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BUREAU OF LAND MANAGEMENT
CARSON CITY DISTRICT OFFICE
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(NV-037)

NOV 16 1987

Ms. Rose Strickland
Sierra Club
Toiyabe Chapter
P.O. Box 8096
Reno, NV 89507

Dear Ms. Strickland:

Thank you for commenting on the Revised Pine Nut HMP. I received several valuable comments, many of which were similar to yours, from others which were incorporated into the final plan. NDOW signed the plan on August 21, 1987. We feel the HMP, together with its Riparian Management Plan (Appendix III), provides a sound basis by which riparian habitat will be improved. Fencing is not the only means available to protect riparian habitat. For example, the Buckeye AMP established a rest-rotation system designed to promote aspen regeneration and recovery of high priority riparian habitats without extensive fencing. This AMP identified important riparian habitats and recommended fencing of these sites if necessary.

A 1985 wild horse gather on the south half of the HMP area has allowed riparian habitat to recover without fencing. The wild horse population in the Pine Nut Herd is now being managed at a level which is believed to be compatible with the habitat. A Herd Management Area Plan, scheduled for completion this fiscal year, will support protection of riparian habitat and will serve as a funding document to provide fencing if necessary.

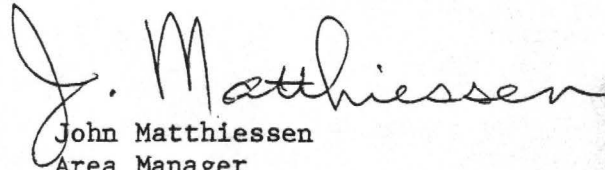
In addition, several livestock permittees have, for economic reasons, reduced herd sizes or taken non-use of their grazing permits. This can only help to improve the condition of riparian habitat on these allotments.

My staff continues to evaluate select riparian habitats to monitor the effectiveness of fencing, wild horse removals, and non-use by livestock. High priority sites which are not recovering as expected are slated for protective fencing. I have scheduled two such projects this fiscal year.

The use of prescribed burning or limited suppression of fires on key deer winter range has been evaluated and found to be unsuitable. The area of concern lies adjacent to residences and also contains small parcels of private land, both developed and undeveloped. To protect life and property, fires occurring in this area are given a high priority for full suppression. Besides, the desired result of opening up the woodland canopy can be achieved through public and commercial harvest of fuelwood. Since the demand for fuelwood in this area is high, such a fuelwood sale program is desirable from a multiple-use standpoint.

Your interest in the Pine Nut HMP is much appreciated. I look forward to accomplishing the objectives of this plan and in working with you in development of future activity plans. If you have further questions concerning the Pine Nut HMP, please contact me or Dan Delany of my staff.

Sincerely yours,

A handwritten signature in cursive script that reads "J. Matthiessen". The signature is written in dark ink and is positioned above the typed name.

John Matthiessen
Area Manager
Walker Resource Area

PINE NUT
HABITAT MANAGEMENT PLAN

Carson City District
Bureau of Land Management

Revised 1987

ABSTRACT

This document is the first revision of the original HMP which was approved in 1971. Key species are mule deer, sage grouse, chukar, mountain quail, valley quail, brook trout and bald eagle.

Management objectives and planned actions focus on: (1) The protection of riparian habitats through AMP development and range improvements; (2) increasing bitterbrush production through overstory removal of pinyon-juniper and AMP development; (3) blocking-up federal ownership to increase management efficiency; (4) supporting the limited ORV designation along the Pine Nut crest and the closed designation in the Burbank Canyons Scenic Area; (5) evaluation with NDOW of potential antelope habitat, and (6) maintaining public access to fishable waters.

To implement this plan through FY 91 requires \$1300 in Bureau funds and \$2,000 of NDOW contributions. Additional funding will be necessary if results from monitoring indicate fencing is required to protect some riparian habitats.

Description of proposed action, project name, JDR No., Case No., legal description: _____

Pine Nut HMP
HMP files / 6700CER No.: NV-030-87-40Categorical Exclusion Citation: 516 DM 6 Appendix 5.4 H(4.) Location Map Included / /Exceptions to Categorical Exclusions (516 DM 2 Appendix 2). The following exceptions apply to individual actions within categorical exclusions. Environmental documents must be prepared for actions which may:

1. Have significant adverse effects on public health or safety.
2. Have adverse effects on such unique characteristics as historic or cultural resources, park, recreation, or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farm lands, wet lands, flood plains, or ecologically significant or critical areas including those listed on the Department of Interior's National Register of National Landmarks.
3. Have highly controversial environmental effects.
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risk.
5. Establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.
6. Be directly related to other actions with individually insignificant but cumulatively significant environmental effects.
7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places.
8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species.
9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act.
10. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment.

Prepared by: Daniel W. Delaney Date 3/18/87
 Title: Wildlife Management Biologist

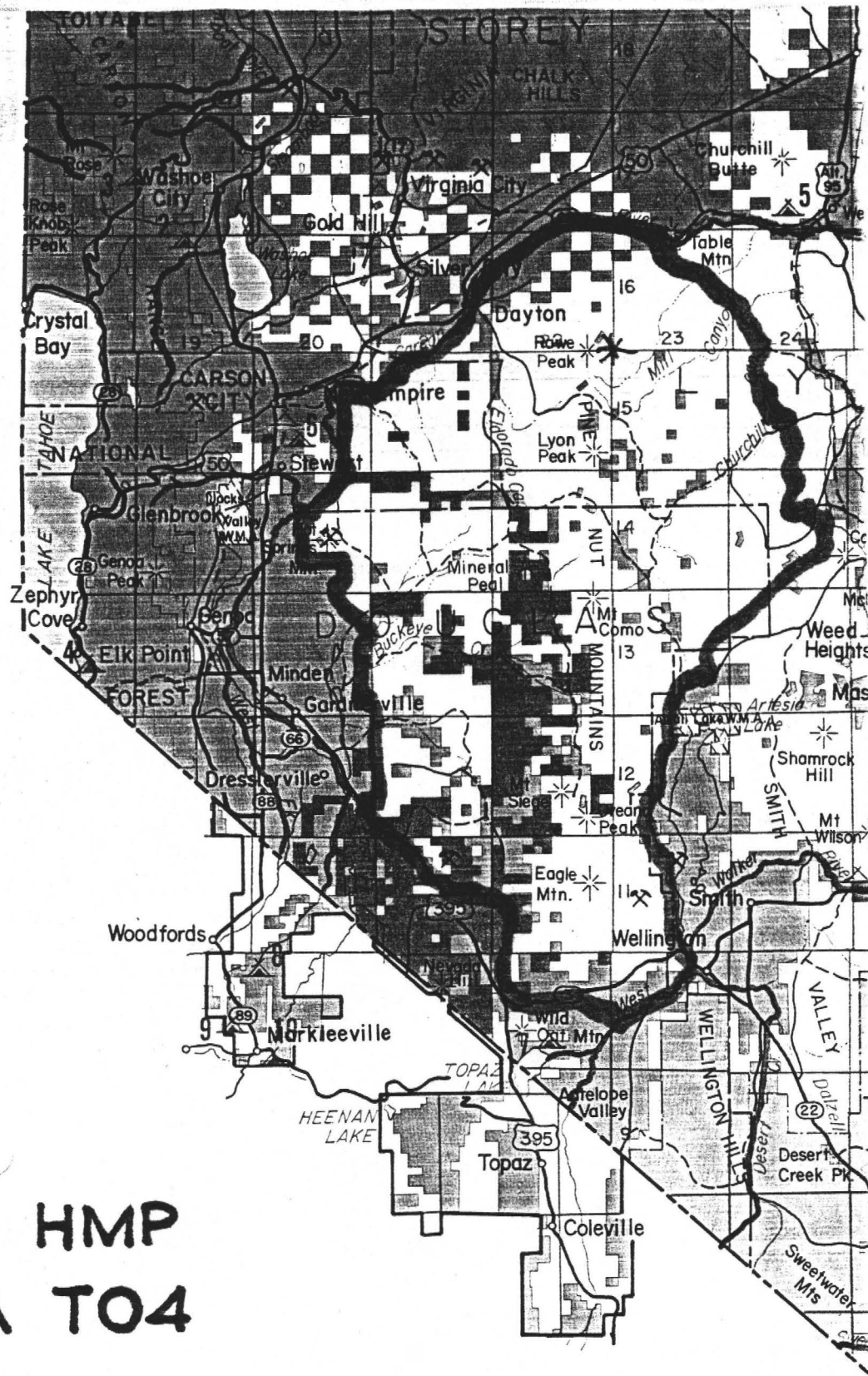
Reviewed by: Doc E. Lewis Date 3/21/87
 Title: Environmental Coordinator

Based on my review of the proposal and my staff's recommendation, the project described above is a categorical exclusion which does not meet any of the above exceptions. No additional environmental analysis or documentation is required.

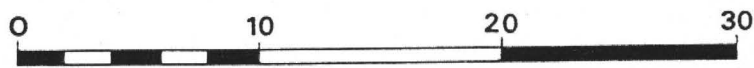
Approved by Authorized Officer: J. Mathiessen Date: 3/22/87
 Title: _____

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PINENUT HMP
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MILES

INTRODUCTION

PURPOSE AND FUNCTION

This Habitat Management Plan (HMP) was identified through the Bureau planning process as having a high priority for revision due to the substantial wildlife and associated recreational values involved and conflicts with other uses. Wildlife key species are mule deer (Odocoileus hemionus), sage grouse (Centrocercus urophasianus), chukar (Alectoris chukar), mountain quail (Oreortyx pictus), valley quail (Lophortyx californicus) brook trout (Salvelinus fontinalis), and bald eagle (Haliaeetus leucocephalus), an endangered species. No other threatened or endangered plants or animals are known to inhabit the management area.

Its purpose is to identify wildlife and fisheries habitat management actions to be implemented in achieving specific objectives and effecting management decisions as stated in the various land use planning documents. This plan combines management decisions stated in the Walker Resource Management Plan (RMP) with those decisions stated in the Reno Management Framework Plan (MFP) which relate to the Walker Resource Area (WRA). Successful implementation of this ten-year plan relies heavily on funding support from and coordination with other resource entities. It is also intended to provide supportive data and guidance which other resource specialists may find useful in development and revision of their respective management plans in this area.

ECOSYSTEM DESCRIPTION

The habitat area encompasses about 391,600 acres of public, private and Indian land including nearly the entire Pine Nut Range. The criteria used to delineate the HMP boundary were mule deer habitat areas and livestock grazing allotment boundaries as depicted on the HMP map (Appendix I). In general, the habitat area contains the majority of the Pine Nut and Buckskin Ranges and the north end of the Singatse Range. Geographically, the HMP area lies immediately east of Gardnerville and Carson City, Nevada, and northwest of Wellington, Nevada. It is flanked on the northwest by the Carson River, on the southwest by U.S. Highway 395, and on the south by State Highway 208. The HMP area comprises of three general habitat zones - alpine, pinyon-juniper woodland, and desert shrub.

Alpine Habitat Zone

The alpine zone occurs above 7,600 feet in elevation and is found in the Pine Nut Range. It is characterized by steep to rolling terrain with numerous rock outcrops and talus slopes. These rock environments are used as resting and escape cover by mule deer and as feeding and nesting habitat by chukar and non-game wildlife, including several species of raptors. The climate is relatively cool and moist (15 to 20 inches annual rainfall) with a short growing season. Snowpack is significant and persists until June on north trending slopes.

The predominant plant community in the alpine zone is the mountain shrub type which includes low sagebrush (Artemesia arbuscula), bitterbrush (Purshia tridentata), snowberry (Symphoricarpos longiflorus) and oceanspray (Holodiscus bicolor). Mule deer and sagegrouse are dependant upon this plant community for food and cover during late spring, summer, and fall. It is also relied heavily upon as forage by domestic sheep and wild horses, resulting in overutilization in some areas. This habitat zone is typically devoid of coniferous trees but supports small stands of aspen (Populus tremuloides), chokecherry (Prunus virginiana), and willow (Salix spp.) on moist sites and mountain mahogany (Cercocarpus ledifolius) along ridge tops and well-drained hillsides. Aspen, chokecherry, and willow sites provide crucial habitat for mule deer and mountain quail, especially when surface water is nearby and when understory plants provide thermal protection and escape cover from predators. These riparian areas 1/, particularly aspen groves, are also the most important habitats for a large number of diverse non-game wildlife which use them for watering, feeding, breeding and rearing young. Many are often concentration areas for domestic sheep during summer and fall which has led to soil erosion and overuse of forage. Heavy grazing of aspen prevents young trees from becoming established. When the old trees die, the aspen habitat

1/ Definition of riparian area: "An area directly influenced by permanent water. It has visible vegetative or physical characteristics reflective of permanent water influence. Lake shores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil."

(B.L.M. Riparian Area Management Policy, January 22, 1987.)

disappears and can only be restored by hand-planting trees inside protective fencing. Site specific information regarding the condition and needs of riparian habitats is outlined in the Riparian Management Plan for the Pine Nut Planning Unit, Appendix III. Mountain mahogany groves are used extensively by mule deer for feeding, resting and escape cover and by non-game wildlife for feeding, breeding, and rearing young. Large, thick stands of mountain mahogany are generally avoided by sheep herders and wild horses and are in good condition.

Meadows and other grassy riparian habitats occur in moist drainages, basins and around snow melt lakes. Many of these habitats are crucial to the survival of sagegrouse populations and are heavily used by mule deer, mountain quail and non-game wildlife. These habitats are also preferred by domestic sheep and wild horses, because of the abundance of green forage and presence of surface water. Trampling and overutilization of forage has caused soil erosion and, consequently, a lowering of the water table in some areas.

Exclosures have been employed to protect and rehabilitate some riparian sites within the HMP area. These exclosures and other habitat improvement projects are depicted on Table 1 of Appendix II. Appendix III lists important riparian habitats in need of protection as identified through the planning system.

Pinyon-Juniper Woodland Habitat Zone

The pinyon-juniper woodland habitat zone occurs at mid-elevations (6,000 to 7,600 feet) along the Pine Nut Range. Climate is cool with an average annual precipitation range of 12 to 15 inches. Snowpack is light and generally persists from December through March. This habitat zone is characterized by a dense, closed canopy stand of pinyon pine (Pinus monophylla) and Utah juniper (Juniperus osteosperma) dotted with small fire-caused clearings of various ages. The terrain is generally steep hillsides and canyons with occasional cliffs and rock outcrops. These features provide cover for mule deer and nesting sites for non-game wildlife, particularly raptors.

Aggressive fire control practices in recent years have reduced the number and size of wildfires in this area and encouraged a monotypic woodland with little understory vegetation. Under this condition, the habitat does not support abundant or diverse wildlife populations, although mule deer and mountain quail make some use of it as resting and escape cover near feeding and watering areas. In areas where the tree canopy has been removed, such as in burned areas or public and commercial firewood and Christmas tree cutting areas (see HMP map for locations) understory plants such as bitterbrush, sticky currant (Ribes viscosissimum), mountain sagebrush (Artemisia tridentata vaseyana), mountain ephedra (Ephedra vividis), Nevada bluegrass (Poa nevadensis), cheatgrass (Bromus tectorum), squirreltail grass

(Sitanion hystrix) and buckwheats (Eriogonum spp.) provide important forage for mule deer, mountain quail, and occasionally chukar. Domestic livestock and wild horses also find these areas to their liking during spring, summer and fall.

Riparian habitats such as aspen, willow and cottonwood (Populus fremontii) groves, and grassy meadows are focal points for wildlife activity, especially when drinking water is available. Those located in the upper elevations are used by mule deer as fawning habitat and by mountain quail as watering, breeding, feeding and brood-rearing sites. Mule deer, valley quail and chukar use the riparian habitats in the lower elevations as watering and feeding sites. Livestock and wild horses concentrate on these sites, especially during summer and fall, because of the presence of succulent forage and drinking water.

Desert Shrub Habitat Zone

The desert shrub habitat zone occurs at elevations below 6000 feet. Climate is moderate and relatively dry with eight to 12 inches of annual precipitation. Topography consists of rocky hills and alluvial fans extending to valley slopes. The upper reaches of this habitat zone support sparse stands of low sagebrush (Artemisia arbuscula), Mormon tea (Ephedra nevadensis), bitterbrush, big sagebrush (Artemisia tridentata), desert peach (Prunus andersonii), rabbitbrush (Chrysothamnus spp.), needlegrass (Stipa spp.), Nevada bluegrass, squirreltail grass, cheatgrass, buckwheat and

occasional pinyon and juniper trees. Resident and interstate mule deer migrate to portions of this area to seek out browse plants during winter (see HMP map in Appendix I). The West Walker interstate herd uses the area primarily south of Jack Wright Summit while the Carson interstate herd uses the southern and eastern fringes of the Pine Nut Range. Portions of these wintering grounds are grazed by livestock and wild horses prior to the arrival of deer, causing overutilization of forage in these areas. Valley quail and chukar inhabit the brushy draws and areas near water. Many artificial watering devices have been constructed by the Bureau and NDOW to increase chukar and quail distribution and numbers. These are depicted on Table 1 of Appendix II. The valley slopes support many of the same plants listed above as well as fourwing saltbush (Atriplex canescens), horsebrush (Tetradymia spp.), spiny hopsage (Grayia spinosa), galletta grass (Hilaria jamesii) and Indian ricegrass (Orzyopsis hymenoides). The lower portion of the desert shrub habitat zone does not support high populations of key wildlife species except near riparian habitats or drinking water. It does, however, provide habitat for various non-game wildlife. Wild horses and livestock use this habitat for feeding particularly during winter and spring.

The riparian habitats include willow and cottonwood groves and small meadows. Those sites containing surface water are important yearlong watering areas for chukar and valley quail and winter watering areas for mule deer and mountain quail. Like riparian habitats throughout the HMP area, they are concentration areas for non-game wildlife as well as livestock and wild horses, and many

are in a degraded condition. Also, private lands along the Carson River provide abundant and diverse riparian habitat and drinking water for mule deer, mountain and valley quail, and non-game wildlife which use the area in conjunction with adjacent BLM lands.

Aquatic Habitats

Red Canyon Creek, Pine Nut Creek and Eldorado Canyon Reservoir are the major aquatic habitats on public land within the HMP area. Red Canyon Creek drains east from the southeastern crest of the Pine Nut Range near Bald Mountain. The watershed is steep and rocky and fed by numerous riparian springheads in the alpine and pinyon-juniper woodland habitat zones. Recent reductions in wild horse numbers and non-use by cattle have allowed this watershed area to greatly improve. The lower four miles of the creek supports a brook trout fishery and is within a bald eagle wintering area.

Pine Nut Creek originates at the confluence of Blossom, Mill and Thompson Canyons on the west slope of Galena Summit and Bald Mountain. Most of the watershed is on private land. The creek does not have perennial flows adequate to support a fishery, but is nearly six miles in length, culminating in T. 12 N., R. 21 E., Sec. 14, NE 1/4. Approximately one mile occurs on BLM land.

Additional information on the streamflow and watershed characteristics for Red Canyon Creek and Pine Nut Creek can be found in the central files under N-1, 6610-Wildlife Inventory and N-2, 7200-Water Source Inventory.

Eldorado Canyon Reservoir is located at the north end of the Pine Nut Range and is fed by runoff water from Eldorado Canyon. This 750 acre-foot impoundment was constructed in 1973 for irrigation purposes. It is drawn down to a very low level in late summer, making it unsuitable as a fishery. Following the high water in the Spring of 1985, the State Engineer found the dam spillway to be poorly designed and a safety hazard to downstream residents. He ordered the owner to either bring the dam up to safety standards or to remove it. The owner, Davada Corp., has until 1989 to make this decision. For additional details, see the BLM Realty Case File N-6872, the U.S. Army Corps of Engineers' Phase I Study and the State Engineer's Study.

CONSTRAINTS

The constraints under which this plan was developed include the Walker Management Decisions Summary, and the Management and Monitoring Plans provided as Appendix III.

SIKES ACT AUTHORITY

This document was coordinated with Bureau resource specialists, California Department of Fish and Game (CDFG), Nevada Department of Wildlife (NDOW) and interested publics. It therefore qualifies for Sikes Act funding under the Act of October 18, 1974 (P.L. 93-452 A), implemented on October 7, 1975.

LAND STATUS/ADMINISTRATION

Approximately 309,000 acres (79%) are Bureau administered lands, about 41,600 acres (11%) are private lands and about 41,000 acres (10%) are Indian allotment lands.

Land Exchange

The Bureau entered into an exchange of lands with the Three-Two-Bar Ranch in 1982 in which the Bureau acquired 235 acres of private lands on key deer winter range west of Artesia Lake. The acquired lands contain three undeveloped springs which are used by wintering mule deer, valley quail, mountain quail, domestic sheep and wild horses. NDOW has applied for water rights on these springs and is awaiting final appropriation. Specific information on the exchanged lands can be found in the Exchange Case File N-32273.

Private Land Management

A checkerboard land pattern exists which restricts the Bureau's overall habitat management capabilities within the HMP area and also places additional pressure on resources found on Bureau lands. For example, many of the water developments on non-Bureau lands are old and do not protect the riparian springhead from trampling by livestock and wild horses nor do they allow for

wildlife use of the water at the source. This situation increases the need to protect and carefully manage springs and associated riparian habitats on adjacent Bureau lands. State Law 533 addressed this problem in July of 1981 by requiring henceforth that to obtain a water right on any naturally flowing spring for any purpose, other than for domestic use, that adequate drinking water be made available at the spring source for wildlife use. New Bureau funded spring developments conform to State law.

Urbanization

Residential development occurring on private lands also impacts wildlife habitat management. A case in point is the development of Topaz Ranch Estates in the southwest portion of the HMP area during the 1970s. This 350 acre subdivision is situated within key deer winter range alongside a major migration corridor. This subdivision displaces a large number of mule deer which are forced to use adjacent lands that also receive grazing pressure from domestic sheep prior to the arrival of wintering mule deer. Biologists from NDOW and CDFG suspect that the deer wintering in this portion of the HMP area are in a poor nutritional state when they leave Nevada. Typically, overwinter fawn survival is poor in this area also.

Many other private lands and BLM designated disposal lands are suitable for subdivision and, if developed, would place increased demands on adjacent public land to provide forage and water for a reasonable number of big game. It is anticipated that Indian lands will remain undeveloped.

Disposal of Lands

Approximately 6,485 acres of BLM land within the northern and western portions of the HMP area have been designated for potential future disposal per Management Decision No. 2 (p. 7) of the Management Decisions Summary and shown on the HMP map. Approximately 80 acres are within designated key deer winter range and 990 acres are in deer winter range. The development of private lands along the Carson River and within or adjacent to deer winter ranges will increase harassment of wintering deer and cause the felt loss of habitat to be much higher than the actual loss.

Recreational Use

The entire HMP area receives a great deal of recreational use, because it is close to the growing populations of Reno, Carson City, Lake Tahoe, Gardnerville, and Minden, Nevada. The diverse landscape and high scenic values support activities such as hunting, fishing, site-seeing, backpacking, cross country skiing, mountain bicycling, pine nut picking, firewood and Christmas tree cutting, horseback riding, picnicking, rock-hounding, camping, and off-road vehicle (ORV) riding and racing.

All of the public lands involved are designated "open" to ORV use with the exception of the Burbank Canyons Scenic Area, which is closed to vehicles, and the crest of the Pine Nut Mountains, where vehicles are limited to designated routes. These designations are intended to protect recreation, watershed and wildlife values. All public lands within the Burbank Canyons

Wilderness Study Area (WSA) are subject to the non-impairment criteria as described in the Wilderness Interim Management Policy. This limits ORV use to existing roads and ways except where cross-country travel does not impair wilderness quality and where grandfathered uses such as mining and livestock grazing are concerned.

Mining Activities

Geographically the Pine Nut Mountains are separated from the Sierra Nevada Range by the broad, alluviated basin containing the Carson River. Mineralization associated with emplacement of granitic intrusives (probably contemporaneous with emplacement of the Sierra Nevada batholith) is noted mainly east of the crest of the mountain range. Perhaps as a result of this mineralization, scores of lode mining claims have been filed with the Bureau. Records of these claims are held in the District Office microfiche files. Energy activity has been limited to minor geothermal exploration along the east flank of the HMP area near Nevada Hot Springs.

A Regional Environmental Analysis Record for Geothermal/Oil and Gas Leasing was proposed for the Pine Nut-Walker Area in 1975. A subsequent Decision Document endorsed the recommendation that no geothermal or oil and gas leasing be allowed on sage grouse strutting grounds and buffer zones. A description of the land within the HMP area that is excluded from leasing is held in Appendix II.

Thus far, the impacts of energy and mineral development on wildlife and fisheries values have been low. However, if a discovery of a valuable deposit were to occur or if economic conditions change to make an existing mineral occurrence exploitable, there could be serious site-specific conflicts on fisheries and wildlife habitat.

Forest Products

Sales of firewood and Christmas trees have had an overall positive impact on wildlife habitat by opening up some closed-canopy stands and slowing the re-establishment of pinyon and juniper woodlands. Seven harvest areas have been established, two of which were specifically designed to benefit mule deer habitat (see HMP map in Appendix I). The 720-acre Red Canyon commercial woodcutting area and the 380-acre public firewood cutting area north of Jack Wright Pass removed the majority of overstory trees within key mule deer winter range and increased production of understory browse plants which were available for use by domestic sheep and wintering mule deer.

A proliferation of access roads and jeep trails has occurred within the firewood and Christmas tree harvest areas. In some cases, this has resulted in increased harassment of mule deer by ORVs during all seasons.

The District's policy of not permitting harvest of cottonwood and aspen trees benefits non-game wildlife by preserving standing dead and dying trees for feeding and nesting habitat.

Livestock Grazing

The HMP area encompasses 12 grazing allotments. The class of livestock, season-of-use and management categorization for each allotment are listed in Table 2 of Appendix II. Allotment Management Plans (AMPs) were implemented for Buckeye and Churchill Canyon Allotments in 1986. These AMPs were reviewed by NDOW and are expected to improve the habitat conditions of the uplands and many riparian habitats.

Wild Horses

A November 1986 aerial survey revealed that an estimated 450 head of wild horses inhabit the Pine Nut Wild Horse Herd Area (HA), the boundary of which coincides closely to the HMP area boundary except that it does not include portions of the Buckskin Range. Wild horses were not known to inhabit that area in 1971 when HAs were delineated. Consequently, the Bureau does not manage for a sustained population of wild horses in the Buckskin Range.

The Bureau has established an initial population management level of 387 head of wild horses for the Pine Nut Herd Management Area, which is approximately that portion of the HA north of Sunrise Pass road, and a management level of zero for the remaining HA. Some wild horses do inhabit the southern portion of the HA, although their numbers are presently quite low due to a maintenance removal in 1985. Throughout the HA, 1,154 wild horses have been removed since 1977. Removal of wild horses has allowed many riparian habitats to improve in condition.

Management levels may be adjusted, through periodic monitoring and public consultation. A Herd Management Area Plan (HMAP) is scheduled for completion in fiscal year 1988.

MANAGEMENT OBJECTIVES

The following management objectives have been described in the Walker RMP:

1. Manage big game habitat to fair or good condition to support big game populations. See Table 3 of Appendix II.
2. Improve forage for wintering mule deer in the J.W. Ranch area (T. 12 N., T. 13 N., R. 14 N. and R. 23 E.) through woodcutting by September 1996.
3. Improve bitterbrush production and seedling establishment within key deer winter range.
4. Acquire 26,280 acres of private land, as shown on the MFP-1 Overlay, for wildlife habitat by May 1994.
5. Reduce habitat loss and harassment of wildlife caused by ORV use along the Pine Nut crest by May 1994.
6. Support reestablishments of endemic species into suitable habitats on a case by case basis.

7. Protect and maintain existing and potential fisheries habitat along 3.5 miles of Red Canyon Creek by September 1996.
8. Protect and improve riparian areas to a good or better condition class with special emphasis on mule deer and sage grouse key areas by May 1989 within Pine Nut P.U. and by September 1996 within the Walker P.U.
9. Maintain public access to fishable waters if public lands adjacent to them are transferred from public ownership.

PLANNED ACTIONS

It is necessary to complete the following planned actions in order to achieve the above management objectives:

1. Harvest pinyon pine and juniper trees from 250 acres of key deer winter range in Townships 11, 12, 13 and 14 North, Range 23 East, by September 1996 and support additional prescribed burns, mechanical controls, and fire rehabilitation projects in this area.

Rationale: Overstory removal of trees will increase "edge effect" and will allow palatable understory plants to increase production. A subsequent increase in mule deer and livestock forage and non-game habitat will result. This action is necessary to accomplish Management Objective #2 and supports Management Objective #1.

Required Support: Forestry Program

Coordination: Provide wildlife recommendations in development of the Ten Year Harvest Plan to insure that harvest area location, harvest stipulations, season of harvest and construction and possible closure of access roads enhance wildlife values to the fullest extent practical.

2. Use bitterbrush as a key species in establishing a grazing system on the Spring Gulch Allotment by September 1996. See p. 13 of the Management Decisions Summary (Appendix I) for a description of the required grazing treatment.

Rationale: Designation of bitterbrush as a key species in establishing proper livestock grazing practices will prevent overuse and improve seedling establishment of this important mule deer forage. Management Objective #3 will be met if the average utilization on bitterbrush is 50% or less and if at least 10% of the bitterbrush plant community is comprised of seedlings. This action will also assist in accomplishment of Management Objective #1.

Support Required: Range Program

Coordination: Provide delineations of key mule deer winter range on the above allotments. Integrate monitoring of bitterbrush with range specialists.

3. Support acquisition of those private lands delineated on the MFP-1 overlay by September 1996.

Rationale: Acquisition of private lands will block up federal ownership and increase the Bureau's capability to improve habitat conditions. This action is necessary to accomplish Management Objective #4 and also supports Management Objective #1.

Required Support: Realty Program.

Coordination: Provide wildlife justification and documentation to support land reports on a case by case basis.

4. Support the limited ORV designation along the Pine Nut crest and the closed designation in the Burbank Canyons Scenic Area by assisting in sign procurement and monitoring of user compliance. Recommend for permanent closure or re-routing any road or trail which is a problem (Note that a mining claimant has a right of access to his claims).

Rationale: The above designations are intended not only to maintain the high scenic quality of the areas concerned, but

also to halt environmental damage and harrassment of wildlife, particularly mule deer. This action supports Management Objective #5.

Required Support: Recreation Program

Coordination: Assist in sign procurement and monitoring of the Pine Nut crest and Burbank Canyons Scenic Area.

5. Jointly evaluate, with NDOW, the Churchill Canyon area as to its potential for supporting a viable antelope herd by September 1987.

Rationale: NDOW has recommended this action. This action is necessary to accomplish Management Objective #6.

Support Required: NDOW must compile the results of the joint field investigations into a Release Site Description.

Coordination: In the event the area is found to be unsuitable as antelope habitat, no further coordination will be necessary. If, however, the area is found to contain potential habitat for antelope, the Bureau will then evaluate its suitability as an antelope release site. If found to be suitable, an amendment to this HMP will be developed which will resolve potential conflicts prior to a release of antelope.

6. Manage livestock grazing along the 3.5 miles of fisheries habitat on Red Canyon Creek so as not to reduce streambank stability or cover. Achieve a "percent of habitat optimum" rating of 60 or above as described in BLM Manual 6671.

Rationale: A rating of 60 or above represents a good condition class rating which is necessary to meet Management Objective #7.

Required Support: Range Program

Coordination: A multi-discipline stream survey must be conducted on the subject area to monitor condition.

7. Implement the Riparian Habitat Management Plan and Riparian Habitat Monitoring Plan in Appendix III.

Rationale: These two plans outline habitats identified for protection in the land use plan, species each is being managed for, requirements to meet the objectives, how each site will be monitored, and timeframes for protection. Implementation of these plans will accomplish Management Objective #8 and support Management Objective #1.

Required Support: Range and Watershed Programs

Coordination: Area Manager will assign specific management objectives to each site and will establish an interdisciplinary team to monitor progress.

HMP PROGRESS REPORT

Included in Appendix II is the HMP Progress Report (Form 6780-2) which is to be used to track HMP progress throughout its implementation.

COORDINATION WITH OTHER BLM PROGRAMS, AGENCIES AND ORGANIZATIONS

This HMP has been reviewed by all other BLM District resource specialists and coordinated with their activity plans to the extent practical.

The District Fire Management Plan dictates full suppression of wild fire within the entire HMP area. An attempt is made to obtain approval prior to using dozers. This will prevent further road construction and will help protect the high scenic values of the area. Within the Burbank Canyons WSA, caution is exercised to avoid unnecessary impairment of the area's suitability for preservation as wilderness. A new District Fire Management Plan is scheduled for completion in FY 88 which will coordinate fire activities with other resource needs.

This HMP is in accordance with stipulations published in the Regional Environmental Analysis Record for Geothermal/Oil and Gas Leasing in the

Pine Nut-Walker Area. It was coordinated with NDOW and CDFG and supports deer herd management plans prepared by their agencies. It was also coordinated with the Bureau of Indian Affairs (BIA), Sierra Club, Soil Conservation Service, and the livestock permittees having grazing privileges within the HMP area. No Recovery Plans for threatened or endangered species are involved in the HMP area.

WILDLIFE ECONOMICS

Since no specific project work is proposed in this plan, a wildlife economic analysis is not deemed necessary.

NDOW is currently tabulating wildlife economics data as it pertains to mule deer harvest programs. When completed, this report will be included in Appendix III.

PUBLIC AFFAIRS

Copies of this HMP will be distributed to NDOW, CDFG, BIA, Sierra Club, Soil Conservation Service, grazing permittees and Nevada State Office. Additional copies will be available to other interested publics upon request.

Table 1
Wildlife Habitat Improvement Projects
By JDR No., Year Completed and Location

<u>Project Name</u>	<u>JDR No.</u>	<u>FY Completed</u>	<u>Location</u>
Brunswick Canyon Chaining & Seeding	0264	67	T. 15 N., R. 21 E., Secs. 27, 28, 33, 34
Sunrise Basin Chaining & Seeding	3502	69	T. 14 N., R. 23 E., Secs. 7, 18; T. 14 N., R. 22 E., Sec. 12
Rawe Peak Spring Development	4117	71	T. 16 N., R. 22 E., Sec. 36 NEL/4SEL/4
Sunrise Basin Pinyon Thinning	4310	73	T. 14 N., R. 22 E., Sec. 13
Rawe Peak North Spring Development	4339	74	T. 16 N., R. 22 E., Sec. 25 NWL/4SWL/4
Quail Spring Development	4341	73	T. 14 N., R. 22 E., Sec. 12 SWL/4NWL/4
Bull Run Spring Rehab	4342	73	T. 15 N., R. 21 E., Sec. 23 NEL/4
June Ellen Guzzler	4346	74	T. 15 N., R. 21 E., Sec. 34 SEL/4SWL/4
Sullivan Canyon Guzzler	4416	74	T. 15 N., R. 21 E., Sec. 27 SEL/4
Stone Spring Brush Thinning	5109	77	T. 15 N., R. 22 E., Sec. 24 E1/2
Twin Spring P-J Thinning	6050	79	T. 14 N., R. 23 E., Sec. 31 SEL/4SWL/4
Pine Nut P-J Thinning	6054	78	T. 13 N., R. 23 E., Sec. 6 NWL/4
South Camp Spring Development	6062	79	T. 11 N., R. 22 E., Sec. 25 NEL/4SWL/4
Powerline Spring Development	6075	78	T. 14 N., R. 22 E., Sec. 13 SEL/4NEL/4
Twin Springs Development	6077	76	T. 14 N., R. 23 E., Sec. 31, SWL/4NWL/4
Porcupine Spring Development	6109	79	T. 13 N., R. 23 E., Sec. 20 NEL/4NEL/4
Gumbo Spring Development	6110	80	T. 15 N., R. 22 E., Sec. 2 SEL/4SEL/4
Bull Canyon Guzzler #1 (NDOW owned)	4269	71	T. 16 N., R. 23 E., Sec. 21 SEL/4SWL/4
Bull Canyon Guzzler (#2 (NDOW owned)	4367	71	T. 16 N., R. 23 E., Sec. 22 NWL/4NWL/4
Bull Canyon Guzzler (#3 (NDOW owned)	6073	71	T. 16 N., R. 23 E., Sec. 23 NEL/4SWL/4
Bull Canyon Guzzler #4 (NDOW owned)	4343	73	T. 16 N., R. 23 E., Sec. 15 NWL/4NWL/4

Table 1 continued

Bull Canyon Guzzler #5 (NDOW owned)	4344	73	T. 16 N., R. 23 E., Sec. 24 SEL/4NW/4
Churchill Canyon Guzzler #1	4345	73	T. 15 N., R. 23 E., Sec. 17 SEL/4NW/4
Churchill Canyon Guzzler #2	4371	74	T. 15 N., R. 24 E., Sec. 19 NW/4
Churchill Canyon Guzzler #3	4372	74	T. 15 N., R. 23 E., Sec. 35 NE/4
Churchill Canyon Guzzler #4	4436	75	T. 14 N., R. 23 E., Sec. 35 W/4NE/4
Fulstone Springs Guzzler #1	4439	75	T. 14 N., R. 23 E., Sec. 31 N/2SW/4
Fulstone Springs Guzzler #2	4428	75	T. 14 N., R. 23 E., Sec. 24, SEL/4SE/4
Mill Canyon Guzzler #1	6058	71	T. 16 N., R. 24 E., Sec. 30 NW/4
Mill Canyon Guzzler #2	4438	76	T. 16 N., R. 23 E., Sec. 26 SW/4SW/4
Mill Canyon Guzzler #3	4483	76	T. 16 N., R. 23 E., Sec. 35
Mill Canyon Guzzler #4	4484	76	T. 15 N., R. 23 E., Sec. 3 SEL/4NE/4
Sheep Bed Spring P-J Thinning #1	5142	77	T. 15 N., R. 22 E., Sec. 11 NE/4NE/4
Sheep Bed Spring P-J Thinning #2	5143	77	T. 15 N., R. 22 E., Sec. 11 NE/4NE/4
Three-Flat P-J Thinning #1	5114	76	T. 13 N., R. 23 E., Sec. 7 N/2
Three-Flat P-J Thinning #2	6006	78	T. 13 N., R. 23 E., Sec. 8 NW/4
Five O'Clock Spring	6167	81	T. 14 N., R. 22 E., Sec. 23 SEL/4
OSA Guzzler	6177	84	T. 15 N., R. 24 E., Sec. 6 SEL/4NE/4
OSA Guzzler	6178	84	T. 15 N., R. 24 E., Sec. 7 SEL/4NW/4
Slater's Mine Meadow Fences	5111	77	T. 12 N., R. 22 E., Sec. 14 SW, 14 NW, 26NW
Slater's Mine Meadow Rehab	6089	79	T. 12 N., R. 22 E., Secs. 10, 15, 26, 27
Buena Suerte Spring Development	6391	86	T. 11 N., R. 22 E., Sec. 9 NW/4NW/4

Table 2
 Allotment Management Categorization,
 Class of Livestock and Season-of-Use

<u>Allotment</u>	<u>Management Categorization</u>	<u>Class of Livestock</u>	<u>Season of Use</u>
Buckeye	I	Sheep	4/15 to 10/21
Churchill Canyon	I	Sheep	1/1 to 7/15
Clifton	C	Cattle	9/1 to 5/31
Eldorado*	C	Sheep	1/1 to 5/15
Hackett Canyon	C	Cattle Sheep	12/16 to 5/31 5/16 to 7/31
Mill Canyon	C	Sheep	4/1 to 5/15 1/1 to 1/31
Pinenut	I	Sheep	6/1 to 8/31 11/1 to 11/30
Rawe Peak	C	Cattle	6/16 to 7/26
Red-Burbank	I	Cattle	5/1 to 8/31
Sand Canyon	C	Cattle	4/1 to 6/15
Spring Gulch	I	Sheep	1/1 to 8/15
Sunrise	I	Cattle	5/1 to 9/30

* Temporarily (until 1992) included as a pasture in Churchill Canyon Allotment.

Table 3
Mule Deer Reasonable Numbers 1/
and Season-of-Use by Allotment

<u>Allotment</u>	<u>Reasonable Numbers</u>	<u>Season-of-Use</u>	<u>AUM Demand</u>
Buckeye	350	5/1-11/1	523
	1568	11/1-5/1	2353
	1799	12/1-5/15	2474
Churchill Canyon	104	5/1-11/1	156
	158	11/1-5/1	237
Clifton	32	11/1-5/1	48
	18	5/1-11/1	27
Eldorado	303	11/1-5/1	455
	53	5/1-11/1	80
Hackett Canyon	165	11/1-5/1	248
Mill Canyon	18	5/1-11/1	27
	35	11/1-5/1	53
Pinenut	175	11/1-5/1	263
	350	5/1-11/1	525
Rawe Peak	157	5/1-11/1	236
Red-Burbank	140	5/15-3/15	350
Sand Canyon	0		0
Spring Gulch	1911	1/1-4/15	1672
	1114	5/15-3/15	2785
	260	3/15-5/15	130
Sunrise	350	5/1-11/1	525

1/ This data was taken from the Draft Walker RMP and the Wildlife Habitat Plans for the Future, Pine Nut-Markleeville Planning Units (1978). Much of this information is outdated and inaccurate, but will be used for planning purposes as per NSO guidance.

Table 4
Riparian Habitats in Need of Protection by 1994 ^{1/}

<u>Allotment</u>	<u>Reference No.</u>	<u>Location</u>	<u>Conflicts</u> ^{2/}	<u>Preferred Action</u> ^{3/}	<u>Alternative Actions</u> ^{3/}
Buckeye	E5110001B61	T. 15 N., R. 21 E., S. 23, NE1/4	L	2	1, 3, 4
	E5110001A13	T. 15 N., R. 21 E., S. 23, NE1/4	L	2	5
	E5990002A35	T. 12 N., R. 21 E., S. 24, SW1/4	L	4	1, 3
	E6110010A35-b	T. 11 N., R. 22 E., S. 9, NW1/4	L	4	1, 3
	E6110009A35	T. 11 N., R. 22 E., S. 9, NW1/4	L	4	1, 3
	E6110021A13	T. 11 N., R. 22 E., S. 9, NW1/4	L	4	1, 3
	V0250001A35	T. 13 N., R. 22 E., S. 11, SE1/4	L	4	1
	V0120002A35	T. 14 N., R. 22 E., S. 35, SE1/4	L	4	1, 3
	142216BDB	T. 14 N., R. 22 E., S. 16, NW1/4	L & H	4	1, 5
Mill Canyon	Y0360002A58	T. 15 N., R. 23 E., S. 7, NW1/4	Very Wood, L & H	4	1, 5
	Y0050001B63	T. 15 N., R. 23 E., S. 7, SW1/4	Croft Cabin L & H	4	1, 3, 5
Sunrise	W0070002A58	T. 14 N., R. 23 E., S. 18, NW1/4	13 NE Channing Sp. H	1	2, 3, 4, 5
	W0040001B63	T. 14 N., R. 22 E., S. 13, SE1/4	Trail Sp. L & H	1	2, 3, 4, 5
	W0180001A35	T. 15 N., R. 22 E., S. 32, NW1/4	Illinois Co-Ljo	1	2, 3, 4
	private W0150003A34	T. 14 N., R. 22 E., S. 23, NE1/4	L	4	1, 3

^{1/} Source document is the Riparian Management Plan for the Pine Nut and Markleeville P.U.'s.

^{2/} L = Livestock and H = Horses

^{3/} Actions include: 1 - fencing, 2 - development, 3 - graze livestock after June 30, 4 - rest from livestock two grazing seasons, then rest-rotate, 5 - remove horses.

Table 5
Summary of HMP Development Costs by Year

Estimated Costs (\$000's) and Work-Months (W/M) by Development Year

Cost Item	FY 87		FY 88		FY 89		FY 90		FY 91		Five-Year Total	
	WMs	\$000's	WMs	\$000's	WMs	\$000's	WMs	\$000's	WMs	\$000's	WMs	\$000's
1. Administration and Preparation including Updating	4.0	-	0.8	-	0.8	-	0.8	-	0.8	-	7.2	-
2. Project Survey and Design	-	-	-	-	-	-	-	-	-	-	-	-
3. Project Work	-	-	-	-	-	-	-	-	-	-	-	-
4. Public Affairs	-	-	-	-	-	-	-	-	-	-	-	-
5. Maintenance	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	1.2	0.8
6. Evaluation and Monitoring	2.0	0.1	2.0	0.1	2.0	0.1	2.0	0.1	2.0	0.1	10.0	0.5
7. Research	-	-	-	-	-	-	-	-	-	-	-	-
8. Equipment	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL BLM COST	6.3	0.3	3.1	0.3	3.1	0.3	3.1	0.3	3.1	0.2	18.4	1.3
9. Estimated Contributions												
State Wildlife Agencies (NDOW)	1.5	2.0	0.5	-	0.5	-	0.5	-	-	-	3.0	2.0
Federal Agencies	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CONTRIBUTIVE COSTS	1.5	2.0	0.5	-	0.5	-	0.5	-	-	-	3.0	2.0

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
1. Harvest P-J from 250 acres of deer winter range.					
2. Support acquisition of lands to block up federal ownership.					
3. Protect 15 riparian habitats.					
4. Implement grazing systems which provide for bitterbrush seed production on key deer winter range in the Spring Gulch and Hackett Canyon Allotments.					
5. Support ORV designations by assisting in sign procurement and monitoring of user compliance.					

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

The following are sage grouse strutting grounds and buffer zones excluded from geothermal and oil and gas leasing (from Regional Environmental Analysis Record, Geothermal/Oil and Gas Leasing in Pine Nut-Walker Area Carson City District, Nevada. 1978 p. 169-170):

- T. 12 N., R. 22 E., sections
- 1 All
 - 2 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
 - 3 SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$
 - 4 S $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
 - 9 NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$
 - 10 W $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$
 - 11 N $\frac{1}{2}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
 - 12 All
 - 13 NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$
 - 14 NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$
 - 16 E $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
 - 21 E $\frac{1}{2}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$.
 - 22 All
 - 23 E $\frac{1}{2}$, W $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$
 - 25 E $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$
 - 26 NE $\frac{1}{4}$ (except Mineral Survey 1661)
W $\frac{1}{2}$, SE $\frac{1}{4}$ (except Mineral Survey 1661)
 - 27 All
 - 28 E $\frac{1}{2}$ E $\frac{1}{2}$
 - 34 N $\frac{1}{2}$, SE $\frac{1}{4}$
 - 35 and 36
 - 15 NE $\frac{1}{4}$ NE $\frac{1}{4}$

T. 12 N., R. 23 E., sections 7, 18, 19 and 30

T. 11 N., R. 22 E., sections 1, 2 and 3

Mt. Siegel strutting ground.

- T. 13 N., R. 23 E., sections
- 2, 11, 14, 18, 19 20, 21 and 22
 - 3 NE $\frac{1}{4}$, Lot 3, Lot 4 SW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$
 - 7 N $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ W $\frac{1}{2}$, Lots 1, 2, 3 and 4, SW $\frac{1}{4}$
 - 8 NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$
 - 9 S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$
 - 10 E $\frac{1}{2}$, E $\frac{1}{2}$ W $\frac{1}{2}$
 - 15 NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$
 - 16 S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$, N $\frac{1}{2}$ SE $\frac{1}{4}$

Mt. Como strutting ground.

T. 13 N., R. 22 E., section 1

T. 14 N., R. 22 E., sections 24, 25 and 36

- T. 13 N., R. 23 E., sections
- 4 Lot 1, Lot 2, S $\frac{1}{2}$ NE $\frac{1}{4}$, Lots 3 and 4 S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$
 - 5 All
 - 6 All

- T. 14 N., R. 23 E., sections
- 15 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$
 - 16 NE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$
 - 17 NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, W $\frac{1}{2}$, SE $\frac{1}{4}$
 - 18 E $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$
 - 19 NW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$
 - 20 E $\frac{1}{2}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$
 - 21 All
 - 22 E $\frac{1}{2}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$
 - 27 SE $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ N $\frac{1}{2}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$
 - 28 All
 - 29 NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$
 - 30 Lot 1, Lot 4, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$

RIPARIAN MANAGEMENT PLAN
FOR THE
PINENUT AND MARKLEEVILLE PLANNING UNITS

Plan Objective

The objective of this plan is to provide a documented systematic approach to riparian habitat management which will be used to identify, track and accomplish our MFP commitments. The plan prioritizes the site-specific riparian habitats needing protection and offers management actions and alternatives to achieve protection. A recommended completion schedule is also provided.

Policy and Law

It is Bureau policy to: (1) Avoid the long and short-term adverse impacts associated with the destruction, loss or degradation of wetland-riparian areas; (2) Preserve and enhance the natural and beneficial values of wetland-riparian areas which may include constraining or excluding those uses that cause significant, long-term ecological damage; and (3) Include practical measures to minimize harm in all actions causing impacts to wetland riparian areas. 1/

1/ BLM Manual 6740, Rel. 6-69, 10/1/79.

This policy was developed to comply with federal laws and directives designed to improve management and protection of riparian habitats. Those of particular relevance include the following:

Federal Land Policy and Management Act (FLPMA) of 1976

(43 U.S.C. 1701).

Executive Order (E.O.) 11990, Protection of Wetlands (42 FR 26961;

May 24, 1977).

National Environmental Policy Act (NEPA) of 1969, as amended

(42 U.S.C. 4321, et seq.).

Clean Water Act of 1977 (33 U.S.C. 446 et seq.).

Public Rangelands Improvement Act of 1978 (92 Stat. 1803).

District Office Responsibility

The District Manager is responsible for implementing the procedures and guidance for wetland-riparian habitat protection and management. This has been handled primarily through the planning system. A wildlife inventory of riparian habitats was conducted from 1974 through 1979 and is held in the central files (N-1, 6610-Wildlife Inventory). A water quality and quantity inventory of spring sources and streams was conducted District-wide from 1980 to 1984. This inventory provides valuable data for sites considered for development and is located in the central files (N-2, 7200-Water Source Inventory).

The Reno MFP formulated, in a general sense, short-term and long-term management objectives to protect, develop, manage and monitor riparian habitats. However, site-specific management actions necessary to accomplish the objectives were not developed at that time. Table II of the Reno RPS lists 187 fencing projects to protect riparian habitat.

Review of Field Data

Recent field checks of inventory data revealed that, in some cases, habitat conditions have changed and that many sites reported in Table II of the RPS as needing protection are located on private land. A total of 276 field write-up reports describing individual riparian habitats were checked initially for land status. Some 130 sites were found to be located on private land and were dropped from further consideration. Of the 146 sites occurring on BLM land, exactly half were not in need of protection and, therefore, were not evaluated further. The attached Table 1 provides a complete listing by allotment and site write-up number of those sites which were not in need of protection or were located on private land.

The remaining 73 sites were in need of management attention. Preferred and alternative management actions necessary for protection were determined based on habitat type, location and degree of livestock and/or wild horse use. Each site was also categorized as to "importance to wildlife." This rating was based on habitat type, proximity to alternative riparian habitats, key wildlife use areas, and the type of wildlife species using the area. This data is presented on the attached Table 2 and summarized on Table 3.

Recommendations

Use the attached Table 2 as the working document by which management actions and priorities for protection of riparian habitats are selected. It can serve as a valuable tool in development of activity plans as well. To the extent practical, funds should be allocated to all high priority sites prior to focusing on moderate or low priority sites, regardless of allotment management categorization.

Protect all riparian habitats with a high importance rating by the end of FY 89. This will meet the Bureau's commitment to protect all important wildlife habitats in the short-term as stated on page 1-4 of the Draft Reno EIS and on Table II of the RPS. All riparian habitats with moderate or low importance ratings should be protected by the end of FY 94. This will allow the Bureau to comply with its riparian management policy and federal law.

Table 1. Riparian Habitats Not in Need of Protection or on Private Lands
Listed by I.D. Number and Allotment

<u>Allotment</u>	<u>No Conflicts</u>	<u>Private Land</u>
Barney Riley		B0010001A63
Bagley Valley	X0020001A33 9N, 21E, 12 NwSE	X0090001B63
	X0020003A35 9N, 21E, 1 NWSW	X0050001B63
	-X0060004A35 SWSW	X0150002A13
	-X0060006A35	X9990001A12
	-X0130001A12	X0080022B40
	-X0080005A35	X0080023A36
	-X0080006A34	X0080024A36
		X0080026A36
		X0080027A13
		X0080002A13
		X0080003A13
		X0080004A13
		X0150003A13
		X0150004A13
		X0080007A12
		X0080008A35
		X0080009A13
		X0080010A13
		X0080011A13
		X0080012A13
		X0080013A13
		X0080014A12
		X0080015A12
		X0080016A13
		X0080017A13
		X0080012A12
		X0080019A63
		X0130003A63
		X0040001A63
Buckeye	•E5130004A13	E5990001A35
	•E6110012A13	E6110013A63
	•E5950007A35	E6110014A35
	-E5350001A63	E6110015A36
	•E5360002A13	E5990003A34
		E6110016A36
		E6110017A34
		E5980001A34
		E5330001A35
		E5980002A36
		E6110008A13
		E5980003A63
		E6080001A13

E6080002A35
E6060001A35
E5950008A35
E5930002A35
E5950009A35
E5950010A35
E5950011A35
E5950012A13
E5950001A35
E5950002A35
E5950003A13
E6110002A13
E5820004A58
E6110003A35
E5820005A35
E5420001A13
E5950004A35
E5950005A58
E5950006B35
E6110004A35
E6110005A13
E6110006A13
E6110007A35
E5970002A13
E5960001B62
E5300001A34
E5320001A13
W0020001A13
E5820001A36
V0260001A36
E5820003A36
E5970001A36
E5450002A12
E5360001A58
E5130001A13
E5130002A13
E5130003A13
V0260001A36
E5820001A36
E5890001A13
E5820002A35

Carter Station

A0090001A58
A0100001A12

Churchill Canyon

B0640002B63
B0770002A34
B0770001A13
B0660002A35
B0630004A13

B0630001A35
B0630002A36
B0630003A13
B0690001B63
B0770003A13

	B0630005A35	B0570001B63
	B0670001B61	B0130001A33
	B0660001A35	B0690002A13
		B0800001A35
		B0680001A58
		B0680002A36
Clifton	'L0200004B61	L0040001A35
	·L0140001B35	
	·L0180001B35	
	·L0140002A13	
	·L0140003B63	
	·L0040002B63	
	·L0200005A12	
	·L0140004A34	
	·L0200008B63	
Double Springs		N9990001A58
		N9990002A58
		N0040001A58
		N0160001A13
		N0240001A13
		N0240002A58
		N0200001A13
Eldorado	X0080002B61	EL-W-D0001
	X0080001B63	
Hackett Canyon	H0090008A35	H0090005A12
	H0090003A12	
Harvey Flat	A0010005A33	
	A0010006B46	
	A0010007A33	
	A0010008A33	
Mill Canyon	Y0350001B63	
	Y0330001A35	
	Y0340001A35	
Mud Lake	I0190001A63	
Pinenut	V0420001B64	V0310002A33
	V0280001A13	V0360010A13
	W0150006B63	V0360011A58
	V0450001A58	V0180001A36
	V0460001A13	V0220002A12
	V0210002A35	V0050008A12

V0210001A13
B0640006A35

V0010001A13
V0050001A13
V0050002A13
V0070002A13
V0170001A13
V0270001A32
V0360002A13
V0100001A13
V0360003A33
V0360004A13
V0120001A34
V0360005A34
V0360006A36
V0360007A33
V0260001B63
V0360009B35

Rawe Peak

R0030001A12
R0070001A12
R0090006A13
R0030002B63
R0070002A58
R0040002A13

R0040003A58

Sunrise

W0150001A58
W0040002A12
W0150002A12
W0040006B61
W0140001B61
W0040008A12
W0040001A13
W0040002A13
W0200001A58
W0160001A58
W0040004B63
W0040006A12
W0200002A36
W0040007A13
W0040009A12
SU-W-T010

W0040005A12
W0210001A35

Table 2. Status for Riparian Habitats in Need of Protection Listed by Habitat Write-Up Number and Allotment

<u>Allotment</u>	<u>Mgmt. Category</u>	<u>Habitat Write-Up No.</u>	<u>Conflicts 1/</u>	<u>Preferred Mgmt. Action 2/</u>	<u>Mgmt. Alternatives 2/</u>	<u>Importance to Wildlife 3/</u>	<u>Comments</u>		
Buckeye	I	• E1740001A13	L	3	1,4	Moderate	Badger Spring - Check Water Rights Scheduled for FY 87 Proposed for FY 87 Poor Access - High Mntc. Pine Nut Creek - Agric. Trespass Mill Canyon Creek Needs Survey Completed FY 86 Near E6110010A35-a Near E6110010A35-a Near E6110010A35-a Silver King Valley E. Carson River Aspen Grove Aspen Grove Aspen Grove Aspen Grove Spring - Needs Survey Poor Access Poor Access Willow Spring Meadow Proposed for FY 87 Needs Survey Old Development Near Hercules Mine Needs Survey Near Clifton Old Development Old Development Wet Meadow Old Development Poor Access No Surface Water Wet Meadow Wet Meadow Small Meadow Aspen Grove Wet Meadow Old Development Miner's Cabin		
		• E5110001B61	L	2	1,3,4	High			
		• E5110001A13	L	2	5	High			
		• E5110002A13	L	3	1,4	Moderate			
		• E5930001A63	L	3	1,4	Moderate			
		• E5990002A35	L	4	1,3	High			
		• E5450001B63	L	3	1,4	Moderate			
		• E6110010A35-a	L	1	3,4	High			
		• E6110010A35-b	L	4	1,3	High			
		• E6110009A35	L	4	1,3	High			
		• E6110021A13	L	4	1,3	High			
		Bagley Valley	M	X0160001A36	L	3		4	High
				X0170001A63	L	3		1,4	High
X0060003A34	L			4	1,3	Moderate			
X0060001A35	L			4	1,3	Moderate			
X0060002A34	L			4	1,3	Moderate			
X0050002A35	L			4	1,3	Moderate			
X0080001A13	L			3	4	Moderate			
Carson Plains	C			C0280001A35	H	2	1,3,4,5	Moderate	
		C0280002A12	H	2	1,3,4,5	Moderate			
Churchill Canyon	I	B0800002B63	L	1	2,3	Moderate			
		B0120001A36	L&H	3	1,4,5	Moderate			
Clifton	C	W0040001B63	L&H	3	1,2,4,5	High			
		L0140005A35	L&H	1	4,5	Moderate			
		L0200006B63	L&H	2	1,3,4,5	Moderate			
		L0200007A58	L&H	2	1,3,4,5	Moderate			
		L0170002B35	L&H	1	4,5	Moderate			
		L0040005A58	L&H	2	1,3,4,5	Moderate			
		L0200001B63	L&H	2	1,3,4,5	Moderate			
		L0200003B63	L&H	2	1,3,4,5	Moderate			
		L0200002A12	L&H	2	1,3,4,5	Moderate			
		X0080001B63	L&H	1	3,4,5	Moderate			
Eldorado	C	EL-W-D003	L&H	2	1,3,4,5	Moderate			
		Hackett Canyon	C	H0090001A35	L&H	3	1,4,5	Moderate	
H0090002A13	L&H			2	1,3,4,5	Moderate			
H0090004A12	L&H			3	1,2,4,5	Low			
H0090006A12	L&H			3	1,2,4,5	Low			
H0030001A35	L&H			3	1,4,5	Moderate			
H0090007A35	L&H			3	1,2,4,5	Moderate			
Mill Canyon	C	Y0360002A58	L&H	4	1,5	High			
		Y0360001A58	L&H	3	1,4	Moderate			

Sunrise	I	W0070001B63	I&H	1	2,3,4,5	Moderate	Needs Survey		
		W0040003B63	I&H	3	1,4,5	Moderate	Wet Meadow		
		W0040007B63	H	4	1,2,5	Moderate	Sunrise Cabin		
		W0070002A58	H	1	2,3,4,5	High	Scheduled for FY 87		
		W0070003A58	I&H	1	3,4,5	Moderate	Wet Meadow		
		W0070004A58	I&H	1	3,4,5	Moderate	Wet Meadow		
		W0040003A58	I&H	1	2,3,4,5	Moderate	Wet Meadow		
		W0140001A58	I&H	1	2,3,4,5	Moderate	Wet Meadow		
		W0180001A35	L	1	2,3,4	High	Meadow Complex		
		W0040001B63	I&H	3	1,2,4,5	High	Proposed for FY 87		
		W0040001A13	L	3	1,4	Moderate	Aspen Grove		
		Pine Nut		V0270002A33	I&H	4	3	Moderate	Waterfowl Use
				V0250001A35	L	4	1	High	Poor Access
				V0220001A12	L	3	1,4	Moderate	Poor Access
				V0070003A13	L	3	1,4	Moderate	Needs Survey
				V0230001A36	L	3	1,4	Moderate	Poor Access
				V0230002A36	L	3	1,4	Low	Dry Meadow
V0270001A36	L			3	1,4	Low	Dry Meadow		
V0360001B63	L			3	1,4	Moderate	Wet Meadow		
W0150004B63	L			3	1,4	Moderate	Poor Access		
W0150007B62	L			3	1,4	Moderate	Poor Access		
V0070001A13	L			3	1,4	Moderate	Wet Meadow		
V0310001A58	L			3	1,4	Moderate	Needs Survey		
V0470001A58	L			3	1,4	Moderate	Wet Meadow		
V0120002A35	L			4	1,3	High	Poor Access		
V0360008A12	L			3	1,4	Moderate	Old Development		
V0470002A36	L			3	1,4	Moderate	Wet Meadow		
E5350001A63	L			3	1,4	Low	E. of Sunrise Pass		
Rawe Peak	C	R0090001A12	I&H	3	1,4,5	Moderate	Marginal Spring		
		R0090002B61	I&H	3	1,4,5	Moderate	Gumbo Spring		
		Y0050001B63	I&H	4	1,3,5	High	Old Development		

1/ L = Livestock and H = Horses

2/ Actions Include: 1-Fencing, 2-Development, 3-Graze livestock after June 30 4-Rest from livestock Two growing seasons, then Rest-Rotate, 5-Remove Horses

3/ Importance Ratings - (High, Medium, Low) are based on Key Wildlife Use Areas, Type of Riparian Habitat, Proximity to Other Riparian Habitats, and Proximity to Other Riparian Habitats and Type of Wildlife Species using the Area

Table 3. Summary Status of Riparian Habitats by Allotment

<u>Allotment</u>	<u>Mgmt. Category</u>	<u>Priority for Protection</u>			<u>No Conflicts</u> ^{1/}	<u>Private Land</u>	<u>Total</u>
		<u>Low</u>	<u>Mod.</u>	<u>High</u>			
Bagley Valley	M	0	6	1	7	29	43
Barney Riley	M	0	0	0	0	1	1
Buckeye	I	0	4	7	5	54	70
Carson Plains	C	2	0	0	0	0	2
Carter Station	M	0	0	0	2	0	2
Churchill Canyon	I	0	2	2	8	11	23
Clifton	C	8	0	0	9	1	18
Double Springs	C	0	0	0	0	7	7
Eldorado	C	2	0	0	2	1	5
Hackett Canyon	C	4	2	0	2	1	9
Harvey Flat	M	0	0	0	4	0	4
Mill Canyon	C	0	1	0	3	0	4
Mud Lake	C	0	0	0	1	0	1
Pine Nut	I	3	12	4	8	22	49
Rawe Peak	C	0	3	0	6	1	10
Sunrise	I	<u>0</u>	<u>8</u>	<u>2</u>	<u>16</u>	<u>2</u>	<u>28</u>
	Total	19	38	16	73	130	276
Status of Riparian Habitats on BLM Lands by %		13	26	11	50		

^{1/} BLM Lands

WILDLIFE HABITAT MONITORING PLAN
FOR THE
PINENUT AND MARKLEEVILLE PLANNING UNITS

DESCRIPTION OF EXISTING STUDIES

Plant Frequency

Eighteen plant frequency studies on ten allotments are currently read on a five to ten year cycle. These studies are designed to document changes in plant frequency over time. They are not normally intended to monitor plant quality although three age classes of bitterbrush are recorded in an effort to gain additional data on the overall health of the bitterbrush plant community. However, bitterbrush frequencies, even when age classes are combined, are generally not high enough to be statistically reliable. This parameter of the plant community needs further study in some areas and is discussed in the Future Studies Needed Section below.

Cover Rating

For convenience and consistency, cover rating studies have been conducted in conjunction with and along side of plant frequency and composition studies. They were initiated in 1980 to document the amount of cover available to deer. This rating is achieved through photographing plant height and density as well as terrain. The photos have additional value in depicting general condition of the plant community and the degree of forage utilization.

Plant Composition

The amount of living plant cover is recorded for all major plant species present and converted to a percent composition of the total (100 percent). This data can be used to calculate a forage quality rating which is a part of the mule deer habitat rating system described in BLM Manual 6671.

Status reports were recently prepared for those above mentioned studies which have been repeated over time. Copies are included in each of the studies folders located in central files (N-2, 6630-Big Game Studies). They summarize the studies data to date, recommend additional studies and establish the interval by which each study will be read. These reports provide supplemental information useful in applying Table 1.

Tagged Twig Surveys

Twelve tagged twig bitterbrush surveys were read cooperatively by the California Dept. of Fish and Game, Nevada Dept. of Wildlife, USFS and BLM from 1969 to 1981. The study plots were located in California and Nevada, primarily on public lands, although the data represented utilization which also occurred on interspersed private lands. The surveys recorded deer utilization of bitterbrush and calculated deer days use per acre. They were discontinued because the group felt the data was too variable due to fluctuations in weather conditions and urbanization of the private lands which substantially altered deer use areas.

COORDINATION REQUIREMENTS

An ongoing effort exists to integrate wildlife studies with those required by the range and wild horse and burro specialists. This prevents duplication of effort and increases an exchange of ideas on methods of improving resource conditions.

The state wildlife agencies have assisted Bureau personnel in the site selection and reading of wildlife studies. They will be briefed on the use of new study techniques and will have the opportunity to assist in the site selection of additional studies.

FUTURE STUDIES NEEDS

To meet our EIS commitment on riparian habitat management, the Bureau must develop a riparian habitat rating system to document that it has improved the condition class of 19 riparian habitats to a good or better rating by 1989. Bureau-wide procedures were to have been available for use in the FY 86 field season, but have not yet been promulgated.

Age and form class studies need to be established on the Buckeye, Churchill Canyon and Mud Lake Allotments to monitor the condition of the bitterbrush plant community. They should be established and re-read on the schedule described on the attached Table 1.

IMPLEMENTATION SCHEDULE

Table 1 lists all of the existing and planned studies needed to meet wildlife habitat monitoring commitments in the subject planning units. The monitoring interval for these studies is considered the minimum requirement and may be increased if time allows or if special conditions warrant additional data collection.

If the District Office has not received an approved riparian habitat rating system by January 1, 1988, it should develop its own system for use in the FY 88 field season.

Table 1: Monitoring Schedule for Proposed and Existing Studies by Allotment

<u>Allotment</u>	<u>Type of Study by Year</u>									
	<u>1987</u>	<u>1988</u>	<u>1989*</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Sunrise	FSC(2)	R(2)							FSC	
Bagley Valley		R(2)								
Pinenut		R(4)		FSC	FSC					
Carson Plains										
Buckeye	AFC	R(7)		FSC		AFC				FSC(2)
Churchill Cyn.	AFC	R(2)				AFC				
Indian Hills					FSC(2)					
Clifton										
Double Springs								FSC		
Eldorado										
Carter Station								FSC		
Hackett Canyon										
Mud Lake	AFC		FSC			AFC				
Mill Canyon		R								
Indian Creek	FSC									
Rawe Peak		R								
Harvey Flat				FSC(3)						
Barney Riley				FSC						

FSC = Plant frequency, structure and composition (by cover).

* = Due date for protection of all high priority riparian areas.

R = Riparian condition class.

AFC = Age and form class.

Alan Delaney
9-22-86

11/16/87 *Dawn,*
The letter
IN REPLY REFER TO:
Do you agree
kn



United States Department of the Interior

6620
(NV-037)

BUREAU OF LAND MANAGEMENT
CARSON CITY DISTRICT OFFICE
1535 Hot Springs Rd., Ste. 300
Carson City, Nevada 89701

NOV 16 1987

Ms. Rose Strickland
Sierra Club
Toiyabe Chapter
P.O. Box 8096
Reno, NV 89507

Dear Ms. Strickland:

Thank you for commenting on the Revised Pine Nut HMP. I received several valuable comments, many of which were similar to yours, from others which were incorporated into the final plan. NDOW signed the plan on August 21, 1987. We feel the HMP, together with its Riparian Management Plan (Appendix III), provides a sound basis by which riparian habitat will be improved. Fencing is not the only means available to protect riparian habitat. For example, the Buckeye AMP established a rest-rotation system designed to promote aspen regeneration and recovery of high priority riparian habitats without extensive fencing. This AMP identified important riparian habitats and recommended fencing of these sites if necessary.

A 1985 wild horse gather on the south half of the HMP area has allowed riparian habitat to recover without fencing. The wild horse population in the Pine Nut Herd is now being managed at a level which is believed to be compatible with the habitat. A Herd Management Area Plan, scheduled for completion this fiscal year, will support protection of riparian habitat and will serve as a funding document to provide fencing if necessary.

In addition, several livestock permittees have, for economic reasons, reduced herd sizes or taken non-use of their grazing permits. This can only help to improve the condition of riparian habitat on these allotments.

My staff continues to evaluate select riparian habitats to monitor the effectiveness of fencing, wild horse removals, and non-use by livestock. High priority sites which are not recovering as expected are slated for protective fencing. I have scheduled two such projects this fiscal year.

The use of prescribed burning or limited suppression of fires on key deer winter range has been evaluated and found to be unsuitable. The area of concern lies adjacent to residences and also contains small parcels of private land, both developed and undeveloped. To protect life and property, fires occurring in this area are given a high priority for full suppression. Besides, the desired result of opening up the woodland canopy can be achieved through public and commercial harvest of fuelwood. Since the demand for fuelwood in this area is high, such a fuelwood sale program is desirable from a multiple-use standpoint.