



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Ely District Office
HC 33 Box 33500
Ely, Nevada 89301-9408



IN REPLY REFER TO:

1610/4400
(NV-047)

Dear Public Land Interest:

The Egan Resource Area (ERA) is now in the process of evaluating the monitoring data on the following allotments (see the attached map for locations-numbers keyed to map):

Map Reference #	Allotment Name	Allotment Categorization	Allotment Number
1	Railroad Pass	I	0601
59	Tamberlaine	M	0901
23	Thirty Mile Spring	I	0503
16	Lovell Peak	M	0406
62	Whiterock	I	0902
70	Cave Valley Ranch	I	0904
73	Shingle Pass	M	0906

Handwritten notes:
- THREE MILE BACK + BALD BUTTE (next to Thirty Mile Spring)
- BLUE NOSE MOONMORN (next to Whiterock)

The purpose of an evaluation is to assess if current management practices are meeting the allotment specific and land use plan objectives as described in the Rangeland Program Summary (RPS), dated May 1988, and the Resource Management Plan (RMP) for the ERA.

This fiscal year (1993) the ERA is scheduled to complete the evaluation process for these allotments through either an agreement or proposed decision, if they are in need of an adjustment of current management practices, or to document the files if no change in current management is indicated by adequate monitoring data.

I request that those individuals and groups that have an interest in any or all of the listed allotments please submit by April 30, 1993, allotment specific data related to the allotment objectives described in the RPS. The information submitted will be used during the allotment evaluation process and to determine who is an affected interest and the nature of their interest.

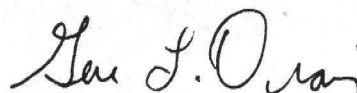
The ERA will incorporate any pertinent allotment specific information provided by the public into the allotment evaluation, which will be completed through the technical recommendations portion. During the summer of 1993, the ERA will coordinate the review of the evaluation with the permittee and other affected interests that requested involvement through an allotment specific response to this inquiry.

At this point the ERA will consider the input received from review of the evaluation by all the affected interests and plan to complete the final portion of the evaluation in July and August 1993. This consists of selection of management action(s) to be taken and subsequent development of a proposed decision, agreement, and/or documentation to the files if no change is recommended for the allotment.

It is my belief that the above described procedures provide the opportunity for permittees and other affected interests to be involved in and become informed of the conclusion of the evaluation process.

In response to this letter, please send your allotment specific data and information to the above address, attention: Gene Drais, Egan Resource Area Manager.

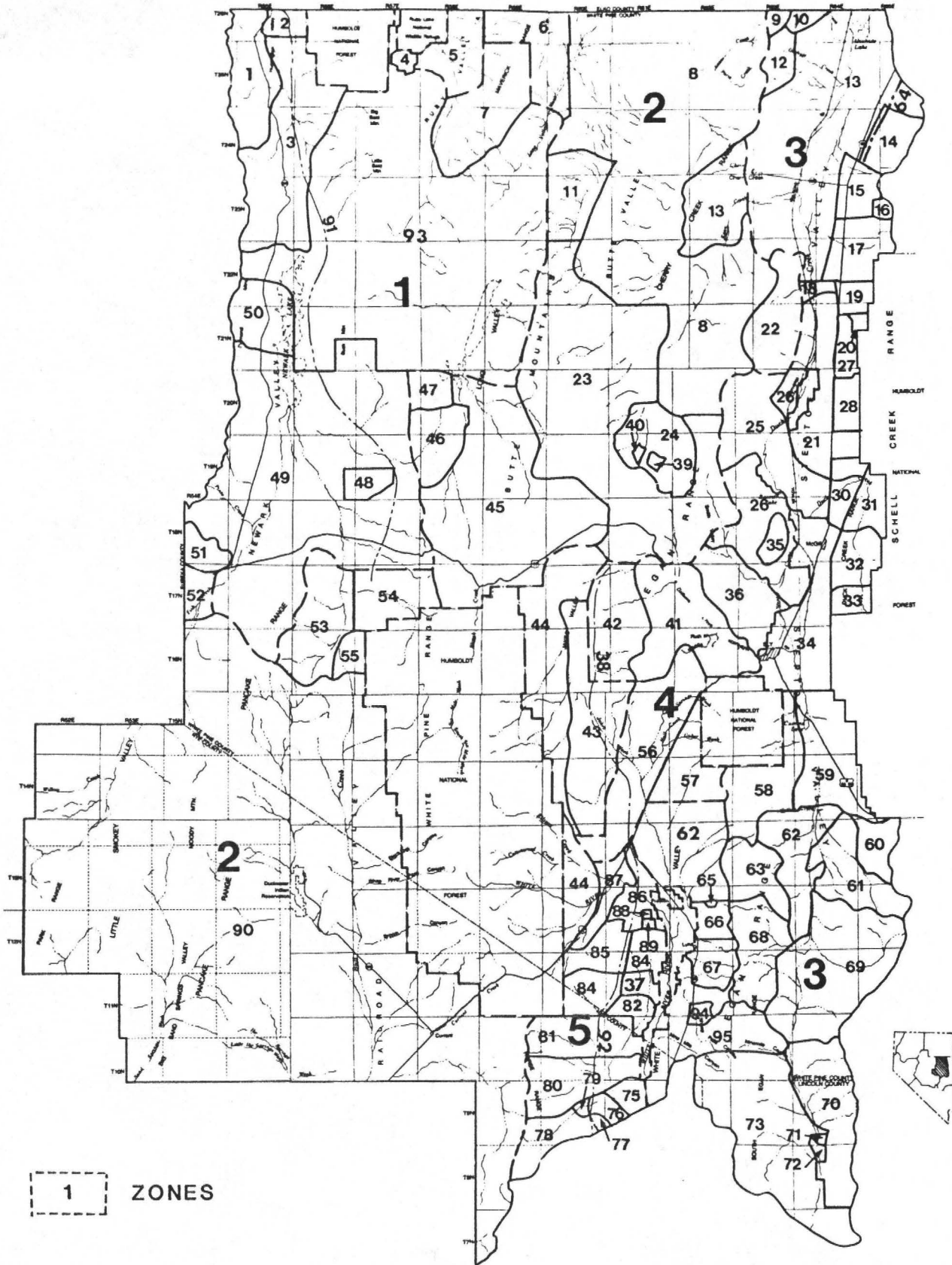
Sincerely,



Gene L. Drais, Manager
Egan Resource Area

Enclosures
Allotment List and Map

FFisher:cs



SEE BACK OF MAP FOR LIST
OF GRAZING ALLOTMENTS
AND MANAGEMENT
CATEGORIZATION.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EGAN RECORD OF DECISION
GRAZING ALLOTMENTS AND
MANAGEMENT ZONES

Grazing Allotments
MIC Categories

1. Railroad Pass (I)
2. White Rock Seeding (M)
3. Cold Creek (I)
4. Fort Ruby (M)
5. Ruby Valley (I)
6. Horse Haven (I)
7. Maverick Springs (I)
8. Medicine Butte (I)
9. McDermitt Creek (M)
10. Indian Creek (M)
11. North Butte (I)
12. Goshute Basin (M)
13. Cherry Creek (I)
14. Becky Creek (M)
15. North Steptoe (M)
16. Lovell Peak (M)
17. Schellbourne (M)
18. Middle Steptoe (C)
19. Whiteman Creek (C)
20. Bennett Creek (M)
21. Duck Creek Flat (M)
22. Gold Canyon (M)
23. Thirty Mile Spring (I)
24. South Butte (M)
25. Steptoe (M)
26. Heusser Mountain (M)
27. Big Indian Creek (C)
28. Second Creek (M)
29. Gallagher Gap (M)
30. Schoolhouse Spring (C)
31. Duckcreek Basin (M)
32. Duckcreek (M)
33. Gilford Meadows (M)
34. West Schell Bench (M)
35. Goat Ranch (I)
36. Georgetown Ranch (C)
37. Sheep Pass (I)
38. Jakes Unit Trail (M)
39. Butte Seeding (M)
40. South Butte Seeding (M)
41. Copper Flat (M)
42. Badger Spring (I)
43. Indian Jake (I)
44. Tom Plain (C)
45. Moorman Ranch (I)
46. Sabala Spring (M)
47. Dry Mountain (M)
48. North Pancake (M)
49. Newark (I)
50. Strawberry (M)
51. Silverado (C)
52. Black Point (C)
53. South Pancake (M)
54. Six Mile (M)
55. Monte Cristo (I)
56. Giroux Wash (I)
57. Dark Peak (I)
58. Lake Area (I)
59. Tamberlaine (M)
60. Cold Spring (M)
61. Connors Summit (M)
62. White Rock (I)
63. Little White Rock (M)
64. North Steptoe Trail (C)
65. Sawmill Bench (M)
66. Rock Canyon (C)
67. Brown Knoll (I)
68. Chimney Rock (M)
69. Cattle Camp/Cave Valley (I)
70. Cave Valley Ranch (I)
71. Haggerty Wash (M)
72. Cave Valley Seeding (M)
73. Shingle Pass (M)
74. Dee Gee Spring (C)
75. Sorenson Well (C)
76. East Wells (C)
77. Sheep Trail Seeding (M)
78. Wells Station (I)
79. Maybe Seeding (M)
80. Cove (M)
81. North Cove (I)
82. Swamp Cedar (M)
83. Big Six Well (C)
84. Douglas Point (I)
85. Douglas Canyon (C)
86. Preston (C)
87. McQueen Flat (M)
88. Willow Springs Addition (M)
89. Willow Springs Seeding (M)
90. Duckwater (I)
91. Warm Springs Trail (M)
92. Preston-Lund Trail (M)
93. Warm Springs (I)
94. Six Mile Ranch (M)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445



IN REPLY REFER TO:
6830
(NV-023.4)

March 12, 1993

Dear Interested Party:

Enclosed is the Final Winnemucca District Animal Damage Control (ADC) Program Environmental Assessment (EA) and associated Decision Record/Finding of No Significant Impact (DR/FONSI). This EA examines the impacts of the U.S. Department of Agriculture's Animal Plant Health Inspection Service's (APHIS) 1993 Annual Work Plan (AWP) to control wildlife depredation in the Winnemucca District.

In May 1991, a letter was sent to ninety-nine individuals, agencies, and/or organizations indicating the District's intent to develop an EA for APHIS-ADC activities. Of the ninety-nine parties contacted, twelve responded by saying they would be interested in the formal review process.

In March 1992, a draft EA was sent to those parties who indicated they would like to be included in the review process. This included an additional twenty groups or individuals that contacted the district subsequent to the original scoping letter.

The comment period for the draft EA ended on May 1, 1992. All of the comments received were considered in the preparation of the final EA and incorporated in the document where appropriate. On July 27, 1992, a final EA and DR/FONSI was transmitted to the Nevada State Office prior to being forwarded to the Washington Office in accordance with Bureau policy issued by Secretary Lujan February 18, 1992. This policy was initiated partially as a result of the Secretary assuming jurisdiction to decide appeals on two ADC programs. The document was forwarded to the Assistant Secretary, Land and Minerals Management, Department of Interior (DOI), for approval, by the Director of the Bureau of Land Management (BLM) on August 28, 1992.

Due to a back-log of cases in the DOI's Solicitor's Office the 1992 EA was not reviewed. In November 1992, the Washington Office issued a new policy (WO Instruction Memorandum No. 93-44) which re delegated the authority to approve ADC activities on BLM lands back to the States. The new policy instructed the states to review the Fiscal Year (FY) 1993 APHIS-ADC-AWP to determine if the environment or conditions had changed. If changes were not planned in FY 1993, and if the EA met program standards, National Environmental Policy Act and Endangered Species Act requirements, which resulted in a FONSI, a new DR for FY 1993 could be signed without further public input.

If you have any questions or require additional information please contact
Rodger Bryan at (702) 623-1500.

Sincerely yours,

Robert J. Neary
Acting District Manager

Enclosures

1. Final APHIS-ADC EA
2. DR/FONSI

DECISION RECORD (DR)/FINDING OF NO SIGNIFICANT IMPACTS (FONSI)

Decision

It is my decision to authorize the Animal Plant Health Inspection Service - Animal Damage Control (APHIS-ADC) to conduct predator control activities on public lands in the Winnemucca District as described in the APHIS-ADC-Annual Work Plan (AWP) and the proposed action in Environmental Assessment (EA) No. NV-020-03-19.

This decision incorporates the mitigating measures (Section III.A.2.) and the monitoring plan (Section III.D.) identified in the EA as stipulations.

Finding of No Significant Impacts

I have determined that these actions do not constitute a major federal action, individually or cumulatively. Therefore, in accordance with Section 102(2)(C) of the National Environmental Policy Act, the preparation of an environmental impact statement is not required. This determination is based on the following factors:

1. This predator control activity, and its effects, are relevant to the Winnemucca District and are not regional or national in scope.
2. Based on the analysis documented in EA NV-020-03-19, the impacts of the predator control program are not considered to be significant to the human environment.
3. The proposed action's effects to public health and safety are minimal. No human accident associated with predator control is known to have occurred on the Winnemucca District.
4. There are no unique characteristics such as historic or cultural resources, prime farmlands, wetlands, wild and scenic areas, or Areas of Critical Environmental Concern that are significantly affected by the proposed action.
5. The mitigating measures identified in the EA and incorporated as stipulations in this DR, will minimize any adverse effects on the human environment and reduce the uncertainty and risks associated with the predator control program.
6. This action does not set a precedent for other projects that may be planned or implemented within predator control areas according to the goals and objectives of the Winnemucca District Land Use Plan.
7. The number of coyotes taken annually by APHIS-ADC is slightly greater than the average number reported for sport fur harvest. The take of other target and non-target species by APHIS-ADC is relatively small in comparison to sport fur harvest. There are no significant cumulative effects between this project and other

similar actions that may be planned or implemented within the areas of planned predator control.

8. Informal and formal consultation has occurred with The Fish and Wildlife Service (FWS). The FWS has determined the nonchemical actions proposed by APHIS-ADC are not likely to adversely affect the recovery of the endangered bald eagle and peregrine falcon. The Biological Opinion further states the above ground use of strychnine is not likely to jeopardize the continued existence of the bald eagle if ADC personnel follow current label restrictions.
9. This action is in compliance with Federal, State and local laws, regulations and requirements for predator control and environmental protection.

Rationale for Decision


Sustained animal damage control operations have been occurring in the Winnemucca District for the last 20 years, in an effort to reduce the financial losses to the livestock industry caused by depredating wildlife. For the seven year period of October 1985 to September 1992, the average reported loss of livestock to predators (total of confirmed and unconfirmed losses) was \$20,784 per year. During this time period, APHIS-ADC personnel took an average of 971 coyotes per year. Implementation of the proposed action should result in the take of approximately the same number of animals by APHIS-ADC.

Based on the analysis in the record and as concluded in the FONSI, implementation of the proposed action with its mitigating measures and monitoring plan, would not have a substantive negative environmental impact. Populations of target and non-target species would not be eliminated or even substantially reduced in numbers.

In making my decision I considered both the economic impacts to livestock operators and the intangible (not economically quantifiable) values expressed by the wide variety of interested public land users that reviewed the EA or otherwise had input into the public participation process.

Compliance and Monitoring

Compliance and monitoring are described in the EA and APHIS-ADC-AWP and are incorporated by reference into this decision.



State Director, Nevada
Bureau of Land Management
U.S. Department of the Interior

Date

3/4/93

**ENVIRONMENTAL ASSESSMENT
FOR THE WINNEMUCCA DISTRICT
ANIMAL DAMAGE CONTROL PROGRAM**

NV-020-03-19

January 1993

WINNEMUCCA DISTRICT ANIMAL DAMAGE CONTROL PROGRAM
ENVIRONMENTAL ASSESSMENT

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WINNEMUCCA DISTRICT ANIMAL DAMAGE CONTROL PROGRAM
ENVIRONMENTAL ASSESSMENT

INTRODUCTION

The U.S. Department of Agriculture's (USDA) Animal Plant Health Inspection Service (APHIS) proposes to conduct Animal Damage Control (ADC) activities on public lands managed by the U.S. Department of Interior's (USDI) Bureau of Land Management (BLM) Winnemucca District. This environmental assessment (EA) examines the impacts of the APHIS 1993 ADC Annual Work Plan (ADC-AWP) to control wildlife depredation in the Winnemucca District (Appendix 1). Planned control activities by APHIS are proposed to occur on public lands within Humboldt, Pershing, Washoe, Churchill, and Lyon counties in northwest Nevada (Map 1).

The majority of APHIS-ADC activities take place on areas where domestic sheep grazing occurs or where they are trailed between summer and winter range. Control is also initiated to alleviate losses to domestic cattle, which is primarily when small calves are present. Most of the control activities are corrective in nature - after documented livestock loss has occurred. Preventative control occurs only in areas previously identified as problem areas (e.g. lambing grounds).

Target species in the Winnemucca District involving APHIS-ADC control operations are coyotes (Canis latrans), mountain lions (Felis concolor), and ravens (Corvus corvax). Non-target species taken by APHIS-ADC activities include bobcat (Felis rufus), kit fox (Vulpes macrotis), gray fox (Urocyon cinereoargenteus), red fox (Vulpes vulpes), badger (Taxidea taxus), blacktail jackrabbit (Lepus californicus), and domestic dog (Canis familiaris).

I. Description of the Alternatives Including the Proposed Action

A. Background Data

The APHIS-ADC program serves individuals, groups and agencies by responding to requests for assistance in controlling predator damage. Each project is initiated only after receiving an oral or written request and after actual or potential damage is substantiated by APHIS-ADC except in the case of sheep protection where control has historically been conducted year round on summer and lambing ranges. An agreement defining the methods of control and the species to be controlled is made between APHIS-ADC and the landowner, lessee, or in the case of public lands, the land managing agency, before control work commences.

The overall goal of the ADC-AWP is to minimize wildlife depredation by control efforts toward specific animals or local populations within a specified area, which are causing damage to livestock or wildlife resources.

The Paradise-Denio and Sonoma-Gerlach Management Framework Plans were completed in 1982. Neither plan addresses animal damage control activities directly.

Reference will be made to the Final Environmental Impact Statement on the "U.S. Fish and Wildlife Service's Mammalian Predator Damage Management for Livestock Protection in the Western United States" (USFWS-EIS). The USFWS-EIS was finalized in June 1979 and is currently the controlling document for the ADC program in the 16 western states.

The ADC Program is conducted in Nevada by USDA-APHIS in cooperation with the Nevada State Predator Control Committee, the Nevada Department of Wildlife (NDOW) and local grazing boards.

B. Purpose and Need

This assessment addresses APHIS-ADC activities conducted on public lands within the Winnemucca District of the BLM. The proposed action was submitted by APHIS-ADC. The purpose of their proposal is to reduce economic loss to livestock operations resultant from predation.

In 1991-92, APHIS-ADC received 37 requests for assistance on public land in the Winnemucca District. Reported losses of domestic livestock included 58 lambs and 47 ewes. ADC personnel took 328 coyotes by aerial hunting, and 186 coyotes, 1 bobcat and 1 mountain lion by ground methods. For comparison, in 1990-91, 84 requesters reported losses of 206 lambs, 76 ewes, and 29 calves. APHIS-ADC personnel responded by taking 1139 coyotes and 1 lion. The BLM can authorize ADC activities to protect human health, safety, forest and range resources, other wildlife, agricultural crops, and livestock (BLM Manual 6830 - 8/88). The need for control must be demonstrated and only APHIS or government organizations that have a contractual agreement with APHIS are specifically authorized to conduct ADC activities on public land.

The ADC Program is conducted pursuant to the Animal Damage Control Act of March 2, 1931, as amended, the Federal Land Policy and Management Act of 1976, and the Rural Development, Agriculture, and Related Agencies Appropriations Act of 1988.

APHIS-ADC specifies where, when and under what restrictions its activities will be carried out. The APHIS-ADC-AWP is supplementary to the National level Memorandum of Understanding (MOU) dated September 16, 1987, between BLM and APHIS and the Nevada State MOU dated September 28, 1990, by the same entities. The Nevada MOU requires that an EA be prepared on the ADC-AWP which analyzes the following: (1) anticipated impacts to any federally designated species and/or listed threatened or endangered species, (2) effects of control on target and non-target species, (3) alternatives to the proposed control plan, and

(4) provisions for emergency control. This EA will analyze the above items of the APHIS-ADC-AWP.

C. Proposed Action

The proposed action is to administratively approve, with or without additional restriction, the APHIS-ADC-AWP for 1993 as submitted by APHIS, on selected public lands in the Winnemucca District. The proposed program emphasizes an Integrated Pest Management approach (the use of various control tools, both lethal and non-lethal) to control any given situation.

Control methods that would be used in planned areas include leg-hold traps, aerial hunting, calling and shooting, denning, snares, trained dogs, M-44's, and DRC 1339 (Starlicide). These methods would be applied as either a corrective (in response to actual loss or repeated harassment) or preventative (local coyote population reduction) strategy. Management actions would be directed towards localized population(s) and/or individual coyotes, ravens, offending mountain lions, and offending bobcats.

Four zones of control are proposed on public lands (See Map 1 for delineation of these zones):

1. RED - No Control - Areas where control is prohibited except in case of emergency (e.g. plague, rabies, nuisance, etc). No control would be used in public safety zones which are defined as being within one mile of any residence, community, or developed recreation site, or within one hundred feet of any state or federal highway. There are approximately 167,000 acres of public and private land within this zone.
2. GREEN - Control - Areas of planned control. These areas include buffer zones in close proximity to livestock ranges where control measures may be necessary to effectively limit depredation on livestock ranges. The buffer zones normally would not exceed 5 miles. There are approximately 2,047,000 acres of public and private lands within this zone.
3. BLUE - Restricted - Wilderness Study Area (WSA) and Instant Study Area operations would follow stipulations and restrictions listed in the Interim Management Guidelines for Wilderness Study Areas. Article 4 of the Nevada State MOU between BLM and APHIS states that chemical toxicants would not be allowed in wilderness study areas. There are approximately 1,145,000 acres of public land within this zone.

4. UNCOLORED - Coordinated Control - Areas where no control is scheduled but control activities can be coordinated and implemented if the need arises. In cases where local damage problems may arise that jeopardize health or property, immediate action may be taken to eliminate or curtail the problem upon receipt of a request to BLM or APHIS. The request for such action would be coordinated between BLM and APHIS as soon as possible even though emergency steps may have been initiated. There are approximately 5,141,000 acres of public and private land within this zone.

Section V of the APHIS-ADC-AWP gives a detailed account of the proposed seasons of control and special restrictions. No M-44's were used during the period October 1, 1991 to September 30, 1992 in the Winnemucca District. The APHIS-ADC-AWP conforms to the MOUs described in section I.B. of this document as well as BLM Manual 6830. Together, these serve as Standard Operating Procedures (SOP) for the proposed action. Article 10 of the Nevada BLM-APHIS MOU describes emergency control methods to be carried out. SOP's from the BLM planning documents do not directly address ADC activities, but apply in pertinent parts.

Notification to the BLM is required before placement of M-44's is initiated. M-44's will not be allowed in Wilderness Study Areas or the Instant Study Area. APHIS-ADC would post signs to provide adequate warning at all commonly used access points to those areas where control devices are in use according to their policy and the Environmental Protection Agency regulations for M-44 use.

Any need for rodent, rabbit, or bird control, except in the case of raven depredation, on public lands would be expressed to APHIS who would formulate a separate plan in coordination with the BLM, NDOW, and the Nevada Department of Agriculture. When such a request is received, a site specific analysis would be written to determine if control would be authorized.

The chemical Starlicide (DRC 1339) would be used to control raven depredation on a case-by-case basis. Use of the chemical would be restricted to lambing and calving ranges. Starlicide would be used only for direct control. There would be no use of Starlicide in WSA's or the Instant Study Area.

D. Alternatives to the Proposed Action

1. No Action

Under this alternative, no predator control activities by APHIS-ADC would be authorized. The alternative would allow private parties to control predators and would allow sport hunting and fur trapping to continue.

2. Emphasis on Non-Lethal Control Methods

This alternative emphasizes non-lethal control methods. Such methods would include requirements for sheep grazing permittees on public lands to:

- a. Provide a minimum of one guard dog per band of sheep, and,
- b. Use electronic scare devices such as propane exploders, siren strobe devices, flashing lights, radios, tape recordings, etc.

Should these methods fail to curtail the documented loss of substantial numbers (as determined by the authorized officer) of sheep to predation then limited lethal methods could be employed. Those lethal methods might include:

- a. Ground shooting of specific offending individuals,
- b. Aerial gunning within 4 miles of a depredated band of sheep, or
- c. Call and shoot techniques designed to attract the most aggressive individual predators.

This alternative would not allow the use of non-selective (to offending individuals) or preventative measures such as M-44's, trapping, snaring, denning or district-wide aerial gunning unless specifically authorized on a case-by-case basis by the Area/District Manager.

3. Other Alternatives Considered

Four additional alternatives were considered and evaluated in detail: (1) Complete protection of mountain lion, coyote, and bobcat; (2) Maximal predator removal; (3) Maximal removal of coyotes only; and (4) Fertility control. These alternatives were determined to be non-viable or not yet feasible (fertility control) and will not be analyzed further in this document.

II. Affected Environment

Only portions of the environment which directly affect, or would be affected by APHIS-ADC activities will be described in this document. The affected environment is described in a general sense within numerous BLM planning documents. Foremost among these are the Unit Resource Analysis portions of the MFP for the Paradise-Denio and Sonoma-Gerlach Resource Area's. These documents provide a description of the potentially affected environment in the Winnemucca District.

A. Wildlife

Target and non-target species most likely to be affected by the ADC program are described in the introductory section of this document. In addition, there are 17 species of vultures, hawks, eagles, and falcons that frequent the district which could be affected by APHIS-ADC activities. Appendix 2 gives a listing of target and non-target species taken for each cooperator in the Winnemucca District from 1985-86 through 1989-90. Since September 30, 1990, APHIS-ADC has not provided the Winnemucca District a listing of species taken by cooperator.

B. T/E and Candidate Species

The U.S. Fish and Wildlife Service (FWS) has stated, through informal consultation initiated by APHIS-ADC (see Appendix 4) pursuant to Section 7 of the Endangered Species Act of 1973 (ESA), as amended, the bald eagle (Haliaeetus leucocephalus) "is the only listed species that could be affected by activities identified in the annual work plan." Additionally, the following species have been identified as occurring within the Winnemucca District: American peregrine falcon (Falco peregrinus anatum - Endangered), northern goshawk (Accipiter gentilis - Category 2 Candidate), and Ferruginous hawk (Buteo regalis - Category 2 Candidate).

Formal consultation as required under Section 7 of the ESA on the APHIS-ADC Program was completed by the FWS July 28, 1992. The Biological Opinion states that bald eagles "may be taken as a result of both chemical and nonchemical methods of control."

The BLM is required to carry out management consistent with principles of multiple use, for the conservation of candidate species and their habitats and will ensure that actions authorized, funded, or carried out do not contribute to the need to list any species as T/E (Washington Office Instruction Memorandum No. 87-684).

C. Wild Horses and Burros

The following are wild horse/burro use areas (see Map 2) which currently have a population of animals and fall partly or entirely within designated ADC control zones:

Planned Control

- | | | |
|----|-------------------------|--------|
| 1. | Kamma Mountains | NV-214 |
| 2. | Seven Troughs | NV-216 |
| 3. | Lava Beds | NV-215 |
| 4. | Blue Wing Mountains | NV-217 |
| 5. | Trinity Range | NV-232 |
| 6. | Antelope Range | NV-211 |
| 7. | Selenite Range | NV-212 |
| 8. | Humboldt/West Humboldts | NV-224 |
| 9. | Tobin Range | NV-231 |

Wilderness Study Areas/Instant Study Area

1.	Buffalo Hills	NV-220
2.	Fox and Lake Range	NV-228
3.	Calico Mountains	NV-222
4.	Warm Springs Canyon	NV-226
5.	Black Rock Range West	NV-227
6.	Black Rock Range East	NV-209
7.	Jackson Mountains	NV-208
8.	Little Owyhee	NV-200
9.	Augusta Mountains	NV-311
10.	Tobin Range	NV-231
11.	Selenite Range	NV-212
12.	Nightingale Mountains	NV-219

Coordinated Control

1.	Granite Range	NV-221
2.	Shawave Mountains	NV-218
3.	Stillwater Range	NV-229
4.	Snowstorm Mountains	NV-201
5.	McGee Mountain	NV-210
6.	Fox and Lake Range	NV-228
7.	Nightingale Mountains	NV-219
8.	Tobin Range	NV-231
9.	Black Rock Range West	NV-227
10.	Black Rock Range East	NV-209
11.	Jackson Mountains	NV-208
12.	Calico Mountains	NV-222
13.	Little Owyhee	NV-200
14.	Humboldt	NV-224
15.	Antelope Range	NV-211
16.	Trinity Range	NV-232

D. Livestock Grazing

Knowlton et al (1977) state that they are not aware of any place in the Great Basin where livestock serves as a dietary staple for any of the major carnivore populations, although individuals may feed extensively on them for a period of time. They go on to state that livestock may temporarily flood the food base in particular locales, encouraging "prey-switching" among opportunistic feeders. They also state that "although any of the large carnivores are capable of killing livestock, especially sheep, it is clear that many do not." This statement is supported by pen studies conducted by other researchers which have shown that only 70 percent of wild-caught coyotes can reasonably be "trained" to kill sheep even though they are deprived of food (Connolly et al 1976; U.S. Fish and Wildlife Service 1978).

In an effort to help resolve conflicting claims about the severity of predator losses to the sheep industry, Tigner and Larson (1977) examined 4,440 dead sheep on several ranches in southern Wyoming from April 1973 through December 1975. Approximately 6,000 ewes

and their lambs were monitored each year. Grazing occurred on separate winter and summer ranges, on large tracts of public land, and on rangeland dominated by big sagebrush. The majority of the ranchers used herders to tend the herd and they lambed on the range rather than in a shed. Various types and intensities of predator control were utilized for all herds throughout the study. Each dead sheep was necropsied on the site and the cause of death was determined if possible. The study concluded that exposure, starvation, accidents, and disease accounted for a large percentage of the death loss. Known predator kills were only 0.2% of the ewes each year and 1.5%, 2.1%, and 3.2%, respectively, of the lambs from the study herds. They cited four other studies Davenport et al (1973), Nielson and Curle (1970), Nesse (1974), and Nass (1975), which reported similar percentages of sheep lost to predators. Predator control was also in effect during these studies.

There are 105 livestock operators authorized to graze domestic livestock on 100 allotments in the Winnemucca District (approximately 8.5 million acres). Most of these operators are licensed to graze cattle and a few are authorized to graze horses. One operator is licensed to graze both cattle and sheep, while four are strictly sheep operators. Over the past three years, the average number of Animal Unit Months licensed by class of livestock was: cattle - 263,562; sheep - 15,653; horses - 1,137. Sheep operators follow a seasonal breeding program with lambing occurring in April and early May. Many cattle operators have a year-round breeding program. Public rangelands are essential for economic operations by the ranchers with as much as an average of 56% dependency of range use during the spring and summer months.

For the time period of October 1, 1985, to September 30, 1988, APHIS-ADC reported both confirmed and unconfirmed losses of livestock to predators. During this period, confirmed livestock losses averaged \$8,117 per year while unconfirmed livestock losses averaged \$10,247 per year. For the time period of October 1, 1988, to September 30, 1992, APHIS-ADC did not differentiate between confirmed and unconfirmed livestock losses. Total reported livestock losses during this period averaged \$22,600 per year. For the seven year period (October 1985 to September 1992) the average reported loss of livestock to predators (total of confirmed and unconfirmed losses) was \$20,784 per year.

E. Recreation

Recreational use in the Winnemucca District is generally light and dispersed with the exception of Blue Lakes, Onion Valley Reservoir, Knott Creek Reservoir, Rye Patch Reservoir, Thomas Canyon, Water Canyon, Sonoma Canyon, and Clear Creek which receive relatively heavy use and lie within or near proposed control areas.

Recreational activities in the Winnemucca District include fishing, hunting, trapping, winter sports, sightseeing, wild horse/burro viewing, and plant and mineral collecting.

F. Wilderness Study Areas/Instant Study Area

There are 22 areas (see Map 1) in the Winnemucca District that are under review for wilderness (Proposed Wilderness Study Areas, Nevada BLM Intensive Wilderness Inventory 1980) that could possibly be affected by ADC activities.

The Interim Management Policy and Guidelines for Lands under Wilderness Review (IMP) dated December 12, 1979, revised July 12, 1983, was placed into BLM Handbook format November 10, 1987 (H-8550-1). This document provides the conceptual framework and specific policy for managing public lands which are under wilderness review. The WSA guidelines include the following restrictions: "Animal damage control activities directed at individual offending animals may be permitted, as long as this will not jeopardize the continued presence of any species."

III. Environmental Consequences

None of the following resources would be impacted as a result of the proposed action or any of the alternatives: Air Quality, Areas of Critical Environmental Concern, Cultural Resources, Farm Lands, Floodplains, Water Quality, Riparian Areas, or Wild and Scenic Rivers. Neither would any hazardous wastes be stored or used on the public lands as a result of this action.

Under all alternatives the IMP guidelines would apply. Adherence to these guidelines would insure conformance with the Wilderness Study Area non-impairment criteria as described in the proposed action and the alternatives.

A. Proposed Action

1. Anticipated Impacts

The primary concern, which is of utmost importance, is the health and safety of humans and domestic animals directly affected by APHIS-ADC activities. Adverse impacts could result from accidental exposure to mechanical devices such as leghold traps or snares, and chemical toxicants such as the sodium cyanide used in M-44's. All current methods of predator control have been used by APHIS-ADC personnel for many years throughout the west with relatively few injuries to humans, domestic dogs, or livestock. Exceptions include: (1) human fatalities or injuries to participating ADC personnel involved in low level aerial coyote hunting (none have occurred in Nevada); (2) the inadvertent capture of

non-target species such as dogs, livestock (especially sheep) and other species of wildlife in leghold traps; and (3) loss of domestic dogs to M-44's.

All APHIS-ADC methods can be hazardous when improperly used. However, when used by trained personnel following established guidelines, the risks to humans and domestic animals are low.

Of secondary concern would be the anticipated impacts on the overall populations of target and non-target species. Anticipated impacts from the control effort on target and non-target species, including ecological implications, must be related to their effects on the overall populations. It is the integrity of the population that is important biologically. Another important consideration is the amount of pain and suffering that is experienced by the individual animal as a result of ADC activities.

Aerial gunning is the primary tool used in APHIS-ADC predator control activities. Aerial gunning is currently used as both a preventative method of control and in response to specific livestock losses. Aerial gunning is species specific (it is only directed at coyotes). This type of control measure normally covers large expanses of land in a short period of time and therefore has the potential to result in the take of many animals, some of which may not be "offenders". However, areas hunted are historic problem areas or areas with an ongoing damage situation.

a. Wildlife

- 1) Coyote - Coyote populations, as well as many other wildlife species, have the reproductive capacity to recover rapidly following a reduction in number, regardless of whether these reductions result from natural causes or man's activities. According to a mathematical model developed to simulate coyote population dynamics, tests of varying levels of control kills showed that if 75 percent of a coyote population was killed each year, it would take slightly over 50 years to exterminate the population (Connolly and Longhurst, 1975). They go on to say that "killing coyotes at rates below 75 percent may merely stimulate reproduction and aggravate the problem by increasing the seasonal population pressure on the food supply."

Crabtree and Ables (1988) and Frank (1979) report that if a coyote population is subjected to substantial exploitation, neither its social organization nor population dynamics will be remotely representative of the natural, and therefore evolutionary significant, situation. In areas subject to predator control, coyotes begin breeding at less than a year old and often produce litters of eight to ten pups (Knowlton 1972, 1989; Connolly 1978). Studies conducted in Washington and Yellowstone National Park show that successful breeding for females in stable unexploited populations occurred at ages two through six and produce small litters of roughly four pups per territory, of which an average of 1.6 to 1.9 survive (Crabtree et al, 1988; Crabtree and Ables, 1988; Crabtree 1992). Among lightly exploited populations, typically about 60% are under one year of age and over 80% are under three years old (Knowlton 1972 and 1989). In an unexploited population, approximately 25% are under one year of age and less than 60% are under three years old (Crabtree and Ables 1988; Crabtree 1992). Connolly and Longhurst (1975) and Knowlton (1972) concur the greatest potential for increased reproduction in a coyote population lies with the yearling age class. It follows that an exploited population with a higher percentage of yearling animals, compared to an unexploited population, would have a greater reproductive capability.

The majority of APHIS-ADC's activities associated with coyote depredation occurs during the spring months when lambing takes place. This is a result of the coyotes' need to provide food for the newborn pups. Studies have shown that when researchers removed pups from dens but left the adults, predation on sheep dropped by more than 90 percent (Knowlton 1989; Till and Knowlton 1983; Anderson 1969).

The APHIS-ADC coyote take on BLM lands in the Winnemucca District in 1991-92 was 514 animals. The five-year average coyote take (1987-1992) in the Winnemucca District reported by APHIS-ADC is 926 animals.

NDOW compiles statistics for sport fur harvest by Region. NDOW Region I is comprised of all or part of management units 1 - 5, 18 - 20, and 29 in Washoe, Humboldt, Pershing, Churchill,

Mineral, Lyon, Douglas, Carson City, and Storey counties. The Winnemucca District occupies approximately 50% of NDOW's Region I. According to the 1992 Nevada Upland Game, Furbearer, Mountain Lion, and Migratory Game Birds; Status and Hunting Season Recommendations the sport harvest of coyotes in Region I has declined from 3,060 in 1987-88 to 1,516 in 1991-92 for a five-year average of 1,441 animals. This equates to an approximate sport fur harvest of 721 (.5 X 1,441) coyotes per year in the Winnemucca District. There is no estimate of the total number of coyotes in the Winnemucca District, therefore it is not possible to associate a decline in sport harvest to a decline in population numbers. It is likely the decline in harvest is due to the fluctuation in fur prices which decreased from \$37.11 in 1986-87 to \$10.77 in 1989-90. The price of a coyote fur in 1991-92 increased to \$24.36, for an average of \$16.02 over the past five year period.

The M-44 is considered by some to be a more humane method of controlling coyotes than trapping since the coyote dies approximately 40 seconds after exposure. Sodium cyanide is propelled into the coyote's mouth and reacts with moisture to form hydrogen cyanide gas. This gas combines more readily with the blood's hemoglobin than oxygen. With no oxygen circulating in the coyote's blood stream, it will suffocate.

Coyotes caught in steel leghold traps could remain in the trap for up to 168 hours (Nevada Revised Statute, Section 503.570, Part 2) before being disposed of, or suffer a slow death (depending on the injury, thirst, or starvation) while caught in the trap. Aerial gunning, which accounts for approximately 76% of APHIS-ADC's take, shooting, and denning can be a means of humane disposal if administered properly.

- 2) Mountain Lion - The mountain lion is a low density predator of secretive nature whose characteristics and life cycle make it very difficult to monitor. The estimated annual recruitment rate for lion populations in Nevada is believed to be about 30% (Ashman, et al, 1983). The rate of kitten survival is good (approximately 1.8/female) and when coupled with the lions' high reproductive potential (average

one litter every 18 months) it can be speculated that mountain lions are capable of rapidly replacing individuals that are removed from the population (Ashman, et al, 1983).

NDOW has an adjustable tag quota/sport harvest program for lions. Harvest objectives are estimated for each management area and reflect approximately 25% of what NDOW anticipates the population to be. This is 5% below the annual recruitment rate. For 1991-92, the harvest objective for management areas 3 (units 031, 032, 034, and 035), 4, and 5 (roughly the Winnemucca District) was 19 animals. This equates to an estimated population of 76 lions in the Winnemucca District in 1991-92. For comparison purposes, NDOW estimated the mountain lion population in 1982 for these areas to be 57 animals (Ashman, et al, 1983). Sport harvest in 1991-92 in the Winnemucca District totalled 2 animals in management area 4 and 3 animals in management area 5. APHIS-ADC take accounted for one animal in management area 4. APHIS-ADC is required to report all lion kills to NDOW within 72 hours after taking the animal. The majority of APHIS-ADC's take of lions occurs in the summer months and therefore does not conflict with sport harvest which is concentrated in the late fall and winter. The five year average for the period 1987-1992 in areas 3, 4, and 5 was: harvest objective - 18.8; sport harvest - 6.2; APHIS-ADC take - 2.2; total harvest - 9.0. This indicates that less than one half of the estimated available resource is being utilized and the current harvest management program appears to be adequate for the preservation and protection of the mountain lion resource.

The preferred method of take for lions is to utilize trained dogs to track offending animals. The dogs pursue the lion until it seeks refuge in a tree or rock pile and the animal is shot. The animal experiences minor suffering if the bullet is properly placed.

- 3) Raven - Ravens can be a problem on sheep lambing and calving areas for limited time periods. No ravens were reported taken by APHIS-ADC personnel in 1985-85 or 1990-92. Three hundred nine (309) ravens were reported taken from 1986-87 to 1989-90. The chemical DRC 1339 (Starlicide) may be used to control raven depredations.

There is no estimate of the total number of ravens in the District. Therefore, it is not possible to ascertain if APHIS-ADC activities are affecting the total population. APHIS-ADC reported in their AWP that NDOW's recent breeding bird surveys indicate raven numbers have increased substantially in northwestern Nevada.

- 4) Non-target Species - Control measures are seldom taken on bobcats and are always aimed at a particular animal. Only three (3) bobcats were reported taken by APHIS-ADC during the last five year period (1987-88 through 1991-92). Anticipated impacts to this species by APHIS-ADC activities are almost non-existent compared to the average sport fur harvest for the Winnemucca District in Region I during the same time period which was 353 bobcats (.5 X 706) per year (NDOW 1991 Status and Hunting Season Recommendations).

The following species were reported taken by APHIS-ADC during the last seven year period: kit fox - 1; fox (species unknown) - 7; badger - 23; jackrabbits - 8. The following species were reported trapped and released by APHIS-ADC during the last seven years: kit fox - 3; bobcat - 1.

Population estimates are not available for the above mentioned species. It is believed that this incidental take would not have any affect on the overall persistence of these species.

Most if not all of these animals are caught in steel leghold traps. Current Nevada regulations require a 3/16 inch spacer between the trap jaws when closed. Non-target species could also remain in traps for up to 168 hours. All non-target species are released on site unless they have suffered mortal injuries. It is unlikely that few if any animals would survive one week in a trap without food or water. If they did

survive to be released, it is doubtful they would endure in such a weakened condition. The survival of juvenile animals, dependent on a female constrained in a trap for one week, is also doubtful.

Raptors locate their food primarily by sight, not smell. Steel traps set for coyotes are normally baited with scents, and therefore do not constitute a hazard to these birds. Sight baits are currently outlawed. Compliance with this law minimizes the potential for trap losses, as raptors would not be attracted just to scents.

Raptors can be affected by certain capture techniques. Low-flying helicopters or fixed-wing aircraft utilized in the aerial gunning of predators by APHIS-ADC may have an affect on nesting raptors. The amount of disturbance would be governed by the number of close passes made by the aircraft or the amount of time spent hovering near the perch or nest site (personal communication, Dr. Richard Olendorff, July 1992). In a report on the use of rotor-wing aircraft in raptor surveys, White and Sherrod (1973) indicated falcons and eagles will sometimes attack aircraft that are hovering or flying close to their nest. This could present a problem to both the birds and the aircraft occupants should they come in contact with each other. Olendorff (Leader of Technical Assistance at the Raptor Research and Technical Assistance Center, Boise, Idaho) feels that a minimum distance of $\frac{1}{4}$ mile should be maintained between aircraft and raptor nests (personal communication, July 1992). Nine (9) Cooper's Hawk, five (5) Prairie Falcon, and nine (9) golden eagle nests have been identified in the Winnemucca District (see Appendix 3 for legal locations). The time period most critical for the successful nesting and brood rearing of these species is February 1 to August 1 (personal communication, Olendorff, July 1992).

Poisoning of blackbirds, crows, and magpies could result from the use of Starlicide to control raven depredations.

Populations of rodents and lagomorphs are not directly affected by coyote control methods used by APHIS-ADC. The most significant impact upon

these species probably occurs indirectly as a result of changes within complex coyote-prey relationships.

Low-flying helicopters or fixed-wing aircraft utilized in the aerial gunning of predators may also have an indirect affect on other species of wildlife, such as mule deer (Odocoileus hemionus), pronghorn (Antilocapra americana), California bighorn sheep (Ovis canadensis californicus), desert bighorn sheep (Ovis canadensis nelsoni), chukar partridge (Alectoris graeca), Hungarian partridge (Perdix perdix), and sage grouse (Centrocercus urophasianus). Aerial operations conducted during the spring months could be detrimental to the post-natal survival of localized segments of the populations. It is difficult to quantify the potential impacts of aerial operations to these species, as APHIS-ADC has not provided the Winnemucca Office with the number of hours spent flying to conduct predator control. Some argue that APHIS-ADC operations are beneficial to these species, by reducing the level of predation to young individuals of the populations.

Results of a study conducted in a sagebrush area in northwestern Utah, suggest that predation by coyotes is a major force in determining the long term mean blacktail jackrabbit densities, as well as a major force in determining the form and magnitude of the jackrabbit cycle (Gross et al 1974; Stoddart 1977). Food-habitat studies conducted by Wagner and Stoddart (1972) and population estimates of raptors and other carnivores in that area indicate that their effects on jackrabbit populations is minor. As jackrabbit populations increase, highly palatable vegetation preferred by livestock and pronghorn would probably decrease (Vorhies and Taylor 1933; Westoby 1973; Knowlton et al 1977). Knowlton et al (1977) suggest that if relieved of predation pressure, jackrabbits would probably increase, amplify pressure on the vegetation, and eventually alter its composition to the detriment of themselves as well as livestock and pronghorn.

b. T/E and Candidate Species

As stated earlier in section II.B. of this document, the FWS has determined that bald eagles may be taken as a result of both chemical and nonchemical methods of control utilized by APHIS-ADC. It further states that in all bald eagle recovery units (except the Southwest), "the above ground use of strychnine is not likely to jeopardize the continued existence of this species," as long as APHIS-ADC personnel follow current label restrictions. APHIS-ADC currently restricts normal program use of strychnine to field rodent and nuisance bird control efforts. Strychnine is not used as a redicide except in emergency situations involving human health and safety. APHIS-ADC non-target kill records indicate that no bald eagles have been taken by any program use of strychnine during the past five years.

The FWS has determined that a reasonable and prudent measure necessary and appropriate to minimize incidental take of the bald eagle would be to prohibit the use of strychnine within five miles of an active nest, active winter or summer roost, or hack site.

In order to be exempt from the prohibitions of Section 9 of the ESA, FWS states "Leghold traps (except those used to trap mountain lions) shall be placed a minimum of 30 feet from above ground bait sets."

Impacts to the Ferruginous Hawk would be minimal. This hawk's primary prey species is the Townsend Ground Squirrel (Spermophilus townsendii), which is also a prey species of the coyote. If coyote levels were reduced in areas adjacent to Ferruginous Hawk nest sites, APHIS-ADC control could have a slightly beneficial effect by reducing competition for prey species, with more squirrels becoming available to the hawks. This could be said for all nesting raptors, regardless of prey species. This potential impact has never been measured.

Impacts to the northern goshawk are also expected to be minimal. Mammals appear to be the most important food group for goshawks, with the belding ground squirrel (Spermophilus beldingi), the golden mantled ground squirrel (Spermophilus lateralis), and the cottontail rabbit (Sylvilagus nuttallii) being the most common prey items. The same beneficial impacts associated with the Ferruginous hawk could be realized by the goshawk. There are two identified goshawk nests in the Winnemucca District (see Appendix 3).

The potential impacts from low-flying aircraft described in section III.A.1.a.4) of this document could affect the FWS T/E and candidate species in a similar way.

c. Wild Horses and Burros

Aerial hunting of predators in close proximity to wild horse and burro herds could cause disturbance and displacement of the animals. There could be detrimental impacts if aerial hunting was conducted during the foaling season (March 1 through June 30) by causing abortions and/or lepping of foals. This could cause death to the foals and possibly some mares/jennies. BLM policy prohibits low level flying with any aircraft below 500 feet above ground level (AGL) during this time period in any herd use area presently occupied by wild horses and/or burros (Nevada State Office Instruction Memorandum No. NV-85-272).

d. Livestock Grazing

The APHIS-ADC Program directly benefits a very small segment of the local economy. In Humboldt County, the livestock industry as a whole is directly responsible for approximately three percent of both income and employment (Jones and Loomis 1979). Total income and employment, both direct and indirect, represent 6.5% of county income and 5.0% of employment (Jones and Loomis 1979). In Pershing County it is directly responsible for approximately fourteen percent of income and nineteen percent of employment (Loomis and Closson 1980). Total income and employment, both direct and indirect, represent 31% of income and 34% of employment (Loomis and Closson 1980). The report further states that these figures are overestimates for Pershing County as local ranchers indicated that many purchase their equipment and supplies outside the county in Reno and Winnemucca. A more recent report (U.S. Dept. of Commerce, 1991) did not separate the livestock industry from the total farm and agricultural industry. The report stated that employment for the entire farm and agriculture industry in 1989 represented 7.0% for Humboldt County and 9.3% for Pershing County. Income for the farm and agriculture industry represented 6.2% for Humboldt County and 12.8% for Pershing County.

For the period 1985-86 through 1989-90 an average of 26 cooperators received assistance from APHIS-ADC (the number of cooperators receiving assistance in 1990-92

was not provided by APHIS). Not all of cooperators that received assistance are licensed to graze domestic livestock on public land in the Winnemucca District. The average number of cooperators receiving assistance from APHIS-ADC is a small percentage of the total individuals contributing to the local economy.

For those cooperators that participate in the APHIS-ADC program, livestock losses due to predators should be minimized. Unintentional trapping of domestic sheep in steel leghold traps could occur. Injuries to these animals may result.

e. Recreation

Predator control activities are normally conducted away from high public use areas. However, the public cannot be completely excluded from areas where control measures may be used. Bird hunting, especially with the use of dogs, could be impacted in certain areas. However, the timing of control activities and hunting seasons within the Winnemucca District seldom overlap. On those occasions when they do, APHIS personnel are required to post the areas where control is being conducted to prevent unintentional catches of domestic animals.

Harvest of coyotes, bobcats, and mountain lions by local sportsmen is usually not impacted by the ADC Program, particularly in light of the recent decline in fur value. If fur prices increase, a conflict between sport harvest and APHIS-ADC take could occur. The majority of control activities are initiated by APHIS-ADC after the fall and early winter sport harvest.

f. Wilderness

Target and non-target species, particularly coyote, mountain lion and bobcat provide important supplemental wilderness value. To the wilderness recreationist, these species represent the primitive, undeveloped character of the land, and enhance their recreational experience. Removal of any of these animals could detract from the wilderness recreational experience.

g. Provisions for Emergency Control

Damage situations outside the planned control areas would be considered on a case-by-case basis. When APHIS-ADC receives such a request, they would consult

with the Area Manager/District Manager and give details of the problem and recommend control measures to be taken. After analyzing the situation, the manager would either approve or disapprove APHIS-ADC's recommendation. Any approval would fall within the guidelines of the existing EA, MOU's and Federal and State laws and regulations. Therefore, impacts are expected to be the same as those already covered. In the last 10 years, BLM has received no requests for emergency control.

2. Mitigating Measures

- a. Chemical toxicants will not be allowed in WSA's or the Instant Study Area.
- b. APHIS-ADC aerial operations below 500 feet AGL will not be allowed in any herd area presently occupied by wild horses and/or burros between March 1 and June 30. Exceptions would have to be approved on a case-by-case basis by the District Manager.
- c. M-44's will be placed in areas where the risks to T/E and candidate species are minimized.
- d. Aerial gunning of predators will not be allowed within $\frac{1}{4}$ mile of the two (2) goshawk, nine (9) Cooper's Hawk, five (5) Prairie Falcon, and nine (9) golden eagle nests between February 1 and August 1.
- e. Actions within all WSA's must meet the non-impairment criteria as stated in the IMP. All vehicular traffic off of existing roads and trails must be approved by the BLM authorized officer.
- f. In areas where the take of non-target species increases beyond levels NDOW/APHIS/BLM believes to be acceptable to the maintenance of those populations, every effort will be taken to avoid the further take of the species of concern.

3. Unavoidable Impacts

Individual animals of target and non-target populations would be removed from the ecosystem as a result of APHIS-ADC activities.

Some domestic livestock losses to predators would continue under the proposed control program.

B. Alternative 1 - No Action

1. Anticipated Impacts

a. Wildlife

This alternative would eliminate the use of APHIS-ADC in the control of wildlife predation. All predation control activities would be conducted by livestock operators. The number of predators taken on public lands by APHIS-ADC would drop to zero. Sport hunting and fur trapping would continue. In the short-term, there would be an increase in coyote population density. Sport and fur harvest may increase in the short-term due to an increase in animal densities. In the absence of human involvement, it is doubtful that mountain lions would be appreciably more abundant in the Great Basin (Knowlton, et al, 1977). Without any animal damage control activities livestock operators who experience predator losses may be forced to control predators on their own. Livestock operators may use the most effective control measures without concern for environmental impacts. There would be no way to regulate the use of poisons for control activities by individual operators. Impacts to wildlife could be adverse for both target and non-target species. A possibility exists for misuse of control measures, especially chemical toxicants some of which are non-selective and increase chances of secondary poisoning. Unmanaged, indiscriminate, or intensified controls toward the entire species could lead to adverse impacts to the local populations and disrupt the ecological balance of the area. Losses of target and non-target species would not be recorded or monitored.

b. Threatened and Endangered Species

Federally listed T/E or candidate species could be vulnerable if the operators did not follow the guidelines currently adhered to by APHIS-ADC personnel.

c. Wild Horses and Burros

Wild horse and burro populations could be disturbed and/or displaced by indiscriminate aerial gunning by private parties during foaling season.

d. Livestock Grazing

If APHIS-ADC activities were discontinued on public lands, livestock losses (especially sheep) would undoubtedly escalate for several years. The USFWS-EIS (1979) estimated that under this alternative the loss of sheep originally increased by 8% and then decreased by 10% of the base line levels at the end of the 8 year evaluation period. As stated earlier in this document, studies conducted by Crabtree indicate that coyote recruitment in unexploited populations is less than half of the recruitment in exploited populations. Since the majority of sheep predation is associated with feeding pups it seems logical to assume that the election of this alternative would reduce coyote recruitment with a subsequent reduction in loss of sheep to predation (Crabtree, personal communication, May 1992).

e. Recreation

Sport harvest would continue at its present rate and would undoubtedly fluctuate at the same rate as the value of furs.

f. Wilderness

Wilderness recreationists would not be disturbed by low-flying APHIS-ADC aircraft hunting predators.

2. Mitigating Measures

BLM would provide monitoring to ensure that appropriate Federal and State policies and regulations are followed with regard to IMP violations, the use of toxicants in WSA's, etc..

3. Unavoidable Impacts

- a. Livestock losses could be expected to occur at rates described in the USFWS-EIS (1979) outlined in section III.B.1.d..
- b. The number of predators killed by livestock operators could be greater than under the proposed action. The total number of predators killed would in all likelihood be less than under the proposed action.

C. Alternative 2 - Emphasis on Non-Lethal Control Methods

1. Anticipated Impacts

In a 1986 survey of approximately 400 producers with guarding dogs, Green and Woodruff (1990) indicated 82% found the use of dogs represented an economic asset, 9% said dogs were a break-even investment, and 9% considered dogs an economic liability. Several breeds of dogs from Europe and Asia have been available for use to livestock producers. The most commonly used breeds are Great Pyrenees, Komondor, Akbash, Anatolians, and Maremmas. The majority of the research and practical experience with guarding dogs has focused on the dogs' ability to reduce predation by coyotes and domestic dogs. Green and Woodruff (1990) reported their survey revealed that 95% of the guarding dogs were aggressive to predators (primarily coyotes) and that coyotes usually avoid a direct encounter with a guarding dog.

One livestock operator in the Winnemucca District indicated he has raised and used guard dogs in his sheep operation for approximately ten years, and currently has approximately 100 animals (Tom Filbin, personal communication, May 1992). He stated he has tried many different types of non-lethal methods to control coyote depredation (propane guns, sirens, lights, radios, etc.) but he has had the most success with guard dogs, even though they are expensive to raise and maintain. He indicated that guard dogs are a big help but they are not fool proof and he still needs APHIS-ADC's assistance. He stated that he knows of at least two other operators in the area that are utilizing guard dogs in their operation.

Mechanical devices are also being tried by other individuals in Nevada. In the Ely area, one operator is using an electronic guard in which sirens and strobe lights are activated intermittently at night. The device is self-contained, portable, and can be placed in a tree or in a pickup truck. It is being used in an open range situation to protect domestic sheep. No losses of sheep to coyotes have been reported in the two months it has been operating. It will also be tried when the sheep are moved to fenced fields near the communities of Jean and Lund in southern Nevada. Nothing has been reported about its effects on the herder.

A propane "exploder" has been used to protect dry ewes wintering on alfalfa stubble near Empire, Nevada, in the Winnemucca District. The device has been used for several years. No losses of ewes to coyotes have been reported. Again, nothing has been reported about its effects on the herder.

In the Carson City District several flocks of sheep are being monitored where the ewes give birth to lambs in sheds and in fenced farm fields. There has been little discernible difference in lamb losses between those areas. The ewes that lamb in sheds are grazed on public lands in bands and the fenced-field ewes are from farm flocks. Lambing sheds would reduce losses from weather and perhaps from predators, but apparently the lack of suitable pre- and post-lambing pasture and other labor problems preclude shed lambing in range sheep operations (Tigner and Larson, 1977).

The use of mechanical devices when depredations are not imminent could be counter-productive by allowing coyotes to become accustomed to the stimuli before they are really needed thereby reducing their effectiveness (Linhart 1984; Linhart, et al 1984; Knowlton 1989; Filbin, personal communication, May 1992).

The proper management of livestock plays an important role in minimizing the risk of depredation by predators. There is not one method of predator control that will be effective for every livestock operator. Those operators that are most successful use an integrated approach, combining good husbandry practices with guard dogs, good herders, mechanical scare devices, and shooting when necessary (Green and Woodruff, 1990).

As a result of the increased restrictions, especially on preventative control techniques, the total number of coyotes taken per year in the Winnemucca District by APHIS-ADC would drop below the five year average of 926 animals. In the USFWS-EIS (1979), the alternative that emphasizes non-lethal control estimates a nearly 50% decrease in the number of coyotes taken and an 8% increase in the number of sheep lost to predation.

The anticipated impacts to wildlife, T/E species, wild horses/burros, recreation, and WSA's would be beneficial by implementation of this alternative. The benefits received would be in the form of reduced opportunities of target and non-target species being trapped and held in traps for up to 168 hours, less opportunities for species and recreationists being disturbed by low-flying aircraft, etc..

The domestic livestock operator would experience an economic hardship to finance one or more of the non-lethal methods. It is suggested that this expense would be minimal compared to the amount of money necessary to fund the APHIS-ADC Program. APHIS-ADC would not provide the Winnemucca Office with cost figures for its program, when requested for comparison purposes.

2. Mitigating Measures

Same as those listed under section III.A.2. of this document.

3. Unavoidable Impacts

The domestic livestock operator would experience an economic hardship to finance one or more of the non-lethal methods.

D. Monitoring

Under the proposed action or Alternative 2 (Emphasis on Non-Lethal Control Methods) APHIS-ADC would be required to provide data on their activities. This information is necessary for documenting the impacts of animal damage control on the public lands, reevaluating the use of specific control techniques, and for deciding on appropriate activities for the coming year. All data identified below in the prescribed format would be submitted to the Winnemucca BLM District Office not later than October 15 each year. This data would be available for public inspection at the Winnemucca Office. The specific data would be provided to BLM on a one year trial basis (FY-93). After that trial, monitoring specifics would continue or be modified as per mutual agreement between BLM and APHIS-ADC.

Required data would include:

1. A map showing the location of all APHIS-ADC predator kills on public and private land at a scale of at least 1:100,000. Symbols or colors on this map shall distinguish between "preventative" and "corrective" coyote kills.
2. A map showing the location and number of all documented livestock losses attributed to predation on public land at a scale of at least 1:100,000.
3. A table showing APHIS-ADC technique (including non-lethal), as it relates to the number of APHIS-ADC predator kills or problems resolved.
4. A table showing the number and species of non-target animals taken by control technique, by cooperator.

IV. Persons, Groups, and Agencies Consulted

In May 1991, a letter was sent to ninety-nine individuals, agencies, and/or organizations indicating the District's intent to develop an EA for APHIS-ADC activities. Of the ninety-nine parties contacted, twelve responded by saying they would be interested in the formal review process. Four additional parties that were not on the original mailing list requested a copy of the EA for review and comment. Only those parties who replied were included in the review process.

U.S. Fish and Wildlife Service, Reno, Nevada
Nevada Cattlemen's Association
Nevada Wool Growers Association
Nevada Farm Bureau Federation
Nevada State Clearinghouse
Natural Resources Defense Council
Commission for the Preservation of Wild Horses and Burros
Wild Horse Organized Assistance
Animal Protection Institute
Nevada Humane Society
Mr. Joe McGloin
Nevada Department of Wildlife, Fallon, Nevada
Wildlife Damage Review
Predator Project
Jerry Grubbs
Donald A. Molde, M.D.

In addition, a copy of this draft document was sent to:

APHIS-ADC, Reno & Fallon, Nevada
Bureau of Indian Affairs, Elko & Carson City, Nevada
BLM, Nevada State Office
U.S. Forest Service, Sparks, Nevada
University of Nevada - Reno
Alliance for Animals
American Mustang Association
American Mustang and Burro Association
National Parks and Conservation Association
Public Resource Associates
Tina Nappe
Marjorie Sill
Western States Public Coalition
Humane Society of the United States
Humboldt County Commissioners

V. Intensity of Public Interest

The coyote, mountain lion, and bobcat appeal to a broad segment of society. Sport hunting, esthetics, and a variety of "ecologic" reasons, have resulted in a cultural endearment of these predators to individuals more geographically and economically remote than those segments actually incurring the effects of depredations. Opponents to animal damage

control believe that the predator losses claimed by sheepmen are exaggerated, control practices pose problems of environmental contamination, predators are public property and have positive social value, and predator management should stem from a basis broader than control alone (Tigner and Larson, 1977).

"The present management dilemmas are a result of conflicting societal values placed on these predators. Although some members of society desire that predator populations be increased for either exploitive or nonconsumptive purposes, others seek population reductions to lessen risks to agricultural enterprises, especially livestock production." (Knowlton, et al, 1977)

VI. Participating Staff

Rodger Bryan, Staff Wildlife Biologist (Author)
Gerald Moritz, Environmental Coordinator
Paul Jancar, Staff Range Conservationist
Ron Hall, Staff Wild Horse and Burro Specialist
Lynn Clemons, Staff Outdoor Recreation Planner/Wilderness
Clarence Covert, Wildlife Biologist
Larry Host, Wildlife Biologist
Bud Cribley, Area Manager
Scott Billing, Area Manager

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APPENDIX 1

APHIS-ADC ANNUAL WORK PLAN

WINNEMUCCA BLM DISTRICT
ANIMAL DAMAGE CONTROL PLAN
OUTLINE

- I. Introduction
- II. Basis for Program
- III. Results of Previous Year's Program
- IV. Responsibilities
- V. Planned ADC Activities
- VI. Coordination with Nevada Department of Wildlife
- VII. Map of Control Area
- VIII. NEPA Compliance
- IX. Endangered Species Act Compliance
- X. Review and Concurrence

ANIMAL DAMAGE CONTROL - ANNUAL WORK PLAN
WINNEMUCCA BLM DISTRICT
1993

I. Introduction

This narrative and the associated map constitute the Animal Damage Control (ADC) program's annual work plan for the public lands in the Winnemucca District of the Bureau of Land Management (BLM) for the period January 1, 1993, to December 31, 1993. This plan specifies where, when, and under what conditions ADC functions will be carried out as mutually agreed by the signatory parties hereto. This plan is supplemental to the national level memorandum of understanding (MOU), dated August 17, 1987, and to the State level MOU dated September 28, 1990, by the same parties. The purpose of this plan is to formally outline the anticipated animal damage control activities that will be conducted during the covered time period by ADC personnel on the public lands administered by the Winnemucca BLM District.

II. Basis for Program

The ADC program is conducted pursuant to the Animal Damage Control Act of 1931, as amended, which authorizes the Secretary of Agriculture to conduct predator control activities on national forests and other areas of the public and private domain. The program's mission is to protect America's agricultural, industrial, and natural resources and to safeguard public health and safety. Within the U.S. Department of Agriculture, the ADC program is administered by the Animal and Plant Health Inspection Service. To implement an animal damage management program on BLM lands, ADC and the BLM cooperate to develop an annual work plan for completion of the ADC mission.

Predators and rodents are integral components of natural ecosystems and as such are valued resources. The natural behavior of these species however, frequently produces financial losses to the livestock industry and damages to other natural resources. Because of these losses and conflicts, effective animal damage management efforts are necessary. ADC program activities are directed at damage causing individuals or localized populations where historical or ongoing predator losses have been verified or are likely to occur. The overall objective of the ADC program's planned activities is to protect agricultural resources and human interests while minimizing the direct and indirect impacts to wildlife and the environment.

During FY-92, (October 1, 1991 through September 30, 1992) the Fallon and Elko ADC offices received 37 requests for assistance on BLM lands in the Winnemucca District (Coyote 24, Lion 9, Bobcat 4,). Losses recorded on BLM lands in the Winnemucca District and reported to ADC were as follows: (Coyote) 27 lambs, 21 ewes. (Bobcat) 10 ewes. (Mt. Lion) 16 ewes and 31 lambs. Total reported losses by all predators were 105 animals.

The estimated value of losses were: ewes \$3,675, and lambs \$4,495. The total estimated value for reported losses was \$8,170. Studies have shown that without the current level of control the expected losses would have been several times higher.

In responding to requests for assistance, there were 328 coyotes taken by aerial hunting, and 186 coyotes, 1 bobcat, and 1 lion taken by ground methods on BLM lands in the Winnemucca District. The Fallon and Elko ADC District offices received no requests for assistance in Wilderness Study Areas (WSA). M-44's were not utilized during FY-92 therefore no animals were removed by this method. Two nontarget kit foxes were trapped and released during FY-92. Nontarget animals that are inadvertently captured are always released on site unless they are determined to have suffered mortal injuries. Incidental take of nontarget animals in recent years has been minimal and is not expected to increase.

Sustained control operations have been occurring on the planned control areas for the last 20+ years. ADC records and the 1992 Nevada Upland Game, Furbearer, Mountain Lion, and Migratory Game Birds; Status and Hunting Season Recommendations indicate that statewide coyote populations are increasing. Statewide mountain lion populations are in good condition meaning they are high and stable with ranges expanding throughout the State. NDOW's recent breeding bird surveys indicate raven numbers have increased substantially in northwestern Nevada.

The following is a comparison of the ADC and sport hunter harvest of furbearers taken in NDOW Region I in the 1991-92 season. The NDOW Region I is comprised of the following counties: Washoe, Humboldt, Pershing, Churchill, Mineral, Lyon, Douglas, Carson City, and Storey; and the following management units: 1, 2, 3, 4, 5, 18, 19, 20, 29. These counties and units cover most, or all, of the Winnemucca BLM District, and some areas outside. In NDOW Region I, sport hunters harvested 1,516 coyotes, 25 mountain lions, and 1,149 bobcats. In comparison, ADC take, in FY-92, in Region I was 1,893 coyotes, 8 mountain lions, 1 bear, and 1 bobcat.

The above discussion of losses, harvest statistics, stable to increasing predator population levels, and lack of impact on nontarget species, establishes the need and basis for the continuing animal damage management program on the Winnemucca BLM District.

III. Results of Previous Year's Program

- A. Animals taken by ADC on BLM lands in the Winnemucca BLM District: Coyotes - trapped 52; called and shot 47; snared 22; shot 35; denned 27; dogs 3; aerial 328. Lions - dogs 1. Kit fox - 2 trapped and released. Bobcat -1 trapped.
- B. Animals taken by sport and fur harvest in NDOW Region I. Mt. lion 25; coyotes 1,516; bobcats 1,149; gray fox 137; kit fox 279.
- C. Population trends by species. NDOW estimates population trends through sport and fur harvest. ADC estimates population trends through predation and predatory animal take. Both estimates show that coyote and mountain lion populations are stable or increasing in number.
- D. Monitoring. Monitoring efforts include initial and continuing assessments of resource losses to determine the species responsible for depredations and the need for control efforts to begin or continue. These assessments include consideration of depredation patterns observed in previous years to identify areas where losses can be expected to recur. The evaluations are used to determine the need to initiate or continue both preventative and corrective control efforts.

The relative impact of ADC operations in previous seasons to both target and nontarget species has been determined to be minimal. Records are collected to document all animals taken as a result of ADC operations. This data provides the basis for the program's annual report of accomplishments and a means of evaluating the relative impact of ADC actions to sport and other harvest. ADC and NDOW meet annually to discuss management issues of mutual concern including the impacts of depredation control to both target and nontarget species. This coordination effort provides an annual reassessment to assure that depredation take, in conjunction with sport and other harvest, does not significantly impact the affected species.

The ADC harvest of coyotes and mountain lions increased slightly in 1992. This increased harvest was not a significant departure from the previous year's harvest. The sport and fur harvest of coyotes and mountain lions increased dramatically between 1991 and 1992. Population estimates indicate both species are increasing, therefore the relative impacts continued to be minimal for both species.

ADC actions were negligible in relation to all other affected species.

IV. Responsibilities

The responsibilities of the BLM are the same as given in Article 7 of the Nevada MOU dated September 28, 1990. ADC responsibilities are the same as those given in Article 6 of the above MOU.

V. Planned ADC Activities

A. Livestock Protection

1. Sheep Protection

SEASONS OF CONTROL - Control emphasis will be placed on the time period immediately proceeding and during actual livestock use. ADC work on lambing, summer, and winter ranges will occur just prior to and during periods of livestock use.

TYPES OF CONTROL - Leghold traps, aerial hunting, shooting, denning, snares, and trained dogs will be used as appropriate. Emphasis will be on coyote damage control but bobcat and lion control will also be accomplished when these species are found to be responsible for losses.

M-44's, a mechanical delivery system for the pesticide sodium cyanide, have not been used for several years in the Winnemucca BLM District. Future usage is not anticipated but M-44's remain a very effective coyote control method. Under the existing Nevada ADC/BLM MOU and BLM Manual 6830, M-44's would be used only if authorized by the BLM District Manager or State Director, and the BLM Washington Office.

Eggs treated with the chemical DRC 1339 (Starlicide) may be needed to control raven depredations. ADC will complete the requisite Pesticide Use Proposal (per BLM Manual Section

9011) which will then be submitted by BLM to WO-230 for approval prior to pesticide application. Advance notification will be given to the district manager prior to pesticide application. Use of pesticides will be restricted primarily to spring lambing and calving ranges. No pesticides are proposed for use in Wilderness Study Areas or designated Wilderness Areas.

2. Cattle Protection

SEASONS OF CONTROL - Any time of year that losses occur. Losses are normally confined to the seasons when small calves are present.

TYPES OF CONTROL - Aerial hunting will be the primary control method used but steel traps and trained dogs may be employed as appropriate.

B. Special Considerations

1. All control programs will be conducted within new and existing Animal Damage Control policies, BLM Manual 6830 (8/88), Nevada State ADC-BLM MOU and all applicable State and Federal laws.
2. All ADC control activities within WSA's will meet the following stipulations:
 - a. Prior authorization will be sought from the BLM District Manager before any control action is implemented. In the case of confirmed losses to mountain lions which occur outside normal duty hours, control efforts may proceed with notification to occur as soon as practicable but no later than the following working day. Case by case authorizations will be sought to insure that all appropriate precautions are exercised to preserve the state of wilderness which exists in these sensitive areas.
 - b. District-wide WSA maps will only be used for general reference. Maps with a scale of at least one half inch to the mile will be used in the field during ADC activities to determine WSA boundaries.
 - c. All control operations to be conducted in WSA's will be in compliance with "The Interim Management Guidelines for Lands Under Wilderness Review." These guidelines read

in part: "Animal Damage Control activities directed at individual offending animals. . . may be permitted, so long as this will not jeopardize the continued presence of any species in the area."

The primary (selective) method of removing offending animals will be with firearms either from the ground or air. Other control methods may be proposed on a case-by-case basis as appropriate. Offending animals will normally be taken within two weeks of the depredation episode. Any extension beyond two weeks will be justified by ADC and approved by the District Manager.

- d. Control actions and losses within WSA's will be documented to provide a complete record for the WSA managers.
3. It is understood that all proposed control activities within BLM administered WSA's require prior approval by the BLM State Director and will meet other stipulations specified in the BLM Manual 6830 on Animal Damage Control (8/4/88) Section 4C.

VI. Coordination with Nevada Department of Wildlife

- A. Consultation has determined that continuation of ADC control activities and sport harvest, as outlined in this plan, will not adversely affect target or nontarget species in the control areas.
- B. The NDOW has no current requests pending for ADC to control predators or rodents on public lands in the district to benefit other wildlife species, such as bighorn sheep or pronghorn antelope, that have been reintroduced to historic ranges. This type of request if received would be handled according to stipulations listed elsewhere in this plan.
- C. ADC and NDOW meet annually on a statewide basis to discuss mutual interests, coordinate responsibilities and activities, review control and management accomplishments, and to resolve potential conflicts.

VII. Map of Control Areas

Color coding is as follows:

RED or Vertical and Horizontal Lines - Human safety zones. Areas where control is prohibited except in case of emergency. These are areas around streams, developed campgrounds and along major highways.

GREEN or Vertical Lines - Planned control areas. These areas include buffer zones in close proximity to livestock ranges where control measures may be necessary to effectively limit depredations on the livestock ranges. The buffer zones normally will not exceed five miles.

BLUE or Horizontal Lines - Designated Wilderness Areas and Wilderness Study Areas. Operations in these areas will follow the stipulations associated with wilderness and wilderness study areas found elsewhere in this plan.

UNCOLORED or No Lines - Coordinated control zones. Areas where no control is scheduled. In cases where local damage problems may arise that jeopardize human health, safety or property, immediate action may be taken by ADC to eliminate or curtail the problem upon receipt of a request for assistance. The request for such action will be coordinated between the BLM and ADC as soon as practicable, even though immediate steps may have been initiated. Follow up reports of requests received, action taken, and results realized will be provided. The district recreation map used with this plan has a yellow background color but for this plan the yellow represents the uncolored portion.

VIII. NEPA Compliance

The mammalian control actions contemplated in this plan are equivalent to those evaluated in the Mammalian Predator Damage for Livestock Protection in the Western United States, Final Environmental Impact Statement (USDI 1979). A further evaluation of the impacts of this control program is described in the 1990 Draft EIS for the ADC program.

IX. Endangered Species Act Compliance

ADC completed an informal review, on June 12, 1992, on the proposed action with the Reno Field Station of the U.S. Fish and Wildlife Service regarding possible impacts to listed threatened or endangered plant and animal species. This consultation concluded the proposed action is not likely to adversely affect the continued existence of any listed or candidate threatened or endangered species.

ADC also completed a national Section 7 consultation with

the U.S. Fish and Wildlife Service, on July 28, 1992. The resulting Biological Opinion include no findings of jeopardy for any listed species occurring in the Winnamucca District.

X. Review and Concurrence

This is the Annual Work Plan covering the anticipated Animal Damage Control program activities for 1993 on the Federal lands administered by the Winnemucca District of the Bureau of Land Management.

This plan is based on past and anticipated requests for ADC services by grazing permittees, NDOW, BLM, and other agencies and individuals. It is mutually agreed that all ADC activities will be conducted as contemplated in this plan or as further stipulated and approved on a case by case basis.

An annual meeting will be held by the participating parties in October or November to review the ADC plan for the next calendar year.

This plan in combination with the EA/ROD authorizes ADC activities on BLM lands administered by the Winnemucca District subject to the constraints specified herein, and the requirements of all pertinent Federal and State laws, Executive Orders, and regulations. It is mutually agreed that all ADC activities will be carried out according to this plan.

Submitted by:

Stephen E Davis 02/01/93
Fallon District Supervisor, ADC Date

Reviewed by:

Ruled T. Hoop 2/8/93
Supervisor Region I, NDOW Date

Reviewed by:

Robert J. Neary Acting 1-27-93
Winnemucca District Manager, BLM Date

APPENDIX 2

LIST OF TARGET AND NON-TARGET SPECIES TAKEN
1985-86 THRU 1989-90

1
 TARGET AND NON-TARGET ANIMALS TAKEN 1985-86 THROUGH 1989-90

COOPERATOR	1985-86		1986-87		1987-88		1988-89		1989-90	
	TARGET	NON-TARGET	TARGET	NON-TARGET	TARGET	NON-TARGET	TARGET	NON-TARGET	TARGET	NON-TARGET
A	5		24		3		24		21	
B	27						2-RAVENS			
C	24		15		29		111		77	
D	123									
E	57		26		24		43		12	
F	29				25		15		23	
G	227		317		163	1-KIT FOX	420		268	
H	95		108			12-RAVENS	9-RAVENS			
I	22		9		37		46			
J	234	4-FOX 2-BOBCAT 18-BADGER 8-JACKRABBIT	214	3-FOX 1-BADGER 2-FOX	239		133		82	1-LION
K	4		15		6		7		25	3-RAVENS
L	60		12							
M	6		5							
N	54									
O	16		13		3		19		39	
P	57	4-BADGER	49		25	1-BOBCAT	170		64	
Q	29		101	1-BOBCAT (T&R) ²	22		3-LION		3-LION	
R	7		11		3		74		25	
S	12						12		26	
T			1							
U			15				3		4	
V			1							
W			8							
X			2		7		55		23	
Y			131		17	4-RAVENS	15-RAVENS		24	
Z			264-RAVENS				37			
AA						1-LION				
BB					12					
CC									12	
DD									20	
EE									13	
FF							3		5	
GG									17	
HH									16	
II							40		17	
JJ							16		10	
KK							16		4	
LL							4		4	
MM									12	
NN							12		3	
OO			5		5		1		1	
PP							6		9	
QQ					7					
RR							1		2-LION	
SS							5		9	
TT							18			
UU							4			
VV							3			
XX							1			
							4			
TOTAL	1,088	4-FOX 2-BOBCAT 22-BADGER 8-JACKRABBIT	1,082	1-BOBCAT(T&R) 264-RAVENS 3-FOX 1-BADGER	658	1-KIT FOX 1-BOBCAT 1-LION	1,303	26-RAVENS 3-LIONS	1,016	3-RAVENS 6-LIONS

¹
² Target species, unless otherwise noted, refers to coyotes.
 Trapped and Released.

APPENDIX 3

LEGAL LOCATION OF RAPTOR NEST SITES
IN WINNEMUCCA DISTRICT

RAPTOR NEST LEGAL DISCRIPTIONS

T(N), R(E), S	Species
35,39,08	Goshawk
31,33,36	Goshawk
34,39,21	Cooper's Hawk
40,31,25	Cooper's Hawk
39,31,12	Cooper's Hawk
30,34,11	Cooper's Hawk
30,34,30	Cooper's Hawk
30,34,30	Cooper's Hawk
30,34,33	Cooper's Hawk
34,39,10	Cooper's Hawk
34,39,06	Cooper's Hawk
35,39,10	Prairie Falcon
35,40,22	Prairie Falcon
39,25,24	Prairie Falcon
41,32,31	Prairie Falcon
28,30,17	Prairie Falcon
32,39,13	Golden Eagle
34,39,03	Golden Eagle
35,39,10	Golden Eagle
39,37,12	Golden Eagle
40,25,33	Golden Eagle
28,30,17	Golden Eagle
28,30,25	Golden Eagle
29,34,10	Golden Eagle
32,37,09	Golden Eagle

APPENDIX 4

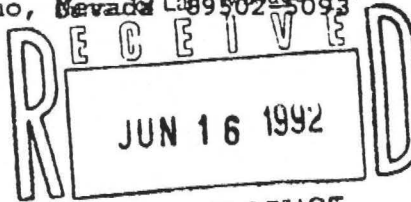
U.S. FISH AND WILDLIFE SERVICE SECTION 7 CONSULTATION



United States Department of the Interior



FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
RENO FIELD OFFICE
4600 Kietzke Lane, Building C-125
Reno, Nevada 89502-5093



DISTRICT OFFICE
WINNEMUCCA, NEVADA

June 12, 1992
File No. 1-5-92-I-239

Gary Simmons, State Director
Animal Damage Control
Department of Agriculture
4600 Kietzke Lane, Bldg. O-260
Reno, Nevada 89502

Dear Mr. Simmons:

Subject: Informal Consultation on Annual Work Plan For Animal Damage Control on Bureau of Land Management Districts in Nevada

We received your June 1, 1992, request for review and concurrence with a "not likely to adversely affect" determination for the proposed annual work plan for fiscal year 1992 on the six Bureau of Land Management Districts (Bureau) in Nevada. Your request for our review was submitted pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act), and was received on June 1, 1992. The federally listed endangered bald eagle (Haliaeetus leucocephalus) occurs within the proposed action areas and to the best of our knowledge, is the only listed species that could be affected by activities identified in the annual work plan. This consultation has been assigned File Number 1-5-92-I-239. Please refer to this number in any future correspondence on this project.

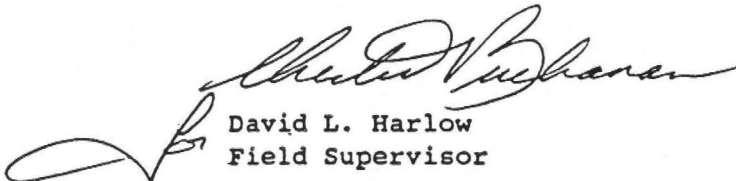
Animal Damage Control (ADC) has proposed an annual work plan for the six Bureau districts. Each district is divided into zones of different ADC activity ranging from zones with no activity except in emergency situations, to planned control zones. The primary purpose of the control activities is to respond to reports of sheep and cow depredation by wildlife. The primary target species is the coyote (Canis latrans), though other species are controlled by ADC. Nontarget species killed by ADC on Bureau lands in 1991 included kit foxes (Vulpes macrotis), badgers (Taxidea taxus), and bobcats (Lynx rufus) caught in leghold traps or snares. Several nontarget species were also caught and released. Control of predators throughout the districts will be by aerial gunnery, call and shoot, leghold trapping, and denning. Use of M-44 is currently anticipated only in the Ely and Elko Districts. M-44 was used last year in the Ely District and killed six coyotes. Use of M-44 will be in accordance with Environmental Protection Agency regulations and Animal and Plant Health Inspection Service policy. ADC inspects M-44 canisters once per week. Because ADC has an exemption from Nevada State Law, leghold traps will only be checked once per week, instead of at least every 4 days. Primary control effects will occur in the early spring and summer when lambs and calves are present.

Bald eagle wintering areas and possible nesting sites are within some of the primary control zones. However, placement of bait at least 30 feet away from a leghold trap, in accordance with ADC Federal Policy and Nevada State Law, should reduce the likelihood of injury or death to bald eagles. Due to generally sparse wintering eagle populations, no documentation of any nesting in the State of Nevada since 1866, and identified procedure to minimize the likelihood of injury or death to bald eagles, the Fish and Wildlife Service (Service) concurs with ADC's determination that the proposed fiscal year 1992 annual work plan activities are not likely to adversely affect any listed species. Formal consultation is therefore not required. Should a bald eagle be injured or killed by ADC activities, however, those activities near bald eagle sites should immediately cease, and ADC should immediately enter into formal section 7 consultation with the Service.

This response constitutes informal consultation under regulations promulgated in 50 CFR Part 402, which establish procedures governing interagency consultation under section 7 of the Act. If the proposed project is changed, or if new biological information becomes available concerning listed or candidate species which may be affected by this project, your agency should reinitiate consultation.

Should you have any questions or comments on this informal consultation, please contact Mark Maley or Randy McNatt at (702) 784-5227.

Sincerely,



David L. Harlow
Field Supervisor

cc:

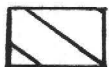
State Director, Bureau of Land Management, Reno, Nevada
District Managers, Bureau of Land Management: Las Vegas, Elko, Battle Mountain, Carson City, Ely and Winnemucca, Nevada
State Director, Nevada Department of Wildlife, Reno, Nevada
Assistant Regional Director, Fish and Wildlife Enhancement, Fish and Wildlife Service, Portland, Oregon (AFWE-EHC) Attn: Richard Hill

MAP 1

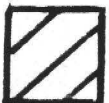
APHIS-ADC CONTROL AREAS

HUMAN SAFETY ZONES

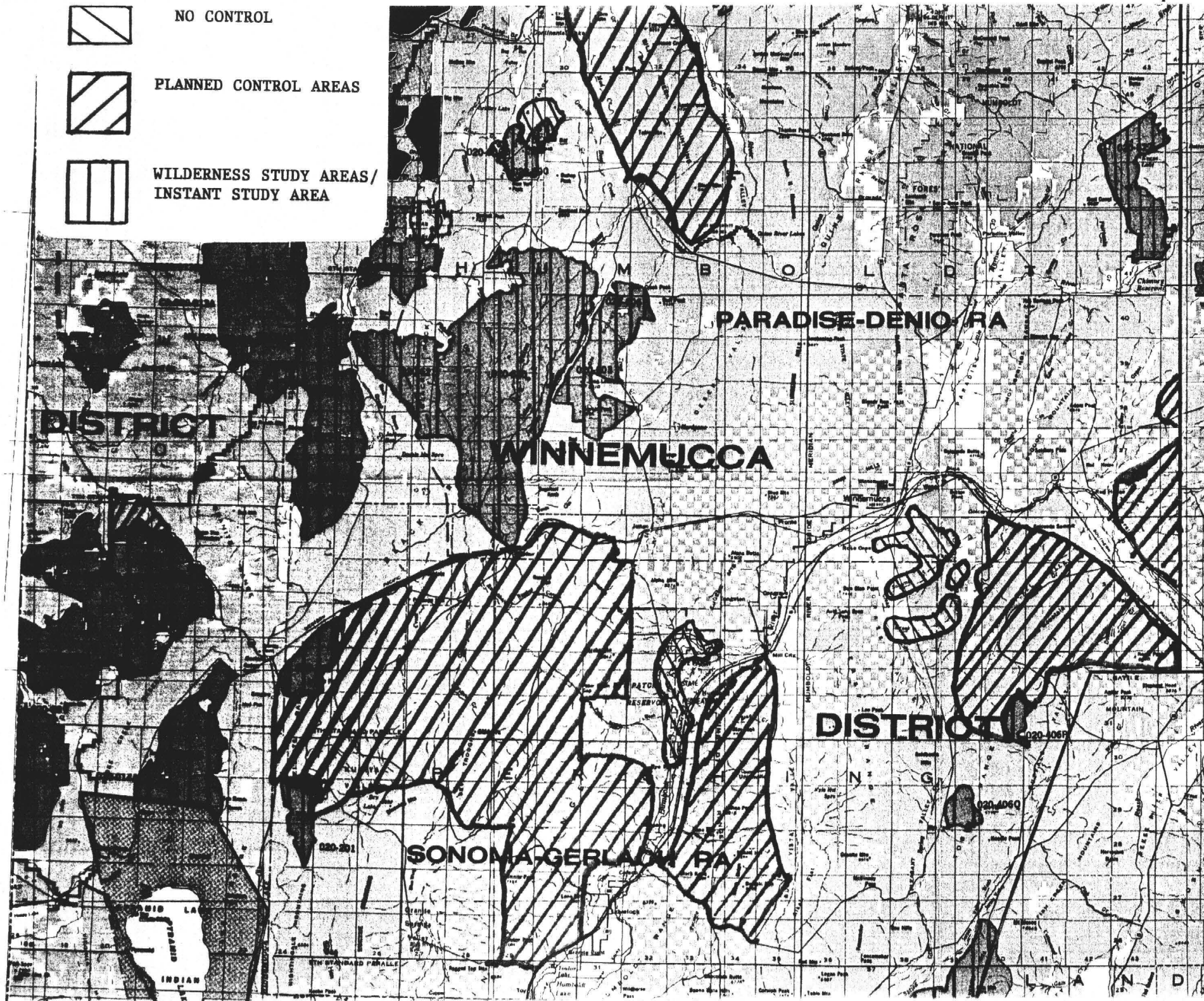
NO CONTROL



PLANNED CONTROL AREAS



WILDERNESS STUDY AREAS/
INSTANT STUDY AREA



KEY TO WILDERNESS STUDY AREAS AND INSTANT STUDY AREA MAP

NV-020-006A/CA-020-914	East Fork High Rock Canyon
NV-020-007	High Rock Lake
NV-020-008/CA-020-913	Little High Rock Canyon
NV-020-012/CA-020-618/621	Poodle Mountain
NV-020-014	Fox Range
NV-020-014A	Pole Creek
NV-020-019	Calico Mountains
NV-020-200	Selenite Mountains
NV-020-201	Mt. Limbo
NV-020-406P	China Mountain
NV-020-406Q	Tobin Range
NV-020-600	Blue Lakes
NV-020-600D	Alder Creek
NV-020-603	South Jackson Mountains
NV-020-606	North Jackson Mountains
NV-020-620	Black Rock Desert
NV-020-621	Pahute Peak
NV-020-622	North Black Rock Range
NV-020-642	Pueblo Mountains
NV-020-827	North Fork of the Little Humboldt River
NV-020-859	Disaster Peak
Instant Study Area	Lahontan Cutthroat Trout Natural Area

MAP 2

WILD HORSE AND BURRO USE AREAS

WILD HORSE AND BURRO

USE AREAS

EDARVILLE RA

USANVILLE

DISTRICT

WINNEMUCCA

PARADISE-DENIO RA

DISTRICT

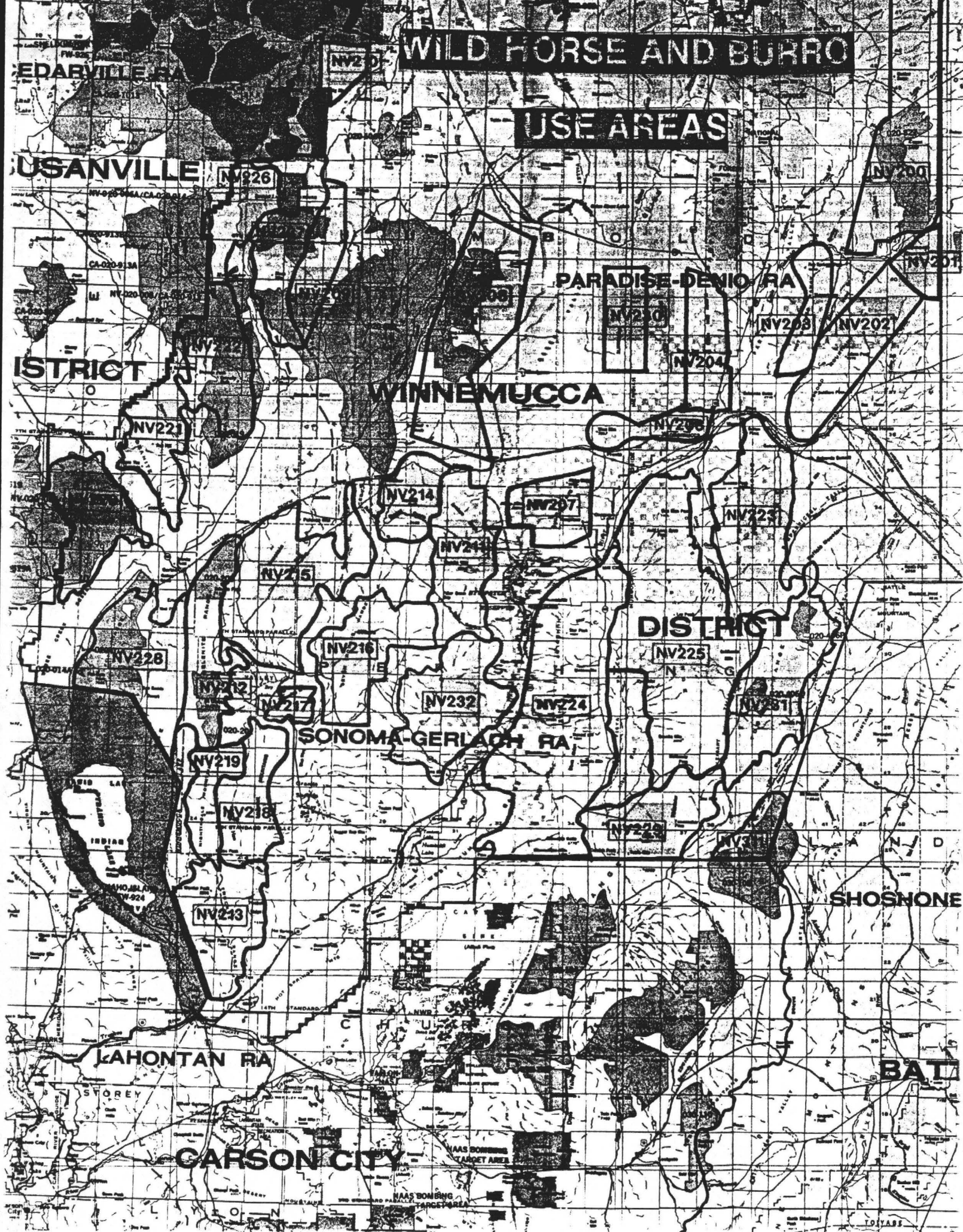
SONOMA-GERLACH RA

SHOSHONE

LAHONTAN RA

CARSON CITY

BAT



KEY TO WILD HORSE AND BURRO USE AREAS MAP

Herd Use Areas With a Current Population of Wild Horses and/or Burros

NV200	Little Owyhee
NV201	Snowstorm Mountains
NV208	Jackson Mountains
NV209	Black Rock Range East
NV210	McGee Mountain
NV211	Antelope Range
NV212	Selenite Range
NV214	Kamma Mountains
NV215	Lava Beds
NV216	Seven Troughs Range
NV217	Blue Wing Mountains
NV218	Shawave Mountains
NV219	Nightingale Mountains
NV220	Buffalo Hills
NV221	Granite Range
NV222	Calico Mountains
NV224	Humboldt
NV226	Warm Springs Canyon
NV227	Black Rock Range West
NV228	Fox and Lake Range
NV229	Stillwater Range
NV231	Tobin Range
NV232	Trinity Range
NV311	Augusta Mountains

Herd Use Areas Currently Horse and Burro Free

NV202	Osgood Mountains
NV203	Hot Springs Range
NV204	Bloody Run Mountains
NV206	Krum Hills
NV207	Eugene Mountains
NV213	Truckee Range
NV223	Sonoma Range
NV225	East Range
NV230	Slumbering Hills