro Number adults/foals	Cattle [Sheep] (approximate numbers)
Rowland	41/9=50	0	0
Stone Corral	39/8=47	0	76
Black Mountain	42/12=54	1	38
Painter	5/2=7	0	88 [1000 sheep]
Buffalo	58/11=69	7/4	66
Buffalo Hills	26/5=31	0	[1500 sheep]
Lower Smoke Creek	0	0	0
Chimney	46/17=63	14/3	54
Salt Marsh	0	21/2	0
home range/pasture subtotal	257/64=321	42/9=51	322 [2500]
Management Unit: South Pasture/ Twin Peaks Allotment Portion of Skedaddle Home Range			
Five Springs	21/2=23; 13 mules	8	28
Skedaddle	107/26= 129	3	173
home range subtotals	128/28=156	11	201
Management Unit: South Pasture/ Twin Peaks Allotment Portion of Dry Valley Rim Home Range			
Dry Valley Rim	81/17=98; 5 mules	31/6=37	51
Dry Valley	0	0	0
Lower Smoke Creek	0	0	0
home range subtotals	81/17=98; 5 mules	31/6=37	51
South pasture totals	209/45=254; 18 mules	42/6=48	252
Allotment totals	466/109=575; 18 mules	84/15=99	574 [2500]

Unit 2- NE California (X1,X2,X3a,X3b,X4, X5a, X5b,X5c)



* REPORT TO THE FISH AND GAME COMMISSION. *As Assessment of Mule and Black-tailed Deer Habitats and Populations in California. With Special Emphasis on Public Lands Administered by the Bureau of Land Management and the United States Forest Service. Collaborative Effort and Document. February 1998.*

Appendix 3, Mule Deer and Pronghorn Antelope Population and Habitat Information.

	23,514	70%	Summer/Transition			Summer/Fall
	768	2%	Winter/Transition	10,877	33%	Kidding/Yearlong
Rim	22,253	36%	Transition	3,514	6%	Winter
	32,575	53%	Winter	57,253	93%	Yearlong/Kidding
	962	2%	Yearlong/Fawning	783	1%	Kidding/Yearlong
	2,594	4%	Winter/Transition			
	3,166	5%	Little or No Use			
Rowland	12,875	99%	Summer/Transition	8,065	62%	Yearlong/ Kidding
	151	1%	Winter/Transition	4,640	36%	Kidding
						Spring/Summer/Fall
				319	2%	Kidding/Yearlong
Salt Marsh	17,053	40%	Winter	15,645	37%	Winter
	25,427	60%	Little or No Use	1,411	3%	Yearlong-Kidding
				11,965	28%	Winter Concentration
				13,458	32%	Little or No Use
				Skedaddle		
Skedaddle	20,760	45%	Transition	23,637	51%	Spring/Summer/Fall/
	18	.4%	Winter			& General Kidding
	7,042	15%	Yearlong/Fawning	1,690	4%	Winter
	15,164	33%	Summer/Transition	18,987	41%	Yearlong/General
	3,042	7%	Little or No Use			Kidding
				1,711	4%	Kidding/Yearlong
				Stone Corral		
Stone Corral	4,145	17%	Winter	24,689	100%	Yearlong/General
	6,367	26%	Summer/Transition			Kidding
	14,217	57%	Winter/Transition			

ANTELOPE

Antelope
Units 011-015, 021, 022, Washoe County
Report by: Mike Dobel

Seasons, Tag Quotas and Harvest Results

The 1998 controlled general rifle antelope season in Units 011-015 and 021.022 extended from August 28 through September 6, 1999. Table 1 summarizes tag quotas and hunter success rates for pronghorn in these unit groups:

Table 1. Tag quotas and hunter success rates for antelope in Washoe County

Hunt	Tag Quotas			% Hunter Success		
	1999	1998	89-98 Avg.	1999	1998	89-98 Avg.
Resident Buck – 2151	237	287	454	74	68	74
Nonresident Buck – 2251	12	14	23	58	79	83
Resident Archery – 2161	29	30	68	21	7	18
Nonresident Archery – 2261	3	6	7	0	33	29

Production and Recruitment Data

1999 post-hunt antelope surveys were conducted during late-September, 1999. These flights resulted in the classification of 1,455 antelope with a composition ratio of 22 bucks/100 does/44 fawns. A complete breakdown of the data obtained during these post-season flights is as follows:

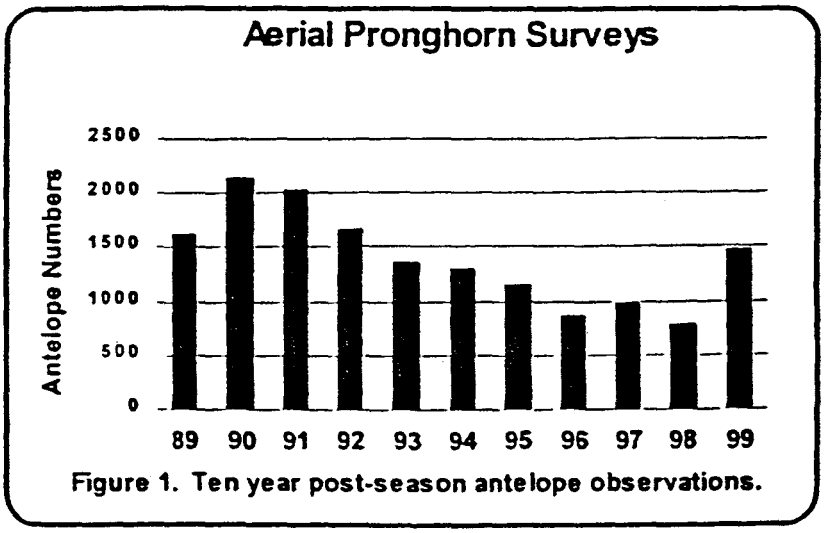


Figure 1. Ten year post-season antelope observations.

Table 2. 1999 Post-season antelope composition - Washoe County

Unit	Bucks	Does	Fawns	Totals	Bucks/100 Does/Fawns
011	30	188	37	255	16/100/20
021-014	94	367	193	654	26/100/53
015	71	319	156	546	22/100/49
022	0	0	0	0	No Data
Totals	**195**	**874**	**386**	**1,456**	**22/100/44**

The total number of antelope classified during this survey represents an 80% increase from the total number of antelope observed on surveys during 1998 and a 44% increase from the past five year average. Much of this increase can be attributed to an increase in the number of fawns observed this year. **Figure 1** shows the number of pronghorn classified by year in these unit groups since the inception of post-season surveys. Observed fawn ratios rose above maintenance levels in all units with the exception of Unit 011. Fawn ratios have been extremely low in Unit 011 as well as adjacent Unit 033 since the winter of 1992-93. This disparity between fawn ratios from south to north continues to remain unexplained. Surveys conducted this year resulted in observation of a dramatic increase in fawn ratios in Unit 013 compared to observed last year. The same increase occurred in Unit 014 last year. It appears that surveys. Observed fawn ratios rose above maintenance levels in all units with the exception of Unit 011. with each successive year the phenomenon of increasing fawn ratios moves a little further north. If one looks specifically at Unit 013, the fawn numbers were better in the southern portion of the unit than in the northern portion. **Figure 2** shows fawn ratios for these unit groups for the past fourteen years. The dotted line represents a maintenance level of 35 fawns/100 does. Fawn ratios above this level result in an increase in numbers while ratios below this level produce static or declining populations. With this information, the trend in antelope numbers in Washoe County is easily understood. During the seven-year-period between 1986 and 1992, six of these years exhibited fawn ratios above 35 fawns/100 does. From 1993 through 1999, again a period of seven years, fawn ratios were below 35 fawns/100 does in six of these years, resulting in a dramatic decline in numbers. Fawn ratios observed during the 1999 post-season surveys will stabilize this declining trend in all units with the exception of unit 011.

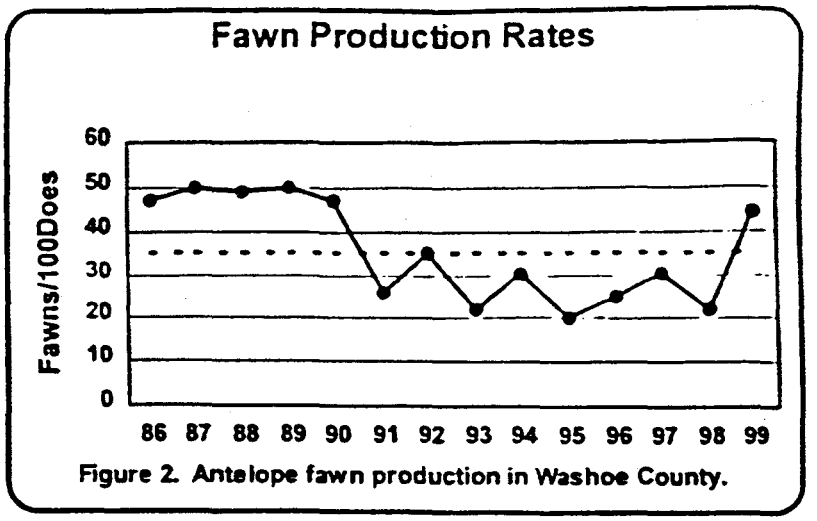


Figure 2. Antelope fawn production in Washoe County.

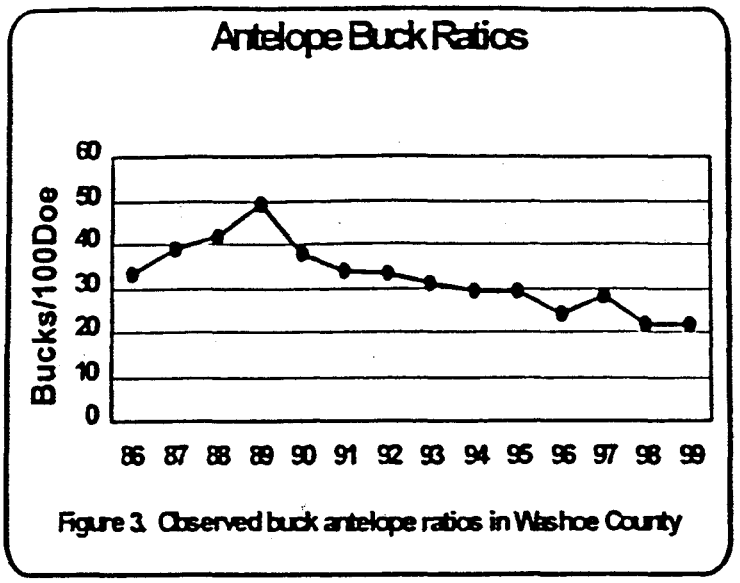


Figure 3. Observed buck antelope ratios in Washoe County

Buck ratios declined in Units 011 and 015 and increased in Units 012-014 from what was observed during the 1998 surveys. Overall, buck ratios have been in a general decline since the 1989. The current ratio of 22 bucks per 100 does falls within the parameters set in the statewide species management plan but is below the post-season buck ratio objective set during last year's season setting process. Declining trends in observed buck ratios might be an indication that we are over estimating these populations. **Figure 3** shows average buck ratios obtained from aerial surveys in these unit groups since 1986.

Appendix 4, Twin Peaks Allotment Key Area Trend and Frequency Information from 1983 to 1994.

TRANSECT Number	FORB	GRASS	SHRUB
0707	static	static	downward (mod)
0708	upward (mod)	static	static
0709	static	static	static
0710	upward (mod)	downward (mod)	static
0711	static	static	downward (mod)
0712	upward (mod)	static	static
0713	static	static	downward (mod)
0714	upward (mod)	static	static
0715	static	static	static
0716	static	static	downward (mod)
0717	upward (strong)	static	downward (mod)
0718	static	static	downward (mod)
0719	static	static	downward (mod)
0720	static	static	downward (mod)
0721	static	static	static
0722	upward (mod)	static	static
0723	static	static	static
0729	static	static	downward (mod)
0730	static	static	static
0753	static	static	static

A "static" rating equates to "not apparent" as it appears in the BLM Technical Reference TR 4400-4.

The following summary trend is intended to provide an overview of upland range condition and changes between 1979 and 1994. This trend information has limited application because the SVIM transect locations are not the same as the 1994 key area locations. Comparisons made at key areas are based on SVIM broad base condition mapping information.

Key area Number	Range Site Name	1979	1994
0707	Clay Upland 9-16" p.z.*	Fair	51 = Good
0708	Loamy 8-10" p.z.	Poor	59 = Good
0709	Stony Loam 9-12" p.z.	Poor	35 = Fair
0710	Clay Slope 8-12" p.z.	Fair	36 = Fair
0711	Stony Loam 9-12" p.z.	Poor	21 = Poor
0712	Cobbly Claypan 8-12"	Fair	58 = Good

Appendix 4, Twin Peaks Allotment Key Area Trend and Frequency Information from 1983 to 1994.

0713	Sandy 8-12" p.z.	Poor	38 = Poor**
0714	Stony Loam 9-12" p.z.	Poor	29 = Poor**
0715	Course Silty 408" p.z.	Fair	51 = Good
0716	Loamy 8-12" p.z.	Poor	16 = Poor
0717	Cobbly Claypan 8-12"	Poor	46 = Fair
0718	Loamy 8-10" p.z.	Fair	50 = Fair
0719	Loamy 8-12" p.z.	Fair^	47 = Fair
0720	Loamy 12-14" p.z	Fair	58 = Good
0721	Churning Clay 10-14"	Fair	37 = Fair
0722	Very Cobbly Claypan 10-12"	Poor	2 = Poor
0723	Clayey 10-14" p.z.	Poor	53 = Good
0729	Loamy 4-8" p.z.	Fair	51 = Good
0730	Course Silty 4-8" p.z.	Poor	47 = Fair
0753	Stony Loam 12-16" p.z.	Fair^^	56 = Good

* "p.z." is "precipitation zone".

** Although having a numerical rating of >25, these sites were lowered one condition class due to low production. See section 305.5(a) of the National Range Handbook.

^ This site was burned by wildfire in 1984.

^^ This site was burned by wildfire in 1985.

Site Characteristics for Upland Trend Sites, Key Area Relative Amounts of Production, rainfall, elevation, and ecological status rating Comparison with frequency.

Site	Production	Rainfall	Elevation	Condition Rating 1979 1994	Frequency Vegetation Group
0707	mod	high	high	fair - good	shrub - down
0708	mod	mod	mod	poor - good	forb - up
0709	high	high	high	poor - fair	static
0710	mod	mod	high	fair - fair	grass- down, forb - up
0711	high	high	mod	poor - poor	shrub - down

Appendix 4, Twin Peaks Allotment Key Area Trend and Frequency Information from 1983 to 1994.

0712	low	mod	high	fair - good	forb - up
0713	mod	mod	mod	poor - poor	shrub - down
0714	high	high	mod	poor - poor	forb - up
0715	low	low	low	fair - good	static
0716	mod	mod	mod	poor - poor	shrub - down
0717	low	mod	high	poor - fair	forb - up, shrub - down
0718	mod	mod	mod	fair - fair	shrub - down
0719	high	high	high	fair - fair	shrub - down
0720	high	high	high	fair - good	shrub - down
0721	low	high	high	fair - fair	static
0722	low	high	high	poor - poor	forb - up
0723	mod	high	high	poor - good	static
0729	low	low	low	fair - good	shrub down
0730	low	low	low	poor - fair	static
0753	high	high	high	fair - good	static

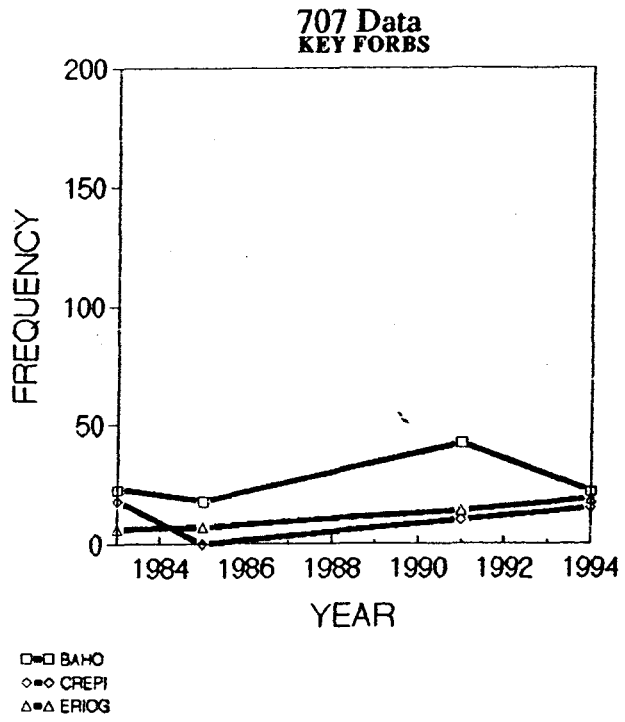
Frequency Graphs

The following four graph sequence for Pace Frequency Trend are for the period of 1983 to 1994. The statistical package used allowed up to 3 species to be plotted. Several sites had 5 key species, but only 3 could be used. If sites had only one key species, then only one species is indicated in the graph. The lower left hand graph is composition with recession lines which suggest trend on a transect site. The recession line indicates a change in species occurrence. For this analysis, a regression line with a slope between 5 and -5 percent is considered static with no direction. A line with a slope between 5 and 10 or -5 and -10 is still considered static trend by a direction can be extrapolated. For example a regression line of 9 percent indicates a static trend to upward condition. This information was summarized on page 26 in the evaluation. Addition transect information is contained in Appendix 8, and referenced by transect number, for example 707.

Frequency Plant List

Symbols	Common Name
Forbs	
CREPI	Crepis
PHLOX	Phlox
ERIOG	buckwheat
PESP	royal penstemon
HECU2	annual sunflower
LOMAT	biscuit root
ASTRA	loco weed
LUPINE	Lupine
PERA4	sand paper plant
AGGL	pale agoseris
BAHO	Hooker's balsamroot
Grasses	
SIHY	bottlebrush squirreltail
ELCI2	Great basin wildrye
STIPA	Thrubers needlegrass
POSA12	sandberg's bluegrass
ORHY	Indian ricegrass
ELTR3	creeping wildrye
AGSM	western wheatgrass
CAREX	carex
AGSP	bluebunch wheatgrass

Shrubs	
ARTR	Wyoming Sagebrush
PUTR2	bitterbrush
ARSP5	bud sage
EULA5	winterfat
GRSP	spiny hop-sage
ATRIP	saltbush
RIBES	currant
ARAR8	low sagebrush
EPVI	green ephedra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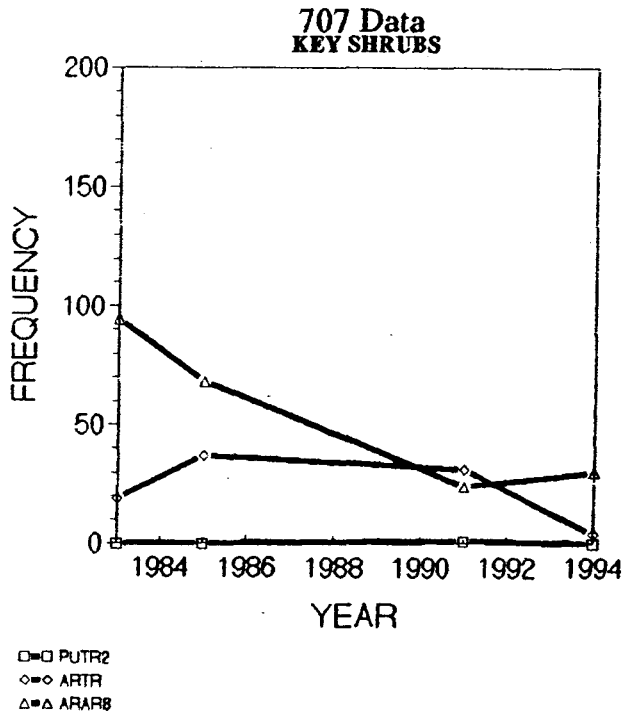
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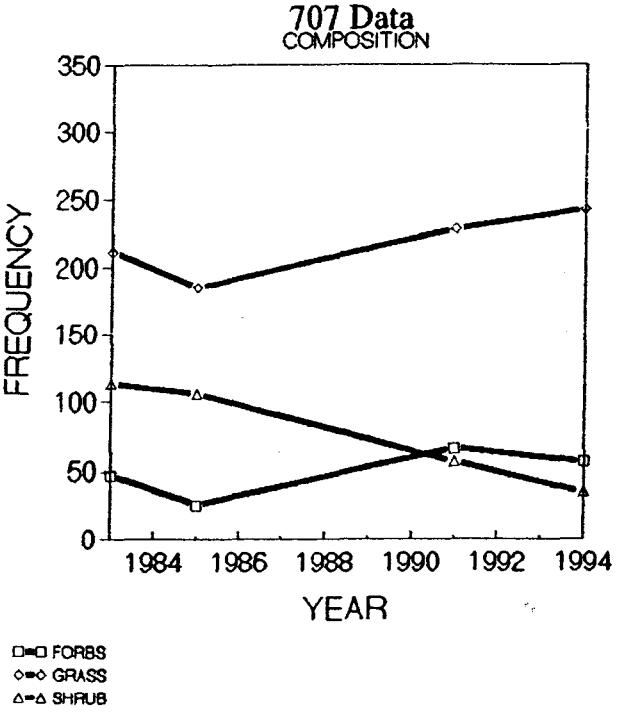
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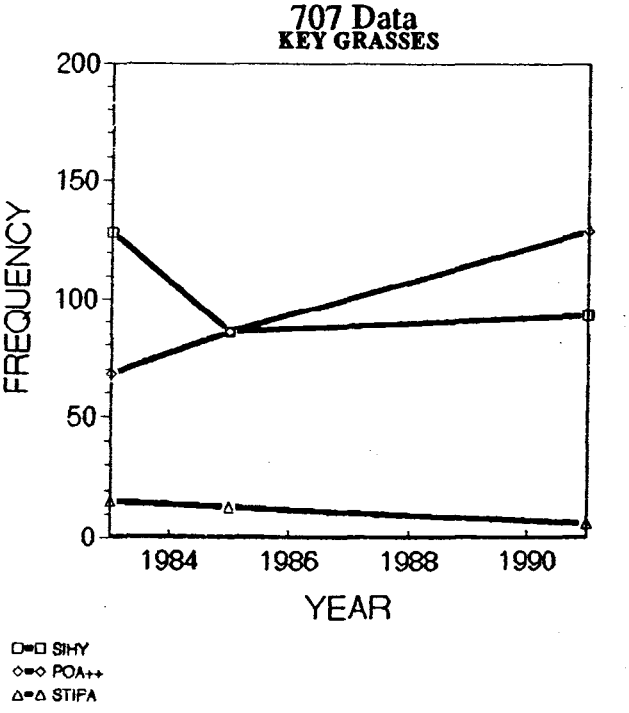
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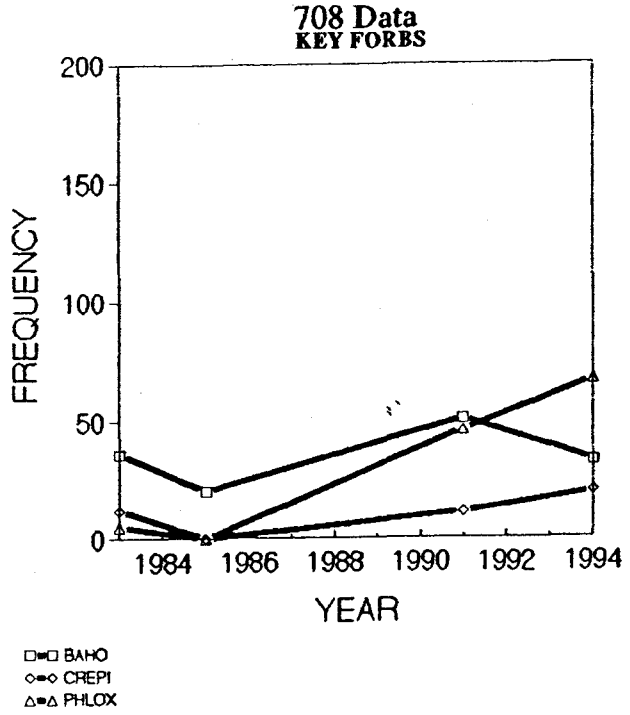
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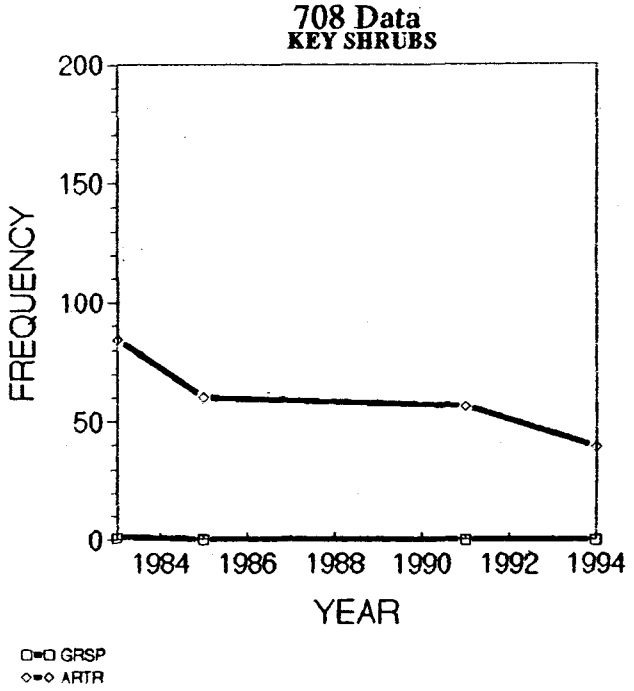
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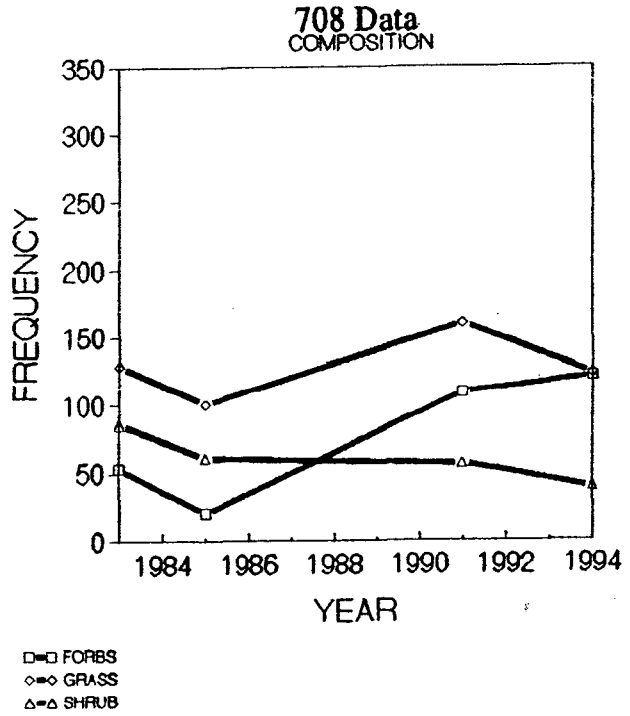
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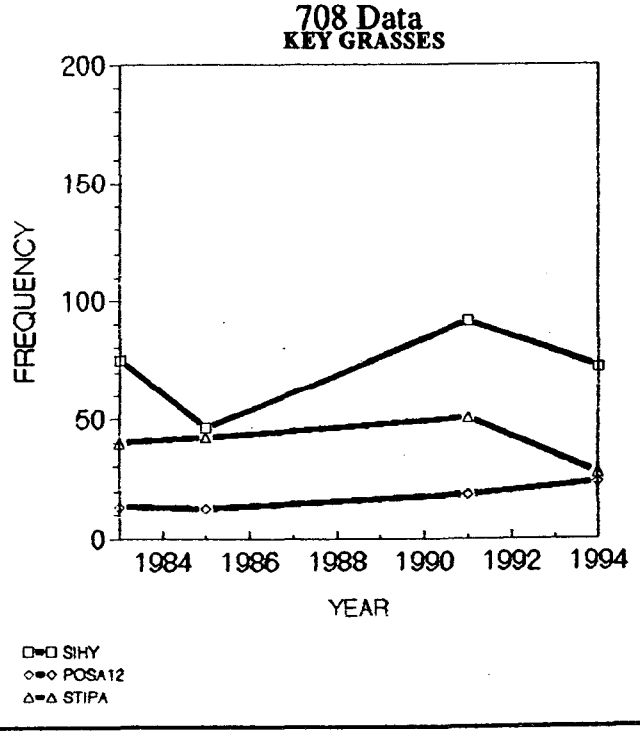
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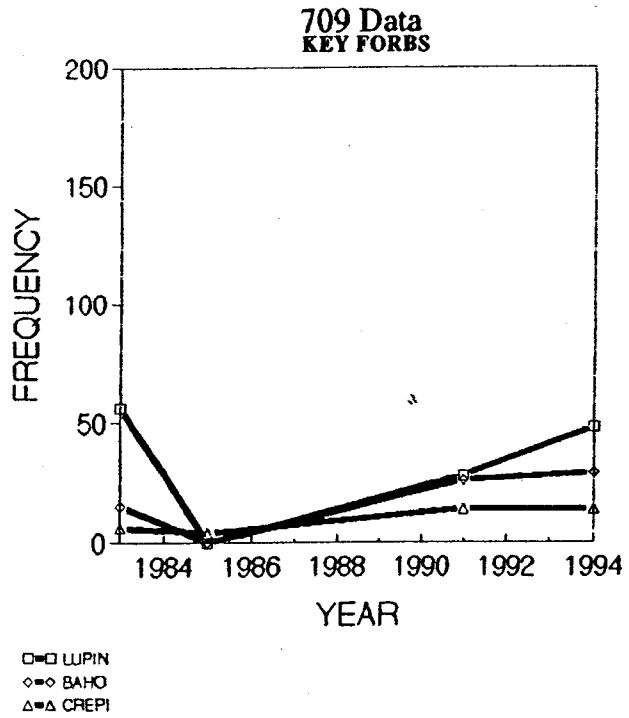
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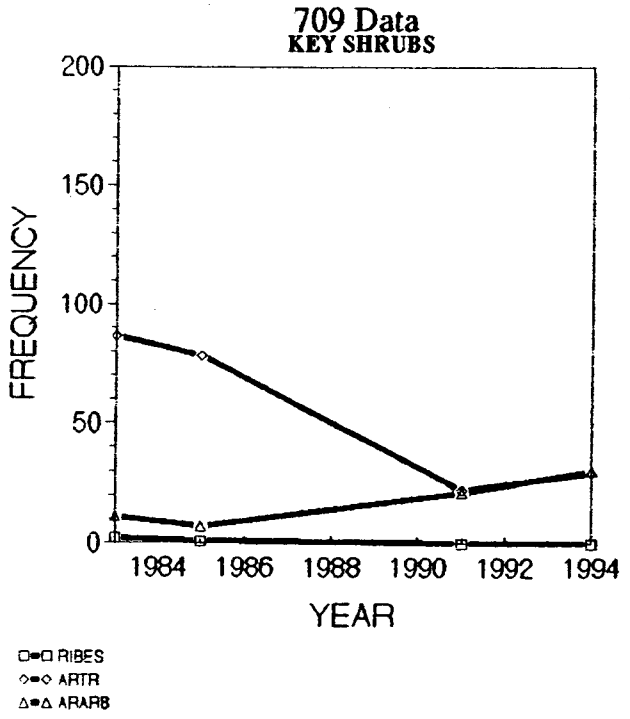
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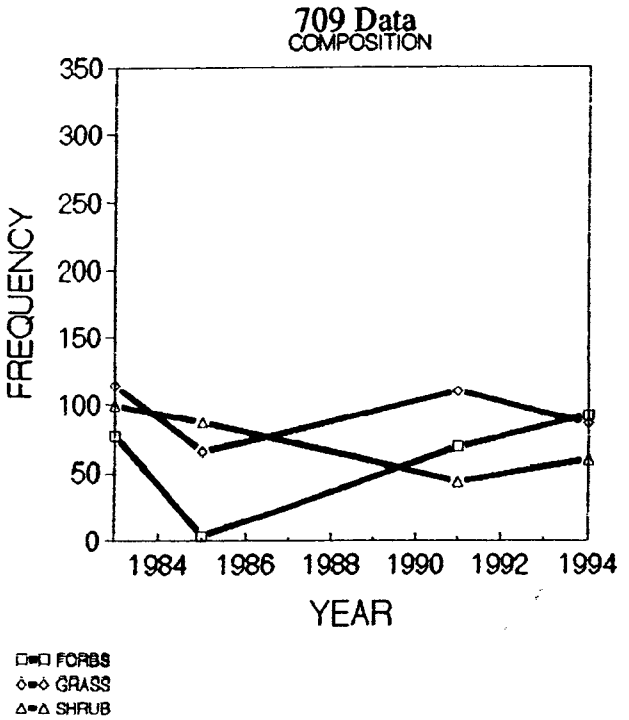
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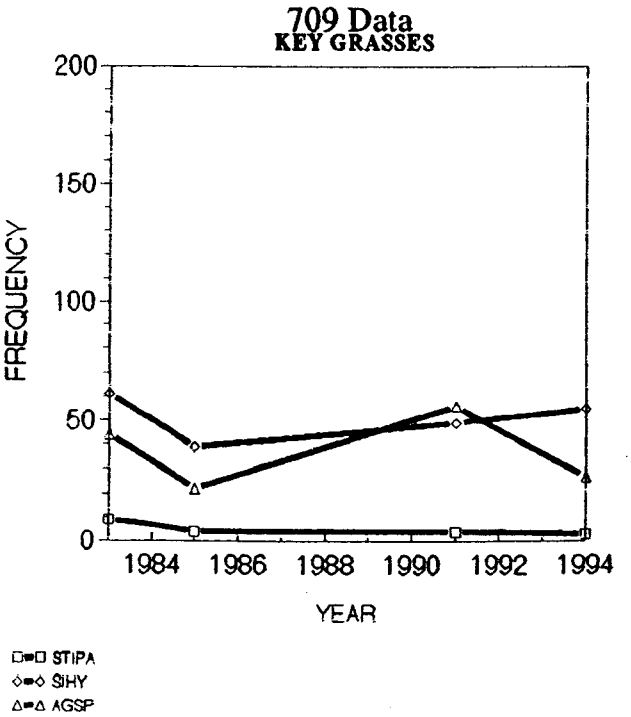
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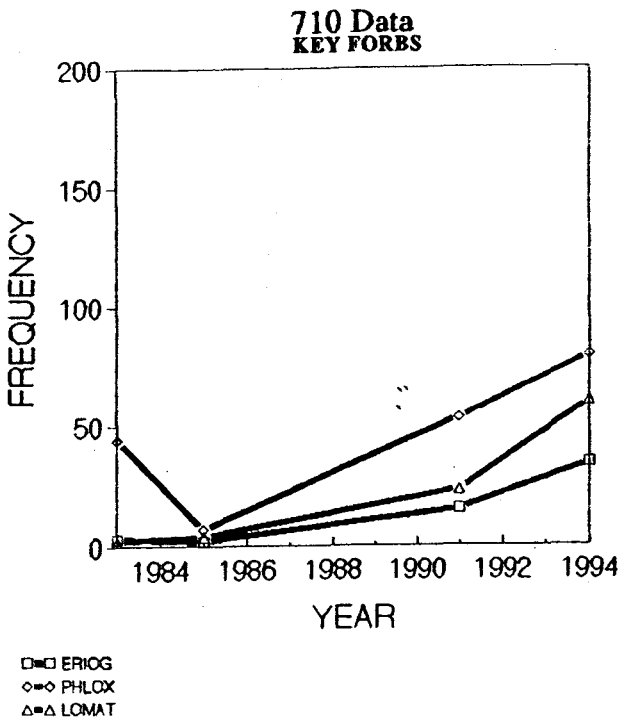
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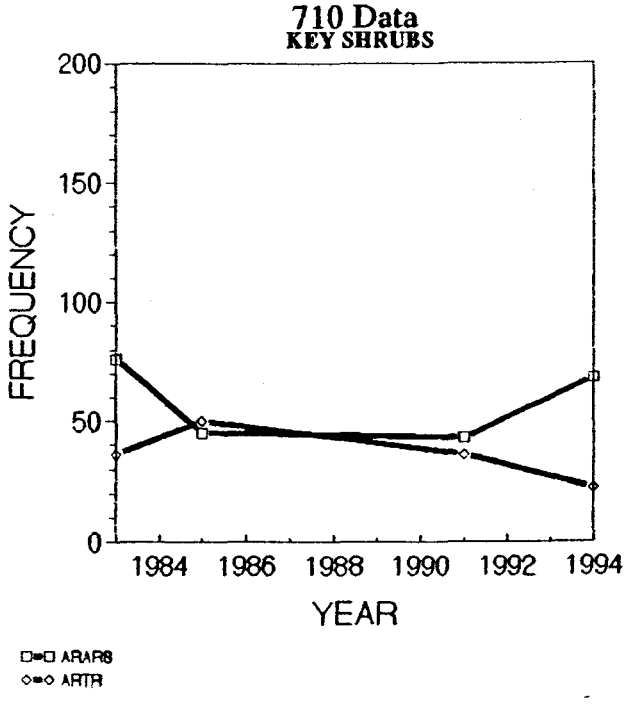
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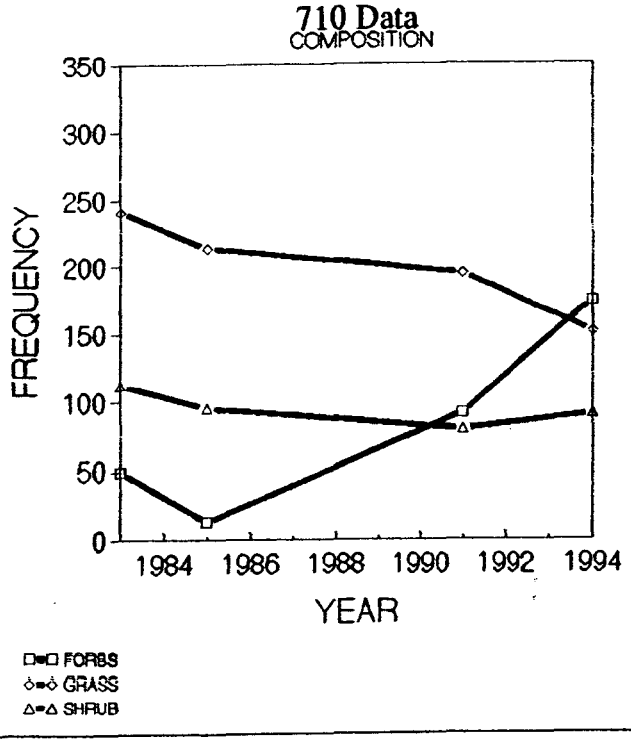
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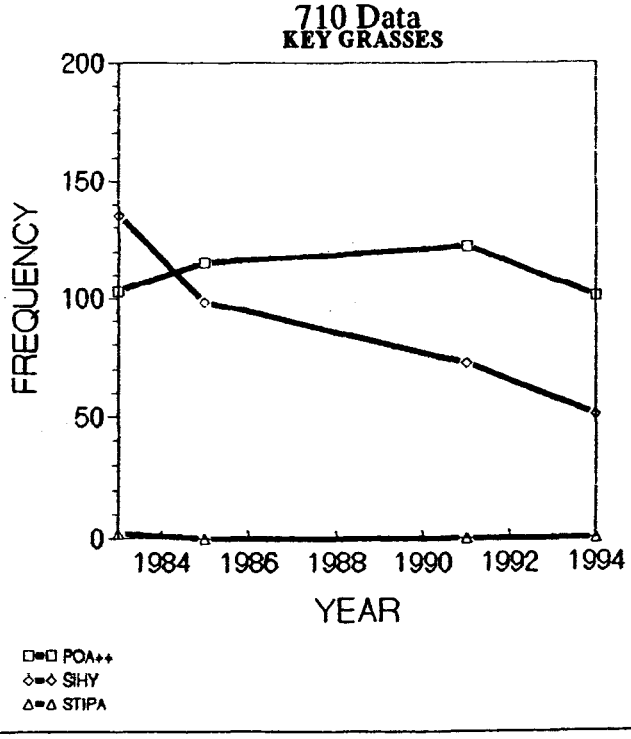
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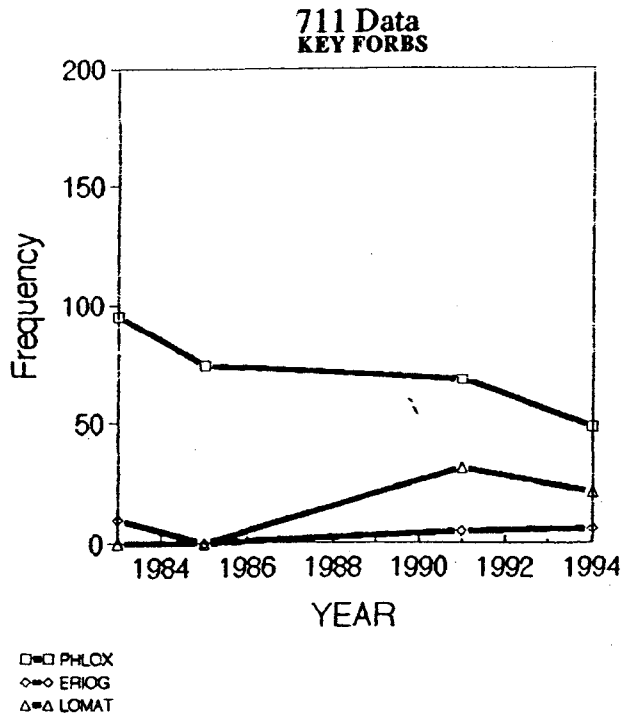
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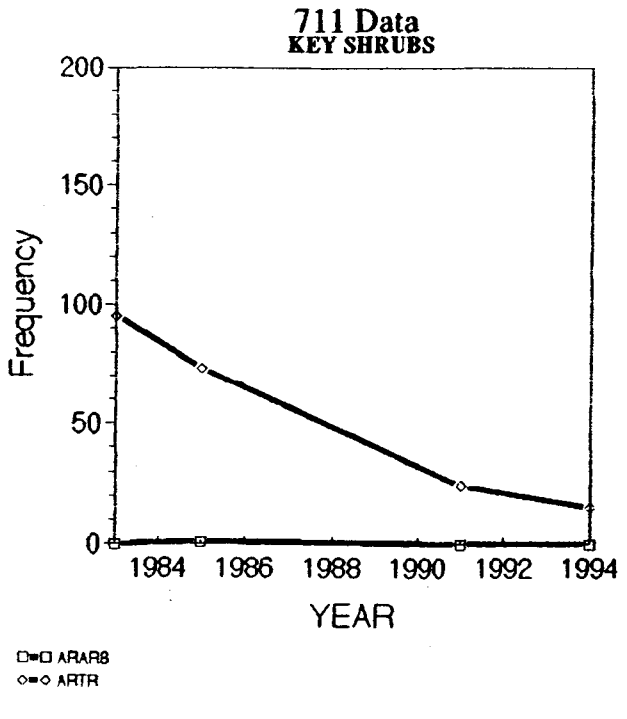
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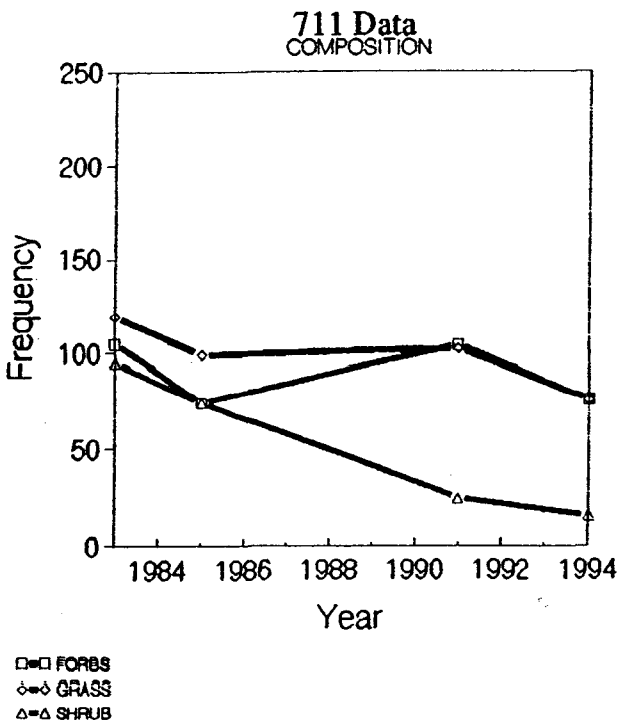
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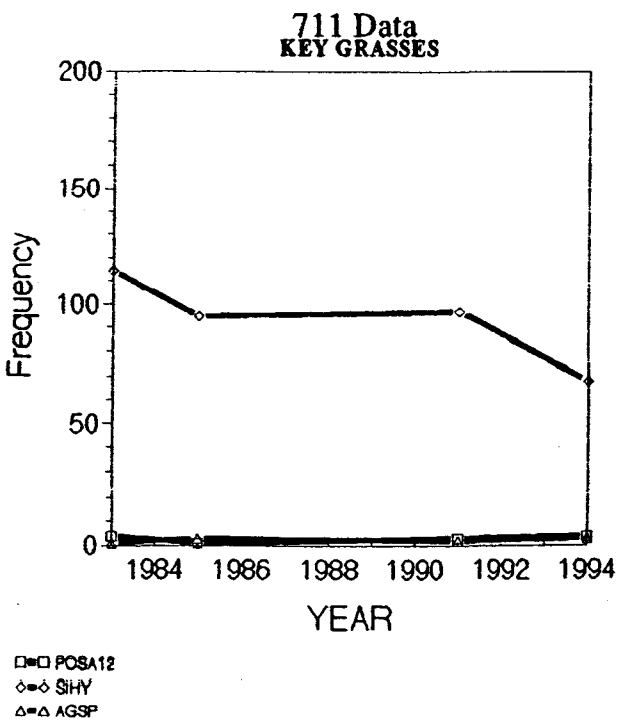
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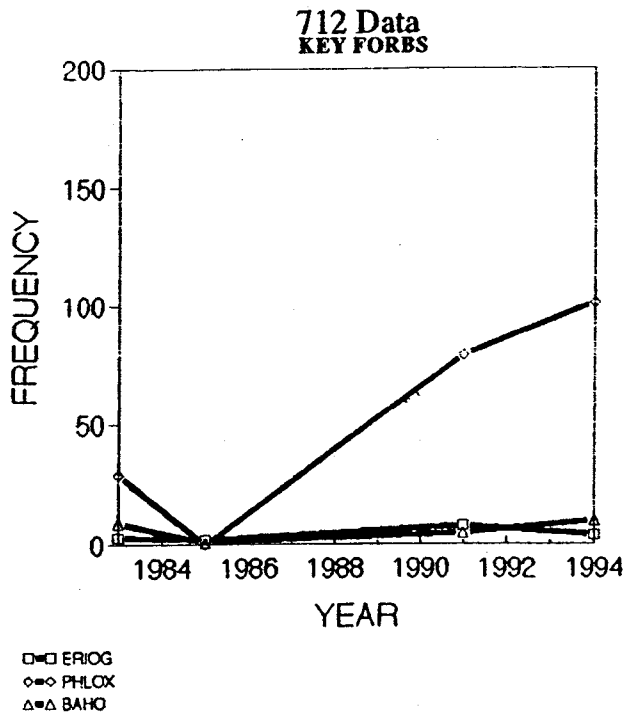
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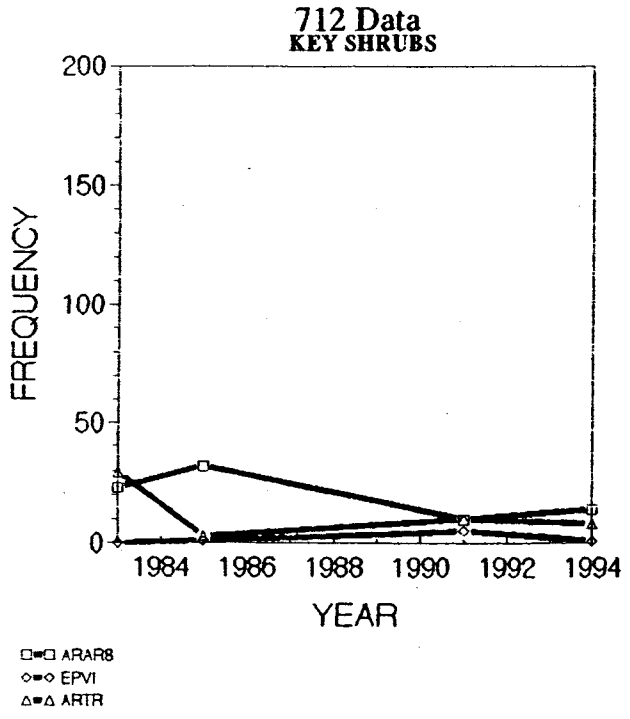
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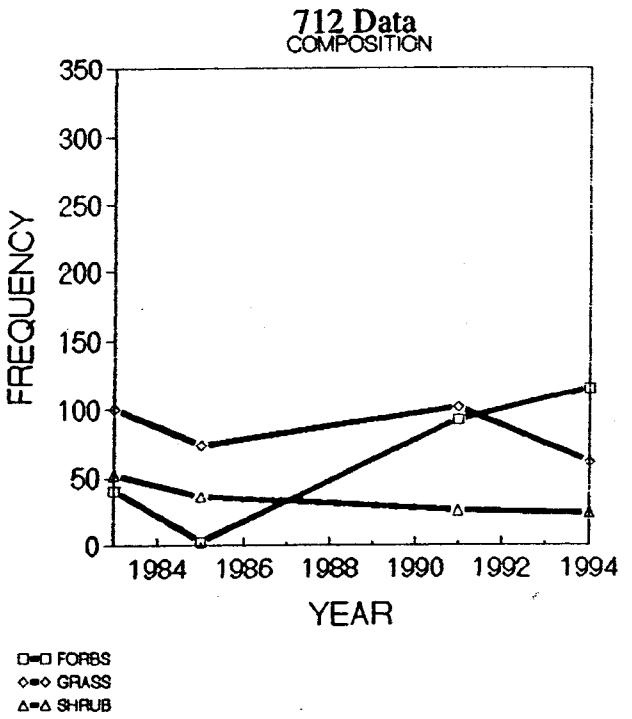
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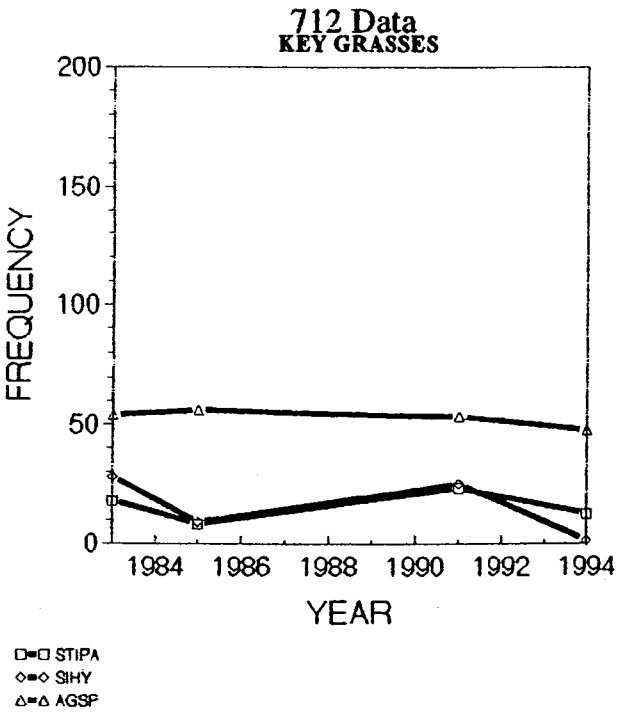
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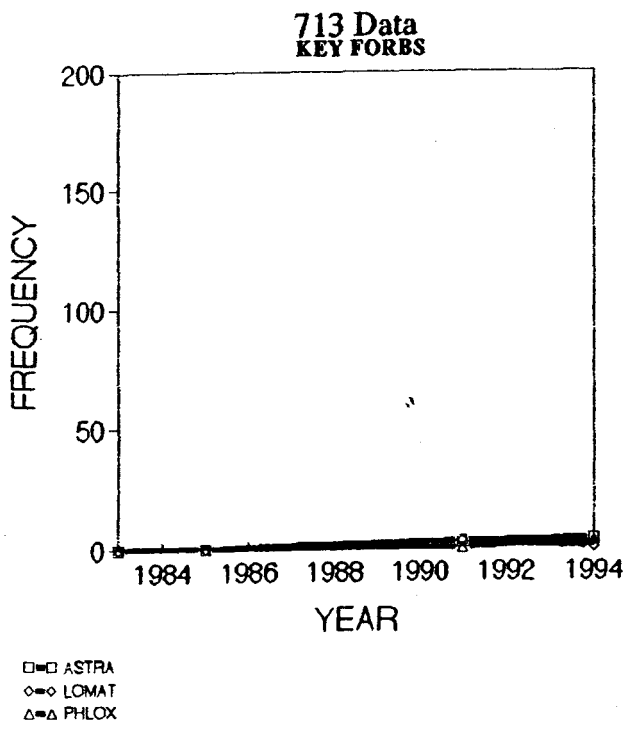
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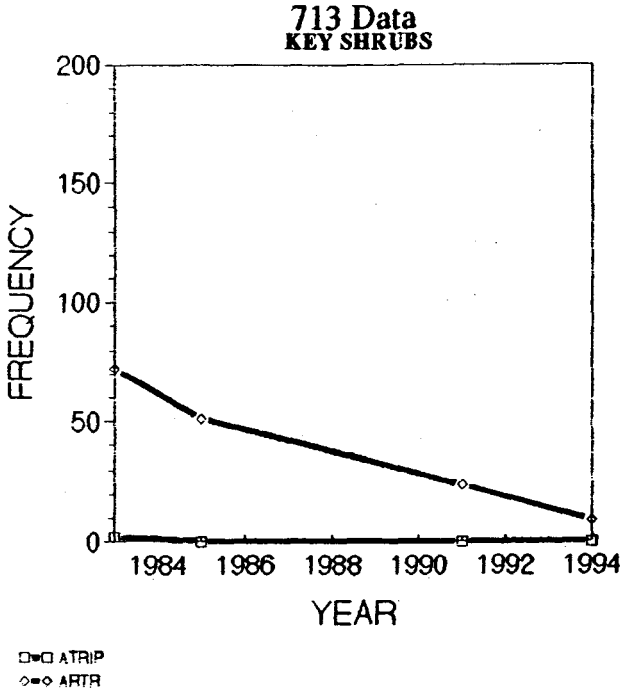
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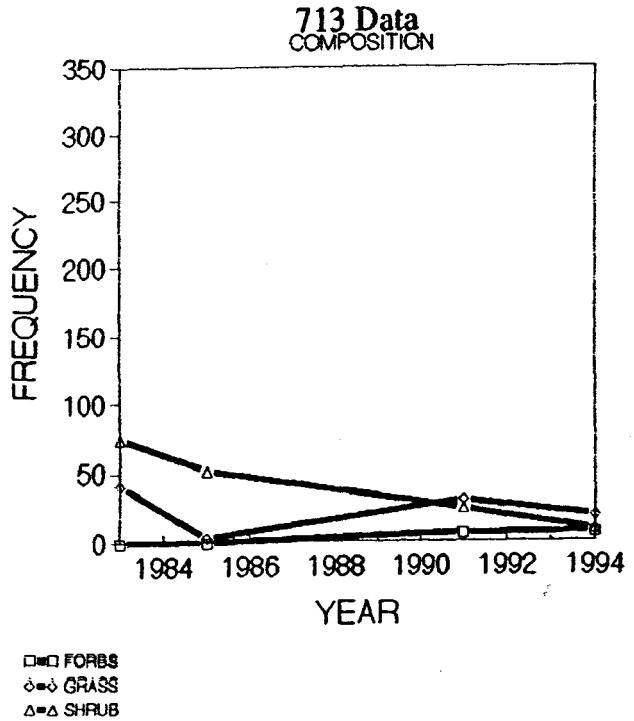
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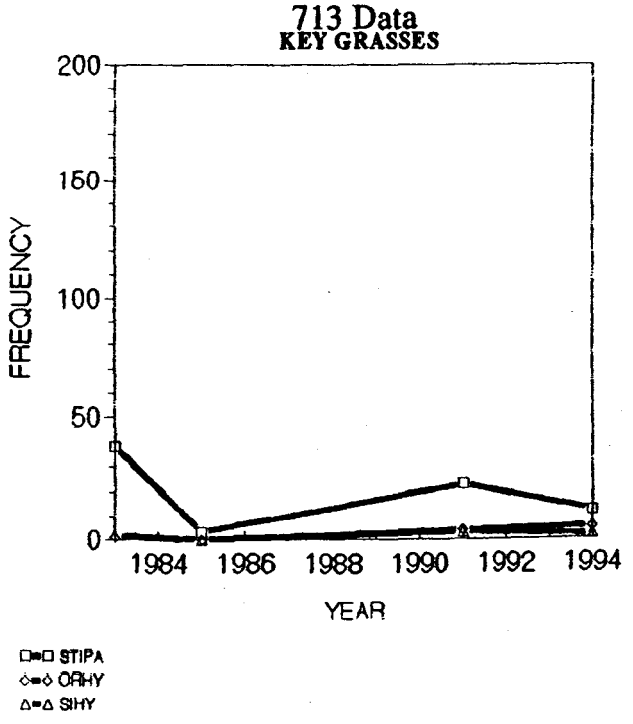
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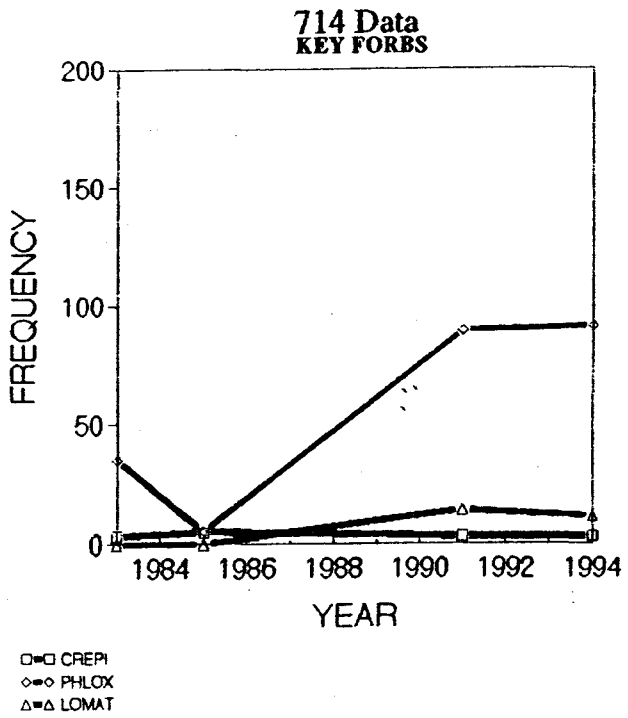
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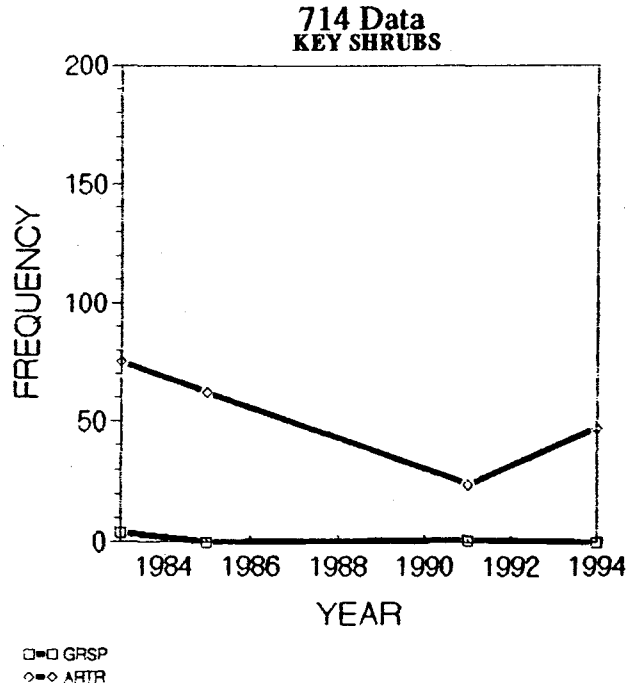
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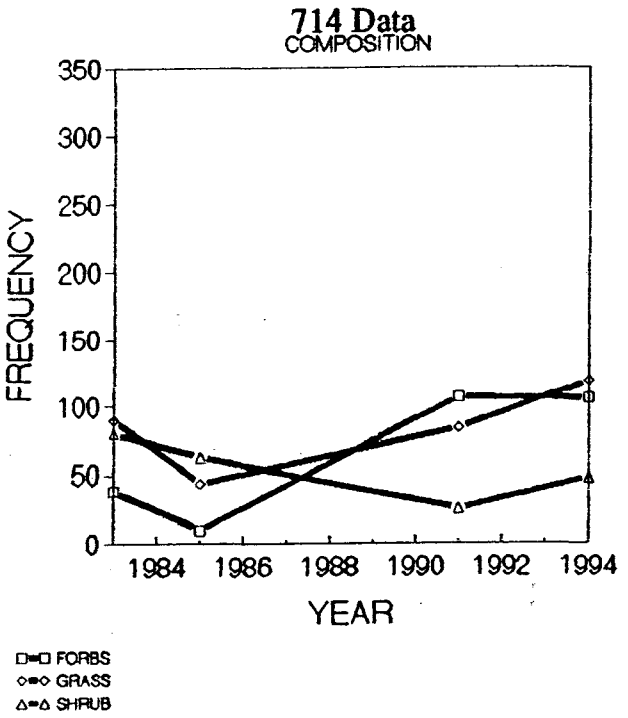
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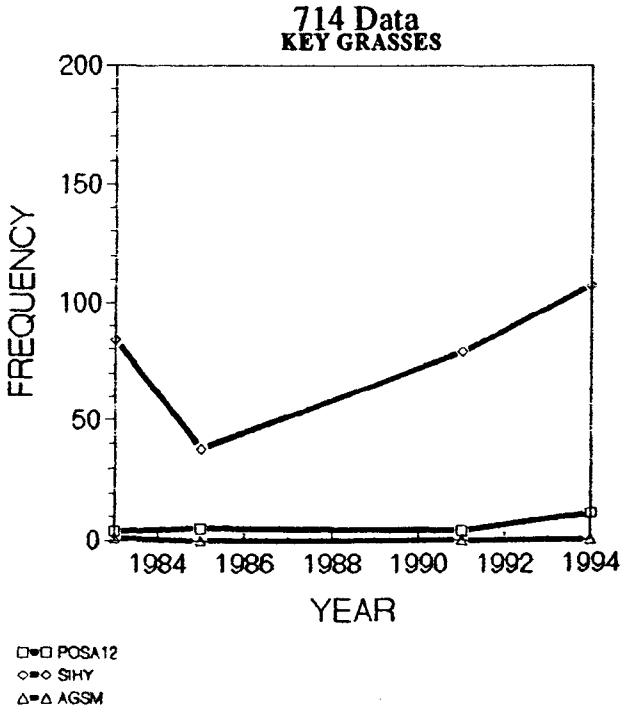
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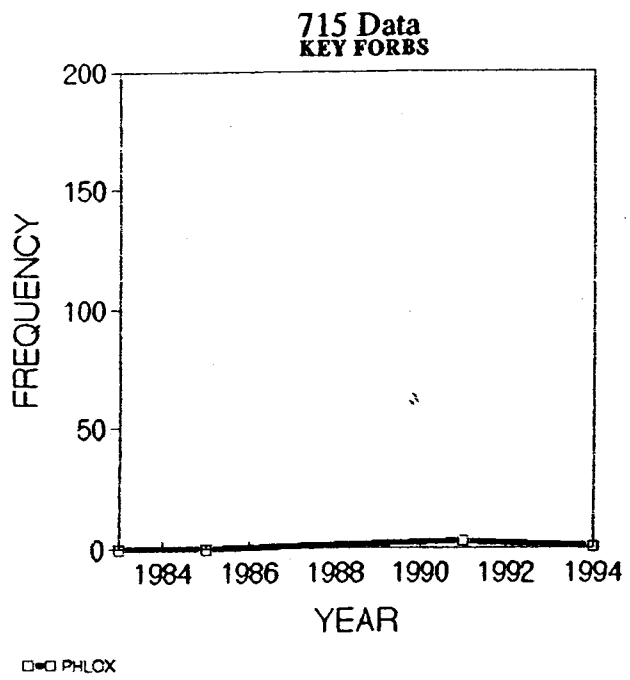
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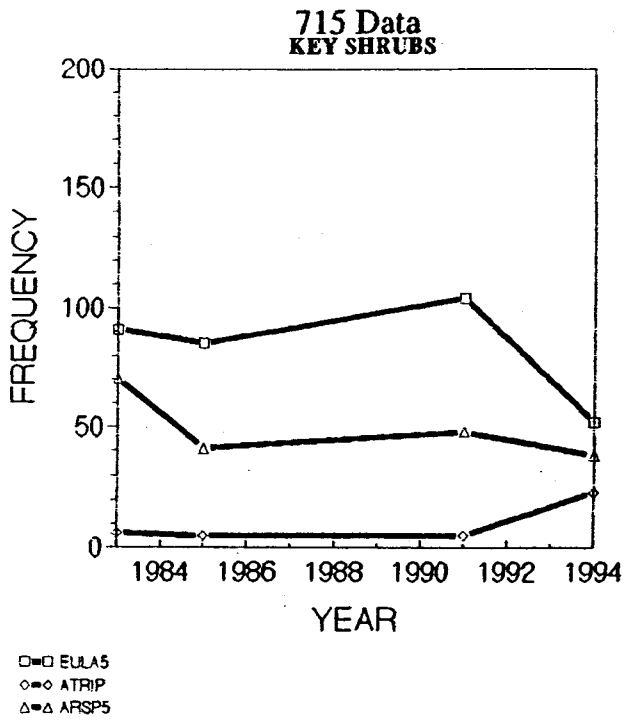
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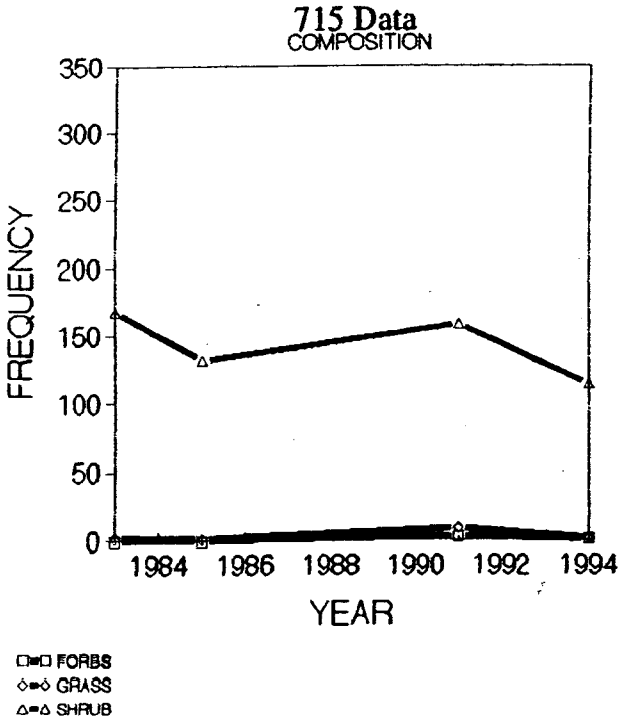
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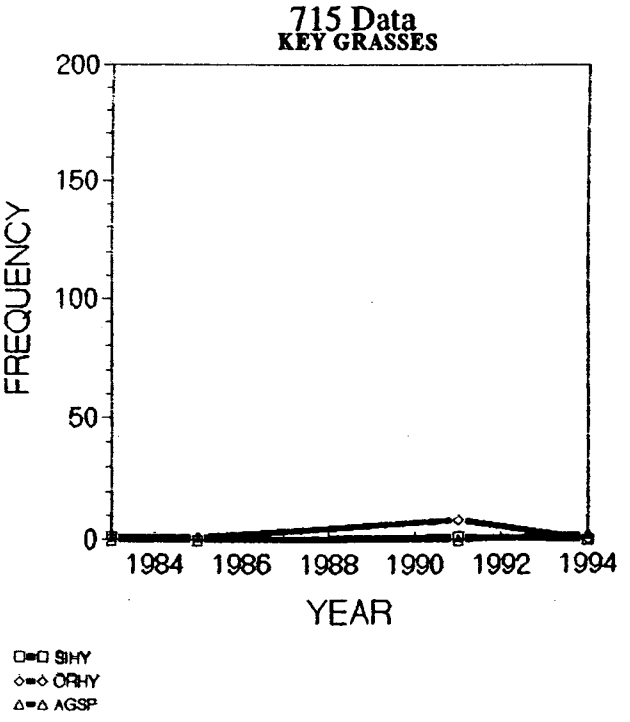
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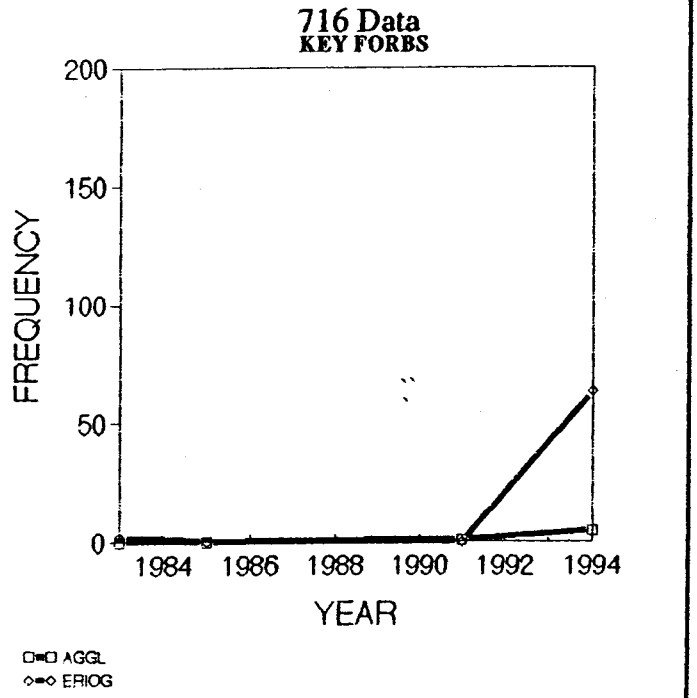
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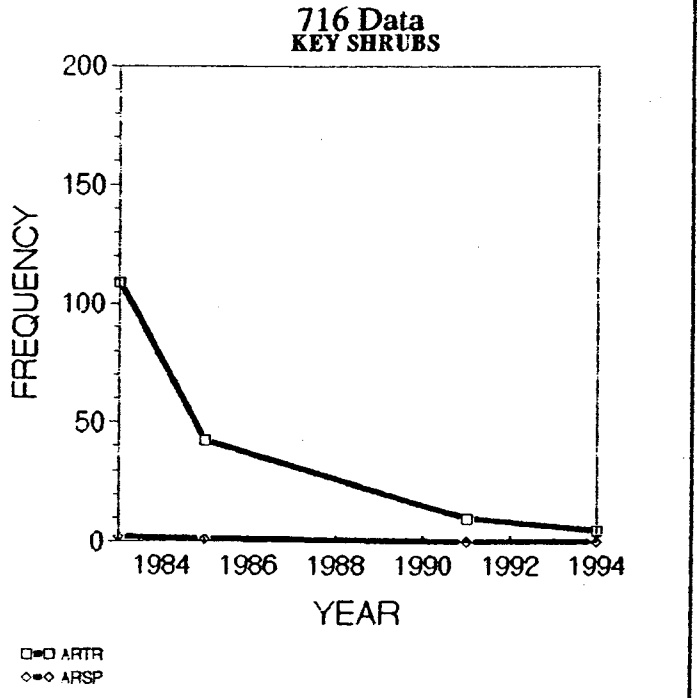
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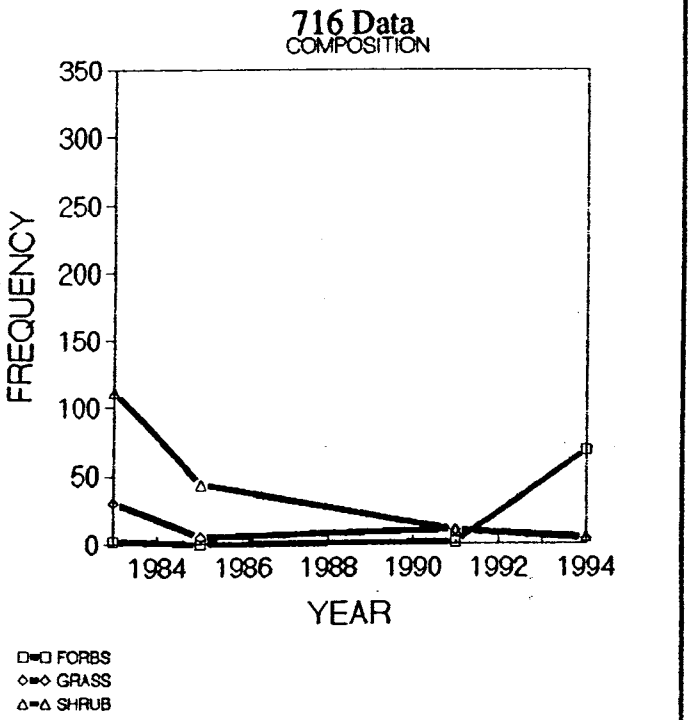
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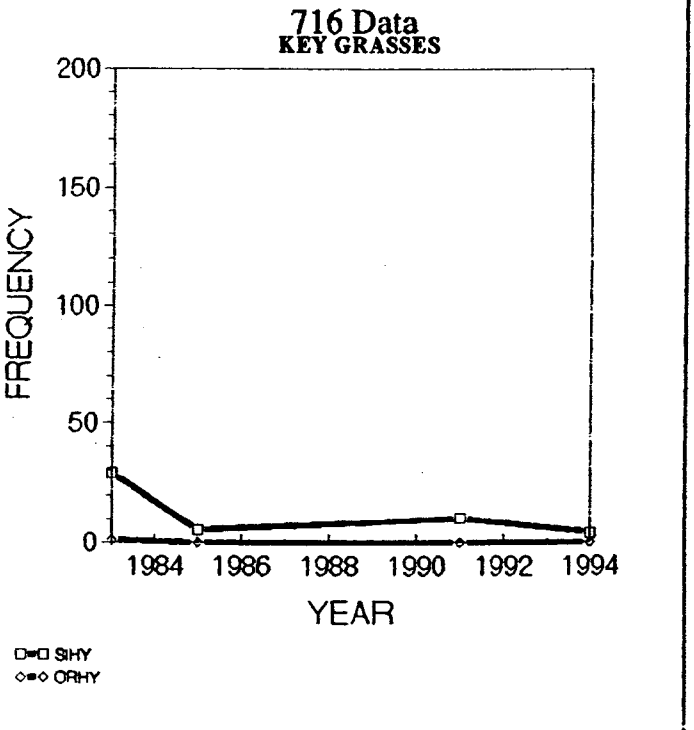
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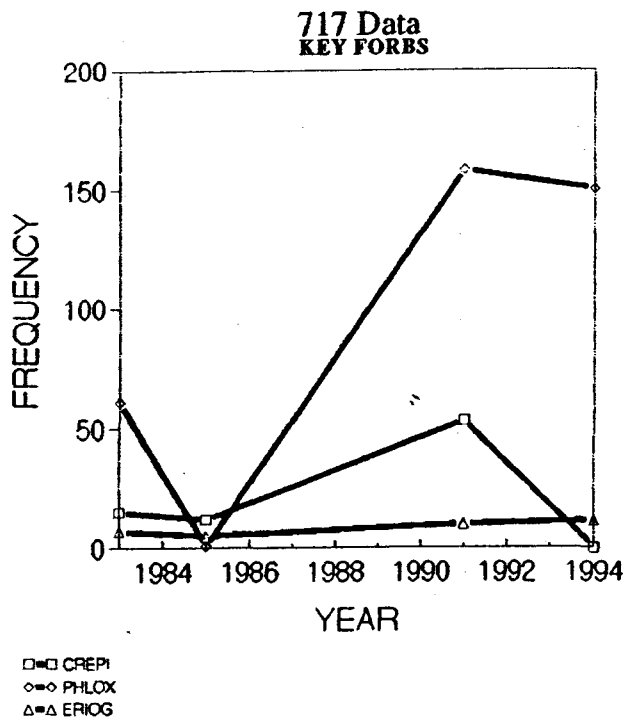
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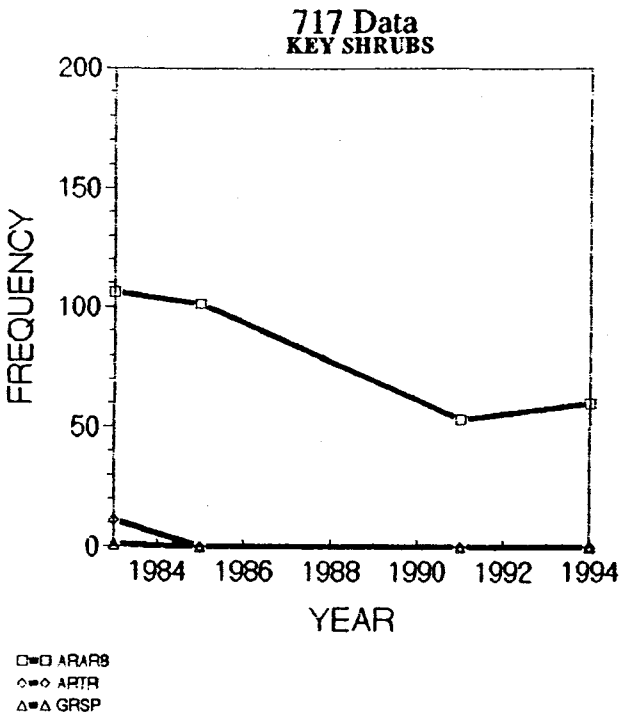
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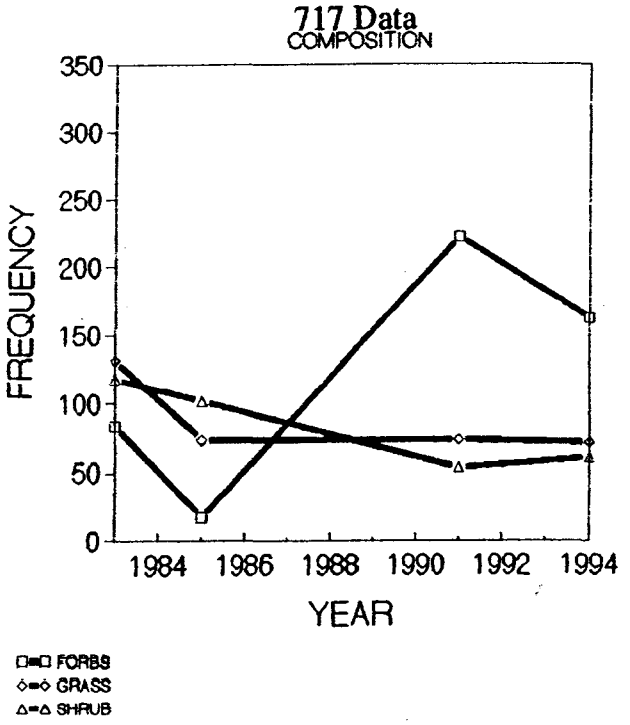
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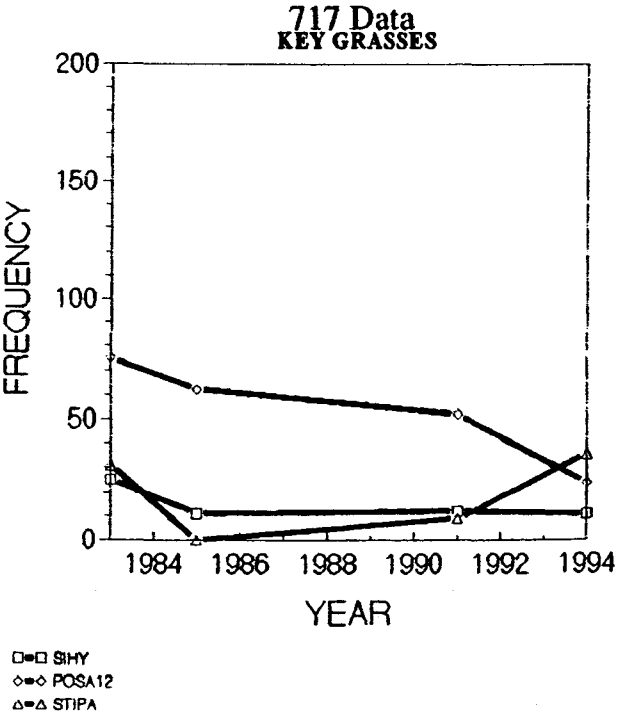
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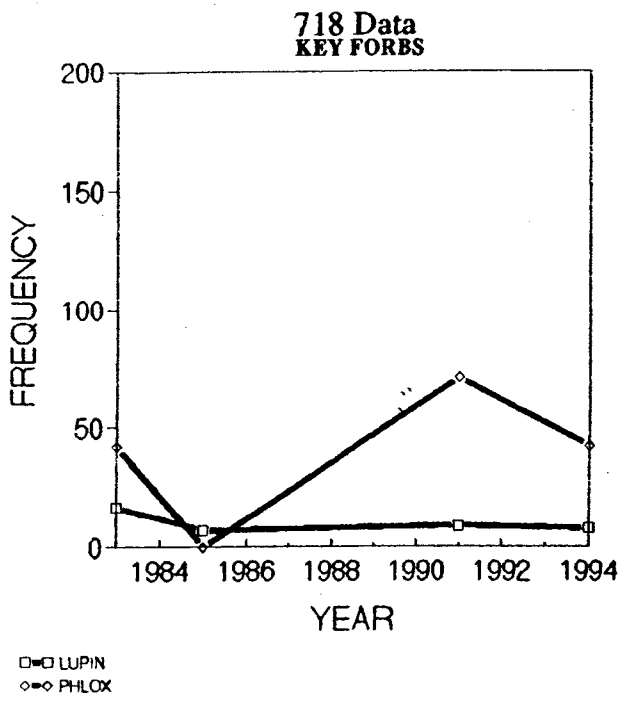
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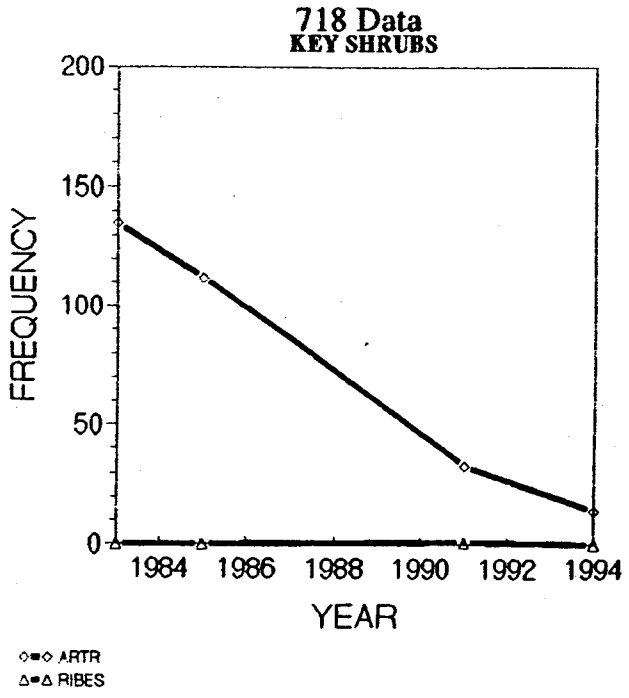
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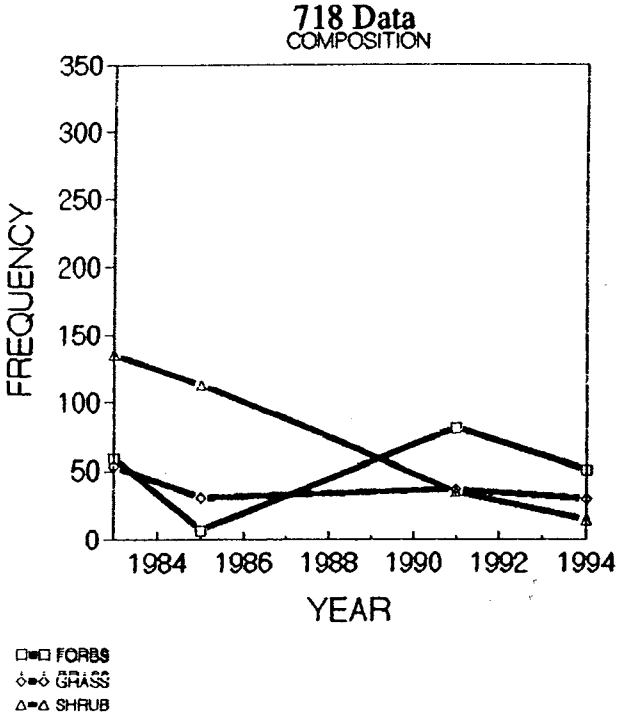
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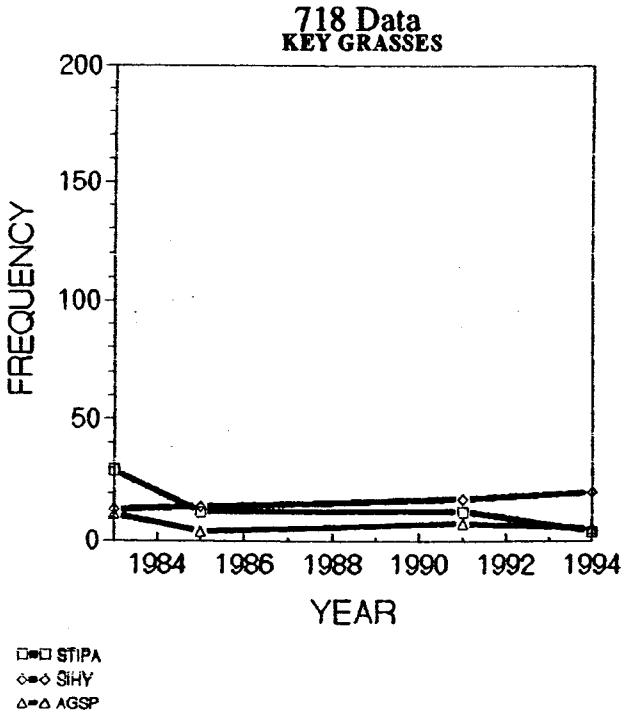
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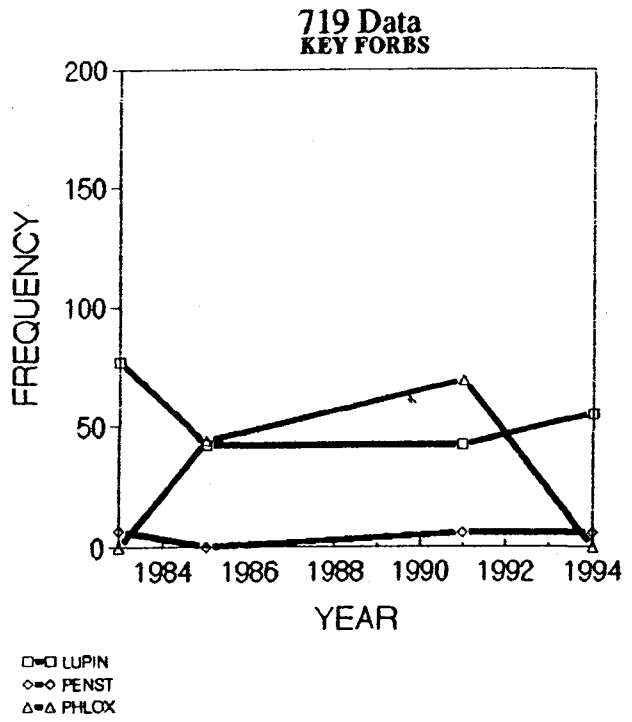
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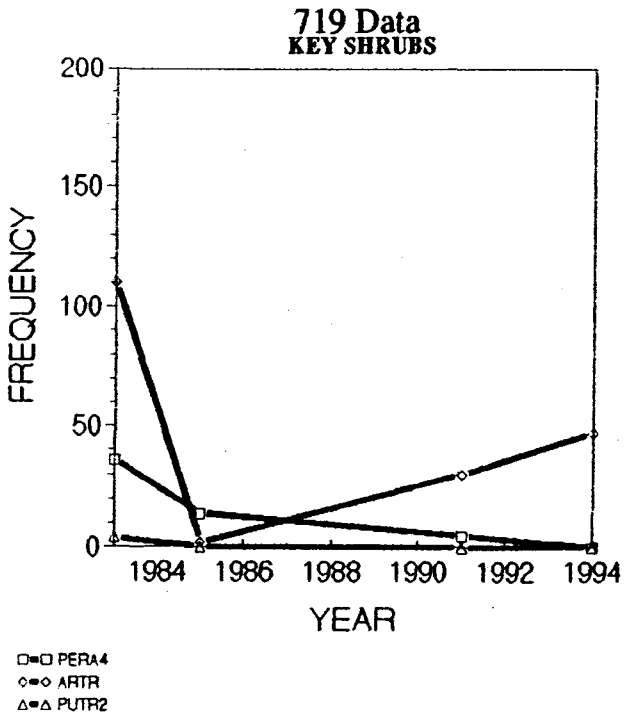
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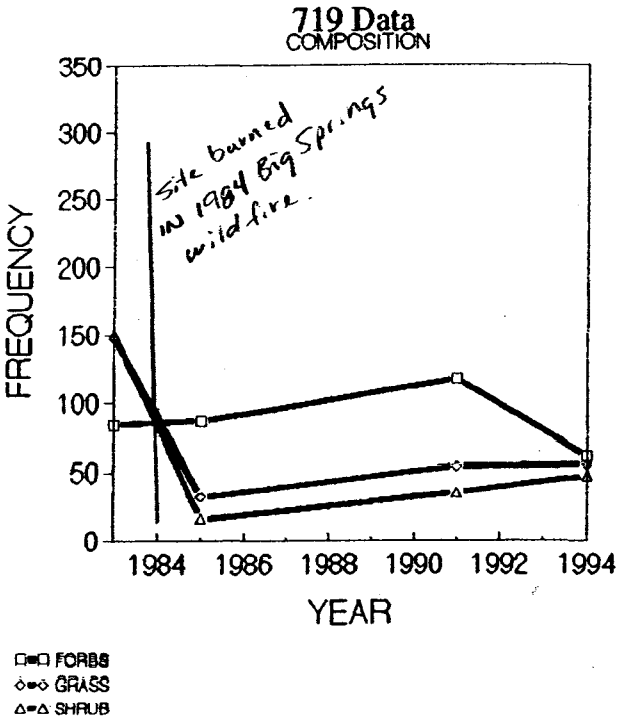
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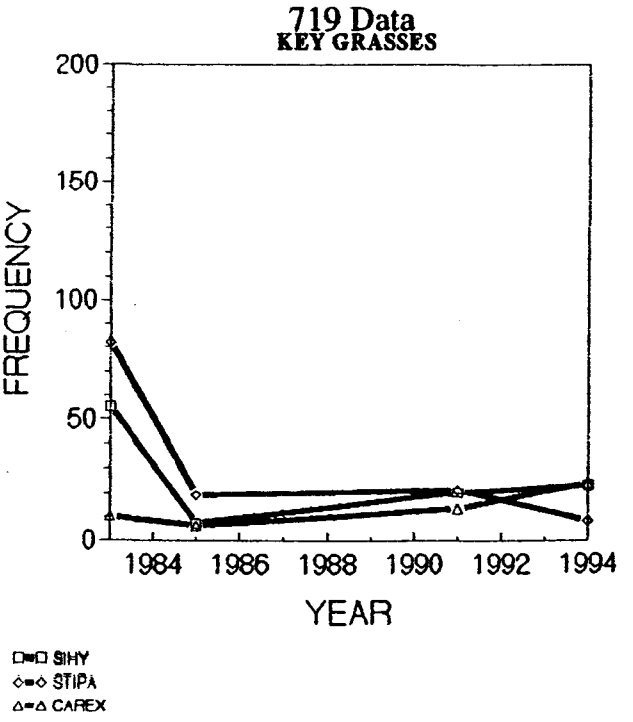
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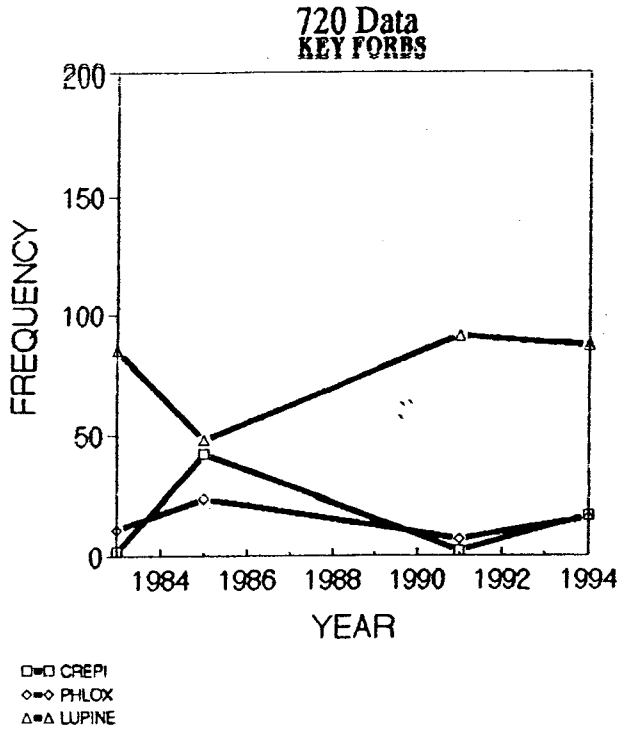
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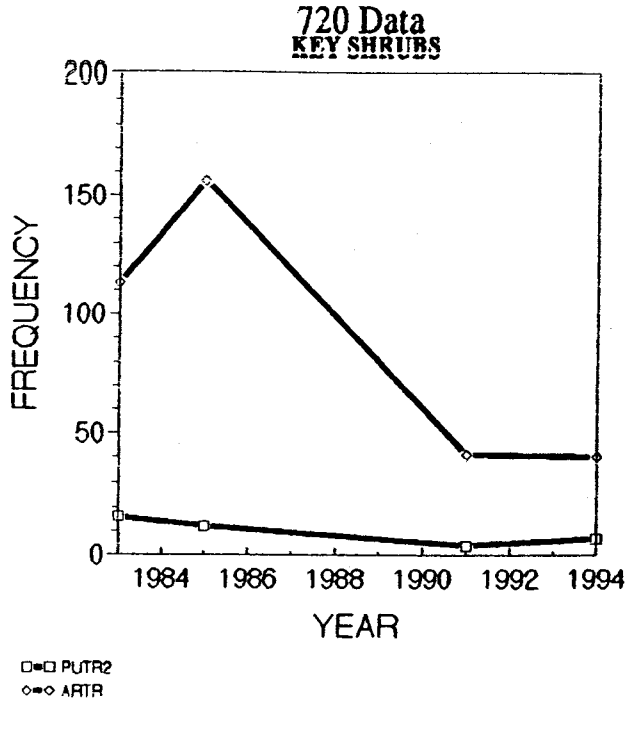
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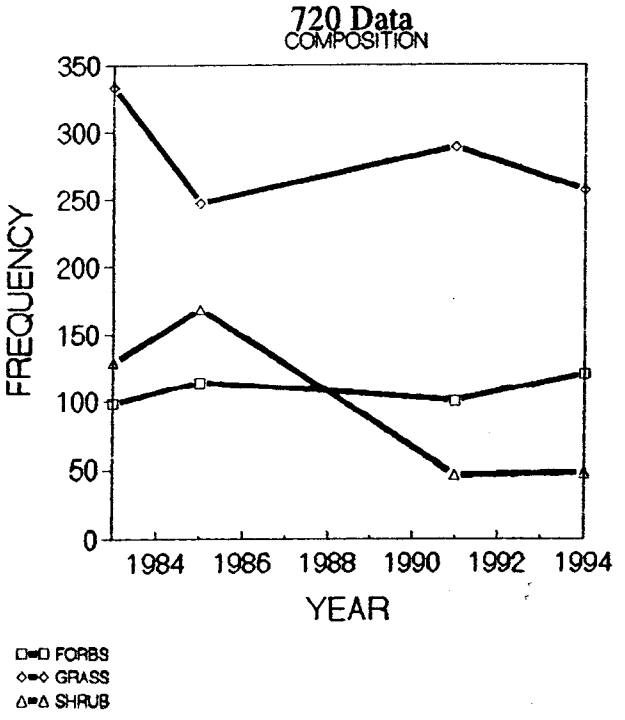
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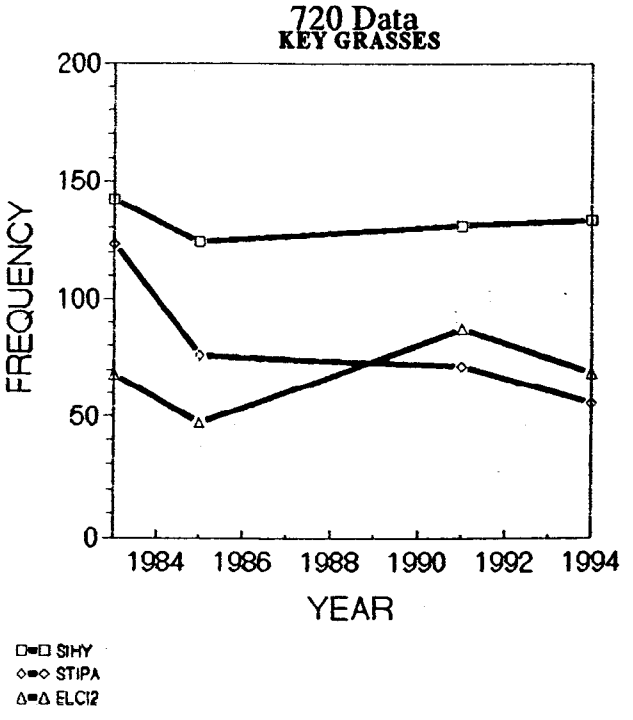
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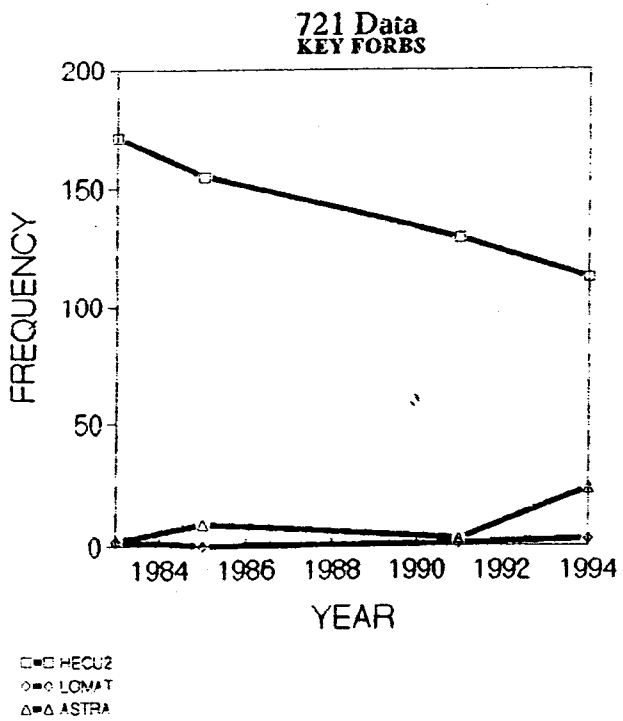
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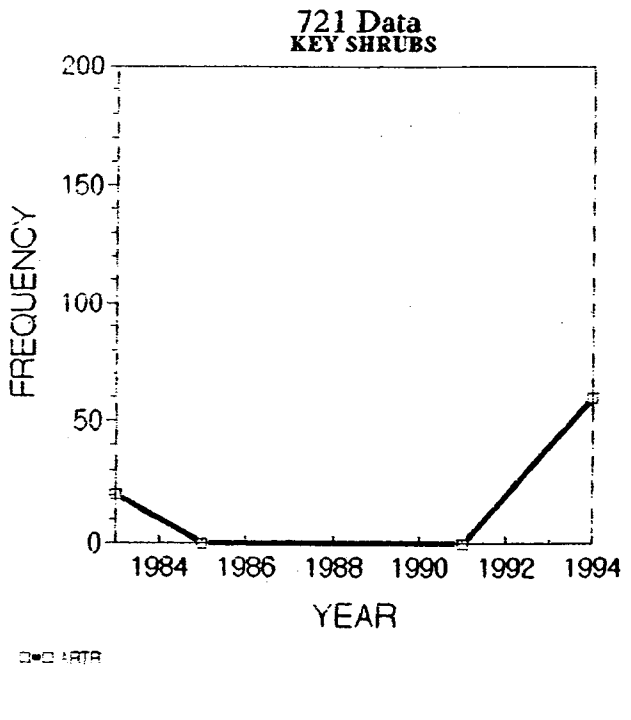
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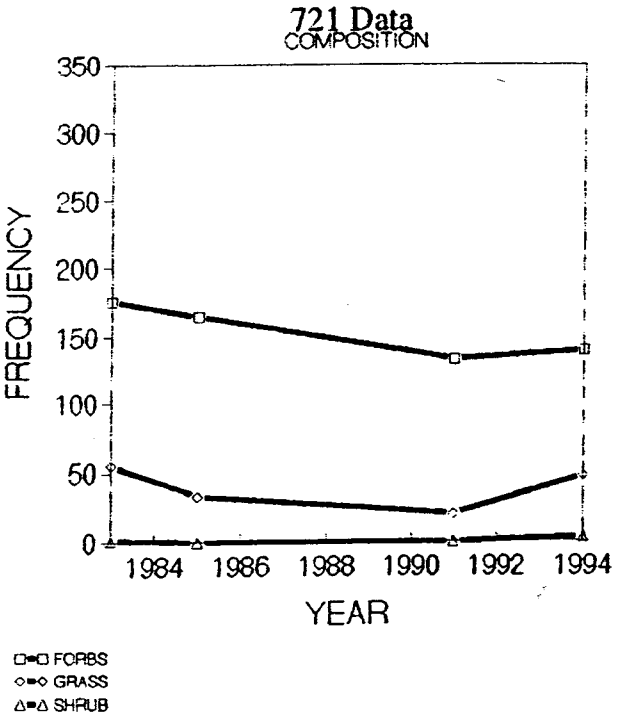
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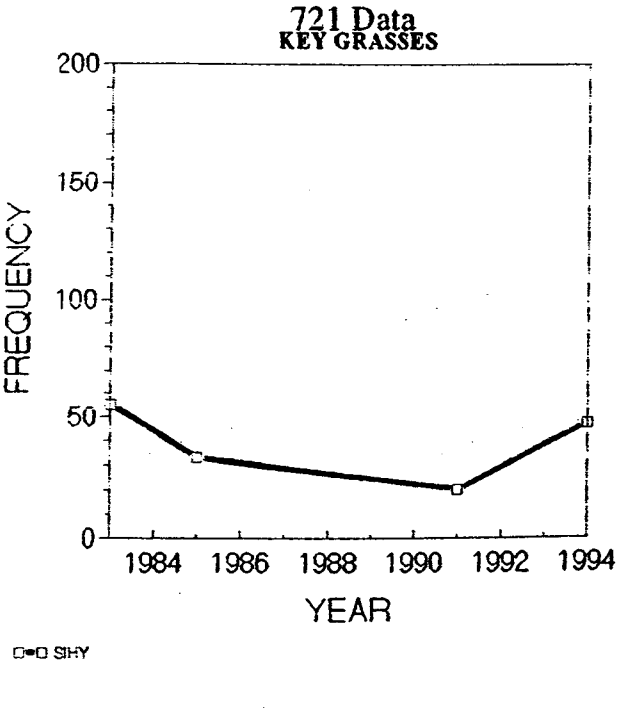
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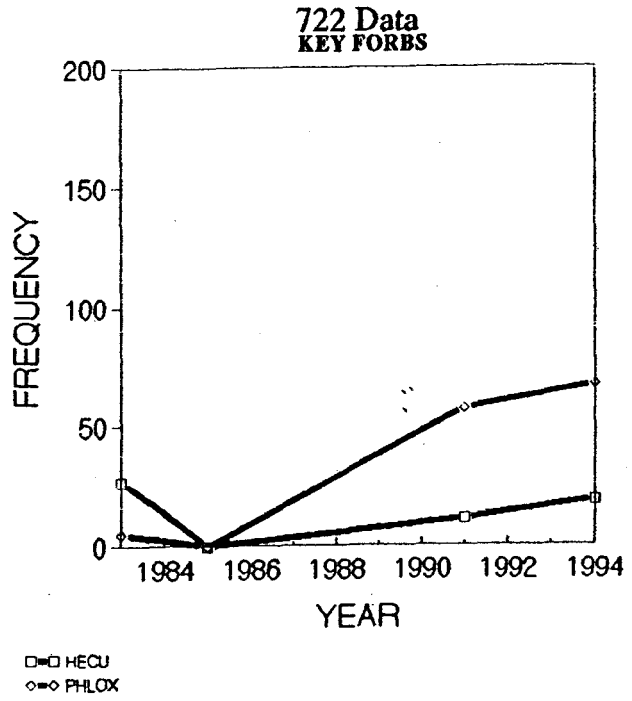
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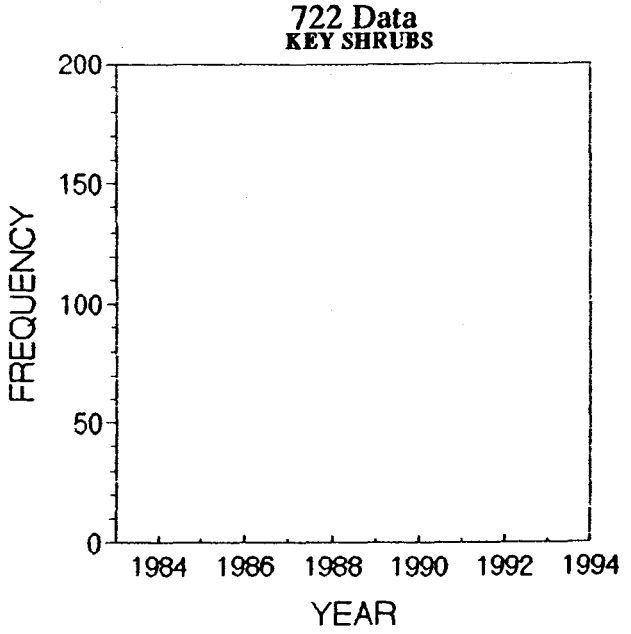
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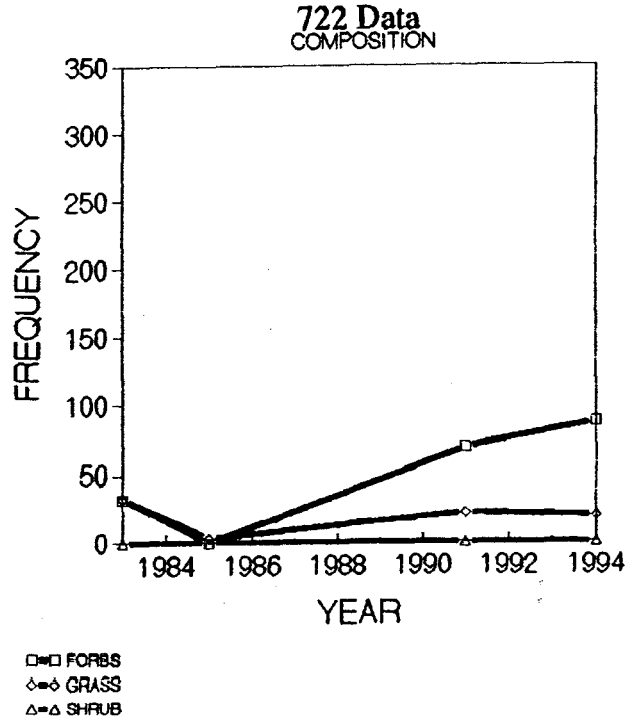
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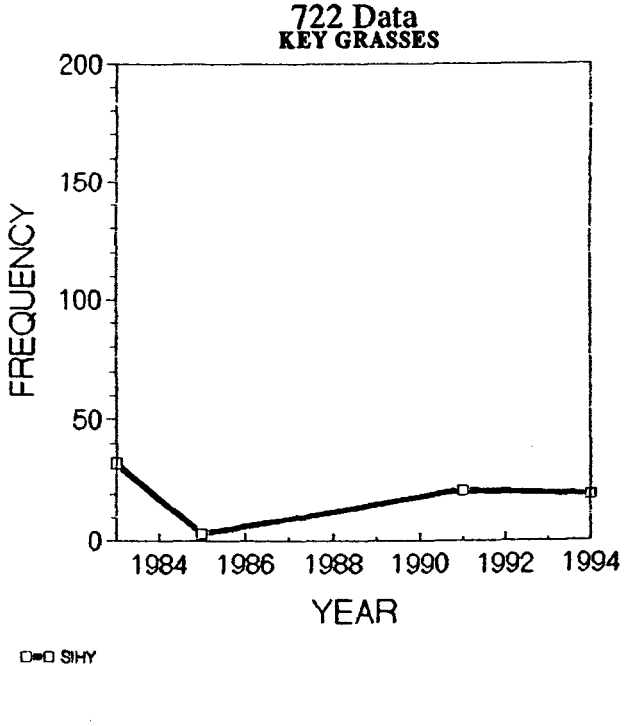
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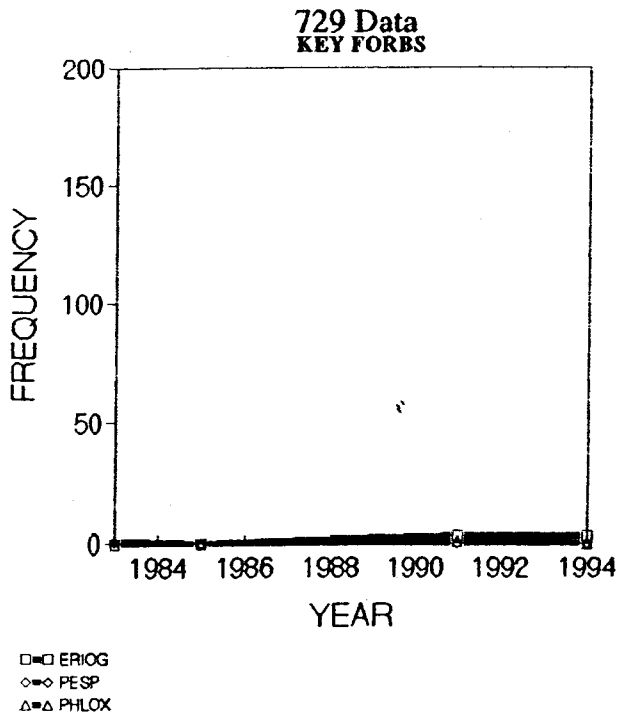
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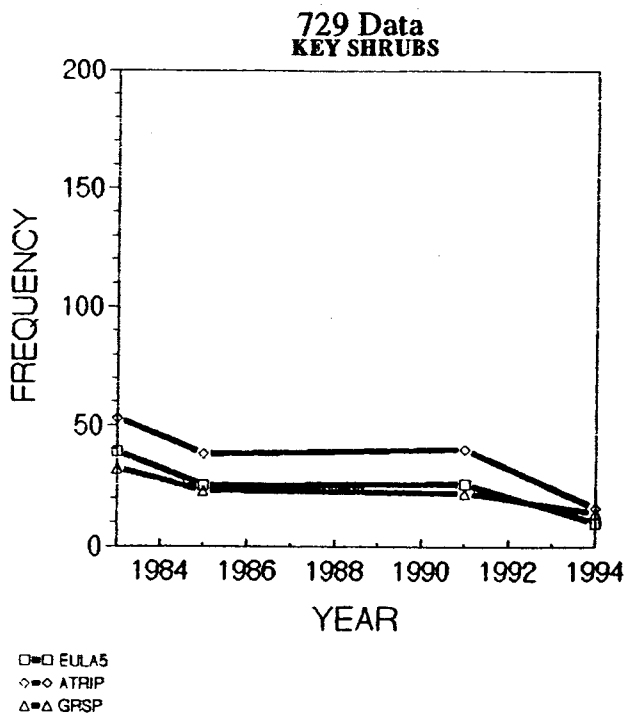
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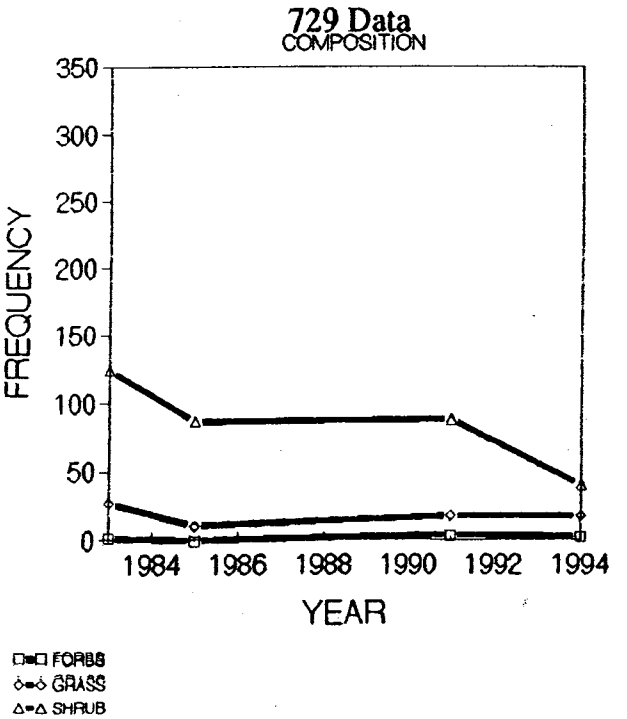
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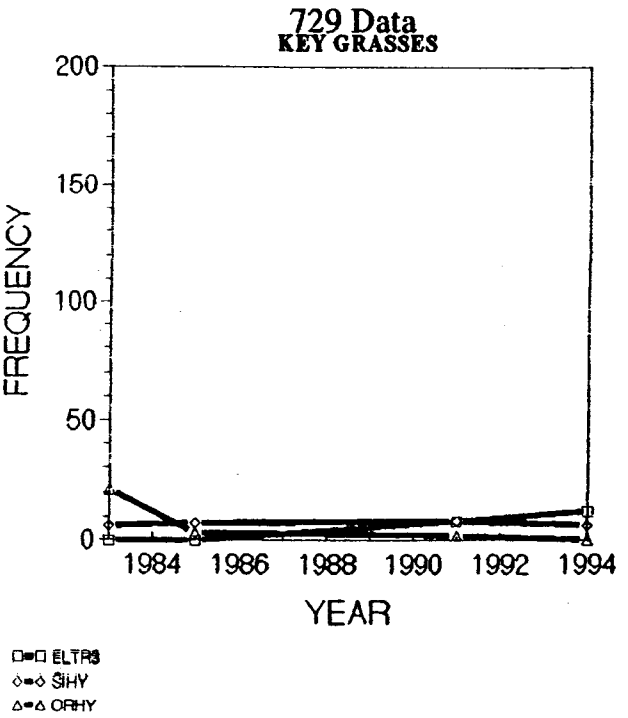
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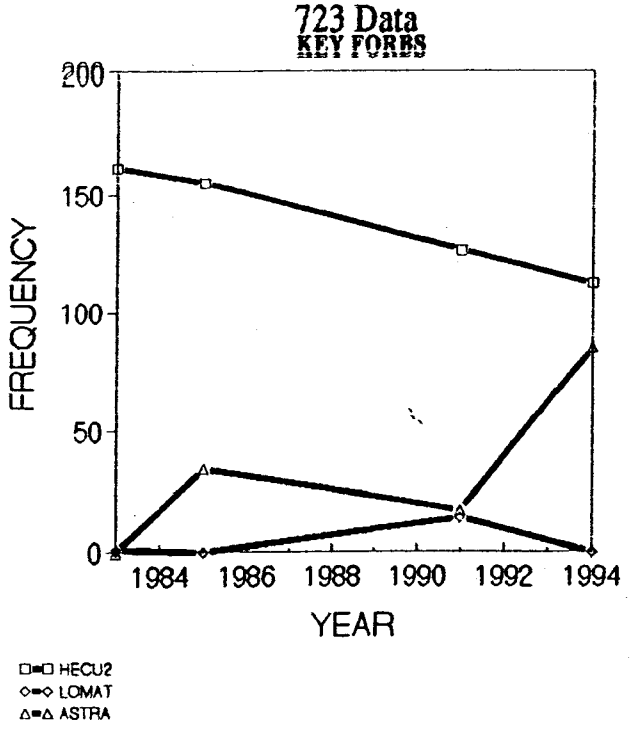
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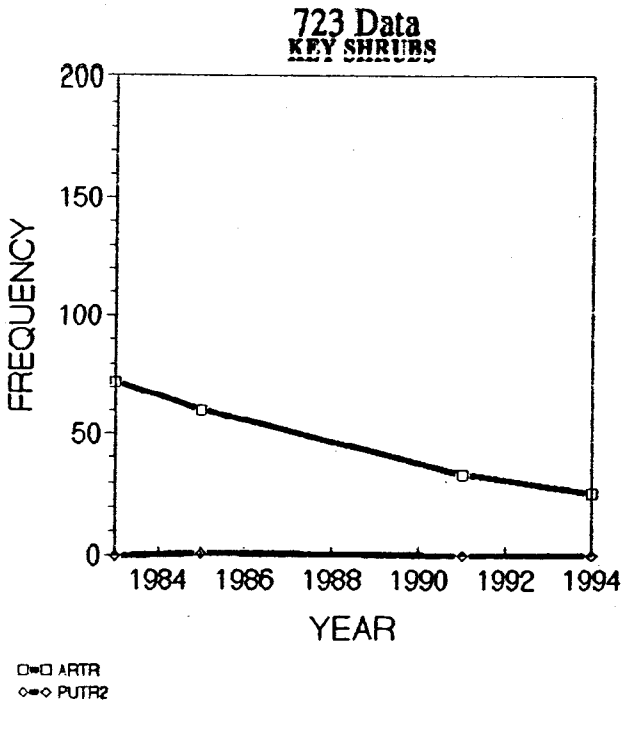
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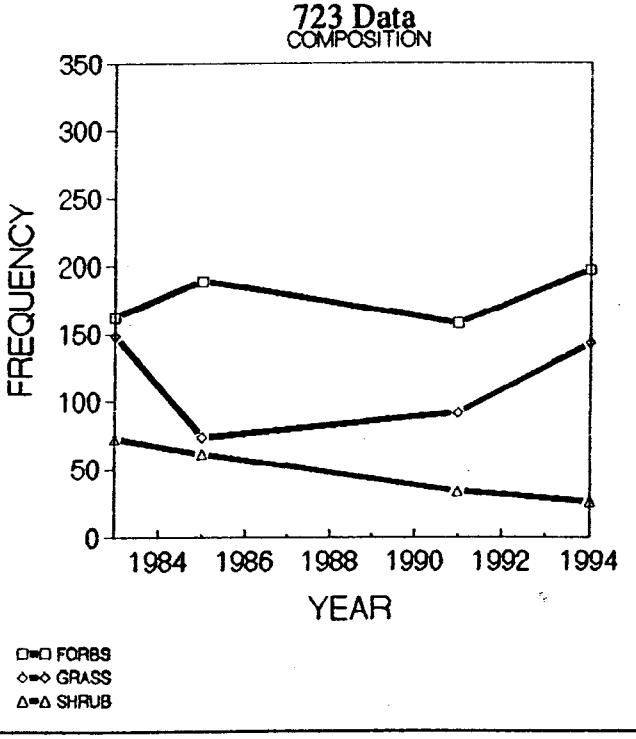
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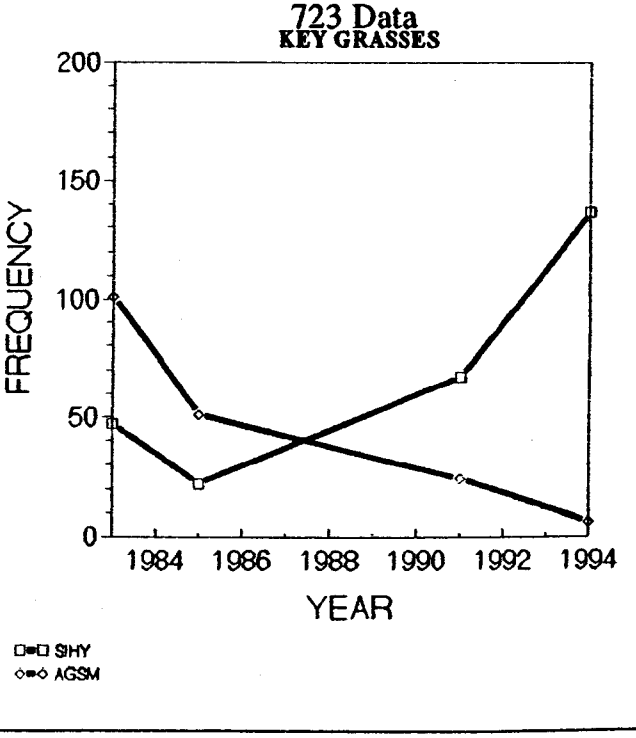
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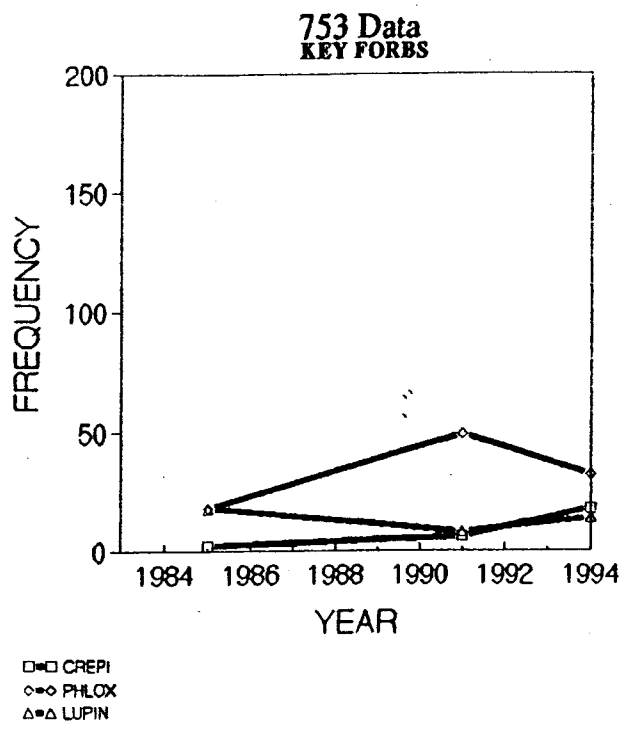
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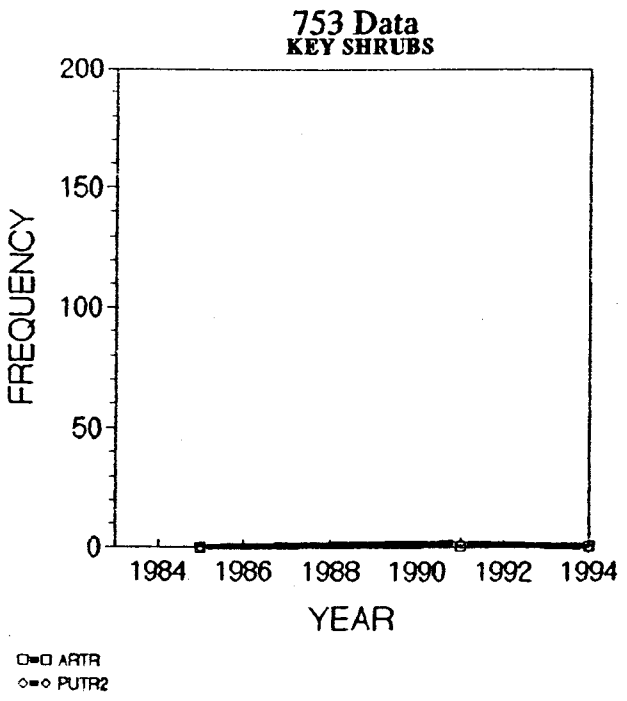
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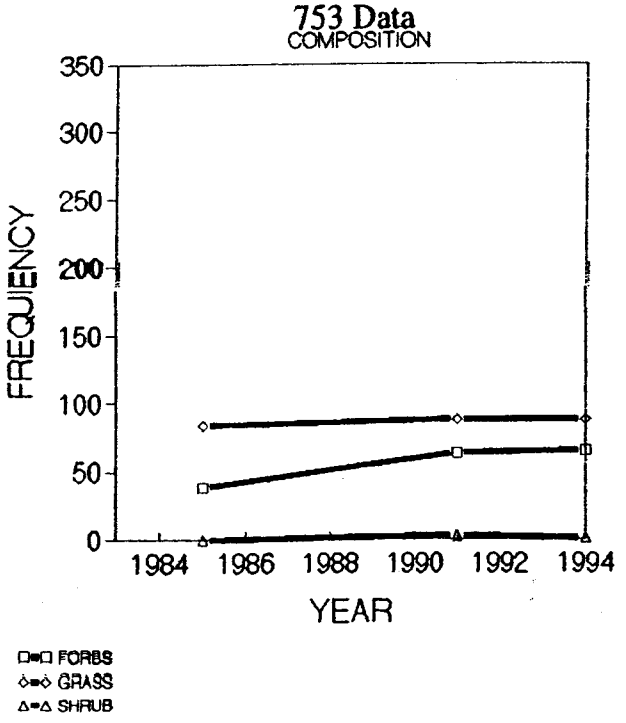
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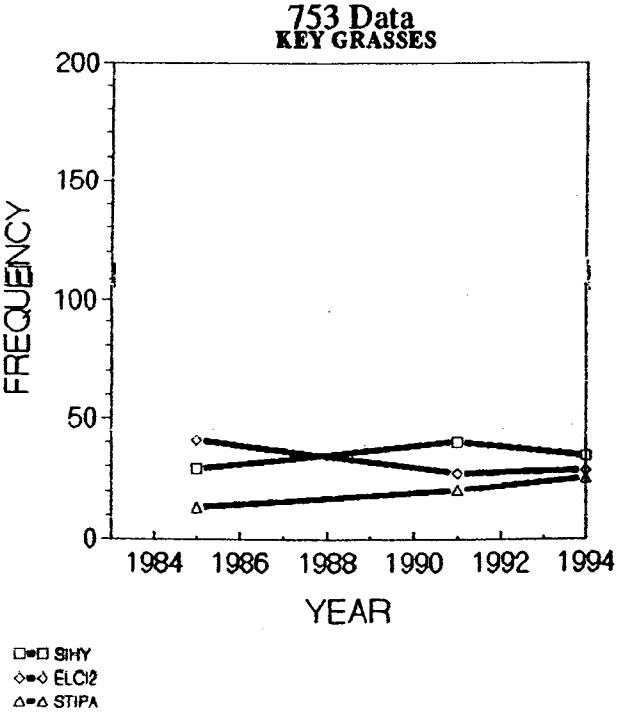
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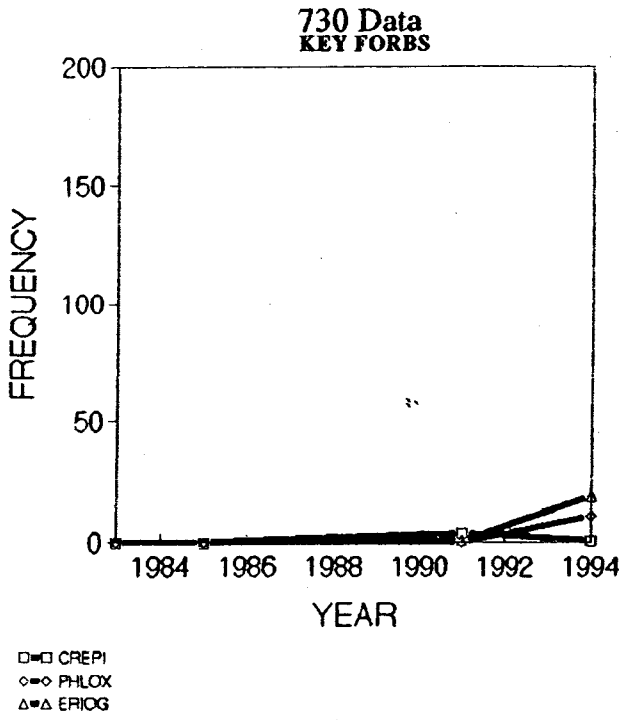
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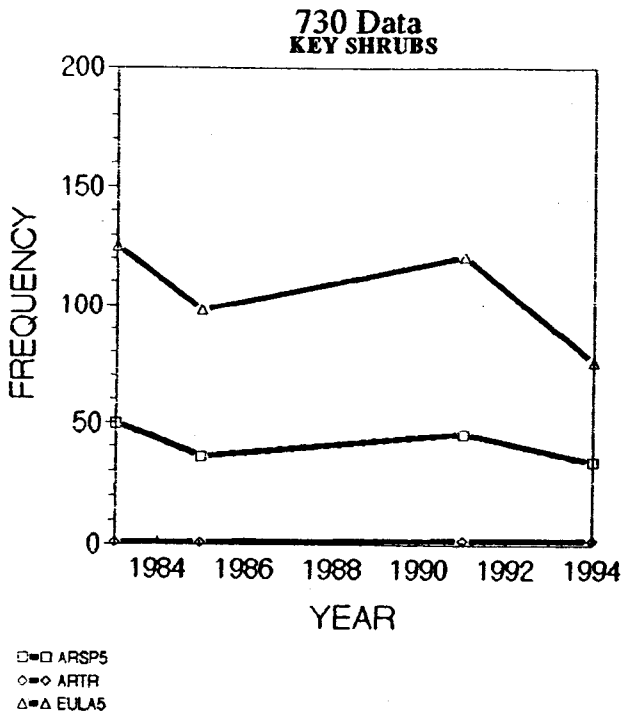
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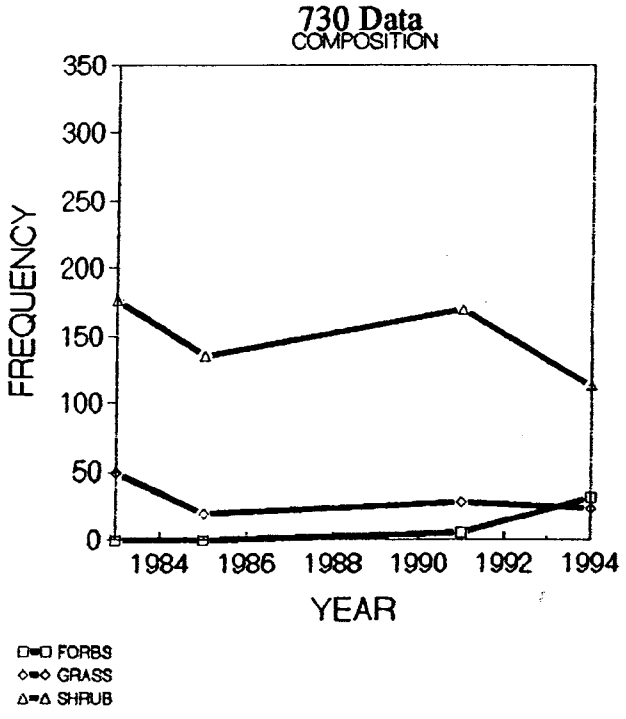
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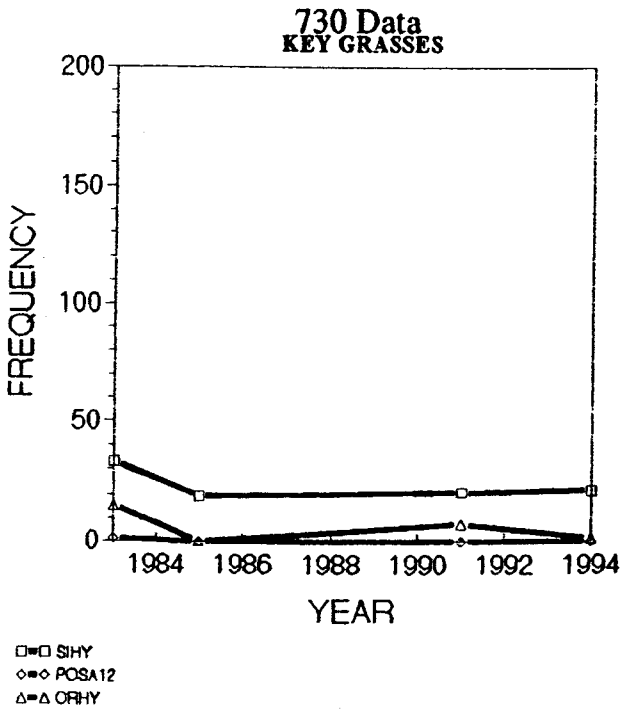
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Appendix 5 Upland Health Assessment Summary for Twin Peaks Allotment

Twin Peaks Allotment Acres summary for Each Upland Health Assessment Site Number (UHA NO). Data Gathered During 1999.

UHA No.	Location- Pasture, subunit, drainage ECT	Physical Environment (Acres) (No sites were in improperly functioning condition)		Biotic Integrity (Acres)			Trend	Rationale for Rating or Trend Direction
		Functioning	At Risk	Healthy	At Risk	Unhealthy		
1	South pasture, Dry valley near Lower Smoke Creek well	1414			1414		↔	@ key area 713, 1994 trend rating was static, utilization slight to light since 1993.
2	South pasture, Dry valley lake terrace		944		944		↑	improvement of perennial grass vigor/seed production, and responding to management
3	South pasture, Dry valley lake terrace	Same as 1			Same as 1		-	site will not respond to management in 30 years; dominated by cheatgrass,
4	South pasture, Dry valley near Pipe Springs		410		410		↑	shrubs & forbs in good recruitment, perennial grasses lacking, cheatgrass dominate.
5	South pasture, Lower Smoke Creek	5986			5986*		↔	lacks perennial grass seed source for recruitment
6	South pasture, Lower Smoke Creek	255			255*		↔	site will not response to management within 30 years
7	South pasture, Lower Smoke Creek	851			851		↑	lacking perennial grasses; recruitment of shrubs and forbs.
8	North Pasture, south of Chimney creek	4558			4558		↔	cheatgrass dominated site, low recruitment of native vegetation
9	North Pasture, Chimney	6078		6078			↑	overall diverse plant community

UHA No.	Location- Pasture, subunit, drainage ECT	Physical Environment (Acres) (Sites were improperly functioning condition)		Biotic Integrity (Acres)			Trend	Rationale for Rating or Trend Direction
		Function-ing	At Risk	Healthy	At Risk	Un-healthy		
10	North Pasture, Salt Marsh east of Burro mountain	672[1]		672[1]			↑	reference site
11	North pasture, Buffalo	1911			1911		↔	limited perennial grasses and forbs. Cheatgrass dominated
12	North pasture, salt marsh	3138			3138		↑	slight utilization, grasses vigorous, shrub and forb recruitment
13	North pasture, near the mouth of Buffalo Creek	592			592		↑	good vigor and diversity; 717, 1994 trend rating was up
14	North pasture, salt marsh	1026		1026			↑	recruitment of native vegetation
29	South Pasture, Dry Valley Rim west of wild horse reservoir	349		349			↑	recruitment of native vegetation.
30	South Pasture, skedaddle, near Morgan Spring	219			219		↑	utilization is slight, cheatgrass dominance puts site at risk
31	South pasture, Skedaddle		2369	2369			↑	key area 709, 1994 trend rating was up; slight utilization
32	South Pasture, Dry Valley Rim, near Gilman Spring.	145			145		↑	grasses vigorous, slight to light utilization most years.
33	South Pasture, Skedaddle	1239		1239			↑	health indicators in the positive category

UHA No.	Location- Pasture, subunit, drainage ECT	Physical Environment (Acres) (No sites were improperly functioning condition)		Biotic Integrity (Acres)			Trend	Rationale for Rating or Trend Direction
		Function-ing	At Risk	Healthy	At Risk	Un-healthy		
34	South Pasture, Skedaddle	1197		1197			↑	indicators in the positive category
35	South Pasture, Skedaddle	1396		1396			↑	utilization was slight to light past 7 years.
36	South Pasture, Bull Flat	284				284	↑	site dominated by medusa head, utilization slight to light in recent years, squirreltail recruitment
37	South Pasture, Dry Valley Rim,	542			542		↑	key area 714, 1994 trend rating was up. Slight utilization
38	South Pasture, 5-Springs Mountains, near 3-Springs Reservoir	489				489	↑	medusa head dominates site; increase of perennial grass; heavy use from wild horses in 1999
39	South Pasture, Dry Valley Rim,		117	117			↑	Key area 710, 1994 trend was static, utilization was slight in 1999
40	South Pasture, Dry Valley Rim,	974		974			↑	slight utilization most years
41	North Pasture, Rowland Mountain	4860		4860			↑	key area 720, 1994 trend rating was up.
42	North Pasture, Rowland Mountain	12636		12636			↑	moderate utilization by sheep and wild horses

UHA No.	Location- Pasture, subunit, drainage Ect.	Physical Environment (Acres) (No Sites were improperly functioning condition)		Biotic Integrity (Acres)			Trend	Rationale for Rating or Trend Direction
		Function-ing	At Risk	Healthy	At Risk	Un-healthy		
43	North Pasture, Stone Corral	1944		1944			↑	slight utilization
44	North Pasture, Stone Corral, Wrangler reservoir	130			130*		↑	indicators on the plus side, perennial grasses vigorous lack of grass diversity put site at risk
45	North Pasture, Stone Corral	110		110			↑	slight to light utilization.
46	North Pasture, Stone Corral, near the Norton Place	750			750		↑	key area 721, 1994 trend rating was up, slight utilization in 1999.
48	South Pasture, Bull Flat	2629			2629		↑	light utilization in recent years, vegetative health indicators on the positive side.
51	North Pasture, Big Springs Burn North Pasture, Big Springs Burn	3125		3125			↑	key area 753, 1994 trend rating up; slight utilization since 1993
52	North Pasture, near Big Springs Burn (Unburned)	Part of 51		Part of 51				see area 51.
53	North Pasture, ridge northeast of Painter	2365		2365				
54	South Pasture, Skedaddle	950		950				slight utilization- most years

UHA No.	Location- Pasture, subunit, drainage ECT	Physical Environment (Acres) (No. sites were improperly functioning condition)		Biotic Integrity (Acres)			Trend	Rationale for Rating or Trend Direction
		Functioning	At Risk	Healthy	At Risk	Unhealthy		
55	South Pasture, Skedaddle	475			475		↑	low diversity of grasses and forbs, cheatgrass puts site at risk; slight utilization
56	South Pasture, Dry Valley Rim	1211			1211		↑	lacking perennial grass component & cheatgrass domination puts site at risk; slight utilization
57	South Pasture, Skedaddle (eastside)		581		581		↑	lacking some perennial grasses & cheatgrass puts site at risk; slight utilization in recent years.
58	South Pasture, Skedaddle (eastside)	542[1]			542[1]		↑	grass vigorous, slight utilization in recent years
	TOTALS	65,042	4,421	41,407	27,283	773		69,463

1. These sites are also Ecological Reference Areas (ERA) located in conjunction with the Natural Resources Conservation Service (NRCS).

Trend direction: up ↑; static →; down ↓.

How acreage and trend was determined.

These acres were determined using the following approach approved by the Interdisciplinary (ID) Team.

> Acres applicable to each UHA sample area are restricted to the 7.5 minute quadrangle upon which the sample site is located.

> Each UHA sample site was tied to a specific Soil Map Unit (SMU) and soil series within that SMU. Therefore the largest acres applied to the total cannot exceed the percentage of acres which each particular soil series has a potential of occupying within the SMU.

> For example: UHA site 1 (UH001) is on the Sheepshead Spring, Nevada 7.5' quadrangle within Soil Map Unit 210, and is found on the Veta soil series which has the potential of occupying 65% of the SMU. The particular SMU 210 polygon which encompasses UH001 has 2175 total acres. Therefore UH001 represents 1414 acres, or .65 X 2175.

> Rangeland Health is reported for both the Physical Environment and the Biotic Integrity ratings. Referring again to UH001: The 1414 acres is Functioning in relation to the Physical Environment, and At Risk in relation to the Biotic Integrity.

> The acres reported above are <u>inventoried</u> applicable acres. Some may seem very small but are most likely a true representation of the approach taken for the field assessment. We focused on those areas which were in question as a result of the I.D. Team's pre-field analysis.

▸ Trend direction was determined by analyzing utilization information, and key area range trend data, where applicable to site assessed.

0015 unnamed seep (south side of Twin Peaks) Chimney PC (Winter Range) North Pasture	FR- static .1 acres	over grazing by cattle, wild horses, burros	Overgrazing causing riparian area to decline in size; vegetation cover not adequate to protect site. Flow patterns altered by trampling.	Management livestock as per Twin Peaks Project EA DR: hot season rest every year and spring grazing every other year.
0016, Lost Springs Chimney PC (Winter Range) North Pasture	FR- down 6 acres	over grazing by cattle, wild horses	Riparian area declining, and vegetation cover not adequate. Flow patterns altered by trampling.	Riparian area fenced after assessment, vegetation is recovering and trend is upward.
0018, South Twin Springs Chimney PC (Winter Range) North Pasture	FR-down .5 acres	over grazing by cattle, wild horses and burros	Riparian area declining, and vegetation cover not adequate to protect soils during high flows (site eroding) because of overgrazing	Riparian site fenced after assessment, vegetation is recovering and trend is upward.
0025, Sheep Trail # 2 Dry Valley Rim, South Pasture	FR- down .3 acres	over grazing by cattle, sheep, wild horses	Vegetation cover not adequate to protect soils during high flows (site eroding)	Riparian site fenced after assessment, trend is upward
0040, unnamed spring (near Red Rock Spring) Dry Valley Rim, South Pasture	FR- down .02 acres	overgrazing by cattle, wild horses	Site lacks vegetation composition, and excessive trampling causing headcut.	Riparian area rested from cattle use from 1997 to 1999, however during this period this riparian site impacted by excessive horse use.
0042, Red Rock Spring # 2. Dry Valley Rim, South Pasture	FR- Down .45 miles	overgrazing by cattle and wild horses	Site lacks vegetation composition to withstand high flows, causing down cutting and erosion.	Vegetation improvment at site, trend up since assessment, cattle use would be addressed in annual operating plan.
0044, Red Rock Spring # 1 Dry Valley Rim, South Pasture	FR- static .25 miles	overgrazing by cattle and wild horses	Site lacks vegetation composition and diversity, surface flow altered by trampling.	Use adjacent to trough and outside exclosure, cattle use would be addressed in annual operating plan.
0045, unnamed spring near East Fork Smoke Creek Chimney PC (Winter Range) North Pasture	FR-down 1.04 acres	overgrazing by cattle, and wild horses	Site lacks vegetation diversity, riparian size decreasing and flow altered by trampling.	Manage livestock as per Twin Peaks Project EA DR. (hot season rest every year and spring grazing every other year.)

Appendix 6, Twin Peaks Allotment Riparian Functional Assessment (RFA) Summary of Sites Functioning-at-Risk with Static or Downward Trends.

Appendix6RiparianFRmanagement.wpdOctober 23, 2000

During 1995 and 1996, 129 riparian/wetland sites were assessed for properly functioning condition on the Twin Peaks allotment. From this survey the 35 riparian sites summarized below were determined to be functioning-at-risk (FR) with a static or downward trend[1]. Factors contributing to FR rating are included in this summary, as well management strategies to improve the condition at the riparian site. Since the assessment was completed, 9 riparian/wetland sites have been fenced, or drift fences have been constructed for livestock and wild horse management purposes.

Riparian number and Name **Planning Compartment (subunit), Pasture**	**Functioning Condition Rating Trend; size or length**	**Factors Contributing to Rating**	**Comments**	**Management Strategy[2] and Comments**
0002. Parker Lake Salt Marsh PC (winter range sub-unit) North Pasture	FR-down 3.5 acres	cattle grazing	In 1995, cattle gazing impacts shoreline riparian vegetation at old reservoir site.	Rest during the growing season, graze during the dormant (winter) season.
0013, Burro Spring Lower Smoke Creek, North Pasture	FR- static .2 acres	over grazing by cattle and burros	Riparian area declining, and vegetation vigor is poor	Spring located in lower Smoke Creek Subunit; management addressed in AMP Addendum (II. C. 3.) rest yearlong after April livestock use.
0014, unnamed spring (below Burro Spring) Lower Smoke Creek, North Pasture	FR- static .3 acres	over grazing by cattle, wild horses, burros.	Vegetation composition and diversity not adequate to protect site during peak flows, riparian area size declining because of over grazing.	Management same as Burro Spring (0013).

1 The Rangeland Health Riparian Standard minimum condition rating is *properly functioning condition;* riparian/wetland areas functioning at risk with a static or downward require management changes. Bold indicates primary factor contributing to rating.

2 Management strategy for wild horses and burros is to maintain populations within AML ranges.

0122, unnamed spring on Skedaddle Mountains- 1 mile SE of Rag House spr Skedaddle PC , South Pasture	FR-static 1.08 acres	overgrazing by cattle, sheep and wild horses	Riparian area decreasing in size and eroding, and flow patterns altered by excessive trampling.	Defer cattle grazing during the growing season. Grazing would be determined annually, and addressed in annual operating plans.
0123, unnamed spring on Skedaddle Mountains Skedaddle PC, South Pasture	FR-static .5 miles	overgrazing by cattle and wild horses	Vegetation composition not adequate to protect riparian area during runoff events and vegetation vigor is poor.	Defer cattle grazing every other year. Grazing use would be determined annually, addressed in annual operating plans.
0124, unnamed spring on Skedaddle Mountains Skedaddle PC, South Pasture	FR-static .12 acres	overgrazing by cattle and wild horses	Riparian area lacks vegetation composition to protect riparian area during runoff events, spring de-watered by excessive trampling.	Defer cattle grazing every other year. Grazing use would be determined annually, and would be stated in annual operating plans.
0135, unnamed seep (near Willow Spring) Dry Valley Rim, South Pasture	FR-static .07 acres	jeep trail thru spring, over-grazing by cattle & wild horses	Vegetation composition lacks diversity and riparian site dominated by annuals species, which will not protect site during high runoff events; excessive trampling has caused erosion.	Defer cattle use every other year, and re-route road. Actual use would be determined annually, addressed in annual operating plans. Note: riparian site rested from cattle use in 1995, 1997 and 1999.
0137, unnamed spring near Jenkins Troughs Dry Valley Rim PC, South Pasture	FR-down .11 acres	over grazing by wild horses	Riparian vegetation dominated by non-native annuals/other exotics plants; trampling has altered flow patterns and riparian area decreasing in size.	Maintain wild horse population within appropriate management levels. Riparian area continues to be impacted by wild horses since assessment.
0142, Crooked Spring Buffalo Hills PC (Buffalo Hills) North Pasture	FR-down .01 acres	overgrazing by cattle and wild horses	Spring flow patterns altered by trampling, riparian area decreasing in size, riparian area dominated by annuals and exotic species.	Defer cattle use every other year. Actual use would be determined annually, addressed in annual operating plans.

0046, West Fork Rush Creek Five Springs PC (Bull Flat), South Pasture	FR-static 2.4 miles	overgrazing by cattle and wild horses; trail jeep thru riparian area	Vegetation composition is insufficient to withstand high flows, and site not vertically stable, resulting in several headcuts.	Defer cattle use every spring, graze during late summer and fall. Jeep trail closed. Consider drift fencing for cattle management.
0074, East Fork Smoke Creek Springs Chimney PC (Winter Range) North Pasture	FR-down .4 miles (1.8 acres)	overgrazing by cattle and wild horses	Site lacks vegetation diversity, and riparian area decreasing in size. Flow patterns altered by trampling	Management livestock by per Twin Peaks Project EA DR. Hot season rest every year and spring grazing every other year
0077, unnamed spring in Spencer Basin Skedaddle, South Pasture	FR-static .04 acres	overgrazing by wild horses	Spring flow patterns altered by trampling, site eroding and riparian area decreasing in size.	Determine AML, and maintain population within ranges. Riparian site continues to be impacted by wild horses.
0087, Public land portion of Willow Springs Dry Valley Rim, South Pasture	FR-static .11 miles	overgrazing by cattle and wild horses	Vegetation composition is not adequate to withstand high flows, and flow patterns altered by trampling.	Hot season rest every year. Spring and winter grazing every other year.
0091, unnamed spring south end of Buffalo Hills Buffalo PC (Buffalo Hills) North Pasture	FR-down .26 miles	overgrazing by wild horses	Vegetation cover not adequate to protect site during high flows, site altered by trampling.	Maintain wild horse population within appropriate management levels.
0092, unnamed spring near Crooked Creek Buffalo PC (Buffalo Hills) North Pasture	FR-static 1. Acres	overgrazing by wild horses	Vegetation cover not adequate to protect riparian site during high flows.	Maintain wild horse population within appropriate management levels.
0104, unnamed spring above Buffalo Spring Buffalo PC (Stony Clay Basin) North Pasture	FR-down .02 acres	overgrazing by cattle and wild horses	Vegetation composition is not adequate to protect spring site during high flows. There is active downcutting and spring altered by trampling.	Defer cattle grazing during the growing season.

0172, South Fork Parsnip Wash (upper reach)	FR-static	**jeep trail thru site;** cattle and wild horses overgrazing	Road affecting stream sinuosity and riparian width. Vegetation composition not capable of withstanding high flow events.	Drift fences constructed in 1996 (after assessment) to improve management. To improve rating, jeep trail also needs to rerouted.
Buffalo PC, North Pasture	.27 miles			
0174/175, Main Fork Buffalo Creek (below Buffalo Meadows Ranch)	FR, upward, see comments	overgrazing by cattle, wild horses and burros	Stream not in balance with sediment and water supplied by watershed. Sinuosity not in balance with watershed, and upland watershed contributing to degradation. Vegetation amounts and type not adequate to protect banks during high flow events.	Defer cattle grazing after June 1, each year. In 1996 creek was assessed as non-functional. In 1999, creek was re-assessed and is now functioning at risk with an upward trend.
Buffalo PC, North Pasture	6.65 miles			
0177, Buffalo Creek (at the confluence of Buffalo and Parsnip creeks)	FR-static	over grazing by cattle	Stream not in balance with sediment and water supplied by watershed, resulting in excessive erosion. Riparian zone is not vertically stable. Vegetation components(types, age structure, and composition) not adequate to protect stream banks during high flow events.	This reach was fenced in 1995 to improve management. Rest from cattle use for 2 years, then rest during the hot season.
Buffalo PC, North Pasture	1.09 miles			

0144, Twin Springs (public land portion)	FR-static	overgrazing by cattle and wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, and dominated by exotic annual species.	Provide rest every other year, increase monitoring and compliance for unauthorized use from adjacent allotment. Gather excess wild horses.
Buffalo Hills PC (Buffalo Hills) North Pasture	1.18 acres			
0146, Stockade Canyon	FR-down	overgrazing by wild horses	Vegetation diversity and vigor low. Spring flow patterns altered by trampling, riparian area decreasing in size, and dominated by annuals and exotics species.	Gather wild horses populations above AML range. Re-assess condition following gather.
Buffalo Hills PC (Buffalo Hills) North Pasture	.12 acres			
0148, Stockade Canyon	FR-down	overgrazing by wild horses	Riparian vegetation is not adequate to withstand high flow events; trampling has altered surface and sub-surface flow patterns, causing a loss of riparian area.	Gather wild horse population above AML range. Re-assess condition following gather.
Buffalo Hills PC (Buffalo Hills) North Pasture	.02 acres			
0150, unnamed seep, NE of the Norton Place	FR-static	overgrazing by cattle and wild horses	Riparian area lacks vegetation components; excessive trampling has resulted in partial loss of riparian area.	Riparian spring management listed in AMP Addendum (management refinements, part II.C.2., (rest every other year)).
Stone Corral PC, North Pasture	.02 acres			
0151, unnamed spring near the Norton Place	FR-static	overgrazing by cattle and wild horses	Riparian area lacks vegetation necessary components to prevent headcutting and channeling; excessive trampling has caused a partial loss of riparian area,	Riparian spring management addressed in AMP addendum (management refinements, part II.C.2., (rest every other year)).
Stone Corral PC, North Pasture	.03 acres			
0154, unnamed spring near Horse Spring	FR-down	overgrazing by cattle and wild horses	Animal trampling has altered flow patterns and resulted in partial loss of the riparian area. Site dominated by annuals	Riparian spring management listed in AMP Addendum (Management refinement, part II.C.2, (rest every other year))
Stone Corral PC, North Pasture	.1 acres			
0155 unnamed spring complex near the Norton Place	FR-static	overgrazing by cattle and wild horses	Upper segment is trampled resulted in partial loss of riparian area, and minor headcut (lower segment is functioning).	Management of riparian area listed in AMP Addendum. (Management refinements, part II.C.2., (rest every other year.))
Stone Corral PC, North Pasture	2.32 acres			

Appendix 6, part 2 - Twin Peaks Allotment 1995-1999 Riparian Functional Assessment Inventory.

October 23, 2000

Lotic means perennial or intermittent creeks or streams; Lentic means wetlands, springs, or seeps. Sites high lighted are not in properly functioning condition (PFC) and are not progressing toward this condition. FR means the site is functioning at risk.

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
000A	Parker Cy	Lotic	.30	0	PFC	Up	Skedaddle Cr-lower
000B	Smoke Cr	Lotic	2.1	18.	FR	Up	Lower Smoke Cr
000C	Cherry Cr	Lentic	-	.10	FR	Up	Phone Spirng
000	Parker Cy	Lentic	-	.40	PRC	Up	Telephone Spring
001	Smoke Cr	Lentic	-	.05	PFC	Up	Unnamed
002	Salt Marsh	Lentic	-	3.50	FR	Down	Parker Reservoir
011	Smoke Cr	Lentic	-	.02	PFC	Static	Unnamed
012	Smoke Cr	Lotic	.25	-	PFC	Static	Unnamed
013	Smoke Cr	Lentic	-	.20	FR	Static	Burro Spring
014	Smoke Cr	Lentic	-	.30	FR	Down	Unnamed
015	Smoke Cr	Lentic	-	.10	FR	Static	Unnamed
016	Smoke Cr	Lentic	-	6.0	FR	Down	Lost Spring
017	Smoke Cr	Lentic	-	.30	PFC	Static	Unnamed
018	Smoke Cr	Lentic	-	.50	FR	Down	South Twin Spring
019	Smoke Cr	Lentic	-	.20	PFC	Static	Unnamed
020	Smoke Cr	Lotic	.60	-	PFC	Up	Unnamed
022	Red Rock	Lentic	-	.02	PFC	Static	Unnamed
023	Bull Flat	Lentic	-	.10	PFC	Up	Sheep Trail # 1
024	Bull Flat	Lentic	-	.06	PFC	Static	above Sheep Trail # 1
025	Bull Flat	Lentic	-	.30	FR	Down	Sheep Trail # 2
026	Bull Flat	Lotic	.20	-	PFC	Static	Unnamed
027	Bull Flat	Lentic	-	.50	FR	Up	Morgan Spring
028	Bull Flat	Lotic	.50	1.60	PFC	Up	Skedaddle Cr-middle
029	Cherry Mtn	Lotic	.90	13.0	PRC	Up	Three Springs drainage

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
030	Cherry Mtn	Lentic	-	.40	PFC	Static	Unnamed
031	Cherry Mtn	Lentic	-	.70	PFC	Up	Unnamed
032	Cherry Mtn	Lotic	-	.80	PFC	Static	Wash Tub Spring
033	Cherry Mtn	Lentic	-	.80	FR	Up	Unnamed
034	Bull Flat	Lotic	.25	-	PFC	Up	Unnamed
035	Bull Flat	Lentic	-	.48	PFC	Up	Jenkins Spring
036	Bull Flat	Lentic	-	2.90	PFC	Up	Antelope Spring
037	Bull Flat	Lentic	-	.10	PFC	Up	Laver Spring
038	Smoke Cr	Lentic	-	.70	PFC	Up	Jenkins Troughs
039	Smoke Cr	Lotic	.40	-	PFC	Up	Unnamed
040	Red Rock	Lentic	-	.20	FR	Down	Unnamed
041	Red Rock	Lentic	-	.05	PFC	Static	Unnamed
042	Red Rock	Lotic	.45	-	FR	Down	Red Rock Spring # 2
043	Red Rock	Lotic	.26	-	PFC	Up	Red Rock Cyn Spring
044	Red Rock	Lentic	-	.25	FR	Static	Red Rock Spring # 1
045	Mixie Flat	Lentic	-	1.04	FR	Down	Unnamed
046	Cherry Mtn	Lotic	2.4	-	FR	Static	West Fork Rush Cr
047	Cherry Mtn	Lotic	.4	-	PFC	Up	Coyote Spring
048	Cherry Mtn	Lentic	-	.70	FR	Static	Unnamed
049	Cherry Mtn	Lentic	-	.10	FR	Static	Unnamed
051	Cherry Mtn	Lotic	.25	.05	PFC	Up	Unnamed
052	Cherry Mtn	Lentic	-	.42	PFC	Up	Rush Canyon Spring
053	Cherry Mtn	Lentic	-	.32	PFC	Up	Unnamed
054	Cherry Mtn	Lotic	.92	-	PFC	Up	Cherry Springs
058	Cherry Mtn	Lotic	.25	-	PFC	Up	Unnamed
066	Al Shinn Cyn	Lentic	-	3.50	PFC	Up	Horne Spring Complex
067	Al Shinn Cyn	Lotic	1.03	-	PFC	Up	Horne Spring
074	Mixie Flat	Lotic	.40	1.80	FR	Down	East Fork Smoke Cr

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
076	Spencer Basin	Lentic	-	.04	FR	Static	Unnamed
077	Spencer Basin	Lentic	-	.30	PFC	Static	Unnamed
078	Spencer Basin	Lentic	-	.01	PFC	Static	Unnamed
085	Cherry Mtn	Lotic	.2	-	PFC	Static	Unnamed
086	Cherry Mtn	Lentic	-	.31	PFC	Static	Unnamed
087	Red Rock	Lotic	.11	-	FR	Static	Willows Springs
088	Cherry Mtn	Lotic	.2	-	PFC	Static	Unnamed
089	Horse Canyon	Lotic	.34	-	FR	Up	Unnamed
090	Horse Canyon	Lentic	-	1.1	PFC	Up	Horse Canyon
091	Horse Canyon	Lotic	.26	-	FR	Static	Unnamed
092	Buffalo Creek	Lentic	-	1.00	FR	Static	Unnamed
093	Buffalo Creek	Lotic	1.50	-	PFC	Up	Tule Springs Drainage
094	Buffalo Creek	Lotic	.40	-	PFC	Static	Trail Canyon
096	Buffalo Creek	Lotic	.64	-	PFC	Up	Trail Canyon-lower
097	Buffalo Creek	Lotic	.30	-	PFC	Up	Wildcat Spring
098	Eddies Garden	Lentic	-	.19	PFC	Up	Wildcat Spring-lower
099	Eddies Garden	Lentic	-	.37	PFC	Up	Northfork Buffalo-upper
100	Eddies Garden	Lotic	.20	-	PFC	Up	Unnamed
101	Eddies Garden	Lentic	-	.68	PFC	Up	Unnamed
102 A	Eddies Garden	Lotic	.50	-	PFC	Up	Unnamed
102 B	Eddies Garden	Lotic	.20	-	PFC	Up	Unnamed
102 C	Eddies Garden	Lotic	.10	-	FR	Up	Unnamed
103	Eddies Garden	Lentic	-	.20	PFC	Up	Unnamed
104	Eddies Garden	Lentic	-	.02	FR	Down	Buffalo Spring Complex
105	Eddies Garden	Lentic	-	.05	PFC	Up	Unnamed
106	Eddies Garden	Lentic	.10	.10	PFC	Up	Buffalo Spring
107	HoleInGround	Lotic	1.90	-	PFC	Up	West Fork Buffalo

Appendix 6 part 2, Twin Peaks Allotment Riparian Functional Assessment Inventory Summary.

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
108	HoleInGround	Lentic	-	.27	PFC	Static	Unnamed
109	HoleInGround	Lentic	-	.11	PFC	Static	Unnamed
111	HoleInGround	Lentic	-	.32	PFC	Static	Unnamed
118	Bull Flat	Lentic	-	.34	PFC	Static	Unnamed
119	Bull Flat	Lentic	.3	-	PFC	Static	Horse Trail Spring
120	Bull Flat	Lentic	-	.24	PFC	Static	Cherry Spring-Sked.
121	Bull Flat	Lentic	-	.24	PFC	Static	Unnamed
122	Bull Flat	Lentic	-	1.08	FR	Static	Unnamed
123	Bull Flat	Lotic	.05	-	FR	Static	Unnamed
124	Bull Flat	Lotic	.12	-	FR	Static	Unnamed
133	Red Rock	Lentic	-	.10	PFC	Static	Unnamed
134	Red Rock	Lentic	-	.37	PFC	Static	Willow Spring
135	Red Rock	Lentic	-	.07	FR	Static	Unnamed
136	Red Rock	Lentic	-	.10	FR	Up	Snow Pit Seep
137	Smoke Creek	Lentic	-	.11	FR	Down	Unnamed
138	Smoke Creek	Lotic	.30	-	PFC	Static	Unnamed
139	Smoke Creek	Lentic	-	.21	PFC	Up	Unnamed
140	Horse Canyon	Lotic	.80	-	PFC	Up	Unnamed
141	Buffalo Creek	Lotic	.40	-	PFC	Static	Unnamed
142	Buffalo Creek	Lentic	-	.01	FR	Down	Crooked Springs
143	Buffalo Creek	Lentic	-	.50	PFC	Static	Unnamed
144	Buffalo Creek	Lotic	1.18	-	FR	Static	Twin Springs
145	Eddies Garden	Lotic	.51	-	PFC	Static	Unnamed
146	Eddies Garden	Lentic	-	.12	PFC	Static	Unnamed
147	Eddies Garden	Lotic	.09	-	PFC	Static	Unnamed
147	Eddies Garden	Lotic	1.06	-	RF	Up	Unnamed
148	Eddies Garden	Lentic	-	.02	FF	Down	Stockade Canyon Spr.

Appendix 6 part 2, Twin Peaks Allotment Riparian Functional Assessment Inventory Summary.

Site	Quad	Type	Miles	Acres	Rating	Trend	Name
149	Eddies Garden	Lotic	.52	-	PFC	Static	Unnamed
150	Eddies Garden	Lentic	-	.02	FR	Static	Unnamed
151	Eddies Garden	Lentic	-	.30	FR	Static	Unnamed
152	Eddies Garden	Lotic	.10	-	PFC	Static	Unnamed
153	Eddies Garden	Lentic	-	.02	FR	Static	Unnamed
154	Eddies Garden	Lentic	-	.10	FR	Static	Unnamed
155	HoleInGround	Lentic	-	2.23	FR	Static	Norton Spring
156	HoleInGround	Lentic	-	1.05	PFC	Static	Unnamed
157	HoleInGround	Lentic	-	1.05	PFC	Static	Unnamed
158	HoleInGround	Lotic	.60	-	PFC	Up	Unnamed
159	HoleInGround	Lotic	1.90	-	PFC	Up	West Fork Buffalo
160	HoleInGround	Lentic	-	1.05	PFC	Up	Norton Spring Complex
161	Eddies Garden	Lotic	3.2	-	PFC	Up	Middle Fork Buffalo
162	HoleInGround	Lotic	2.64	-	PFC	Up	Unnamed
166	Al Shinn Can	Lotic	3.40	-	PFC	Up	Smoke Cr- upper
167	Al Shinn Can	Lotic	3.10	-	PFC	Up	Smoke Cr-middle
168	Al Shinn Can	Lotic	.80	-	PFC	Up	Unnamed
169	Buffalo Creek	Lotic	1.30	-	FR	Up	Parsnip Wash-upper
170	Mixie Flat	Lentic	-	.68	PFC	Up	Parsnip Spring
171	Mixie Flat	Lotic	.35	-	PFC	Up	Parsnip Spring-upper
172	Mixie Flat	Lotic	.27	-	FR	Static	South Fork Parsnip
173	Buffalo Creek	Lotic	1.56	-	PFC	Up	South Fork Parsnip-low
174	Buffalo Creek	Lotic	6.65	-	FR	Up	Buffalo Creek
176	Eddies Garden	Lotic	.90	-	FR	Up	Buffalo Creek-upper
177	Buffalo Creek	Lotic	1.09	-	FR	Static	Parsnip/Buffalo Cr

Appendix 6 part 2, Twin Peaks Allotment Riparian Functional Assessment Inventory Summary.

Appendix 7, Twin Peaks Allotment Utilization Information

Utilization determined at or adjacent to upland key area trend transect sites for the years 1987 through and 1999.

October 23, 2000TP_App7_utilization.wpd

Legend for this appendix.
N = No Use; S = Slight Use; L = Light Use; M = Moderate Use H = Heavy Use; g = grass; s = shrubs; no = north pasture turnout; so = south pasture turnout; - information not available.

Year	1994	1993	1992	1991	1990	1989	1988	1987
Pasture Turnout								
	south	north	south	north	south	-	-	-
Key Area# and utilization level								
0707	Slight	N/Slight	Slight	-	N/Slight	-	-	-
0708	Light	Slight	Slight	S/Light	M/Heavy	-	Light	-
0709	Moderate	Slight	Light	-	Moderate	Moderate	Heavy	
0710	Light	Slight	Slight	-	Slight	-	Heavy	-
0711	Slight	Slight	Light	-	Slight	Moderate	Moderate	Light
0712	Light	Slight	Moderate	-	M/Heavy	-	Moderate	
0713	Slight	Slight	Light	-	Light	-	Light	-
0714	Light	Slight	Light	Slight	Moderate	-	Heavy	-
0715	N/Slight	Slight	Light	-	Slight	-	Moderate	-
0716	Slight	N/Slight	-	Moderate	-	Moderate	L/Moderate	-
0717	Moderate	-	Light	-	-	Moderate	Heavy	-
0718	Slight	No Use	Moderate	Light	-	Light	Light	-
0719	S/Light	Slight	Heavy	Moderate	-	M/Heavy	-	Moderate
0720	Light	Moderate	Moderate	-	-	L/Moderate	Light	Heavy
0721	Light	-	Slight	-	-	- Moderate		Light
0722	Light	Moderate	Light	Heavy	-	L/Moderate	M/Heavy	
0723	No Use	-	Light	-	-	Moderate	-	-
0729 grass	Slight	Slight	Light	Moderate	Moderate	-	Heavy	-
Shrub	N/Slight	Slight	Light	Moderate	-	Heavy	-	
0730 grass	Moderate	Slight	Light	Moderate	Heavy	-	Heavy	-
Shrub	Slight	Slight	Slight	Heavy	-	Heavy	-	
0753	Slight	Slight	Slight	L/Moderate	-	Moderate	Light	Moderate

Appendix 7, Twin Peaks Allotment Utilization Information

Year		1999	1998	1997	1996	1995
Cattle Turnout Pasture		north	south	north	south	north
Key Area # and Name, pasture location and		**Utilization level**				
0707-Telephone Spring South Pasture		Slight	Slight	Slight	Slight	no use
0708- Dry Valley Rim South Pasture		Heavy	Moderate	slight	-	-
0709-Wild Horse Reservoir South Pasture		Slight	Light	Light	Light	Slight
0710-East Fork Reservoir South Pasture		Slight	Slight	Slight	Light	-
0711-Antelope Spring Slight South Pasture		Slight	Slight	-	no use	
0712-Willows Reservoir South Pasture		-	Light	Slight	-	-
0713-Lower Smoke Well North Pasture		Light	Light	Slight	-	Slight
0714-Rush Creek Reservoir South Pasture		Slight	Slight	Light	Light	no use
0715-Salt Works Well North Pasture		Sight	Moderate	Slight	Light	no use
0716-Smoke Creek Ranch North Pasture		-	Slight	Slight	-	-
0717-Tule Canyon North Pasture		-	no use	Light	-	-
0718-Parsnip Wash North Pasture		Slight	no use	-	-	-
0719-Burn Spring North Pasture		Heavy	-	-	-	Moderate
0720-Rowland Mountain North Pasture		Light	Light	-	Light	grasses-slight Bitterbrush-heavy
0721-Norton Place North Pasture		Slight	-	Slight	-	-
0722-Buffalo Spring North Pasture		Slight	Slight	-	no use	Light
0723-Antelope Basin North Pasture		No use	-	-	Light	-
0729-Dry Valley # 1	grass	Slight	Light	Light	-	-
South Pasture	shrub	Slight	Light	Light		
0730-Dry Valley # 2	grass	-	Slight	Light	-	-
South Pasture	shrub	-	Slight	Slight	-	-

Appendix 7, Twin Peaks Allotment Utilization Information

Year	1999	1998	1997	1996	1995
0753-Big Spring Burn Slight North Pasture	Slight	Slight	Slight	Slight	
0754-Painter Flat North Pasture	-	-	-	-	7.5" stubble heights
0755-Mixie Flat North Pasture	Heavy	-	-	-	
0756-Chimney Rock North Pasture	-	-	-	Heavy	
0757-Nye Canyon South Pasture	Slight	-	-	Light	no use
0758-Skedaddle Mountain South Pasture	Moderate	Light	-	Light	Light/moderate
0759- Horse Canyon North Pasture	-				
0760-Smoke Creek Bench North Pasture	g-heavy S-moderate		S-light	g-heavy	
0761-Burro Mountain North Pasture	slight			Light	
0762-Bull Flat South Pasture					

Riparian Utilization Transects (Stubble Height Measurements)

Year	1999	1998	1997	1996	1995
718A-Upper Parsnip Wash	2.5"	10"			
718B-Lower Parsnip Wash	4"				
770-Lower Smoke Creek	6"	4"		6"	4"
771A-Upper North Fork Buffalo Creek	8"	19"		9"	1"
771B-Lower North Fork Buffalo Creek	1"	3.5"		4.5"	
772-Middle Fork Buffalo Creek	2"			1"	6"-site #1 1" site # 2
773-Chimney Creek	4"	7"		1"	.5"
774-West Fork (upper reach) Buffalo Creek (lower reach)	3.5 2"	-			20"

Appendix 7, Twin Peaks Allotment Utilization Information

Twin Peaks allotment Use Pattern Summary

1992, the following acreage were quantified using GIS information:

UTILIZATION	ACRES	PERCENT
Heavy	5,829	1.43%
Moderate	5,873	1.44%
Light	278,659	68.14%
Annual Growth	118,574	29.00%

1993,

UTILIZATION	ACRES	PERCENT
Severe	31	0.01%
Heavy	1,693	0.41%
Moderate	3,317	0.81%
Light	8,294	2.03%
Slight	43,549	10.65%
No Use	9,721	2.38%
Low Production	14,818	3.62%
Area Not Mapped	327,511	80.09%

1994

UTILIZATION	ACRES	PERCENT
Severe	62	.02%
Heavy	2,515	.61%
Moderate	4,247	1.04%
Light	7,840	1.92%
Slight	206,498	50.44%
No Use	7,960	1.94%
Low Forage prod	4,618	1.13%
Annual Plants	289	.07%
Area Not Mapped	175,331	42.83%
		100.00%

1998 Use Pattens (South Pasture only)

UTILIZATION	ACRES	PERCENT
Heavy	3,413	2 %
Moderate	376	.2 %
Light	164,908	88%
not mapped	17,130	9 %

1999 Use Patterns:

UTILIZATION	ACRES	PERCENT
Heavy	9,974	3.5%*
Moderate	4,020	1.5%*
Light	275.381	68%
not mapped	100,253	26%

* percentage of area mapped based on GIS information

Appendix # 7

TWIN PEAKS ALLOTMENT
1994 COLE BROWSE BITTERBRUSH TRANSECT SUMMARY

A:\94PUTRSU.TWI-12/16/94

Transect Number and Name and Planning Compartment	Average Leader Use (Percent) by Date	Age Classes Percent				Hedging Forms Classes - Percent							
						All Available			Partly Available			Not Avail.	
		Seedling	Young	Mature	Decadent	1 None	2 Light	3 Heavy	4 None	5 Light	6 Heavy	7 Unavail	8 Dead
103, Pilgrim # 1, Rowland	31, 9/22/94	0	0	9	91	13	16	9	9	0	0	0	53
105, Buckhorn, Rowland	35, 9/22/94	0	16	26	58	26	14	16	8	2	0	0	32
106, Rowland Mountain, Rowland	76, 9/22/94	0	15	45	40	0	8	60	4	0	4	0	24
110, Horn Springs, Painter	12, 10/19/94	8	0	4	88	68	28	0	4	0	0	0	8
111, South Painter, Painter	28, 10/21/94	0	0	16	84	60	28	8	4	0	0	0	0
115, Piute Springs, Painter	45, 10/7/94	0	4	52	44	16	40	40	4	0	0	0	0
116, Willows Springs, Painter	20, 10/29/94	0	4	80	16	36	4	0	52	4	4	0	0
117, East Painter, Painter	62, 10/29/94	0	0	33	67	10	28	50	2	10	0	0	0
118, Indian Springs, Painter	22, 9/21/94	0	0	8	92	28	20	12	0	4	0	0	36
119, Telephone Springs, Skedaddle	2, 8/21/94	4	22	50	24	66	2	0	32	0	0	0	0
120, Lower Red Rock, Dry Valley	6, 8/8/94	0	0	80	20	52	0	0	48	0	0	0	0
121, Little Twin Spring, Stone Corral	62, 10/28/94	0	0	0	100	8	36	36	0	0	12	8	4
122, Red Rock Canyon, Dry Valley Rim	52, 10/24/94	0	0	71	29	0	52	36	0	8	0	0	4
123, Sheep Camp Draw, Dry Valley Rim	37, 8/15/94	0	0	80	20	0	56	0	20	4	20	0	0
130, Rag House, Skedaddle	29, 10/20/94	4	0	12	84	24	64	8	4	0	0	0	0
132, Al Shinn # 1, Black Mountain	35, 9/21/94	0	4	20	76	4	12	16	12	32	12	0	12
133, Al Shinn # 2, Black Mountain	7, 9/21/94	0	0	0	100	60	8	0	12	4	0	0	16
757, Nye Canyon, Skedaddle	4, 8/30/94	0	0	80	20	0	0	0	80	12	0	0	8

KEY AREA	ECOLOGICAL STATUS	KEY SPECIES		Potential Natural Community (PNC)	
Key Area Number; Nearby landmark Legal Location, elevation and slope	**Ecological site name and #, 1994 Ecological Status Percent, Condition Class compared with 1979 SVIM data**	**Dominant plants or *Key Species* in Italic Percent present by weight In 1994 (T=trace)**	**Native Plants Composition of grasses, forbs, shrubs in 1994.**	**Desired Plant Community (DPC) Proposed**	**PNC - grass, forbs, shrubs**
North Pasture					
715, near Salt Works Well, T 31 N, R 19 E, S 23, NW¼, NW¼, elevation 4,100 ft, 5% slope	Silty 6-8" (023XY14YNV) 51% late-seral (good); In 1979, mapped as fair condition.	*winterfat* (30%) *bud sage (15%)* spiny horsebrush (3%) *Indian ricegrass (T%)*	Grasses 0% Forbs 0% Shrubs 100%	5-15% 1-5% 80-90%	55% 5% 40%
716, east of Smoke Creek Ranch, T 32 N, R 18 E, S 20, SE¼, SW¼; elevation 4550 ft, 11% slope	Loamy 8-10" (023XY006NV) 16%, early-seral (poor); In 1979, mapped as poor condition.	Wyoming sagebrush (6%) cheatgrass (50%) *bottlebrush squirreltail (5%)* tumble mustard (28%) *perennial forbs* (8%)	Grasses 20% Forbs 1% Shrubs 79%	30-45% 5-15% 35-45%	60% 5-% 35%
717, Tule Canyon T 33 N, R 19 E, S 24, SW¼, NE ¼; elevation 5150 feet, 10% slope, west exposure.	Cobbly Claypan 8-12". (023XY060NV) 46% mid-seral (fair); In 1979, mapped as poor condition.	*Low sagebrush* (22%); *bottlebrush squirreltail* (2%); *Sandberg's bluegrass* (8%); *perennial forbs (10%);* *Thurber's needlegrass (4%)*	Grasses 31% Forbs 4 % Shrubs 55 %	35-45% 10-20% 35-45%	55% 10% 35%
718, Parsnip Canyon, T 33 N, R 16 E, S 11, SE¼, NW ¼. Elevation 4950 feet, 15% slope.	Loamy 8-10" (023XY006NV) 43%, mid-seral (fair); In 1979, mapped as fair condition.	Wyoming sagebrush (73%); *bottlebrush squirreltail (4%);* *bluegrass (3%)* *perennial forbs (3%)* *Thurber's needlegrass* (8%)	Grasses 9% Forbs 42% Shrubs 47%	10-15% 35-45% 35-45%	60% 5% 35%
719, Burn Spring T 33 N, R 18 E, S. 17, SW ¼, NE ¼.elevation 5750 feet, 5% slope, north exposure.	Loamy 10-12" (023XY020NV) 47%, mid-seral (fair); In 1979, mapped as fair condition. Site burned in 1985 wildfire.	Wyoming sagebrush (63%) *Nevada bluegrass (17%)* cheatgrass (5%)	Grasses 32% Forbs 4% Shrubs 63%	30-45% 5-15% 35-45%	60% 10% 30%

North Pasture	Ecological Status	Key Species	Native plants Composition by Weight in 1994	DPC	PNC
720, Rowland Mountain, T 35 N, R 18 E, S. 34, NW ¼, SW ¼. Elevation 6450 feet, 12% slope	Loamy 14-16" (023XY041NV); 58%, late-seral (good); In 1979, mapped as fair condition.	*bitterbrush (10%)* big sagebrush (38%) *Sandberg bluegrass (16%);* *great basin wildrye (13%)*	Grasses 33% Forbs 17% Shrubs 50%	40-50% 15-20% 30-40%	65% 15% 20%
721, near the Norton Place, T 34 N, R 19 E, S.17, NE ¼, NW ¼. Elevation 5950 feet, 2% slope	Churning Clay 10-14" (023XY001NV); 37%, mid-seral (fair); In 1979, mapped as fair condition.	Annual brome grass (18%); Astragalus (18%); *bottlebrush squirreltail (20%); sunflower (21%)*	Grasses 20% Forbs 29% Shrubs 8%,	20-30% 15-20% 30-40%	30% 10% 60%
722, near Buffalo Spring T 33 N, R 19 E, S. 3, SW ¼, NE ¼. Elevation 5050 feet, 8% slope.	Very Cobbly Claypan 10-12" (023XY044NV) 2% early-seral (poor); In 1979, mapped as poor condition.	*bottlebrush squirreltail (2%);* tumble mustard (73%) Russian thistle (151%) Cheatgrass (9%)	Grasses 2% Forbs 0% Shrubs 0%	5-20% 1-5% 10-20%	40% 5% 55%
723, Antelope Basin T 34 N, R 18 E, S. 35, NW ¼, SE ¼. Elevation 5500 feet,	Clayey 10 - 14" (023XY033NV) 53% late-seral (good); In 1979, mapped as poor condition.	*bottlebrush squirreltail (23%),* big sagebrush (39%) sunflower (14%)	Grasses 28% Forbs 16% Shrubs 39 %	30-40% 15-20% 35-45%	50% 5% 45%
753, Big Springs burn T 33 N, R 17 E, S. 9, NE ¼,NW ¼. Elevation 5760 feet, 8% slope	Stony Loam 12-16" (021XE004CA) 56% late-seral (good); In 1979 mapped as fair condition. static trend. Site burned in 1985 wildfire.	Rabbitbrush (15%) *great basin wildrye (10%)* cheatgrass (39%) *bottlebrush squirreltail (5%)* *bluebunch wheatgrass (11%)*	Grasses 27% Forbs 29 % Shrubs 15%	30-50% 25-35% 20-30%	60-75% 5-15% 10-25%

South Pasture	Ecological Status	Key Species	Native plants % present by weight	DPC	PNC
713, near Lower Smoke Creek Well, T.30N., R.19 E., S.17, SE ¼, SE ¼. Elevation 4800 feet, slope 4%	Sandy 8-12" (023XY051NV) 38% early-seral* (poor); In 1979 mapped as poor condition.	Big sagebrush (53%) *bottlebrush squirreltail (3%);* *Indian ricegrass (4%)* *Thurber needlegrass (4%)* Cheatgrass (18%)	Grasses 8% Forbs 11 % Shrubs 62 %	20-30% 11% 62%	65-80% 10-20% 10-20%
714, Rush Creek Reservoir, T.31N., R.17 E., S.34, NW ¼, NW ¼. Elevation 4800 feet, 2% slope	Stony Loam 9-12" (023XF004CA) 29% early-seral* (poor); In 1979 mapped in poor condition.	Wyoming sagebrush (42%); *Sandberg bluegrass (17%)* Nevada bluegrass (1%) *bottlebrush squirreltail (19%); cheatgrass (11%)*	Grasses 19% Forbs 9% Shrubs 55%	20-30% 10-20% 50-60%	65-80% 10-20% 10-20%
729, Dry Valley # 1, T.29N., R.19 E., S.20, SW ¼, SW ¼. Elevation 4200 feet, 14% slope	Loamy 4- 6" (027XY13NV) 51% late -seral (good); In 1979 mapped in fair condition.	*Bud sagebrush (25%);* *shadscale (14%)* *Nevada bluegrass (1%)* *bottlebrush squirreltail (7%);* cheatgrass (38%)	Grasses 7% Forbs 9% Shrubs 25%	10-20% 5-10% 30-40%	35% 5% 60%
730, Dry Valley # 2, T.29N., R.19 E., S.9, SE ¼, SW ¼. Elevation 4200, slope 10%	Silty 6-8" (027XY14YNV) 47% mid -seral (fair); In 1979 mapped in fair condition.	*Bud sagebrush (9%);* *winterfat (32%)* *buck wheat (1%)* *bottlebrush squirreltail (20%);* cheatgrass (13%)	Grasses 20% Forbs 1% Shrubs 40%	25-35% 5-10% 35-45%	55% 5% 40%

*Sites lowered one condition class due to low production, as accordance with section 305.5 (a) of the National Range Handbook.

South Pasture	Ecological Status	Key Species	Native plants % present by weight	DPC	PNC
707, near Telephone Spring T 29 N, R 17 E, S.24, SE ¼, NW ¼. Elevation 5100 feet, slope 3%.	Clay Upland 9-16" (021XF006CA) 51% late-seral (good); In 1979 mapped in fair condition.	*Big sagebrush* (20%) horsebrush (7%) *buckwheat (10%) bottlebrush squirreltail (11%); balsam root (19%) Thurbers needlegrass (4%)*	Grasses 21% Forbs 39% Shrubs 30%	25-35% 35-45% 25-35%	65-75% 10-20% 10-20%
708, near Parker Canyon, T28N, R18E, S.3, SW ¼, SE ¼. Elevation 5000 feet, 6% slope.	Loamy 8-10", (023XY006NV) 59% late-seral (good); In 1979 mapped in poor condition.	Big sagebrush (39%) *bluebunch wheatgrass (9%) Thurber's needlegrass (10%)*; cheatgrass (18%) *bottlebrush squirreltail* (13%	Grasses 44% Forbs 23% Shrubs 30%	45-55% 20-30% 25-35%	60% 5% 35%
709, Wild Horse Reservoir, T.30N., R.17 E., S.23, SW ¼, SW ¼.; elevation 5100 feet, slope 14% northwest	Stony Loam 9-12" (023XF004CA) 35%, mid-seral (fair); In 1979 mapped as poor condition.	*low sagebrush (58%) bluebunch wheatgrass (9%) Thurber's needlegrass (2%); Sandberg bluegrass (13%) bottlebrush squirreltail (3%) perennial forbs (6%)*	Grasses 47% Forbs 17% Shrubs 34%	45-55% 20-30% 30-40%	60% 10% 30%
710, East Fork Skedaddle Creek T.30N., R.18 E., S.16, NE ¼, SE ¼.; Elevation 5450 feet, slope 6% - west	Very Cobbly Claypan 9-12" (023XY044NV); 55%, late-seral (good); In 1979, mapped as fair condition.	*Low sagebrush (31%); Bottlebrush squirreltail (5%); Sandberg's bluegrass (14%); perennial forbs (3%);*	Grasses 31% Forbs 4 % Shrubs 55 %	30-40% 5-10% 50-60%	40% 5% 55%
711, near Antelope Spring, T.30N., R.17 E., S.19, NW ¼, NW ¼. Elevation 4800 feet, slope 8%	Stoney Loam 9 - 12" (023XF004 CA). 21% early-seral (poor); In 1979 mapped as poor condition.	*Big sagebrush (44%); Bottlebrush squirreltail* (31%); cheatgrass (23%); perennial forbs (1%);	Grasses 31% Forbs 1 % Shrubs 44 %	30-40% 5-10% 45-55%	60% 10% 30%
712, near Willow Reservoir, T.29N., R.18 E., S.2, NW ¼, NW ¼. Elevation 5600 feet, slope 18%	Cobbly Claypan 8-12" (023XY060NV) 58% late-seral (good); In 1979 mapped as fair condition.	*Low sagebrush (14%) bluebunch wheatgrass (25%) squirreltail (3%); Sandberg's bluegrass (10%) bluegrass (5%)* Cheatgrass (36%)	Grasses 34% Forbs 8 % Shrubs 19 %	35-45% 10-20% 35-45%	40% 5% 55%