

5/13/93



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
ELKO DISTRICT OFFICE
3900 E. IDAHO STREET
P.O. BOX 831
ELKO, NEVADA 89801

IN REPLY REFER TO:

1600 (NV-013)

MAY 13 1993

Dear Interested Party:

The Elko District of the Bureau of Land Management is proposing to amend the Wells Resource Management Plan (RMP) to provide direction for the future management of elk on Public lands in the Wells Resource Area. This RMP was approved in July 1985 and outlined management of elk in the Pilot Peak and Jarbidge Mountain areas. Since that document was prepared, elk have been "pioneering" in geographic locations outside these two management areas.

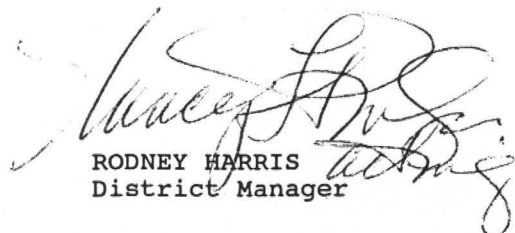
A need to address the management of elk throughout the resource area has been proposed. Currently the issue of this amendment has been identified as: Where and at what levels should elk be managed in the Wells Resource Area? Management determinations to be made in this amendment include: 1) delineate elk herd management units; 2) identify elk habitat objectives; and 3) establish elk management direction for: a) population targets, b) monitoring objectives, and c) constraints on other resource uses. A map of the area of concern and a preliminary scoping document are enclosed for your use.

We need your help and input in further defining the issue, if necessary; determining the range of alternatives; establishing planning criteria for the development of this amendment; and any other concerns or interests you may have for us to consider during the preparation of this amendment. A public scoping period has been established to obtain public input. You are invited to provide written comments to the Elko District Manager, attention Wells Resource Area Manager, at the address above until June 30, 1993.

In addition, two public meetings have been scheduled: June 1, 1993, at the Weston Plaza Hotel and Convention Center, 1350 Blue Lakes Blvd. N., Twin Falls, Idaho, (208) 733-0650 and June 2, 1993, at the Wells High School, 1156 Lake Avenue, Wells, Nevada. Both meetings will start at 7 p.m. local time.

If you have any questions regarding this proposed amendment, please call Bill Baker, Wells Resource Area Manager at (702) 753-0200.

Sincerely yours,


RODNEY HARRIS
District Manager

Enclosures: As stated above

WELLS RMP
ELK AMENDMENT
PRELIMINARY SCOPING DOCUMENT

ISSUE:

Where and at what level will elk be managed on public lands in the Wells Resource Area.

OBJECTIVES:

To manage public lands in the Wells Resource Area on a sustained yield basis to support elk populations at a level consistent with other resource needs, while minimizing impacts to adjacent developed (fenced, irrigated, intensively managed or otherwise improved) private land resources.

PRELIMINARY PLANNING CRITERIA:

Planning criteria are formulated to guide the development of a resource plan or an amendment to the resource plan. Planning criteria are derived from laws, Executive Orders, regulations, planning principles, BLM national and state guidance, consultation with interest groups and the general public, and available resource information of the area. Planning criteria help to: 1) set standards for data collection; 2) establish alternatives to be analyzed; and 3) select the preferred alternative.

The preliminary planning criteria are:

1. The planning area is defined as the Wells Resource Area.
2. The Wells RMP amendment will make elk planning determinations for all public lands located within the planning area boundary including those public lands administered by other federal agencies.
3. Decisions proposed through this amendment will be in conformance with the decisions in the 1985 Wells RMP Record of Decision.
4. BLM Manual 1622, Supplemental Program Guidance For Renewable Resources, will be utilized to identify the determinations to be made.
5. Existing studies, the most current available inventories, current publications, and professional judgement will be used to determine potential impacts and to make sound management decisions.
6. Decisions about specific elk habitat improvement projects will be made in subsequent activity-level plans or through multiple use decisions designed to implement this amendment.
7. Population targets will be set at a level consistent with other resource values.
8. Future adjustments will be based on monitoring.

ALTERNATIVES:

NO ACTION:

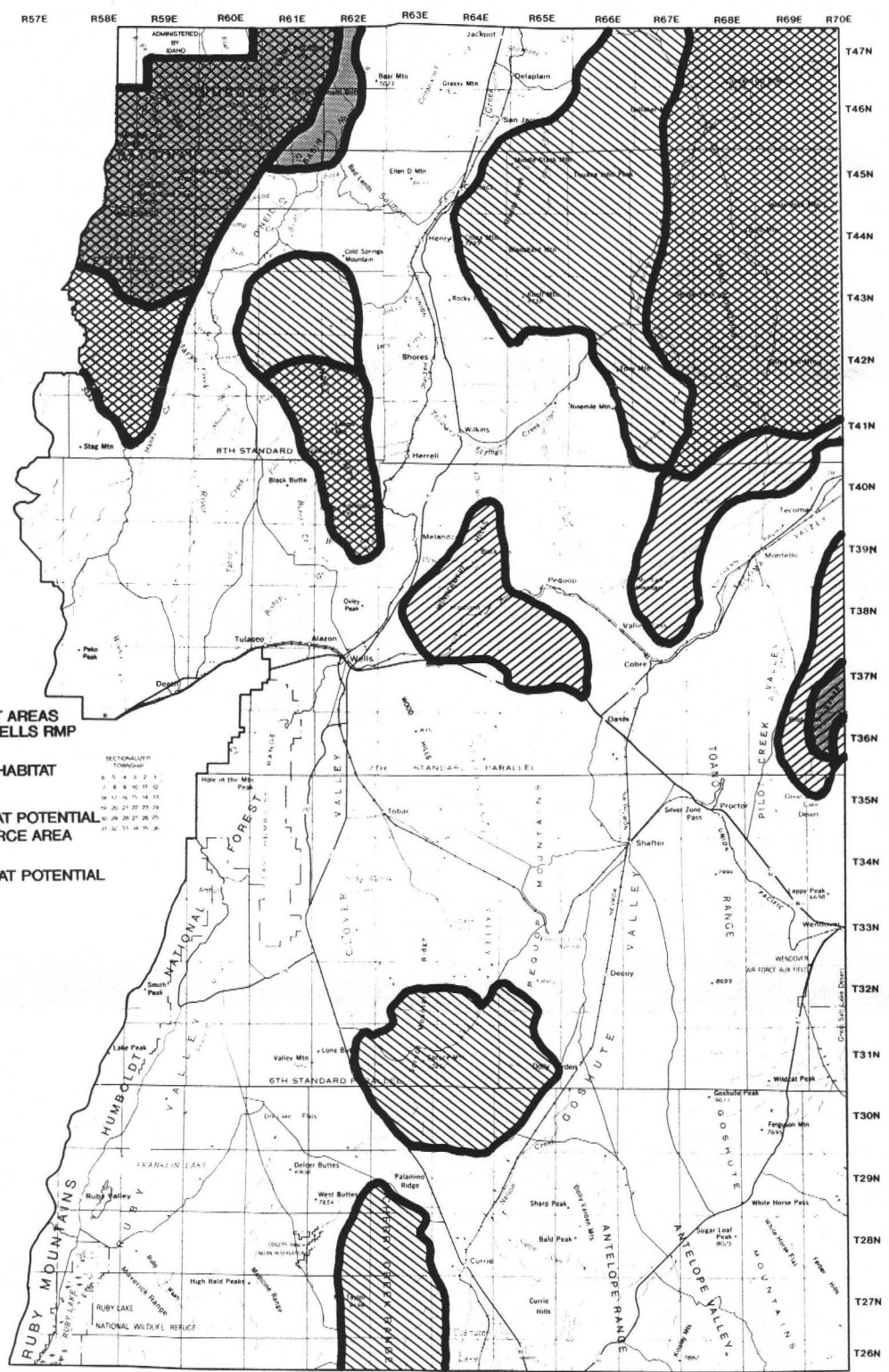
Under the No Action Alternative, the management of elk will continue under the existing short and long-term management actions (management determinations) within those management units currently identified in the Approved Wells RMP (Pilot Mountain (290) and Jarbidge Mountains (110)) (totally 400 head with 1952 AUMs).

MID-RANGE:





Looking for reasonable management level alternatives to have for comparative analysis to the No Action and Resource Production Alternatives.

RESOURCE PRODUCTION:

Under the Resource Production Alternative, the management of elk will be designed to emphasize the management of elk. This alternative would maximize elk populations to a level of approximately 12,868, utilizing density criteria.



**WELLS RMP
ELK AMENDMENT**

-  EXISTING MANAGEMENT AREAS AS IDENTIFIED IN THE WELLS RMP
-  PRESENTLY OCCUPIED HABITAT
-  LOW-MODERATE HABITAT POTENTIAL REMAINDER OF RESOURCE AREA
-  MODERATE-HIGH HABITAT POTENTIAL

SECTIONAL CORNER TOWNSHIP

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF HEARINGS AND APPEALS

Interior Board of Land Appeals
4015 Wilson Boulevard
Arlington, Virginia 22203



May 13, 1993

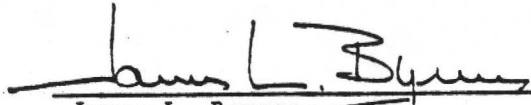
Appeal of

WILD HORSE ORGANIZED ASSISTANCE

NV N6-93-05
Wild Horses & Burros

The above appeal has been received and docketed under the number IBLA 93-358. Please refer to this docket number in any communication, pleading, or other document relating to this appeal.

Thank you.



James L. Byrnes
Chief Administrative Judge



NEWS Release

BUREAU OF LAND MANAGEMENT

850 Harvard Way, Reno, Nevada 89520

Release Number: 93-31
For Release: 5/14/93

Contact: Maxine Shane
Phone: (702) 785-6586

ELK MANAGEMENT STRATEGY NEEDED IN NORTHEAST NEVADA

An amendment to the Wells Resource Management Plan (RMP) to determine where and at what level elk should be managed on public lands will be prepared by the Bureau of Land Management's (BLM) Elko District, Wells Resource Area Office. The public is being invited to participate in the environmental process through public meetings and written comments.

Two public meetings are planned, both beginning at 7 p.m., local time. On June 1, a meeting will be held at the Weston Plaza Hotel and Convention Center, 1350 Blue Lakes Blvd. N. in Twin Falls, Idaho. The June 2 meeting in Wells, Nev., will be at the Wells High School, 1156 Lake Avenue.

The Wells Resource Area is comprised of more than four million acres of public land in northeastern Nevada. Within the area the BLM would like to delineate elk herd management units, identify elk habitat objectives and establish elk management direction for population targets, monitoring objectives and constraints on other resource uses.

- MORE -

ELK MANAGEMENT STRATEGY NEEDED IN NORTHEAST NEVADA - 22222

BLM Nevada State Director Bill Templeton says the Wells RMP which was approved in 1985 set elk management objectives only for the Pilot and Jarbidge Mountain management areas. Since that document was prepared, elk have been pioneering in geographic locations outside the two management areas.

The BLM will prepare an amendment, and environmental assessment, to the existing Wells RMP. Suggestion for identification of planning issues, review of preliminary planning criteria and formulation of alternatives for the amendment may be made at the two public meetings or in writing. Written comments should be postmarked no later than June 30.

To submit comments or to be placed on a mailing list for this environmental process, write the Elko District Manager (Attention: Bill Baker, Wells Resource Area Manager), BLM, P.O. Box 831, Elko, Nevada 89801 or call 702 753-0200.



NEWS Release

BUREAU OF LAND MANAGEMENT

850 Harvard Way, Reno, Nevada 89520

Release Number: 93-32
For Release: 5/14/93

Contact: Maxine Shane
Phone: (702) 785-6586

OIL AND GAS SALE HELD BY BLM

The Bureau of Land Management (BLM) held a quarterly competitive oil and gas lease sale on May 11 in Reno. Fifty-three of the 261 parcels offered for lease received bids.

The sale brought in \$697,833 in bonus bids, plus \$117,081 in advance rental fees to cover the first year of the leases. The State of Nevada will share in those receipts. The BLM collected another \$3,975 in administrative fees from the companies and individuals participating in the auction.

While many bonus bids were as low as the minimum \$2 bid per acre, the highest bid was for \$500 per acre on a parcel in Nye County. Equitable Resource Energy Co. of Billings, Mont., was the successful bidder, paying a total bonus of \$280,000 for the 560-acre parcel.

Next highest bidder was the Apache Corp. of Denver, Colo., which bid \$110 per acre for a 200-acre parcel also located in Nye County.

On May 12, the remaining 208 parcels were offered by the BLM for noncompetitive filing. Twenty-six successful applicants will receive leases on some of the remaining parcels, bringing in rental payments in the amount of \$70,302 for the first year.

- MORE -

OIL AND GAS SALE HELD BY BLM - 22222

Initially the Nevada BLM offered about 477,306 acres for lease. A total of 78,045 were leased as a result of the competitive sale. Another 47,504 were leased in the May 12 noncompetitive lease offer. Remaining parcels will be available for noncompetitive lease for a two year period; interested persons should visit the BLM's Reno office.

A complete list of the results of the competitive oil and gas lease sale may be purchased through the BLM's Nevada State Office, P.O. Box 12000, 850 Harvard Way, Reno, NV 89520. Listings of the parcels offered at the next sale will be posted June 25 and are also available through that office.

7/21/93



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Washington, D.C. 20240

PP-NV-WHA-93-02
1617.2 (760)

JUL 21 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Dawn Y. Lappin
Director, Wild Horses
Organized Assistance, Inc.
P.O. Box 555
Reno, Nevada 89504

Dear Ms. Lappin:

This letter constitutes the Bureau of Land Management's (BLM) decision concerning your protest of November 20, 1992, on behalf of the Wild Horses Organized Assistance, Inc. (WHOA). We have carefully reviewed and considered the issues you raised regarding the proposed Wells Resource Management Plan (RMP) Wild Horse Amendment. The purpose of this letter is to inform you of the results of that review and our decision on your protest.

ISSUE: Initial wild horse management numbers were set without considering the interaction of those horse numbers with wildlife and livestock.

RESPONSE: Other concerns such as livestock were considered in the proposed RMP Amendment. The 10 percent forage utilization limit on winter use areas prior to livestock turnout was developed in recognition of the combined impact of livestock and wild horse grazing. Utilization greater than 10 percent has led to overuse at the end of the grazing season (see Table 7 and discussion on page 14).

ISSUE: There was no evaluation of the alternatives of different combinations of numbers through the environmental assessment process.

RESPONSE: An analysis of different combinations of grazing animals in the Wells Resource Area was previously addressed in Chapter 2 of the original Draft Wells RMP completed in May 1983. The Wells RMP Record of Decision (ROD) was completed in July 1985. Consequently, another analysis of this issue is not warranted. In addition, this issue was not raised during the scoping period prior to preparation of the proposed RMP Amendment. However, the relative levels of livestock and wild horse use on each herd area may be reviewed in the future when an analysis of monitoring data shows a need for an adjustment in the wild horse appropriate management levels or livestock permits.

ISSUE: The objective (page 4, number 1), "To manage wild horses only on areas where requests for removal of animals will not hinder management," is in

violation of P.L. 92-195, wherein wild horses would be managed where presently found.

RESPONSE: We agree that this objective is misleading. Its intent was to specify that wild horses would be managed on public lands except in the areas of a high percentage of intermixed private lands, particularly in the checkerboard areas of the resource area. The BLM Nevada State Director has rewritten this objective to better reflect the intent. It now reads as follows: "To manage wild horses outside of checkerboard areas where land ownership patterns are not a problem for management." This change will be made in the Approved Wells RMP Wild Horse Amendment and ROD document.

ISSUE: The BLM has pre-determined initial wild horse management numbers in advance of the allotment evaluation process of which the purpose is to analyze monitoring data and establish carrying capacity by all uses.

RESPONSE: Existing monitoring data were used to determine the initial wild horse management levels as was analyzed in the proposed RMP Amendment. Overuse on winter areas has been documented and is primarily caused by wild horses as shown by utilization levels exceeding 50 percent prior to livestock turnout. Also, utilization levels were over 80 percent (livestock and wild horse use combined) at the end of the winter grazing season.

ISSUE: How can the BLM average, "statewide," a rate increase of 20 percent for the entire resource area when BLM data support various rates, in site specific areas, of anywhere from 6 percent to 35 percent. Furthermore, the BLM has assumed that horses have utilized in excess of 10 percent of the forage before livestock are turned out when in fact the BLM cannot prove, through monitoring, actual level of wild horse use.

RESPONSE: The 20 percent annual increase figure was used only to project wild horse numbers in the Current Numbers Alternative (see footnote 2, Table 2, page 10). The BLM data do show that there are various rates of increase throughout the State. However, the 20 percent figure was determined to be average and was used to project this increase for analysis in the proposed RMP Amendment.

Initial wild horse numbers developed in the proposed RMP Amendment were based on monitoring (see Table 1, page 5). It was not assumed that wild horses have used in excess of 10 percent of the forage prior to livestock turnout. Utilization monitoring and use pattern mapping have confirmed this (see Table 7 and discussion on page 14).

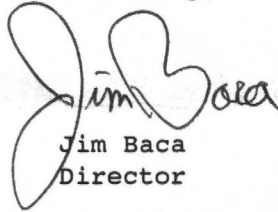
After careful review of the issues raised by you on behalf of the WHOA, Inc., we conclude that the BLM Nevada State Director and Elko District Manager followed the applicable planning procedures, laws, regulations, and policies in developing the proposed Wells RMP Amendment. No further changes are warranted except the clarifying language as noted herein.

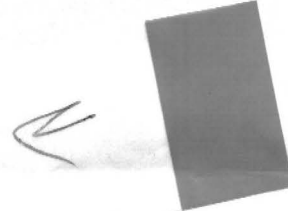
This decision completes administrative review of your protest and constitutes final agency action for the Department of the Interior (43 CFR 1610.5-2(b)) on the issues which you raised in your protest. The Interior Board of Land

Appeals (IBLA) does not hear appeals from a decision by the Director of the BLM on protests concerning RMP's (Oregon Natural Resources Council, 78 IBLA 124, 127 (1983)). Any person adversely affected by a decision of a BLM official to implement some portion of an RMP may, however, appeal such action to the IBLA at the time the action is proposed for implementation.

We encourage you and the WHOA to remain actively involved in the BLM's resource management activities and to provide information and input during the implementation of the proposed Wells RMP Amendment.

Sincerely,


Jim Baca
Director



9/22/93

September 22, 1993

Mr. Billy Templeton
State Director
Bureau of Land Management
850 Harvard Way
P.O. Box 1200
Reno, Nevada 89520-006

Dear Billy:

The Nevada Commission for the Preservation of Wild Horses is supportive of the land use planning and allotment evaluation process of the Bureau of Land Management. Amending land use plans is not a common practice by federal land management agencies in Nevada. We view land use plans as the framework to implement multiple use management and sustained yield of natural resources within a orderly and timely manner. It would appear unwise to initiate land use plan amendments prior to some reasonable period and achievement of its contents. The Wells Resource Management Plan and Record of Decision was issued on 199 . This land use plan contains adequate direction to allow Bureau decision making processes to achieve its multiple use objectives. However, the effort to subjectively amend this land use plan to immediately reduce wild horse numbers only, will not achieve resource objectives or protection from wild horses and livestock.

The Commission appeals your Record of Decision based upon the following errors:

The amendment is bias against wild horses.

Amendment to the Wells Resource Area Management Plan to immediately and capriciously reduce wild horses to initial herd size, is not procedurally needed and bias against wild horses. The action does not balance livestock, wildlife and wild horses to achieve a thriving ecological balance. If this amendment can be justified to immediately protect natural resources from irreversible damage, then a comparable amendment must be issued for livestock and wildlife.

The amendment excludes proper planning and decision making process of the Bureau.

The Wells Resource Area has established a moderate utilization limit or allowable use level for key species of an overall 55% annual growth. While the Commission supports the Bureau of Land Management allotment evaluation and multiple use decision processes to establish livestock carrying capacities and appropriate

Mr. Billy Templeton

September 22, 1993

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management levels for wild horses, the Commission can only support sound management decisions, based upon rangeland monitoring data, that are equable between range users. Arbitrary reducing wild horses as an interim measure to evaluation of existing data and reducing livestock and wild horses proportionally under the current RMP excludes the existing process. The result of this amendment will not establish AMLs, meet land use plan objectives or protect the natural resources.

The Amendment excludes consultation of affected interests concerning multiple use management.

Amendment to the land use plan record of decision 199?, is prior to its the five year evaluation schedule. Allotment management plans, wild horse management plans and habitat management plans were the Bureau's activity plans to implement the land use plan range improvement projects, monitoring studies and allotment specific objectives. These actions were not implemented and the Bureau's allotment evaluation/multiple use decisions were to be completed by 199? to make adjustments, if necessary, to protect, restore or maintain natural resources with the Resource Area. Failure to properly prepare activity plans or conduct allotment evaluations excludes consultation which would include all affected interests. The amendment also excludes the affected interests from all monitoring and resource data necessary to determine the needs of other natural resources.

The Amendment delays necessary management decisions to protect natural resources.

The allotment evaluation process allows the Bureau to set criteria for wild horse appropriate management levels in balance with other ungulates impacting public land. The District contends that monitoring data exists to justify the amendment to the land use plan to limit wild horse use to 10 percent of key forage species prior to livestock turnout. If wild horses exceeded the District's utilization limit of 55 percent utilization prior to livestock turnout in previous years, why did the District authorize livestock use of the winter ranges since 199? These data should be presented in an allotment evaluation and the multiple use decisions should balance livestock and wild horse use to meet 55 percent use of key species by Full Force and Effect.

Mr. Billy Templeton

September 22, 1993

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APPEAL SUMMARY

Amendment of the land use plan with bias to adjust wild horse numbers arbitrary to interim levels, is an administrative maneuver to avoid procedures afforded to affected interest by current federal regulations. In the forefront of the proposed "Rangeland Reform '94, the Bureau should be pursuant to the current administration policies rather those resulting the current dilemma on public lands. While the Commission could agree with limiting or allocating portions of annual growth of key species between livestock, wildlife and wild horses, the Commission must appeal Decision Record - Wells Resource Area Approved Wild Horse Amendment and Decision Record August 2, 1993 based upon the issues of this appeal.

Sincerely,

CATHERINE BARCOMB
Executive Director

11/12/93

W H O A

WILD HORSE ORGANIZED ASSISTANCE
P.O. BOX 555
RENO, NEVADA 89504



a note from

Dawn Y. Lappin

November 12, 1993

Mr. Rodney Harris
District Manager
Bureau of Land Management
3900 East Idaho Street
Elko, Nevada 89801

Re: Appeal- Full Force and Effect Decision for Pequop Area Wild Horse Gather

Dear Mr. Harris:

Wild Horse Organized Assistance (W H O A) has an established responsibility by law and affected interest status concerning the management of wild horses within the Wells Resource Area of the Elko District. Our administrative protest to the Wells Resource Management Plan Wild Horse Amendment and Decision Record was denied based upon the 1983 IBLA Decision. Management actions taken and to be taken by this Final Decision, Interim Spruce Allotment Management Plan and Strategic Plan for Management of Wild Horses and Burros on Public Lands will cause irreversible adverse impacts to the Pequop Wild Horse Herd. Pursuant to our concerns the W H O A must appeal the implementation of this amendment through this Final Decision.

We find the following errors:

THE ENVIRONMENTAL ASSESSMENT IS INADEQUATE AND DOES NOT SUPPORT THE WELLS RMP WILD HORSE AMENDMENT OR FINAL DECISION.

Consultation

The environmental assessments to support the Final Decision does not seek or consider consultation given by W H O A. Representatives of the W H O A met with the Resource Area and the Nevada Associate State Director K. Lynn Bennett, to provide input and recommendations to the draft environmental assessment and gather plan implementing the Wild Horse Amendment to the Wells Resource Management Plan. Issues presented and recommendations made to the Resource Area were not recognized in the final environmental assessment and gather plan. In fact, the final plan

Rodney Harris, District Manager
November 12, 1993
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states specifically that no comments were received on those documents, when in fact we had provided two hours of comments. In addition, we were not given the opportunity to review and comment on the final prior to the wild horses being removed. In fact, we received the final environmental assessment and gather plan six days after the capture of the horses was over. We had no opportunity to comment, appeal, appeal with a request for a stay of the action, or if necessary file an injunction.

Chronology of events:

1) WHOA protested the draft amendment to the Resource Management Plan.

2) We received the final approved RMP with no changes and a letter notifying us that we could not appeal this document but that we would have the opportunity to seek relief through any documents, actions, or plans that implemented the RMP.

3) The first documents released implementing the RMP were the draft Spruce-Peguop and Goshute Gather Plans.

4) We met with the District and K. Lynn Bennett to discuss our concerns with a) implementing the amendment to the RMP and b) the impending gather of the horses in that area which implemented the RMP Decision. We had no problem with deleting the checkerboard area from the HMA, our problem was with the criteria established in the Amendment to the RMP and the implementation of such criteria.

5) We were told a final EA and Gather Plan would be issued and we would have the opportunity to review those documents.

6) October 19, 1993, we received the Notice of Full Force and Effect Decision for the Spruce-Peguop Area Wild Horse Gather dated October 14, 1993, stating the gather was taking place October 15, 1993. We were notified after the fact without the opportunity to provide input prior to the action being taken. In addition to that gather, on October 21, 1993, we received notice of the Goshute gather dated October 15, 1993, stating the gather had taken place starting October 15, 1993.

WHOA is committed to preserve and protect Nevada's wild horse herds and their habitat. This is provided to us by law and has become impossible with the scenario of events we have listed above. The Bureau has violated our rights by law to provide meaningful input on land use planning as an interested and affected party.

CONSISTENCY WITH OTHER PLANS

The Interim Spruce Allotment Management Plan/Agreement (AMP), was signed by the permittee and Resource Area Manager on April 13, 1993. Bill Baker, BLM District Manager, Billy Templeton, Nevada State Director, and the Permittees had met in June of 1991, and decided among themselves to allow the Permittee and Resource

Rodney Harris, District Manager
November 12, 1993
Page 3

Concepts write the AMP. A singular special interest writing the management plan for an allotment that affected all users was allowed without participation by all affected interests. The agreement was rewritten four times from 1991 to 1993, was signed in April of 1993 and implemented without being sent out for public comment and participation. This is a violation of NEPA, BLM Regulations and Policy. After interested parties discovered this had been done, the Area Manager sent the AMP out "for your information only." Ourselves along with others appealed this document. The livestock in this area had been issued a temporary license since 1964, pending analysis and an EA on the change in kind of use from sheep to livestock. We are now 29 years later with the same "temporary" license. This document affected the Amendment to the RMP as well as finally, the gather of the wild horse herds.

Respondent to four appeals of this agreement, the Resource Area Manager issued an after-the-fact draft environmental assessment to support the agreement. Comments to this draft have been sent to the District and resolution of those appeals are pending.

In addition, the Strategic Plan for Management of Wild Horses and Burros on Public Lands does not have an environmental assessment or environmental impact statement to support its actions.

Riparian Habitat

The amendment environmental assessment states that wild horses cause damage to riparian systems: "...reduce concentration areas around water. Trampling and overuse leads to death of plants resulting in bare ground." However, the environmental assessment did not consider alternatives or management actions to address this major land use plan issue. In addition, no overuse of riparian areas has been attributed to any other user except wild horses, completely ignoring the fact that livestock inhabit the same area. The EA did not consider alternatives or management actions to address this major land use plan issue.

The Wells Resource Management Plan/Decision Record, land use plan, established a criteria to determine utilization limits for key vegetation species for monitoring, evaluations and manager decisions. Riparian objectives to protect 250 spring sources, 2,518 acres of deteriorated riparian areas, and improve aquatic/riparian habitat are short and long term objectives. Monitoring studies based upon the land use plan objectives were to enable the District to make multiple use decisions to adjust livestock, wildlife and wild horses to carrying capacities to maintain, protect and restore natural resources.

Allocation of Available Forage

Utilization limitations on key vegetation species were to be based upon area specific studies consistent with the Nevada

Rodney Harris, District Manager
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Rangeland Monitoring Handbook (1984). The environmental assessment's arbitrary determination to limit wild horse use of fall key species to 10 percent was not supported by any specific study or recommendation of the Nevada Rangeland Monitoring Handbook. Allowable Use criteria established in the Nevada Rangeland Monitoring Handbook suggests moderate to heavy (50 to 90 percent) for fall grazing seasons. While we agree with many Districts that 55 percent use of annual growth by grazing animals is ecologically sound, we find limiting wild horse use to 10 percent is arbitrary and biased against wild horses. Environmental assessments suggests that 10 percent limitation on fall key species will eliminate competition for the livestock reclassification from domestic sheep to cattle found in the Interim Spruce Allotment Management Plan/Agreement.

Carrying Capacities

Monitoring studies based upon meeting allowable use levels overutilization limits of key vegetation species were to establish carrying capacities for grazing animals. The environmental assessment analyzed wild horse use pattern mapping data for winter key forage species in relationship to an arbitrary 10 percent utilization limit for wild horses. The environment assessment present no data or computation that would support the RMP Wild Horse Amendment's initial Spruce-Peguop Herd (82 animals) would meet 10 percent utilization prior to livestock turnout or meet 55 percent overall use after the livestock grazing season.

Wild Horse Distribution and Habitat

Reduction of the Spruce-Peguop Wild Horse Herd Area did not consider the biological needs of the herd. The environmental assessment only excluded the "checkerboard lands" without considering the seasonal use or distribution of the herd. For example, if winter range is the limiting factor of grazing animals within the herd area, then distribution and population data should have been analyzed to determine the "initial herd" of the RMP Wild Horse Amendment. Precluding wild horses to "checkerboard lands" will eliminate percentages of summer or winter ranges, the environmental assessment did not analyze habitat in determining the "initial herd".

Restructuring of the Wild Horse Herd

The 1993 wild horse gather and future gathers are governed by the Strategic Plan for Management of Wild Horses and Burros on Public Lands. Plan Assumption E. states: "Only adoptable animals will be removed from public lands." This assumption is being implemented in Nevada in gathers to release all horses in excess of their carrying capacities and restructuring the herds to older age classes. These two issues were not assessed in the environmental assessment for the Wild Horse RMP Amendment.

Rodney Harris, District Manager
November 12, 1993
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No Consideration for the Social or Economic Impacts

The Strategic Plan for the Management of Wild Horses and Burros was finalized without public input stating that input could be provided in documents or actions implementing the plan. In this gather plan and associated EA there was no consideration for the social structure, biological diversity, age and sex classification, or the long term impacts to the herds by implementation of this action. In addition no alternative social or economic avenues were explored.

THE PREVIOUS AGREEMENTS WERE ARBITRARY AND INFLUENCED THE FINAL DECISION, THESE ARE IMPROPER PROCEDURES FOR MAKING THESE DECISIONS.

The Final Decision's reduction of the Spruce-Pequop Wild Horse Herd area and population has no biological rationale to support reducing the herd from 150 to 82 horses. Information found in the "Interim Allotment Management Plan For Spruce Allotment", March 9, 1993, by the consulting firm Resource Concepts, contains similar agreements and projects found in the Wells RMP Wild Horse Amendment. According to this signed agreement with the Resource Manager, the permittee's position on wild horses management is "the allotment should be designated as horse-free." To this end, the permittee and Bureau agreed to jointly fund 16 miles of allotment fences by FY 93. Though not specifically delineated in the interim agreement, these fences most likely include those identified in the RMP amendment to limit horse distribution.

The Final Decision's determination to limit wild horses to 10 percent of winter key forage prior to livestock turnout corresponds to agreements made in the "Interim Allotment Management Plan for Spruce Allotment". This allotment agreement converted domestic sheep to cattle and increase competition with wild horses. The permittee agreed to have utilization levels set for key species, but only agreed to 60 percent allowable utilization on seedings paid for by the Bureau of Land Management. Signatory, BLM and permittee, made no specific agreement to utilization limitations addressing competition of cattle with wild horses.

Nevada BLM Planning Budget specifically identifies the Wells RMP Elk Amendment for FY94. Introduction of elk into the Spruce-Pequop Wild Horse Herd and Spruce Allotment will increase competition for key perennial grass species. The BLM's decision to amend the RMP for wild horses suggests that previous agreements to provide forage for other ungulates have influenced the Final Decision.

CARRYING CAPACITIES WERE NOT ESTABLISHED, THE DECISION WAS ARBITRARY.

The Final Decision did not establish a carrying capacity to justify the initial herd. Carrying capacity computations must consider all land use plan objectives. Riparian habitat was not assessed in the environmental assessment and must be considered.

Rodney Harris, District Manager
November 12, 1993
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As an example, using existing data the following computation could be applied to establish an appropriate management level:

$$\frac{\text{wild horse and livestock aums}}{80 \text{ percent or heavy utiliz.}} = \frac{\text{carrying capacity}}{55 \text{ percent Desired utl.}}$$

Allocation of the carrying capacity or desired stocking rate could be proportional to the composition of existing animals. Further adjustments in wild horses could be proportional to percentage of loss in habitat necessary to support the remaining herd. Livestock adjustments would be made to meet a natural ecological balance.

Livestock stocking rates of the Interim Spruce Allotment Management Plan were not established under the same criteria as the Final Decision for wild horses. It would appear that the above carrying capacity computation (TR 4400-7 BLM Manual), could be applied based upon existing monitoring data to set a livestock carrying capacity and appropriate management level for wild horses in a multiple use decision.

THE FINAL DECISION EXECUTES A PROCESS TO ELIMINATE THE SPRUCE-PEQUOP WILD HORSE HERD.

The Final Decision adjusts the existing population from 150 animals to 82 animals for an interim period. The Final Decision established the Standard Operational Procedure to further reduce the herd based upon the arbitrary and excessive limitation of 10 percent of winter key species prior to livestock turn out. Implementation of the Strategic Plan for the Management of Wild Horses will require the Final Decision to leave older age class horses within the herd area. These combined actions will reduce the Spruce-Pequop Wild Horse Herd below its biological threshold and jeopardize the herd in the long term.

If it can be assumed that by reducing the herd 50 percent, that utilization of winter key species will result in 50 percent use, then implementation of the Final Decision will result in the following:

1994 Actual Wild Horse Use = 82 head or 984 AUMs
Actual Utilization = 25 percent utilization
Desired Utilization = 10 percent

Using TR 4400-7 Example D Uniform Utilization

$$\frac{984 \text{ aums}}{25 \text{ percent}} = \frac{\text{desired stocking rate}}{10 \text{ percent}}$$

Desired Stocking Rate = 393.6 AUMs
Appropriate Management Level = 33 horses

Rodney Harris, District Manager
November 12, 1993
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If it can be assumed that the gather will only remove those horses in the "checkerboard lands", then the density of horses within the key winter range will remain the same. It then can be assumed that utilization of key winter species will remain the same as prior to the gather. In this example, TR 4400-7 Example D Utilization Uniform would apply as follows:

$$\frac{984 \text{ AUMs}}{50 \text{ percent}} = \frac{\text{desired stocking rate}}{10 \text{ percent}}$$

Desired Stocking Rate = 492 AUMs
Appropriate Management Level = 5 horses

Elimination of all young productive horses for adoptions will result in all surviving horses being over 10 years of age. Such a reduced herd below its potential will not be able to retain its genetic pool to retain a viable herd beyond the next gather. Restructuring of the age classes jeopardizes the herd existence due to winter kill and disease.

This is contrary to law and a violation of the 1971 Wild Horse and Burro Act mandating that the BLM manage wild horses where they were found in 1971, as well as to manage them for a thriving natural ecological balance. This would not be a balance that wild horses could sustain.

THE FINAL DECISION IS BIASED AGAINST WILD HORSES.

The Final Decision provides forage for the livestock conversion of the Interim Spruce Allotment Management Plan/Agreement and Wells RMP Elk Amendment. Amending the land use plan to initially adjust the wild horse herds to resolve the private land owner conflicts can be justified on the federal governments ability to manage "checkerboard lands". However, the Final Decision's implementation of the Wells RMP Wild Horse Amendment sets criteria and planning to eliminate the Spruce-Pequop Wild Horse Herd to provide forage for livestock and elk not present in the Wells Resource Management Area. The 1971 Wild Horse and Burro Act requires that a viable herd be maintained within a thriving natural ecological balance under the mandates of multiple use of the Federal Land Management and Policy Act. Land use plan amendments must set proper Standards and Procedures that are based upon natural resources that will result in multiple use or a balance of ungulates within the capacity of existing range conditions. This Final Decision does not represent equitable actions in light of the pending amendment or existing livestock agreement within the Spruce-Pequop Wild Horse Herd.

Request for a Stay of Action of any Further Removals of Wild Horses

We are formally requesting, pursuant to 43 C.F.R. § 4.21 that a stay of action be granted preventing the further removal of

Rodney Harris, District Manager
November 12, 1993
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horses from the Spruce-Pequop Herd Area pending resolution of this appeal. Each of the criteria for a stay are met in this case.

(1) Relative harm. The harm to wild horses in the Herd Area from further removal would be irreparable. Although the number of additional horses which would be removed is nowhere precisely identified or even estimated, the material set forth above demonstrates that the herd would in all likelihood be reduced to 33 head, and quite possibly to 5 animals, based upon the 10 percent utilization limit set for horses. In either event, the viability of the herd would be imperiled. Reduction to these numbers would hold serious consequences for the herd's social structure, its residual gene pool, and its biological ability to sustain itself. These adverse impacts would be magnified by the herd age restructuring resulting from the BLM Strategic Plan for the Management of Wild Horses and Burros.

The BLM has never evaluated these impacts on this herd or any herd arising from such actions. In all likelihood, the ultimate result for this herd would be its elimination. This appeal suggests that this in fact is the purpose of the decision, and such purpose is clearly illegal.

On the other hand, the BLM has already halved the Spruce-Pequop herd. Even accepting, for the sake of argument only, BLM's assertions about the harm to the range caused by horses, the further harm which would result from grazing by the reduced herd pending decision on appeal would be minimal at most. The ameliorative forces of herd reduction are already begun. Such harm as there might be, furthermore, would not be irreversible. Thus the balance of harms clearly favors a stay of further reductions of the herd.

(2) Likelihood of success on the merits. Appellants will prevail on the merits. On its face, the NEPA documentation for this decision is woefully inadequate, both in its consideration of alternatives and of environmental impacts, particularly impacts to the horses.

Further, events surrounding development of the underlying documents--the Strategic Plan, the RMP Amendment and the Interim Allotment Management Plan--are compelling evidence that the basis for this decision is arbitrary under relevant law. Through a pattern of misrepresentation, evasion, and obfuscation, the Elko District and the Nevada State Office have avoided addressing the Appellant's legitimate concerns at every juncture. Appellants can demonstrate that the ultimate purpose behind the decision is the protection of livestock grazing at existing levels, and the summary elimination of the Spruce-Pequop herd, a clearly illegal purpose.

Rodney Harris, District Manager
November 12, 1993
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(3) Immediate and irreparable harm. As set forth above, further reduction of horses in the Spruce-Pequop herd poses dire hazards for the herd. The herd would likely become nonviable if reduced in numbers and restructured as set forth in the decision. And contrary to the representations of the BLM, wild horses are not a fungible resource, allowing augmentation or transplantation of horses from other herds to reinvigorate this herd. Each herd has unique physical and social characteristics which can only be preserved by maintaining the existing herd. Introduction of new animals into the herd area would cause adverse impacts to the herd which could not thereafter be corrected.

The immediacy of the harm arises from the normal delay in appeals being heard. The next round of reductions could well occur in 1994, while this appeal will be pending for considerably longer. By this circumstance, this appeal could be made moot during its pendency unless a stay is issued.

(4) Public interest. The public interest in protecting wild horses is manifest in the Wild and Free-Roaming Horses and Burros Act. Appellant does not dispute that other public interests are likewise enshrined in statute. But though these interests may exist, there is only one such interest which anyone maintains in this case is at ultimate risk, and that is the public interest in preserving the wild horses. The other interests are already benefitted by the halving of the wild horse herd, and will not suffer permanently, if at all, from the preservation of the current status quo. The public interest therefore clearly aligns with issuing a stay until this matter may be fully heard.

In addition to showing the adverse impacts to wild horses by the Spruce Gather Plan and EA, we have also presented the biased and arbitrary decision made in the Amendment to the RMP as well as the potential irreparable harm to the wild horse herds by gathering horses using the criteria established in the Amendment. Therefore, with the concerns we have presented, we are formally requesting a stay of action for the removal of any wild horses affected by the Amendment to the Wells Resource Management Plan pending review and settlement of allegations made in this Appeal of the Spruce-Pequop EA and Gather Plan.

Sincerely,


DAWN Y. LAPPIN
Director

8/12/94

August 12, 1994

Mr. Jim Baca
Director
Bureau of Land Management
1849 "C" Street, N.W.
Washington, D.C. 20240

Dear Mr. Baca:

Thank you for your response to the Nevada Commission of Preservation's protest to the Proposed Wells Resource Management Plan Wild Horse Amendment. The Commission actively participates and supports the current land use planning and allotment evaluation processes of the Bureau of Land Management. Amending land use plans is not a common practice by federal land management agencies in Nevada. We view land use plans as the framework to implement multiple use management and sustained yield of natural resources within an orderly and timely manner. The Wells Resource Management Plan and Record of Decision was issued on July 16, 1985. This land use plan contains adequate guidance to allow the Resource Area Manager to conduct decision making processes to achieve its multiple use objectives. Pursuant to state and national policies, the District was to complete necessary monitoring and make allotment specific multiple use decisions by 1990. If these decision making policies were enacted in the Wells Resource Area within its short term schedule, there would be no need for land use plan amendments to address wild horse management. The now final amendment subjectively reduces wild horse herds to arbitrary levels without correspond action affecting livestock which will not achieve the land use plan objectives.

The Commission is not relieved of its concerns regarding this Record of Decision. We wish to bring to your attention the following issues:

The amendment is bias against wild horses.

Amendment to the Wells Resource Area Management Plan to immediately and capriciously reduce wild horses to new initial or interim herds, is not procedurally needed and bias against wild horses. The action does not balance livestock, wildlife and wild horses to achieve a thriving ecological balance. If amendment to the Standards Operating Procedures can be justified to immediately protect natural resources from irreversible damage, then a comparable amendments must be issued for livestock and wildlife.

Mr. Jame Baca
August 12, 1994
Page 2

The amendment excludes proper decision making processes of the Bureau.

The Wells Resource Area has established a moderate utilization limit or allowable use level for key species of an overall 55% annual growth. While the Commission supports the Bureau of Land Management allotment evaluation and multiple use decision processes to establish livestock carrying capacities and appropriate management levels for wild horses, the Commission can only support sound management decisions, based upon rangeland monitoring data, that are equable between range users. Arbitrary reducing wild horses as an interim measure to completing allotment evaluations, while monitoring data and established decision making processes exist under the current land use plan, disregards Nevada's land use plan multiple use decision processes.

The amendment excludes proper land use planning with consultation of affected interests.

Amendment to the land use plan Standard Operating Procedures to limit wild horse use of key species to 10% annual growth excludes proper activity plan development and public comment. Allotment management plans, wild horse management plans and habitat management plans were the Bureau's activity plans to implement the land use plan's objectives, range improvement projects, monitoring studies and allotment specific objectives. These actions were not implemented and the Bureau's allotment evaluation/multiple use decisions were not completed by 1990. Evaluation of monitoring data and land use plan objectives are to establish carrying capacities and allocate available forage to ungulates at levels necessary to protect, restore or maintain natural resources. Failure to properly prepare activity plans or conduct allotment evaluations excludes the disclosure of specific monitoring data and resource data important to all affected interests. These data are necessary for any supportive rationale to limit wild horses to 10% utilization of key species.

The Amendment delays necessary management decisions to protect natural resources.

Nevada's allotment evaluation processes allows the Bureau to set criteria for wild horse appropriate management levels in balance with other ungulates impacting public land. The Bureau states that monitoring data justify amendment's limitation of 10% utilization key forage species prior to livestock turnout.

Mr. James Baca
August 12, 1994
Page 3

According to your response, wild horses exceeded the District's utilization limit of 55 percent utilization prior to livestock turnout in recent years. In the interest of natural resources and compliance to the land use plan, the District should not have issued any livestock authorizations where forage was not available and exceeding the carrying capacity was eminent.

Reducing wild horse herds to interim levels contingent to future evaluations is delaying multiple use decisions in the Wells Resource Area. Efforts to take partial measures, and not resolve resource conflicts, are not viewed as not making meaningful progress to meeting multiple use mandates.

SUMMARY

Amendment of the Wells Range Management Plan made bias and arbitrary adjusts wild horse numbers to interim levels, is an administrative maneuver to avoid procedures afforded to affected interests under current federal regulations. In the forefront of the proposed "Rangeland Reform '94", the Bureau should be pursuant to supportive administrative policies rather past policies causing the current dilemma on public lands.

Nevada has decision making processes consistent with current federal regulations that embrace the Proposed Rule making of your administration. We welcome the proposed changes in light of the hard decisions that must be made in Nevada affecting wild horses and livestock. However, we cannot accept unilateral actions reducing wild horses to sustain livestock practices causing damage to natural resources in Nevada.

Sincerely,

CATHERINE BARCOMB
Executive Director



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
ELKO DISTRICT OFFICE
3900 E. IDAHO STREET
P.O. BOX 831
ELKO, NEVADA 89801

IN REPLY REFER TO:

1600 (NV-015)

September 30, 1994

Dear Interested Party:

The comment period has been extended until December 2, 1994 for the Wells Resource Management Plan Draft Elk Amendment and Environmental Assessment. This is due to requests of the general public and the Elko Board of County Commissioners. All written comments must be postmarked on or before this date to be considered in the proposed plan amendment and final environmental assessment.

A public meeting has been scheduled by the Elko Board of County Commissioners for 3:00 p.m. on October 11, 1994. The meeting will be held in Lecture Hall, Technical Arts Building, at the Northern Nevada Community College in Elko.

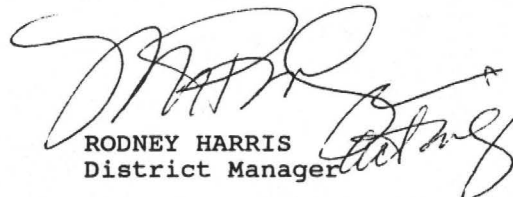
All comments received during the original comment period will be used and do not need to be re-submitted.

Some additional issues have been identified by the public during review of the draft. They have included requests that the Bureau consider:

- ◆ A "No Elk" alternative.
- ◆ An extension of the comment period.
- ◆ Preparing an Environmental Impact Statement vs. an Environmental Assessment.
- ◆ Defining Bureau vs. Nevada Division of Wildlife roles and responsibilities: depredation, census, harvesting, private landowner compensation.
- ◆ Affects to presently suspended livestock AUMs.
- ◆ Different conversion factors (elk/AUM).

If you have any questions or need a copy of the document, please contact Bill Baker, Wells Area Manager, at the above address or telephone (702) 753-0200.

Sincerely yours,


RODNEY HARRIS
District Manager

Wells Resource Management Plan Draft Elk Amendment and Environmental Assessment - July 1994

Purpose: Elk were introduced into Pilot and Jawbridge Management Areas. These herds have immigrated throughout areas north and south of I-80. In the northern areas they have become established. Therefore, the purpose of the amendment is to provide land use plan objectives and goals for the future.

Scoping: The issues appear to be an argument of forage. Livestock initial numbers were established in the land use plan with all non-use put into suspended use. Permittees want all the suspended activated prior to any new elk introductions. Water development, fences and seedings are the costs to a successful elk program. Wild horses were not a primary issue due to the previous amendment that establishes new initial herd numbers in 1993.

Alternatives: "Target" or "Reasonable Numbers" for elk are the alternatives. These numbers were established based upon professional judgement of elk densities in adjacent states. Alternatives discuss numbers vs. private land conflicts. Standards, guidelines, allowable use levels and other range limitations are referred to the Nevada Rangeland Handbook. Conflicts with wild horses are not discussed. Water developments for wild horses and wildlife are found to be limiting factors.

Opinion: The amendment establishes initial numbers for elk and establishes monitoring as the basis for making future adjustments in elk populations. This is not an unreasonable approach; however, the amendment does not establish a limiting factor, as did the Wild Horse Amendment. The 10% utilization of winter forage by wild horse prior to livestock turnout is a strong handle on future wild horse herds. Riparian objectives may not be needed for elk, due to the nature of elk. However, riparian objectives are necessary, but Elko chooses not to use them as limiting factors on wild horse and livestock.

It could be argued, a perfect world could be created with the water developments necessary to support wild horses and elk. If elk introductions or augmentations were limited to the progress of water developments, all resources could benefit.

In respect of the wild horse amendment, this amendment supports more elk in contrary to the wild horse amendment that reduces wild horses. The differences are:

- * No specific allowable use level for key forage (limiting factor).
- * Plans for elk to inhabit checkerboard lands.
- * Provides little monitoring data to support more ungulate use.
- * Sets initial elk herds on potentials not limiting factors.



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NEVADA STATE OFFICE

850 Harvard Way
P.O. Box 12000
Reno, Nevada 89520

IN REPLY REFER TO:

1610 (WEL-E)
(NV-930.1)

July 22, 1994

Dear Reader:

Enclosed for your review and comment is the Wells Resource Management Plan (RMP) Draft Elk Amendment and Environmental Assessment (EA). This amendment analyzes the impacts of several alternatives for managing elk in the Wells Resource Area, Elko District of the Bureau of Land Management (BLM).

Your comments are needed at this time to ensure that your concerns have been considered in this planning and environmental process. Please direct all written comments to: Bureau of Land Management, Attention: Wells Area Manager, 3900 East Idaho Street, P.O. Box 831, Elko, Nevada 89801.

A public "Open House" meeting to answer questions will be held on August 18, 1994 at the Wells High School Auditorium, 115 Lake Street, Wells, Nevada. This meeting will begin at 7 p.m., local time.

If you have any questions, please contact Bill Baker, Wells Area Manager, at the above address or telephone (702) 753-0200. All comments pertaining to the scope of this amendment will be used to help us prepare the Wells RMP Proposed Elk Amendment and Final EA. This future document will be published and sent to all interested and affected parties.

It is important to note that the 30 day comment period on this Draft document will end on August 31, 1994. All written comments must be postmarked on or before this date to be considered in the proposed plan amendment and final EA.

Sincerely,

Ronald B. Wenker
Acting State Director, Nevada

COVER SHEET

WELLS RESOURCE MANAGEMENT PLAN ELK AMENDMENT AND ENVIRONMENTAL ASSESSMENT

Draft Amendment

Supplemental Draft Amendment

Lead Agency:

U.S. Department of the Interior
Bureau of Land Management

Cooperating Agencies:

None

Project Location:

Elko County, Nevada

For Further Information Contact:

Bill Baker, Wells Area Manager
Telephone (702) 753-0200

Direct Correspondence to:

Bureau of Land Management
Attn: Wells Area Manager
3900 E. Idaho Street
P.O. Box 831
Elko, NV 89803

Abstract: The Wells Resource Management Plan Draft Elk Amendment and Environmental Assessment outlines and analyzes five alternatives for the management of elk on public lands in the Wells Resource Area, Elko District of the Bureau of Land Management.

The preparation of this document was coordinated with numerous individuals, private land owners, and a Task Force Group, which includes representatives from resource management agencies, special interest groups, and Elko County Government.

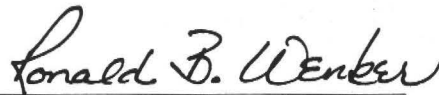
Date Draft Amendment Issued:

July 25, 1994

Date Comments must be Postmarked:

August 31, 1994

Responsible Official for Amendment:



Ronald B. Wenker
Acting State Director, Nevada

July 22, 1994

Date

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WELLS RESOURCE MANAGEMENT PLAN

DRAFT

ELK AMENDMENT and ENVIRONMENTAL ASSESSMENT

I. PURPOSE AND NEED

The purpose of this amendment is to establish elk habitat management areas, identify habitat requirements and specific management objectives and practices, establish target elk population management levels, develop factors for attainment and future adjustments in elk population management levels, and identify constraints on other resources within the Wells Resource Area (WRA).

Introduction:

Through a review of elk habitat management in the WRA, it was determined that elk numbers and habitat use areas are expanding from those identified in the Wells Resource Management Plan (RMP) Record of Decision (ROD) signed July 16, 1985. Elk habitat management objectives were identified for the Pilot and Jarbidge Mountain areas in the Wells RMP. At that time, Jarbidge was identified as a future management area. Elk were reestablished in the Jarbidge Mountains in January, 1990. The Jarbidge elk herd has remained within identified management areas on Elko BLM and adjacent Humboldt National Forest administered public lands. However, elk are recognized as highly adaptable creatures and during recent years have "pioneered" adjacent previously unoccupied habitats in the WRA from the Pilot Mountain Management Area, northwestern Utah and southern Idaho.

A policy statement issued by the State of Nevada Board of Wildlife Commissioners on December 6, 1988 identified Pilot Mountain as the only established elk population in the WRA. This policy statement recognized that elk were pioneering into adjacent habitats, however, no evidence existed to indicate these pioneering elk have established permanent populations outside the Pilot Mountain Management Area.

In 1990, the Nevada Division of Wildlife (NDOW) identified established elk populations on Pilot Mountain as well as the Crittenden/Goose Creek, Murdock Mountain, and 10-Mile/Black Mountain areas. The NDOW identified these populations outside Pilot Mountain as being established because they have maintained a breeding nucleus of animals for the past 4-8 years, are commonly sighted throughout the year and do not appear to migrate to Pilot Mountain or to other areas seasonally. Because of social behavior and high adaptability to available habitat types, elk have more recently been pioneering outside these management areas as well as immigrating into the resource area. Elk have been sighted in the Snake Range, East Humboldt Range, South Ruby Range, Spruce Mountain, Pequop Mountains, and Cherry Creek Range.

Because of the growing concern for expanding elk numbers in the resource area and their potential impact to attainment of existing multiple use objectives identified in the Wells RMP/ROD, the decision was made by the Nevada State Director to address this issue through amendment of the RMP.

Location:

The WRA is located in the northeast corner of Nevada and encompasses approximately the east half of Elko County (see map 1). It contains 5.7 million acres of which 4.3 million are public lands administered by the Bureau of Land Management (BLM). The two existing elk management areas (Jarbidge and Pilot), presently occupied habitats, and habitat potentials within the WRA are shown on Map 2.

Planning Process:

The land use planning process, as mandated by the Federal Land Policy and Management Act (FLPMA) of 1976, is designed to enable BLM to address the issues and concerns of the public in outlining the management of the public lands within logical planning areas. This process involves nine basic planning steps. They are: 1) Identification of Issues; 2) Development of Planning Criteria; 3) Inventory and Data Collection; 4) Analysis of the Management Situation; 5) Formulation of Alternatives; 6) Estimation of Effects of Alternatives; 7) Selection of the Preferred Alternative; 8) Selection of the Proposed Plan; and 9) Monitoring and Evaluation.

This draft amendment and environmental assessment addresses step 1 through 7 of the planning process. After public comments are received on the draft elk amendment and environmental assessment, step 8 will be initiated if a management alternative other than "No Action" is selected as the proposed plan from the management alternatives presented in Chapter II. The Proposed Plan, as well as a "Finding" on the significance of the action will be made available for public review during a 30 day protest period. Upon resolution of any protests a plan amendment will be approved and a decision record will be published and provided to all individuals that participated in the process. Finally, step 9, Monitoring and Evaluation of the plan amendment will be conducted, as are all aspects of resource management plans, to determine if further modifications are needed.

For additional information, refer to the Wells RMP/Environmental Impact Statement (EIS). These documents are available at the BLM Elko District Office.

Scoping:

Elk management decisions in the WRA could have impacts on adjacent private and public lands within the tri-state region of Nevada-Utah-Idaho. Conversely, elk management decisions on public lands in adjoining states could have impacts on private and public lands within the WRA. Therefore, a regional approach was felt appropriate in addressing the issue of pioneering elk. A regional approach will also allow for continuity with adjacent public land management agencies in future land use planning efforts. Therefore, a task force consisting of resource management agency personnel, land owners and special interest groups within the tri-state area (Map 3) was formulated to provide for this continuity. The task force was utilized to formulate planning issues, identify the scope of environmental analysis, identify management alternatives to be considered, and provide baseline information.

With input from the task force, a scoping document was prepared which included the management issue, management objectives, preliminary planning criteria, and alternatives.

During this amendment's 45 day scoping period, from May 14 to June 30, 1993, the public was asked by BLM to assist in further defining the planning issue, if necessary. In addition, the public was also asked to help in: 1) further defining the range of alternatives; 2) establishing planning criteria for the development of the amendment; and 3) identifying any other concerns or interests to be considered. Public scoping meetings were held in Twin Falls, Idaho (June 1, 1993) and Wells, Nevada (June 2, 1993).

Planning Issues:

Issues drive the resource management planning process and indicate specific concerns which the BLM and the public may have regarding the management of specific resources in a planning area. An issue is defined as an opportunity, conflict, or problem pertaining to the management of public lands and associated resources. Identification of issues orients the planning process so that the efforts of an interdisciplinary analysis and documentation are directed toward resolution of the issues.

Through use of the Task Force and through public scoping, it has been determined that this amendment need only address the issue of elk habitat management. In addressing this issue, the amendment will respond to the following planning questions:

1. Where will elk be managed on public lands in the WRA?
2. What habitat requirements and specific management objectives and practices are needed for elk?
3. What target elk population management level will habitat be managed to support?
4. How will elk population management levels be achieved or maintained?
5. How will adjustments be made in elk population management levels?
6. What constraints, if any, will be placed on other resource uses?

Planning Criteria:

Planning criteria are formulated to guide the development of a resource plan or an amendment to the resource plan. Planning criteria are derived from laws, Executive Orders, regulations, planning principles, BLM national and state guidance, consultation with interest groups and the general public, and available resource information of the area. Planning criteria help to: 1) set standards for data collection; 2) establish alternatives to be analyzed; and 3) select the preferred alternative.

The planning criteria for this RMP amendment are:

1. The Planning area is defined as the WRA.
2. The Wells RMP amendment will make elk habitat planning determinations for all public lands located within the planning area boundary.
3. Decisions proposed through this amendment will be in conformance with the decisions in the 1985 Wells RMP Record of Decision.

4. BLM Manual 1622, Supplemental Program Guidance for Renewable Resources, will be utilized to identify the determinations to be made.
5. Existing studies, the most current available inventories, current publications, and professional judgement will be used to determine potential impacts and to make sound management decisions.
6. Decisions about specific elk habitat improvement projects will be made in subsequent activity-level plans or through multiple use decisions designed to implement this amendment. Site-specific impacts of each habitat improvement project will be addressed through National Environmental Policy Act (NEPA) compliance documentation on a case by case basis.
7. Population targets will be set at a level consistent with other existing resource values and uses.
8. Future adjustments in target elk population levels will be made based on monitoring.
9. The time frame for long term management objectives will remain the same as outlined in the Wells RMP; i.e. 20 years from the date of the Record of Decision for the Wells RMP (2005).
10. A Memorandum of Understanding (MOU) between the NDOW and the BLM will be prepared which outlines the management determinations for the selected management alternative.
11. The following definitions will apply:

Augmentation: The act of releasing native wildlife into habitat presently supporting that species to enlarge an existing population. Sometimes called supplemental transplants.

Endemic Species: A species that historically has occurred in a specific geographic area.

Established Population: A population of endemic or exotic wildlife species which through pioneering or through introduction or reestablishment efforts has successfully inhabited a specific geographic area creating a viable self-sustaining population.

Exotic Species: All species of plants and animals not naturally occurring, either presently or historically, in any ecosystem in the United States.

Immigration: Wildlife species pioneering into the resource area from adjacent states, private, or public lands.

Introduction: The act of releasing or establishment of an exotic species of wildlife into a natural ecosystem where they have never existed previously.

Native Species: All species of plants and animals naturally occurring, either presently or historically, in any ecosystem of the United States.



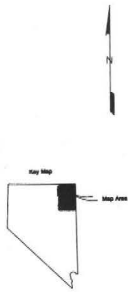
Wells
Resource Area

NEVADA

MAP 1

WELLS RMP
ELK AMENDMENT

GENERAL LOCATION MAP



MAP 2
WELLS RMP
ELK AMENDMENT

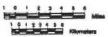
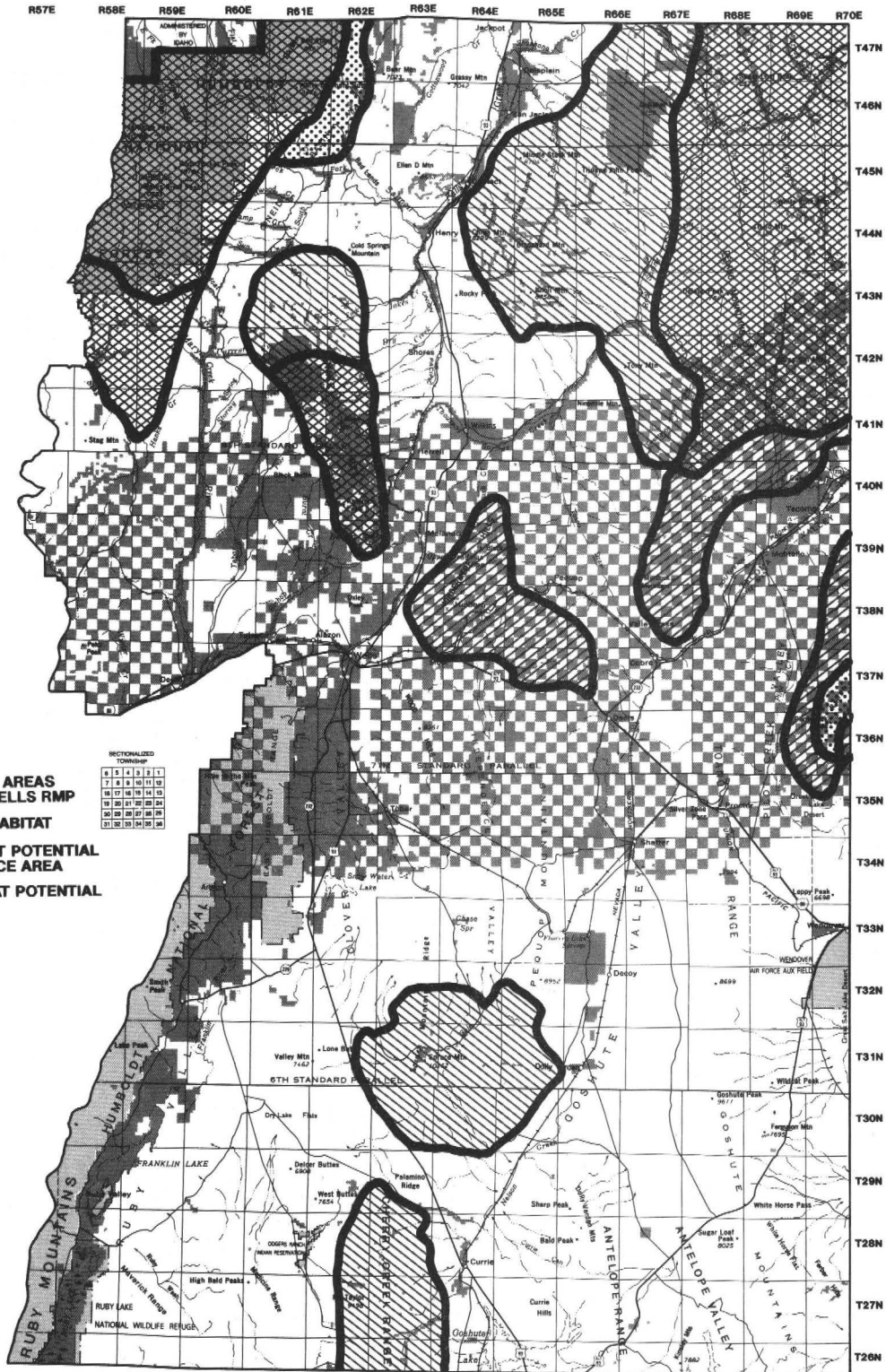
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- OTHER FEDERAL LANDS
- PRIVATE AND STATE LANDS

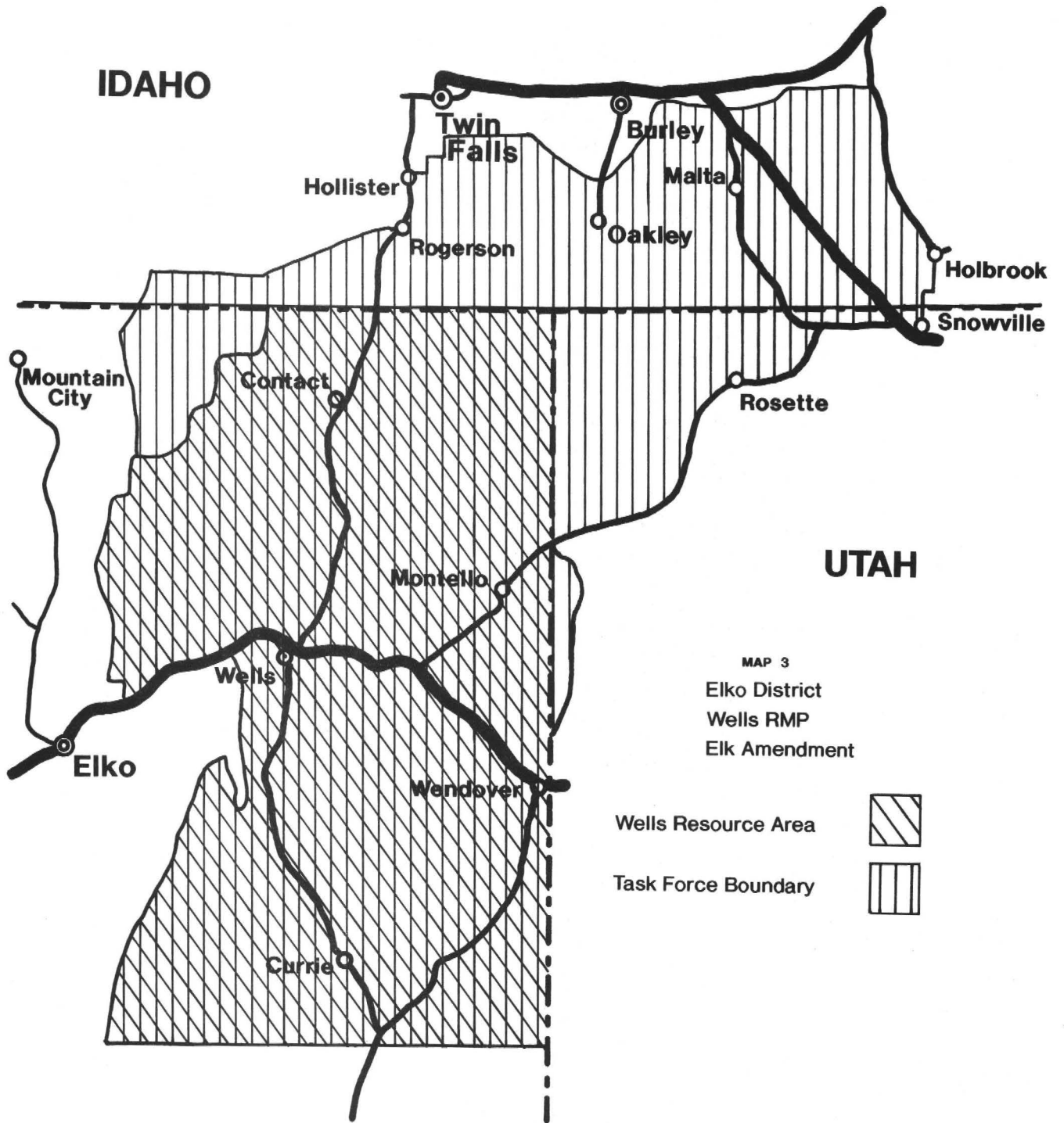
ELK HABITAT AREAS

- EXISTING MANAGEMENT AREAS AS IDENTIFIED IN THE WELLS RMP
- PRESENTLY OCCUPIED HABITAT
- LOW-MODERATE HABITAT POTENTIAL REMAINDER OF RESOURCE AREA
- MODERATE-HIGH HABITAT POTENTIAL

SECTIONALIZED TOWNSHIP

6	7	8	9	10	11
12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35
36	37	38	39	40	41





Occupied Habitat: Wildlife species observed utilizing available habitat at least on a seasonal basis where particular observed population densities may or may not constitute an established population, i.e. a viable self-sustaining population.

Pioneering: The act of wildlife species colonizing new habitat voluntarily, whether planned or not by the appropriate resource managers.

Reestablishment: The act of releasing native wildlife into habitat formerly occupied by that species for the purpose establishing a self-sustaining population in the wild state.

Release: The act of liberating any wildlife species for the purpose or intent of creating self-sustaining or harvestable populations.

Target Population Level: That population level of elk over six months of age: 1) determined by the land management agency to be consistent with the objective to manage public land forage resources on a sustained yield basis, and 2) from which the land management agency will make recommendations to the NDOW for adjustments either up or down based on monitoring data, and 3) for which the NDOW is committed to manage for through harvest strategies so as not to exceed these levels until rangeland monitoring data and evaluation of multiple use objectives indicates adjustments either up or down are appropriate.

Transplant: The act of releasing native wildlife species into habitat not previously occupied by that species for the purpose or intent of creating self-sustaining populations.

II. ALTERNATIVES, INCLUDING THE PREFERRED ALTERNATIVE

ALTERNATIVE 1 - No ACTION:

The management of elk habitat would continue under the existing short and long-term management actions (management determinations) within those management units currently identified in the Approved Wells RMP (see Map 3).

Under the No Action alternative, current elk populations in the WRA would be allowed to expand as a result of naturally occurring populations being established through "pioneering" outside existing management areas on Pilot Mountain and the Jarbidge Mountains and/or through immigration into the resource area. Population expansion would be allowed to the extent that elk are not preventing attainment of existing multiple use objectives identified in the Wells RMP.

Objectives (As identified in the Approved Wells RMP):

1. To conserve and/or enhance wildlife habitat to the maximum extent possible while eliminating all of the fencing hazards in crucial big game habitat, most of the fencing hazards in noncrucial big game habitat, and all of the high and medium priority terrestrial riparian habitat conflicts in coordination with other resource uses.

2. Attempt to reach reasonable numbers of elk as determined in conjunction with the NDOW by maintaining and/or improving habitat conditions (Table 1).
3. Attempt to meet 1,952 AUMs demand for elk (Table 1).
4. Management objectives and monitoring efforts will focus on crucial/seasonal/yearlong use areas by their respective seasons of use.
5. Reasonable numbers would be sought through adherence to objectives listed above and reintroductions of elk into suitable habitat. Habitat enhancement to allow for reintroduction of elk in conjunction with NDOW is an objective to be attained through implementation of the [Wells RMP] preferred management alternative.

Short and Long-Term Management Actions (As identified in the Approved Wells RMP):

1. Maintain all existing wildlife projects.
2. Continue to monitor the interaction between wildlife habitat condition and other resource uses and consider adjustments in livestock seasons of use to improve or maintain essential and crucial wildlife habitats.
3. Improve habitat in areas identified as potential reintroduction sites for elk as previously identified by the NDOW.
4. Manage 2,600 acres of nonaquatic riparian aspen and 1,000 acres of mountain mahogany habitats.
5. Chain or burn, and seed 5,500 acres to improve crucial big game habitat.
6. Wildlife habitat management plans (HMPs) will follow the development of Allotment Management Plans as closely as possible. HMPs for wildlife will be developed in the following order:

a. O'Neil/Salmon Falls	e. Pilot/Crittenden
b. Cherry Creek	f. Goose Creek
c. Spruce/Goshute	g. Ruby/Wood Hills
d. Mary's River	h. Metropolis

ALTERNATIVE 2 - LIMITED GROWTH (1,000 ELK):

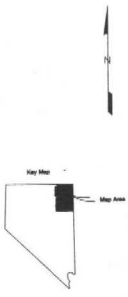
This alternative recognizes that elk have pioneered suitable habitats within the WRA outside the Pilot and Jarbidge Mountain Management Areas and in some instances have established self-sustaining populations. Under this alternative, elk management objectives would be identified for six management areas within the WRA (Map 4, Table 2) to support a total resource area target elk population of 1,000 elk (plus or minus 10 percent) (Table 5). The total resource area target elk population level under this alternative would be based on current growth and harvest estimates projecting a total resource area population that would be achieved by 1998.

Table 1. Reasonable and Existing Numbers.¹

MANAGEMENT AREA		SEASON OF USE	REASONABLE NUMBERS	EXISTING NUMBERS ²	REASONABLE NUMBER AUMS
Pilot Mountain Mgt. Area	Spruce/Goshute RCA	1/01-12/31	30	40	288
		11/01-3/31	60	55	240
	Pilot/Crittenden RCA	1/01-12/31	30	20	288
		11/01-3/31	170	50	680
Jarbidge Mountain Mgt. Area	ONeil/Salmon Falls RCA	11/01-3/31	90	0	360
		4/01-10/31	10	0	56
	Marys River RCA	11/01-3/31	10	0	40
Total		winter use	330	105	1,320
Total		summer use	10	0	56
Total		yearlong use	60	60	576
Resource Area Total			400	165	1952
<p>¹ Information in this table has been brought forward from the Proposed Wells RMP and Final Environmental Impact Statement to show seasonal use and reasonable/existing numbers by management area (RCA) (see Table A-2 on pages A-6 to A-9).</p> <p>² This table reflects existing numbers as identified in the Approved Wells RMP. The Jarbidge Mountains were identified as a potential elk reestablishment area in the Wells RMP. Elk were reestablished into the Jarbidge Mountains in 1990.</p>					

Table 2. Elk Management Area Descriptions.

MANAGEMENT AREA		GEOGRAPHICAL DESCRIPTION
NORTH I-80	Pilot Mountain	NDOW Management Area 079
	Goose Creek	NDOW Management Areas 076, 077, and 081
	Jarbidge Mountains	That portion of the WRA west of the South Fork of Salmon Falls Creek and the County Road from Sun Creek Ranch to Deeth
	Snake Range	That area bordered by US Highway 93, South Fork Salmon Falls Creek, County Road from Sun Creek Ranch to Deeth, I-80 from Deeth to Wells
SOUTH I-80	Spruce/Pequops	That area bordered by US Highway 93, I-80 from Wells to Utah, the Utah State Line, the Elko-White Pine County line.
	Cherry Creeks	That area bordered US Highway 93, the Elko-White Pine County line, the Humboldt National Forest Boundary, I-80.



**MAP 4
WELLS RMP
ELK AMENDMENT**

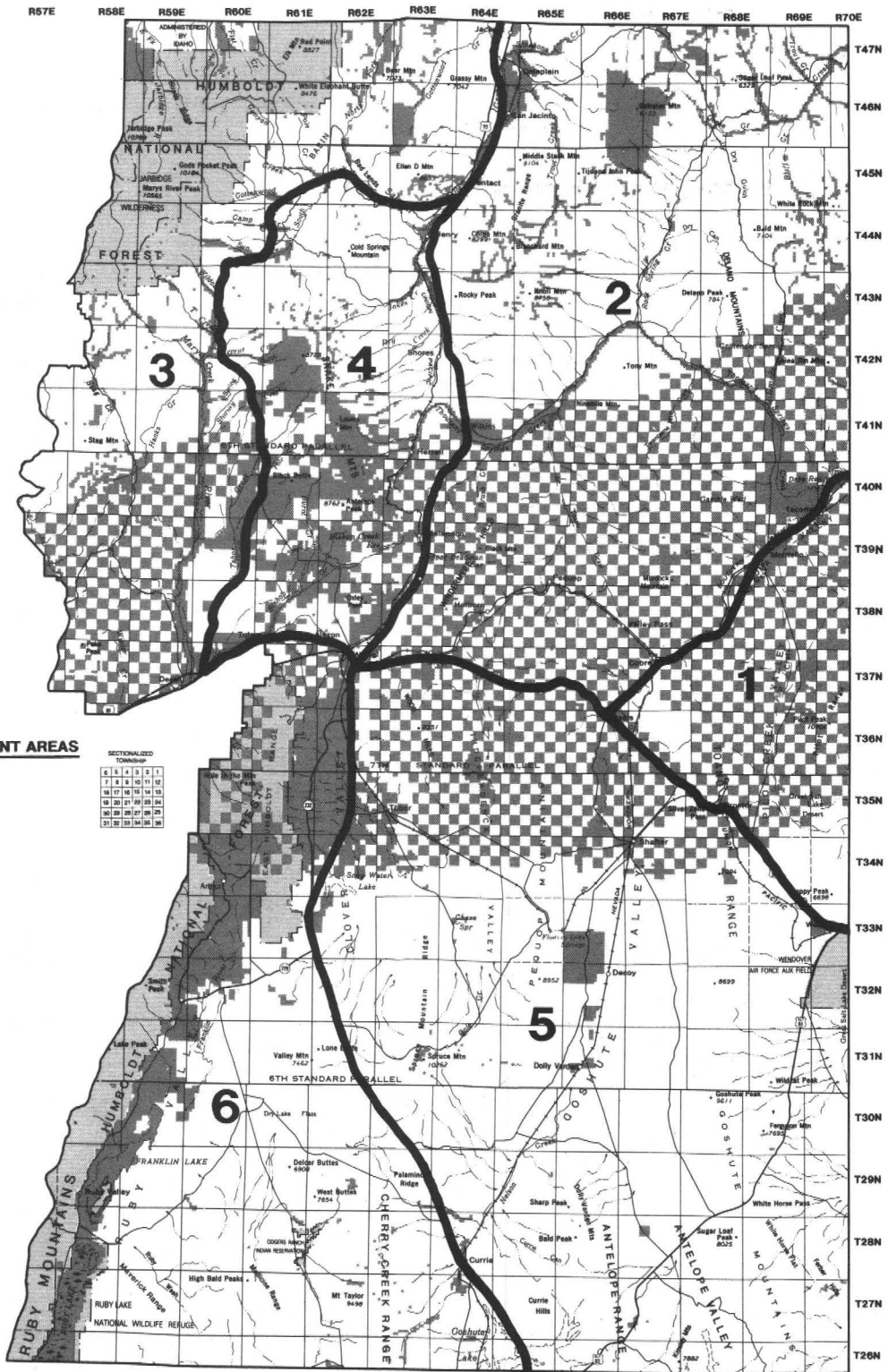
- BLM LANDS
- OTHER FEDERAL LANDS
- PRIVATE AND STATE LANDS

PROPOSED ELK MANAGEMENT AREAS

1. PILOT MOUNTAIN
2. GOOSE CREEK
3. JARBIDGE MOUNTAINS
4. SNAKE RANGE
5. SPRUCE/PEQUOIS
6. CHERRY CREEK

SECTIONALIZED
Township

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometers

Objective:

1. Manage public lands in the WRA on a sustained yield basis to support elk populations at a level consistent with other resource needs, while minimizing impacts to adjacent private land resources.

Management Determinations:

1. Manage elk habitat in good or better condition within six management areas within the WRA (Map 4, Table 2) to provide forage to sustain a total resource area target elk population level of 900-1,100 (Table 5).
2. Target elk population levels will be achieved as a result of natural expansion of existing populations through pioneering within the resource area, immigration into the resource area, and/or augmentation or reestablishment efforts. Augmentations and/or reestablishments will be subject to the following guidelines:
 - a. Augmentations will not be allowed within any management area where existing elk populations are more than 50% of target levels identified in this proposed plan amendment or adjusted through the monitoring, allotment evaluation, and multiple use decision process.
 - b. Proposed augmentations and/or reestablishments will be reviewed by the Multiple Resource Advisory Council responsible for advising the Bureau of Land Management on matters relating to public lands and resources under the administrative jurisdiction of the WRA as governed by 43 CFR Part 1784.
 - c. Proposed augmentations and/or reestablishments will be authorized by an approved Release Agreement and Operations Plan signed by the BLM District Manager and NDOW Regional Supervisor as per current BLM Manual policy guidance.
 - d. All released animals will meet the requirements established by NDOW Wildlife Commission Policy.
 - e. All released animals will be ear tagged to facilitate monitoring of seasonal movements.
 - f. Augmentations and/or reestablishments will only be allowed within moderate to high potential elk habitat areas identified in this proposed plan amendment.
3. The following habitat development projects would be completed: a) fifteen water developments to supplement existing waters and allow for more beneficial use of available habitat; and 2) modification of 30 miles of existing fence or construction of elk pass structures to reduce conflicts with elk seasonal movements.

4. Management objectives and monitoring efforts will be placed in the following priorities: 1) crucial; 2) seasonal; and 3) yearlong use areas.
5. Manage elk habitat in the Jarbidge Mountain Management Area consistent with the existing Jarbidge Elk Six Party Agreement.
6. Manage elk habitat in the Pilot Mountain Management Area consistent with the existing Nevada-Utah Interstate Agreement.
7. Adjustments in target elk population levels will be based on monitoring.
8. Seasonal use patterns will be monitored by the NDOW. Augmentation of existing populations with animals wearing radio-telemetry or similar monitoring devices will be allowed to facilitate monitoring efforts.
9. Population levels will be monitored by the NDOW to determine herd composition, trend, and approximate size.
10. The BLM will apply seasonal use pattern information and install vegetation monitoring studies to monitor the impacts of elk use to the vegetation resource. The type and intensity of studies will be determined once populations have become established and use patterns have been determined.
11. Elk population levels will be managed through population management strategies developed and implemented by the NDOW (see Appendix E).
12. Structural and non-structural rangeland improvement projects to improve distribution and forage quality and quantity for both mule deer and livestock will have priority over elk management objectives.
13. Response to depredation complaints concerning elk damage to private land resources will be the responsibility of the NDOW as governed by appropriate Nevada Board of Wildlife Commissioners Policy and/or Nevada Revised Statutes directing such action be taken as deemed necessary, desirable, and practical to prevent land or property from being damaged or destroyed.
14. Supplemental feeding (winter feeding) of elk will not be allowed on public lands.
15. Combined use of key forage species by all grazing animals will not exceed existing allowable use levels as identified in the Nevada Rangeland Monitoring Handbook.
16. Elk use will be included within existing allowable use levels for key browse species by mule deer.

ALTERNATIVE 3 - PREFERRED ALTERNATIVE (2,200 ELK):

Under this alternative, elk management objectives would be identified for six management areas within the WRA (Map 4, Table 2) to support a target population level of 2,200 elk (plus or minus 10 percent) (Table 5). This target population level is based on an elk density level of 1.5 elk/square mile multiplied by the amount of acres of moderate to high potential habitat located on public lands within the management area (Table 3). To further address the potential for conflict associated with elk use on adjacent private land resources, this density level was further reduced by multiplying the target population level by an adjustment factor determined by the percentage of public lands within the management area (Table 4). These adjustment factors were developed by the Task Force Group to promote a conservative yet flexible approach to elk management in the WRA.

Table 3. Acres of moderate-high potential elk habitat.

Mgt. Area **	Acres of Available Moderate to High Potential Habitat	% Public Land	Public Acres
Jarbidge	99,060	97	95,660
Snake Range	148,004	61	90,084
Goose Creek	767,580	80	612,285
Spruce-Pequop	149,584	99	147,959
Cherry Creeks	98,950	97	95,990
Pilot	66,094	49	32,654
Total	1,329,272		1,074,632

Table 4. Private Land Adjustment Criteria.

PERCENT PUBLIC LAND WITHIN MANAGEMENT AREA	ELK DENSITY ADJUSTMENT FACTOR
90-100%	1.0
80-90%	0.75
less than 80%	0.5

Objective:

1. Manage public lands in the WRA on a sustained yield basis to support elk populations at a level consistent with other resource needs, while minimizing impacts to adjacent private land resources.

Management Determinations:

1. Manage elk habitat in good or better condition within six management areas within the resource area (Map 4, Table 2) to provide forage to sustain a total resource area target elk population level of 1,980-2420 (Table 5).
2. The following habitat development projects would be completed: a) 20 water developments to supplement existing waters and allow for more beneficial use of available habitat; b) modification of 45 miles of existing fence or construction of elk pass structures to reduce conflicts with elk seasonal movements; and c) 2,000 acres of vegetation manipulation to enhance elk habitat.
3. Management Determinations 2 and 4 thru 16 listed under Alternative 2 would also apply.

ALTERNATIVE 4 - MODERATE DENSITY (3,500 ELK):

Under this alternative, elk management objectives would be identified for six management areas within the resource area (Map 4, Table 2) to support a target population level of 3,500 elk (plus or minus 10 percent) (Table 5). This target population level is based on an elk density level of 2.5 elk/square mile multiplied by the amount of acres of moderate to high potential habitat located on public lands within the management area (Table 3). To further address the potential for conflict associated with elk use on adjacent private land resources, this density level was further reduced by multiplying the target population level by an adjustment factor determined by the percentage of public lands within the management area (Table 4). These adjustment factors were developed by the Task Force Group to promote a conservative yet flexible approach to elk management in the WRA.

Objective:

1. Manage public lands in the WRA on a sustained yield basis to support elk populations at a level consistent with other resource needs, while minimizing impacts to adjacent private land resources.

Management Determinations:

1. Manage elk habitat in good or better condition within six management areas within the resource area (Map 4, Table 2) to provide forage to sustain a total resource area target elk population level of 3,150-3,850 (Table 5).
2. The following habitat development projects would be completed: a) 35 water developments to supplement existing waters and allow for more beneficial use of available habitat; b) modification of 55 miles of existing fence or construction of elk pass structures to reduce conflicts with elk seasonal movements; and c) 3,500 acres of vegetation manipulation to enhance elk habitat.

3. Management determinations 2 and 4 thru 16 listed under Alternative 2 would also apply.

ALTERNATIVE 5 - HIGH DENSITY (4,800 ELK):

Under this alternative, elk management objectives would be identified for six management areas within the resource area (Map 4, Table 2) to support a target population level of 4,800 elk (plus or minus 10 percent) (Table 5). This target population level is based on an elk density level of 3.5 elk/square mile multiplied by the amount of acres of moderate to high potential habitat located on public lands within the management area (Table 3). To further address the potential for conflict associated with elk use on adjacent private land resources, this density level was further reduced by multiplying the target population level by an adjustment factor determined by the percentage of public lands within the management area (Table 4). These adjustment factors were developed by the Task Force Group to promote a conservative yet flexible approach to elk management in the WRA.

Objective:

1. Manage public lands in the WRA on a sustained yield basis to support elk populations at a level consistent with other resource needs, while minimizing impacts to adjacent private land resources.

Management Determinations:

1. Manage elk habitat in good or better condition within six management areas within the resource area (Map 4, Table 2) to provide forage to sustain a total resource area target elk population level of 4,320-5,280 (Table 5).
2. The following habitat development projects would be completed: a) 45 water developments to supplement existing waters and allow for more beneficial use of available habitat; b) modification of 55 miles of existing fence or construction of elk pass structures to reduce conflicts with elk seasonal movements; and c) 5,000 acres of vegetation manipulation to enhance elk habitat.
3. Management determinations 2 and 4 thru 16 listed under Alternative 2 would also apply.

ALTERNATIVE 6 - MAXIMUM ELK DENSITY (12,868 ELK):

Under this alternative, the management of elk is emphasized. Utilizing density criteria applied to all public acres within the resource area, this alternative would maximize elk populations to a level of approximately 12,868. The BLM, with input from the NDOW, determined that the WRA contains approximately 1,041,978 acres of moderate to high potential elk habitat and 3,232,779 acres of low to moderate potential habitat (Table 8). Based on existing information, elk density estimates for similar Great Basin habitat

types were established as follows: 0.5 - 2.5 elk/square mile for low to moderate habitat, and 2.5 - 4.0 elk/square mile for moderate to high habitats. An average density of 3.25 elk/square mile for moderate to high habitat and 1.5 elk/square mile for low to moderate habitat was applied to the available public land acreage within the resource area within each category to determine the maximum elk population within the WRA that could be sustained at the expense of other resource uses. Applying elk density figures to all potentially available habitat within the resource area does not meet the Planning Criteria identified to guide the development of this amendment to the resource plan; i.e. elk populations will be set at a level consistent with other existing resource values and uses. In addition, input received during scoping indicated that managing elk populations at this high level could potentially result in conflicts associated with private land depredation greater than the NDOW would be capable of managing. Therefore, this alternative was considered but eliminated from further discussion.

Table 5. Existing and Target Elk Population Levels by Alternative.

Management	Existing	MANAGEMENT ALTERNATIVE TARGET POPULATION LEVELS ¹				
		No Action	Limited Growth	Preferred Alternative	Moderate Density	High Density
Jarbidge	40-60 ²	110	110	220	370	515
Snake Rg.	0	0 ⁵	40	100	170	240
Goose Crk.	150-205	0 ⁵	400	1070	1780	2485
Spruce-Pequops	0	0 ⁵	120	340	560	790
Cherry Creeks	0	0 ⁵	80	220	370	520
Pilot	200-250 ³	290	250 ⁴	250	250	250
TOTAL	390-575	400	1000	2200	3500	4800

¹Target population levels are plus or minus 10 percent.

²The Jarbidge Mountain herd totals approximately 130-150 of which approximately 40-60 are utilizing habitat in the WRA.

³The Pilot Mountain herd totals approximately 350-400, of which approximately 200-250 are utilizing habitat in the WRA.

⁴The target elk population within the Pilot Mountain Management Area remains constant with each management alternative, due to existing management agreements between the NDOW and the Utah Division of Wildlife.

⁵Although a target population level does not exist, elk would be allowed to pioneer suitable habitat outside the Jarbidge and Pilot Mountain Management Areas to the extent use by elk is not preventing attainment of existing multiple use objectives; i.e. there would be no management priority given to elk outside the Jarbidge and Pilot Mountain Management Areas.

ALTERNATIVE 7 - LIMITED GROWTH NORTH OF I-80 (800 ELK):

This alternative is similar to Alternative 2 in that it recognizes that elk have pioneered suitable habitats within the WRA outside the Pilot and Jarbidge Mountain Management Areas and in some instances have established self-sustaining populations. However, under this alternative, management objectives would be identified only for those areas currently supporting self-sustaining populations or containing occupied habitat; i.e. four management areas north of I-80 (Map 4, Table 2). However, this alternative does not address the following issues:

- 1) Moderate to high potential elk habitat exists south of I-80.
- 2) Establishing elk management objectives within the WRA only for management areas north of I-80 would not recognize the potential for elk to pioneer available habitats south of I-80.
- 3) Elk are beginning to pioneer suitable habitat south of I-80 from established populations within the resource area and/or immigration from outside the resource area as documented by isolated elk observations.

For the above reasons, this alternative was considered but eliminated from further discussion.

III. AFFECTED ENVIRONMENT

The WRA is one of two administrative subunits of the Elko District and is located in northeastern Nevada (see Map 1). It basically includes the eastern half of Elko County.

The WRA can be characterized as being arid to semiarid. Low elevation valley areas receive only about eight inches of precipitation with higher elevation mountain areas receiving over twenty inches annually.

The southern two-thirds of the WRA is in the Basin and Range Physiographic Province and the northern portion lies within the Columbia Plateau Province. The Basin and Range Province is characterized by five to fifteen mile wide mountain ranges and valleys. Mountain ranges trend north to north-northeast and are fifty or more miles long. The Columbia Plateau Physiographic Province characteristically consists of rolling plateau lands of low relief broken by occasional buttes and dissected by steep narrow canyons.

This section of the environmental assessment provides additional information to assist the reader in understanding the existing situation and the current problems encountered with managing elk in the WRA. For a more detailed discussion of the environment within the areas of concern, please refer to the Wells RMP and Environmental Impact Statement (EIS) approved July 16, 1985.

The following critical elements of the human environment are not present or are not affected by the alternatives presented in this EA:

- Air Quality
- Areas of Critical Environmental Concern
- Cultural Resources
- Farm Lands (prime or unique)
- Floodplains
- Native American Religious Concerns
- Paleontology
- Threatened, Endangered, or Candidate Species
- Wastes (hazardous or solid)
- Water Quality (drinking/ground)
- Wild and Scenic Rivers
- Wilderness

Table 6 summarizes the resource issues brought forward for analysis in Section V (Environmental Consequences) through scoping and input from Bureau specialists.

Table 6. Summary of Resource Issues.

Resource Issue	Resource Category
Conflicts with existing wildlife uses.	Terrestrial Wildlife Habitat
Range conditions and available forage.	Vegetation
Conflicts with existing grazing uses.	Livestock Grazing Wild Horses
Water availability.	Water
Impacts to riparian habitat values.	Riparian/Stream Habitat
Constraints on other resource users.	General - All Resource Categories
Conflicts with private land resources.	Lands
Recreational conflicts.	Recreation
Impacts to visual resources.	Visual Resources
Socio/Economic impacts.	Economic Conditions Population Income and Employment Public Attitudes

The following additional information is displayed by resource category to supplement and/or update the description of the existing environment contained in the Wells RMP/EIS.

TERRESTRIAL WILDLIFE HABITAT

Big Game Populations and Habitat Conditions

The WRA provides habitat for mule deer, pronghorn antelope, bighorn sheep, and elk. Based on existing habitat monitoring data, mule deer summer ranges are generally in fair to good condition, while winter ranges vary from poor to good condition. Pronghorn antelope summer, winter, and yearlong habitat are rated in poor to good condition. Please refer to Appendix A3-1 on page A3-2 of the Wells RMP/EIS for a listing of existing and reasonable numbers for wildlife and big game habitat conditions.

Elk habitat potentials in the WRA have been classified as either low to moderate or moderate to high. Experience in Utah and Idaho has shown elk habitat densities for Great Basin habitat types similar to those in the WRA range from 0.5 elk/square mile in low potential habitats to 4.0 elk/square mile in high potential habitats (Table 7).

Table 7. Elk densities for low, moderate, and high potential habitats.

HABITAT POTENTIAL	ELK DENSITY/SQUARE MILE
Low	0.5-1.5
Moderate	1.5-2.5
High	2.5-4.0

Based on available habitat information and input from the NDOW, elk habitat potentials within the WRA have been classified into two categories; low-moderate and moderate-high (Table 8).

Table 8. Potential Elk Habitats within the Wells Resource Area.

HABITAT POTENTIAL	PUBLIC ACRES	ELK DENSITY/SQUARE MILE
Low to Moderate	3,232,779	0.5-2.5
Moderate to High	1,041,978	2.5-4.0

The most limiting factor identified on low to moderate habitat potential rangelands was water availability within summer ranges. Winter range was not identified as a limiting factor. Elk are expected to winter on wind swept ridgelines and south facing exposures on public and private rangelands. However, severe winter conditions could force elk into adjacent private agricultural lands.

The locations of current elk use areas and elk habitat potentials are shown on Map 3.

At the time the Wells RMP was approved, there was no official population estimate for elk in the WRA. The best available information at the time simply acknowledged that numbers were increasing and placed herd numbers between 50 and 100. Elk habitat management objectives were established to support a reasonable number of 400 elk within the resource area (Table 1). The elk population in the WRA is currently estimated at 390-575 (Table 5).

The Wells RMP/EIS (Appendix Table A3-2) identified elk habitat in the Pilot Mountain Management Area (Pilot/Crittenden and Spruce/Pequop Resource Conflict Areas (RCA)) as being in good condition. Elk habitat in the Jarbidge Mountains Management Area (Marys River and O'Neil/Salmon Falls RCA's) was identified as either in good condition or unknown. The Wells RMP/EIS identified some areas within these management units may be in less than good elk habitat condition due to livestock competition.

Elk are very adaptable and utilize a wide variety of forage types. Although elk are primarily grazing animals, browse constitutes a significant portion of their diet. Since elk are primarily grazers, the potential exists for competition between livestock and wild horses for available forage.

Utilization by elk outside the Pilot Mountain Management Area is very dispersed and is difficult to measure at the current low population levels. To date, monitoring has determined that elk use outside the Pilot and Jarbidge Mountain Management Areas is not preventing attainment of existing multiple use objectives. The results of monitoring conducted within areas currently being utilized by pioneering elk conclude that at current population levels elk have been making use of forage which is largely unavailable to livestock due to terrain and water availability.

Current habitat studies within the Pilot Mountain Management Area indicate current elk populations are not causing adverse impacts or degradation to their own habitat.

Utilization data collected on Pilot Mountain in 1989 and 1993 indicate use of key forage species has been below objective levels for key forage bunchgrasses. Utilization was above objective levels in 1989 and below objective levels in 1993 for key forage browse species (Table 9). High utilization levels of browse in 1989 was recorded on most big game winter ranges in the WRA and was mostly attributed to minimal growth response to drought conditions. This available data seems to indicate that elk movements away from or out of the Pilot Mountain Management Area are the result of social behavior factors rather than forage limitations.

Table 9. Pilot Mountain key forage use levels.

KEY SPECIES	OBJECTIVE LEVEL	1989 USE ¹	1993 USE ¹
Bluebunch wheatgrass	50%	26%	6%
Antelope bitterbrush	45%	71%	37%

¹ Utilization measured at key areas representing big game use only. Utilization figures for bitterbrush represent combined use by elk and mule deer. Utilization figures for bluebunch wheatgrass represents use by elk only.

The NDOW has begun monitoring elk movements in the Goose Creek management unit with the use of radio collars to obtain more information on seasonal elk movements within that portion of the WRA and also to determine what impact elk immigration from outside the resource area is having on population expansion. It will take at least 3-5 years before any conclusions can be made.

VEGETATION

For a description of the vegetation types which exist in the WRA, please refer to Chapter 3 (Affected Environment) of the Wells RMP/EIS.

Based on professional judgement, the Wells RMP/EIS estimated 26 percent of the resource area was in good or excellent ecological condition (the comparison of what the site is producing now to what the site is naturally capable of producing) in 1985. Currently, professional judgement places 37 percent of the resource area in good or excellent ecological condition. An ecological site inventory (ESI) has been completed on approximately 67% (2.9 million acres) of the WRA. Based on an analysis of soils and vegetation data, range condition has been determined for those lands inventoried and classifies 47 percent of the resource area in good or excellent ecological condition (Table 10).

Table 10. Range Condition in the Wells Resource Area.

YEAR	POOR CONDITION (EARLY SERAL)	FAIR CONDITION (MID SERAL)	GOOD CONDITION (LATE SERAL)	EXCELLENT CONDITION (POTENTIAL NATURAL COMMUNITY)
1985 ¹	20%	54%	25%	1%
1993 ²	13%	50%	32%	5%
1994 ³	15%	38%	42%	5%
¹ 1985 Wells RMP/EIS, professional judgement. ² 1993 WRA Staff, professional judgement. ³ 1994 WRA ESI (2.9 million acres).				

LIVESTOCK GRAZING

The WRA currently has the following adjudicated grazing preference:

Active Preference	375,717 AUMs
<u>Suspended Non-Use</u>	<u>24,184 AUMs</u>
Total	399,901 AUMs

Adjustments in grazing use needed to achieve multiple use objectives will be based on the monitoring. A description of the BLM's adjudication process and how current land use planning policy/regulations and monitoring relate to existing livestock use can be found in Appendix A.

Please refer to Chapter 3 (Affected Environment) of the Wells RMP/EIS for further information on Livestock Grazing. Grazing Allotment Boundaries and allotment categorization are shown on Map 3-3 in the aforementioned document.

WILD HORSES

Wild horses in the WRA are currently managed within four Herd Management Area's (HMA) (see Map 5) located south of I-80 in the southern half of the resource area. The initial herd sizes for each HMA established in the Wells RMP Approved Wild Horse Amendment and Decision Record, signed August 2, 1993 are outlined in Table 11.

Table 11. Wild Horse Herd Management Area Initial Herd Sizes.

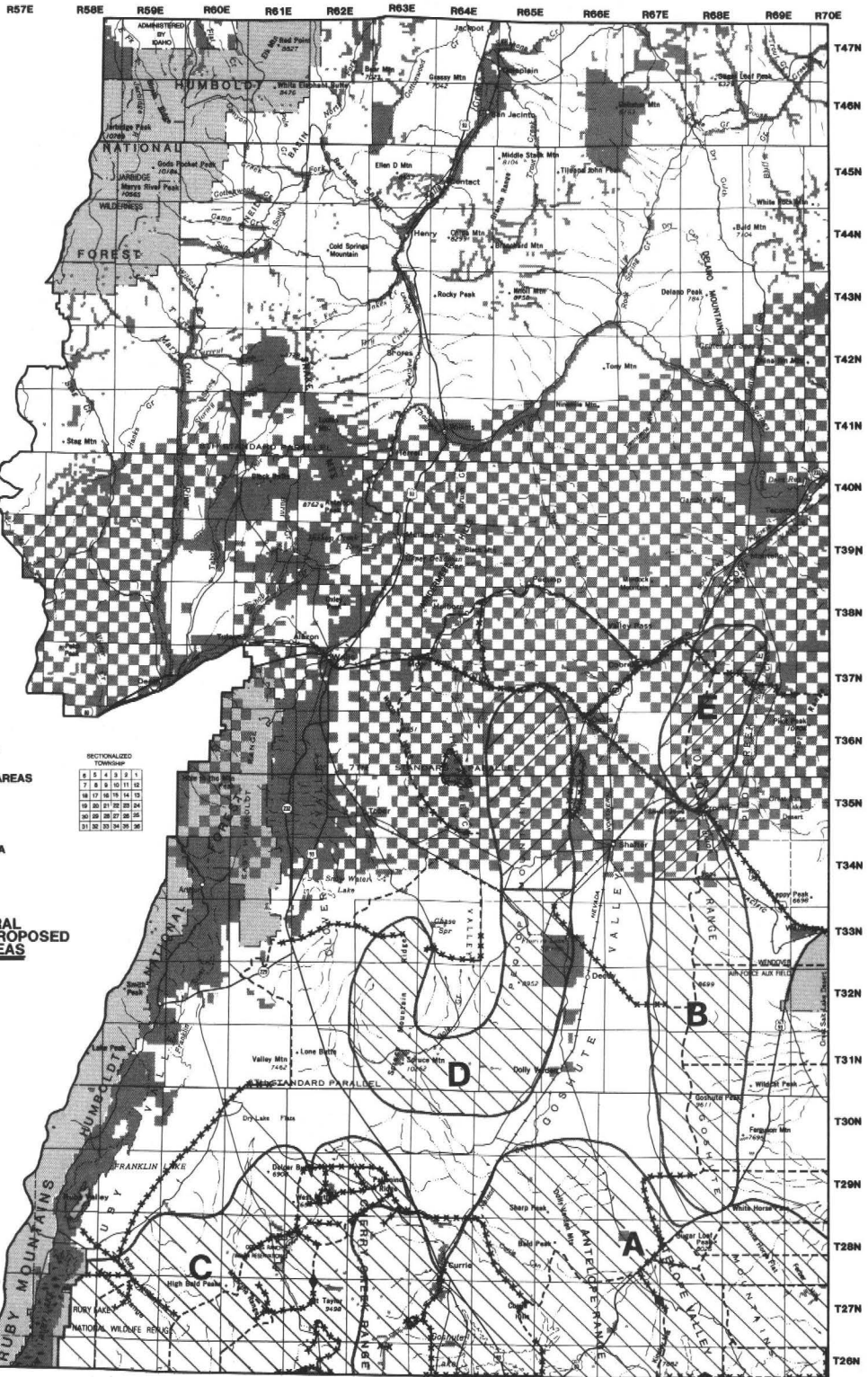
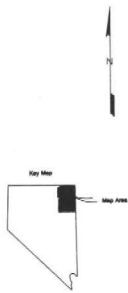
HERD AREAS	INITIAL HERD SIZE
Antelope Valley	240
Goshute	160
Maverick-Medicine	389
Spruce-Pequop	82
Total	871

The management of wild horses begins at the herd sizes specified above. Future adjustments to the initial herd size will be based on monitoring.

WATER

A sufficient amount of perennial water (springs and streams) exists within the resource area to provide an adequate quantity of water for existing uses by big game (including elk), livestock, and wild horses. However, the availability of surface water frequently becomes the limiting factor in determining livestock distribution and the distribution and size of wild horse and wildlife populations. Within some management units, particularly summer range, lack of water on public lands will limit use of available habitat by elk, potentially increasing competition for available water and forage resources. Limitations concerning available waters for wild horses have been addressed in the management determinations for the selected alternative in the 1993 RMP Approved Wild Horse Amendment and Decision Record through development of additional waters for wild horses.

The Wells RMP identified 250 spring enhancement/development projects to be constructed to enhance terrestrial wildlife habitat. At the present time, about twenty-five spring enhancement/development projects and five water facilities (guzzlers) have been completed. Those spring enhancement/development projects identified in the Wells RMP will improve water quality and quantity for big game, livestock, and wild horses.



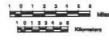
**MAP 5
WELLS RMP
ELK AMENDMENT**

- BLM LANDS
- OTHER FEDERAL LANDS
- PRIVATE AND STATE LANDS
- PROPOSED WILD HORSE FREE AREAS
- PROPOSED WILD HORSE HERD MGT. AREAS
- A.** ANTELOPE VALLEY HERD MGT. AREA
- B.** GOSHUTE HERD MGT. AREA
- C.** MAVERICK-MEDICINE HERD MGT. AREA
- D.** SPRUCE-PEQUOP HERD MGT. AREA
- E.** TOANO HERD AREA

REGIONALIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

- LIVESTOCK FENCES AND NATURAL BOUNDARIES IN RELATION TO PROPOSED WILD HORSE MANAGEMENT AREAS**
- EXISTING FENCES
 - UNFENCED ALLOTMENT BOUNDARIES
 - LET-DOWN FENCES



RIPARIAN/STREAM HABITAT

Of the 452 miles of stream and 11,413 acres of riparian vegetation inventoried in the WRA, 220 miles and 5,928 acres were on BLM administered lands. Of this total, 161 miles and 4,350 acres were rated in poor to fair condition. Further discussion of riparian/stream habitat conditions in the WRA can be found under this heading in Chapter 3 (Affected Environment) of the Wells RMP/EIS.

Bureau Policy currently places a high priority on the improvement of riparian/stream habitat conditions. All multiple use objectives, including riparian habitat improvement, are monitored and evaluated to determine the need for changes in existing management. Currently in the WRA, changes in grazing management to achieve riparian objectives have included corridor fencing, reduced stocking levels, and/or changes in season of use. At current population levels, elk have not been identified as a contributing factor to the cause of less than good riparian/stream habitat conditions.

LANDS

The WRA consists of approximately 5.7 million acres. About 4.3 million of these acres are public lands administered by the BLM. The public land pattern is generally consolidated, with the exception of a forty mile wide band of "checkerboarded" land ownership consisting of alternating federal and private sections of land. This pattern was created when the Act of July 1, 1862 granted alternating sections of land to the Union Pacific and Central Pacific Railroads as incentive for construction of the transcontinental railroad.

Federal ownership amounts to about 76% of the land within the WRA boundaries. The remaining 24%, consisting of privately owned land, is concentrated primarily along the forty mile wide "checkerboard" area. Please refer to Chapter 3 (Affected Environment) of the Wells RMP/EIS for further information on Lands.

RECREATION

The public and private lands within the WRA have been recognized by the public for their use in dispersed outdoor recreation. As described in the Wells RMP, recreation use in the WRA continues to be dispersed and includes camping, hunting, fishing, and sightseeing. Recreation within the WRA is considered to have a positive benefit to the local economies with hunting and fishing the predominant forms of recreation. The public demand for elk hunting opportunities far exceeds what current resources can sustain. In 1992, the NDOW reported there were 5,656 applications, statewide, for 115 bull elk tags; or 49 applicants for every available tag.

Please refer to Chapter 3 (Affected Environment) of the Wells RMP/EIS for further information on Recreation.

VISUAL RESOURCES

The WRA contains a variety of scenic qualities which have been classified into resource management classes. In much of the resource area there are north-south oriented mountain ranges separated by large open valleys. In most instances, the mountain ranges possess relatively high scenic values while the valleys tend to be monotypic and possess low scenic

values. Information on management classes and their development can be found in the WRA visual resource management inventory files. Please refer to Chapter 3 (Affected Environment) of the Wells RMP/EIS for more information on Visual Resources.

ECONOMIC CONDITIONS

The WRA covers the eastern portion of Elko County. However, the Elko County economy, at large, is the principal economic area to be potentially affected by the resource decisions under consideration. And, because of the manner in which data is organized and made available, the affected environment for purposes of economic analysis, must necessarily be defined as Elko County. Wherever possible this analysis will focus on the local economy within the WRA, but analysis of potential effects must also be inferred from county-wide data.

POPULATION

In spite of phenomenal growth, beginning in 1985, attendant to the expansion of gold mining and gaming related recreation and tourism, Elko County remains predominately rural and sparsely populated. Current official estimates provided by the Nevada State Demographer's Office place Elko County's population at 37,740 for 1992. Population density for the County averages about 2.2 persons per square mile. Approximately 44 percent of the County's population is concentrated in the city of Elko (16,580 persons), with an additional 15 percent in the communities of Carlin (2,270), Wells (1,230), and West Wendover (2,170).

Within the WRA, the population is estimated at 6,360 persons for 1992 (Nevada State Demographer). This includes estimates of 2,440 persons in East Line Township; 1,300 in Jackpot Township; 110 in Jarbidge Township; 380 in Tecoma Township; and 2,130 in Wells Township.

INCOME AND EMPLOYMENT

Table 12 lists the industrial sector and total income and employment and relative importance of each sector for the study area. Figures for 1991 show Services, Trade, Government, and Mining to be the primary sources of employment.

In 1991, Services provided the major source of income, estimated at 32.3 percent of total industrial income for the county. The Services industry sub-sector, Hotels and Other Lodging Places, produced slightly more than 50 percent (\$69.4 million) of the total industrial income (\$138.5 million) produced by all service industries. This underscores the strength and importance of gaming and entertainment related - as well as outdoor recreation, hunting and fishing - tourism to the county economy. Income produced by Government, Mining, and Trade followed, in that order of relative importance.

Metal (gold) mining dominates mining activity, producing 96.5 percent (\$59.9 million) of the total \$62.1 million of mining income. However, the bulk of all mining activity is located in the western part of the county, with only two operations active in the WRA.

County-wide, agriculture produces 3.6 percent of total income and provides 5.6 percent of the jobs. However, agriculture is of relatively higher significance in the more sparsely populated eastern part of the county, where it is traditionally viewed as the economic base. Cash receipts from marketings of livestock and livestock products totaled \$49.7 million for the county in 1991, with an additional \$1.8 million from crops. This yielded an estimated net farm proprietors' income of \$8.7 million, farm labor and other perquisites (room and board, etc.)

income estimated at \$4.0 million, and other farm labor (custom, etc.) income estimated at \$293 thousand.

Table 12. Elko County Total Income and Employment-1991.

Income Source	Employment		Income	
	Persons	Percent	\$1,000	Percent
Services	7,424	39.2	138,546	32.3
Government	2,861	15.1	73,114	17.0
Mining	1,393	7.3	62,084	14.5
Trade	3,338	17.6	61,267	14.3
Construction	1,274	6.7	40,491	9.4
Transportation and Public Utilities	756	4.0	26,330	6.1
Agriculture	1,062	5.6	15,416	3.6
Finance, Insurance and Real Estate	630	3.3	7,837	1.8
Manufacturing	223	1.2	4,209	1.0
TOTAL	18,961	100.0	429,294	100.0
Source: Regional Economic Information System, Bureau of Economic Analysis, 1994.				

The service industry is also of primary economic importance within the WRA. The gaming and entertainment centers of Jackpot and Wendover attract many visitors. In addition to dispersed recreational use of public lands within the WRA, other recreational attractions within the area include the Ruby Lake National Wildlife Refuge and the Humboldt National Forest which include the Jarbidge Wilderness, the Ruby Mountains, and Angel Lake.

Outdoor recreation, particularly elk hunting represents an important economic resource, both to the state and the county with public demand for elk hunting far in excess of what currently available resources can sustain. As previously stated, in 1992, the NDOW reported, statewide, there were 49 applicants for every available elk tag. Because of the limited number of elk available for harvest under current herd management practices, only about 5 percent of the available tags are allocated to non-residents. The current fee for elk tags, in addition to the hunting license fee, is \$100.00 for residents and \$500.00 for non-residents. A general hunting license for residents is \$20.50; non-residents pay \$100.50. In addition, there is a \$10.00 application fee, \$5.00 of which is allocated to a state fund specifically created to provide compensation, as necessary, for elk depredation damages.

Additional revenues are generated for the state by an annual bid-tag for elk, authorized by the Nevada State Legislature, and initiated in 1990. This bid-tag has been offered at auction for the past four elk hunting seasons, and has produced a total revenue of \$77,000, or an average of \$19,250 per tag (NDOW).

The number of elk tags issued in 1993 totaled 215, statewide. Of those, 30 were for hunting in the WRA. It is estimated that these 30 tags provided 210 hunter days¹, accompanied by 267 non-consumptive wildlife associated recreation days², which together generated \$21,500 in expenditures³ and 0.4 full-time equivalent (FTE) jobs (800 hours of labor) in Elko County. Local area income derived from these expenditures is estimated at \$6,364⁴. Willingness-to-pay values, which quantify the value of the wildlife-associated recreation, both for the hunter and the non-consumptive wildlife viewer, are estimated at \$28,130⁵.

Total personal income for Elko County, in 1991, is estimated at \$529,436,000. This includes \$429,294,000 of industrial earnings (Table 12) plus income from dividends, interest, rent, transfer payments, and other adjustments. Elko County's per capita personal income for 1991 was estimated at \$14,887, while the state average was \$19,812.

The unemployment rate as of December, 1992, was reported as 5.9 percent; with a total labor force of 16,360, there were 970 persons unemployed at that time. Current figures for

¹Hunter days are estimated at 7 days per hunt. Source: Nevada Department of Wildlife, December 1988; Biological Bulletin No. 9, Nevada Survey of the Economic Value of Trophy Big Game and Deer Harvest.

²Non-consumptive wildlife associated recreation days are estimated at 1.27 days per hunter day (Nevada Department of Wildlife estimate used for Wells RMP).

³Hunter and non-consumptive expenditures per day are estimated at \$74.13 and \$22.33 respectively. Source: U.S. Fish and Wildlife Service, November 1982; 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - Nevada. Values were adjusted to 1993 dollars with the Gross National Product (GNP) Implicit Price Deflator.

⁴Income and employment estimates are approximations based on adjusted employment coefficients and income multipliers. Source: An Input-Output Model of the Economy of Humboldt and Lander Counties; Fillo, Frank D., Hans D. Radtke, and Eugene P. Lewis, 1978. Nevada Review of Business and Economics; Reno, NV.

⁵Willingness-to-pay values are estimated at \$87.92 per hunter day, and \$36.23 per non-consumptive wildlife-associated recreation day. Source: Nevada Department of Wildlife, December 1988; Biological Bulletin No. 9, Nevada Survey of the Economic Value of Trophy Big Game and Deer Harvest and U.S. Forest Service, 1990 Resources Planning Act, National Forest Service Benefit Values. Values were adjusted to 1993 dollars with the GNP Implicit Price Deflator.

December, 1993, indicate an unemployment rate of 6.5 percent with 1,170 persons unemployed out of a labor force of 17,250.

PUBLIC ATTITUDES

Generally, BLM grazing permittees are of the opinion that the entire public land forage resource has already been adjudicated and there is no forage available for elk. When public land grazing privileges were adjudicated in the 1960's (see Appendix A), the forage demand which could not be supported by the rangeland resource was placed in "suspended non-use". Suspended non-use AUMs (an AUM is an animal unit month which is the amount of forage required to support a cow and calf or five sheep for one month) are not activated or authorized for use until the forage is determined available. Presently there are 24,184 AUMs of suspended non-use within the WRA. Livestock operators feel this suspended non-use coupled with money spent on range improvements and development has helped to achieve the upward trends in range conditions during the past eight years. Therefore, livestock operators feel that a reduction in livestock use to accommodate elk use or the allocation of any available forage to elk rather than livestock would not be acceptable and current livestock suspended non-use AUMs should be activated before elk are given any forage privileges.

In addition, based on opinions expressed during public scoping and Task Force Group meetings, ranching interests are not confident in the NDOW's ability to mitigate impacts to private lands, particularly in the long term when elk populations increase. They are also concerned that once elk become well established, pressure for increased hunting opportunities will override private landowner or land management agency input. As a result, ranching interests and grazing permittees fear that increased elk populations would result in reductions in livestock numbers on public lands and adverse economic impacts to private lands. Grazing permittees also feel that their grazing privileges may be limited in the future as a result of designation of special areas to protect key habitats. Generally, ranching interests view increasing elk populations in the WRA as something that offers the public benefits at the risk of private land resources.

The attitude of most hunters and recreationists is that the forage resource in the WRA can sustain an elk population higher than current levels. The public demand for elk in Nevada is very high. For example, in 1992 there were 5,656 applicants for 115 available resident bull elk rifle tags statewide (49 applicants for each available elk tag). This demand is expected to increase as population of hunters in the state continues to grow. Generally, the attitudes of sportsmen are mixed. Some members of the hunting population feel that perhaps existing livestock numbers should be reduced to a level which would have less impact on big game habitat. However, others wish to see elk use in the WRA maximized without compromising existing livestock and wild horse use levels.

The NDOW believes that the WRA has the potential to support an elk population greater than current levels without impacts to existing uses. The NDOW also acknowledges that elk use of private land resources will increase as populations expand within the resource area. However, they believe that they can resolve those impacts to private landowners through currently available legislation and Nevada Wildlife Commission policy.

IV. ENVIRONMENTAL CONSEQUENCES

This section outlines the environmental consequences by alternative that would result from implementation of the management determinations listed above. These projections are based on available information and knowledge of the area by personnel in the WRA and the Elko District. Any numbers given are approximate and are used as a basis to quantify impacts. The reader should not infer that they reflect exact or precise totals.

An analysis of impacts for each alternative and the effectiveness of proposed habitat development projects to mitigate the potential impacts of each alternative is shown in Appendix B.

Alternative 1 - No Action:

GENERAL

Under this alternative, the environmental consequences identified in the Wells RMP/EIS remain the same. Elk habitat and population management objectives in the WRA would not change. Elk habitat management objectives would continue to exist only for the Pilot Mountain and Jarbidge Mountain Management Areas. The natural expansion of elk populations in the WRA would occur through pioneering and/or immigration into the resource area. Population expansion would be allowed to the extent that elk use is not preventing attainment of existing multiple use-objectives identified in the Wells RMP. This threshold would be determined through monitoring.

WILDLIFE

Under the No Action Alternative, impacts to wildlife and existing wildlife habitat would remain the same as identified in the Wells RMP/EIS. The impacts to big game and big game habitats are outlined as follows:

1. The opportunities for reintroduction of native wildlife species would be enhanced or maintained.
2. Terrestrial riparian habitat would generally be improved, maintained in its current condition class, or decline.
3. Big game habitat would generally be improved from good, fair, or poor to the next higher condition class or be maintained in its current condition.
4. Identified wildlife hazards or habitat conflicts would be partially corrected.

RANGE CONDITIONS AND AVAILABLE FORAGE

Under the No Action Alternative, impacts to range conditions would be the same as identified in the Wells RMP/EIS. Through development of range improvement projects and changes in livestock grazing management, range conditions are expected to improve.

Under the No Action Alternative, elk populations would be allowed to expand naturally through pioneering outside the Pilot and Jarbidge Mountain Management Areas and/or immigration into the resource area to the extent such use is not preventing attainment of existing multiple use objectives identified in the Wells RMP/EIS, including maintaining or improving range conditions. However, no population goals or habitat management objectives for elk would be established for areas other than Pilot and Jarbidge Mountains.

The BLM would continue to monitor and evaluate attainment or non-attainment of identified multiple use objectives in the WRA. If elk use was determined to be preventing attainment of these objectives, a recommendation would be made to the NDOW to reduce or eliminate elk numbers within specific areas.

Rangeland monitoring conducted by the BLM has shown that under the current population levels and distributions, use by elk outside the Pilot and Jarbidge Mountain Management Areas is not preventing attainment of existing multiple use objectives for public lands within the WRA. However, it is difficult to predict how fast and to what level elk populations are expected to expand under this alternative. It is also difficult to predict at what population level elk may begin to prevent attainment of these objectives.

Management of any naturally established population would be the responsibility of the NDOW and the Nevada Wildlife Commission. The NDOW's elk population management goals and objectives would be influenced by the following factors: 1) recommendations from the BLM as a result of monitoring; 2) increased levels of private land depredation complaints; and 3) evaluation of public input by the Nevada Wildlife Commission as part of the normal process of setting seasons and harvests for game species in Nevada. A discussion of the NDOW's elk population management strategies can be found in Appendix E.

EXISTING GRAZING USES

Under the No Action Alternative, impacts to existing grazing uses would remain the same as identified in the Wells RMP/EIS and Wells RMP Approved Wild Horse Amendment; i.e. livestock grazing use could increase from the three to five year average use levels and initial herd sizes for wild horses within the WRA would be 871 horses. Adjustments in livestock grazing use and wild horse initial herd sizes would be based on monitoring.

The BLM would monitor the rangeland resource and make necessary adjustments in existing grazing management and/or uses to achieve multiple use objectives. Where elk management objectives do not exist (all areas except the Jarbidge and Pilot Mountain Management Areas), priority would be given to existing grazing uses identified in the land use plan when adjustments are determined necessary.

Under the No Action Alternative, there would be no management objectives established and no elk habitat improvement projects developed outside the Pilot and Jarbidge Mountain areas. Elk habitat improvement projects could provide for limiting factors and ensure the most efficient use of available forage and habitat by elk not currently available or utilized by existing grazing uses due to terrain and/or water availability. Because no such projects would be developed, mitigation of any potential conflicts between elk and existing grazing uses or attainment of existing multiple use objectives

would be through BLM recommendations to the NDOW to reduce or eliminate elk numbers within specific areas.

Under the No Action Alternative, pioneering elk are not expected to impact existing fences in the short term when populations are small and dispersed. At current population levels, no known impacts from elk to fences located on public lands have occurred. Impacts to fences could begin to occur as elk populations expand. These impacts are expected to be minimal and would occur in isolated areas where seasonal movements and traditional trails are established. Damage to fences would be mitigated on a site specific basis through big game fence modification projects proposed in the Wells RMP/EIS.

WATER

Water availability on public land has been determined to be a limiting factor within some potential elk habitats. As elk numbers increase consistent with existing resource values and uses, the demand for available waters could increase. Any increased demand for available waters would not be mitigated under this alternative. Elk habitat improvement projects would not be implemented outside the Pilot and Jarbidge Mountain Management Areas to mitigate increased demands on existing resource values or to allow for more beneficial use of available habitat, including use of forage currently unavailable to livestock and/or wild horses due to terrain and/or water availability. Water developments would be limited to those currently listed as management actions in the Wells RMP for terrestrial big game habitat improvement.

RIPARIAN HABITAT

As elk numbers increase consistent with existing resource values and uses, impacts to riparian habitat are expected to be minimal and would remain the same as identified in the Wells RMP/EIS as outlined below:

1. About 95 miles of protected stream (in addition to those miles protected without action) and 2518 acres of streamside riparian habitat would be maintained in good or better condition.
2. Unprotected aquatic and streamside riparian habitat would continue to decline in overall quality.
3. Terrestrial riparian habitat would generally be improved through protection of 250 springs and improved management. About 75% of those habitats in good, fair, or poor condition would improve by one condition class. About 15% of those acres in fair or better condition would remain static and about 10% of those in fair or better would decline by one condition class.

OTHER RESOURCE CONSTRAINTS

Under this alternative, impacts to construction or development activities (e.g. mineral, oil and gas, and geothermal exploration or development) would remain the same as outlined in the Wells RMP/EIS. Time-of-day and/or time-of-year restrictions would slow development activities where critical wildlife habitats exist. For more information of the impacts to construction or developments activities, please refer to Chapter 4 (Environmental Consequences) of the Wells RMP/EIS.

Standard operating procedures applicable to management of existing uses would remain the same as outlined in the Wells RMP/EIS Decision Record, i.e. time-of-day and/or time-of-year restrictions would not be placed on construction or development activities to mitigate impacts to elk where elk management objectives do not exist (areas outside Pilot and Jarbidge Mountain).

PRIVATE LAND RESOURCES

Based on experience with existing elk numbers in the WRA, conflicts with private lands are expected to be low during the short term because elk populations are small and widely dispersed. As elk populations continue to expand, increased depredation of private land resources could occur. However, it is difficult to predict accurately to what extent private land resources may be impacted. Compensation for damage to private land resources would be the responsibility of the NDOW. The NDOW would respond to complaints as authorized by state law or Nevada Wildlife Commission policy and/or regulation. A discussion of the management strategies available to the NDOW to address depredation of private land resources can be found in Appendix E.

It is expected that elk would follow the snow melt in the spring and use forage on public and private rangelands at higher elevations. South and west facing slopes would normally be free of snow and available to elk during this time. However, as elk populations increase, spring elk use of irrigated meadows adjacent to wintering areas could occur. If depredation occurs during spring, impacts to alfalfa fields would be of most concern, primarily as a result of physical damage to soils and/or vegetation from trampling. Grass hay meadows are less susceptible to elk use because fields green-up later in the year and are less vulnerable to trampling.

Depredation of irrigated meadows during springtime is sometimes difficult to resolve. Hazing would have limited success in resolving spring depredation where suitable habitat with cover is adjacent to fields. Emergency hunts designed to remove depredating animals would resolve most problems, particularly where only a few elk are involved.

During severe snow conditions elk may move off public and private rangelands and onto private agricultural lands. If this occurs, depredation of stored hay is possible. Under existing legislation, the NDOW is able to provide wooden panels and wire enclosures which would effectively mitigate depredation in areas where ranchers regularly maintain panels. However, where stored hay is inaccessible and panels are not maintained, consumption and wasting by elk could occur. Technical assistance provided by NDOW could reduce some of the impacts where stored hay could be moved to less vulnerable locations away from expected elk use. In some cases, moving stored hay may not be possible or may result in increased operating costs to the private landowner. Technical assistance in the use of panels and wire enclosures may reduce impacts. Although panels and materials for wire enclosures could be provided by the NDOW, ranchers would still be required to erect panels or construct enclosures around stored hay. This would result in increased operating costs.

Appendices C and D describe the expected elk population growth and corresponding number of tags issued which would occur under a limited hunting/harvest regime beginning with a population of 775. At a population level of 775, the NDOW would issue 30 elk tags annually. As the number of elk tags applications increases, so does

the available funding to address depredation complaints (assuming a certain amount of elk tag application fees continues to go toward funding depredation complaints).

RECREATION

Under the No Action Alternative, impacts to recreation would remain the same as identified in the Wells RMP/EIS. Generally, available recreation opportunities would be enhanced through improvement of stream/riparian corridors, big game, and upland game habitats. Improvement of these wildlife habitats is expected to improve both consumptive and non-consumptive recreational opportunities in the WRA.

VISUAL RESOURCES

Under the No Action Alternative, impacts to visual resources would remain the same as identified in the Wells RMP/EIS. The impacts of authorized resource activities within the WRA to visual resources would be addressed on a case by case basis to ensure compliance with BLM regulation and policy.

SOCIO/ECONOMICS

No definitive economic impacts, either beneficial or adverse, may be inferred to result from implementation of the No Action Alternative since elk numbers would exist only in harmony with existing multiple use objectives. Elk hunting expenditures, and the non-consumptive wildlife-associated recreation expenditures attendant to them, would most likely continue to be of minor importance in the local economy. They should remain at about the level discussed in Section IV, Affected Environment, fluctuating in a manner consistent with the number of elk hunting tags issued.

Under the No Action Alternative, any occasional conflicts between elk and livestock grazing should be minor and of no particular economic consequence. The BLM's monitoring and the NDOW's herd management practices should serve to identify and alleviate any potential problems.

Alternative 2 - Limited Growth (1,000 elk):

GENERAL

Under this alternative, elk habitat management objectives would be established for six management areas within the WRA to support a target population level of 1,000 elk (plus or minus 10 percent); 800 north of I-80 and 200 south of I-80 (Table 5).

Appendix C (Figure C-1 and Table C-1) describes the expected elk population growth and corresponding number of tags issued which would occur under a limited hunting/harvest regime beginning with a population of 775 north of I-80. Based on this population growth model, a population of 1,000 elk north of I-80 (800 within the WRA plus 200 within the Utah portion of Pilot Mountain) would be achieved in approximately 2-3 years.

It is difficult to predict at what rate elk populations would increase south of I-80. It is expected that elk would pioneer available habitats south of I-80 as populations expand elsewhere in the resource area. Small periodic increases in elk populations would also occur as a result of approved augmentation and/or reestablishment efforts as outlined

in the management determinations for this alternative. Appendix C (Figure C-2 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur south of I-80 beginning with a population of 150. The target population of 200 elk within the WRA south of I-80 would be achieved within the first 2-3 years following establishment of a base population of 150 animals.

To maintain a target population level of 1,000 elk (plus or minus 10 percent) within the WRA under this alternative, it is estimated that the annual harvest would increase from approximately 30 (20 bull tags, 10 cow tags) to approximately 40 (20 bull tags, 20 cow tags).

WILDLIFE

Elk may directly compete with other native wildlife species, particularly mule deer and bighorn sheep, for available habitat. Like bighorn sheep, elk are primarily grazers. However, elk forage preferences change seasonally and may compete directly with mule deer for browse species. Although the potential exists for competition between elk and bighorn sheep, it is unlikely since elk numbers would be more dispersed and bighorn sheep populations are smaller and more localized, utilizing habitat associated with steep rocky sideslopes. Although it is difficult to predict what elk seasonal use patterns might be and where habitat conflicts may occur, the potential exists for direct competition between elk and mule deer for browse species on existing mule deer winter ranges. At the population levels identified under this alternative, competition between mule deer and elk is expected to be minimal. As per the management determination for this alternative, management priorities would be given to mule deer if monitoring data indicate elk use is causing habitat degradation to mule deer habitat. The BLM would mitigate conflicts by making recommendations to the NDOW to reduce elk numbers as supported by monitoring.

RANGE CONDITIONS AND AVAILABLE FORAGE

Under this alternative, elk use is not expected to affect existing range or habitat conditions or prevent attainment of management objectives. Monitoring would determine any necessary adjustments in target elk population levels.

EXISTING GRAZING USES

The Wells RMP did not allocate forage for existing grazing uses, but rather identified monitoring would be used to adjust grazing uses (livestock, wild horses, and wildlife) if it was determined that the existing authorizations were not meeting the land use plan objectives. Current monitoring data indicate elk are not preventing attainment of existing multiple use objectives at present population levels; e.g. conflicts with existing grazing uses are minimal. Monitoring and allotment evaluations completed to date have determined that current elk population levels are resulting in minimal conflicts with existing livestock uses on public lands. Although some overlap of use areas exists, the majority of use by elk is currently being made within areas not grazed by livestock due to suitability criteria such as steep terrain and lack of water. Elk appear to select these areas for their forage and cover values. As elk numbers increase, the area of overlapping use and potential conflicts is expected to increase.

An analysis of available data indicates the WRA could support an elk population of between 1,125-2,789 without conflicting with existing grazing uses (Appendix D).

Based on this analysis, elk populations under this alternative would be below the range of numbers determined supportable by forage currently unavailable to livestock and wild horses. As elk numbers increase, the potential exists for competition with existing grazing uses for available forage. However, under this alternative, competition is expected to be minimal.

Elk use patterns and levels of use are expected to continue to be dispersed without competition for available livestock forage. At this population level, it is expected that elk would continue to make use of forage unavailable to livestock due to suitability factors such as terrain and/or water availability. Elk habitat improvement projects identified in the management determinations for this alternative such as water developments (i.e. guzzlers) to supplement existing waters would be effective in providing for elk to make more use of available habitat not currently grazed by livestock, thus minimizing conflicts. Elk habitat enhancement projects would be developed to increase elk use within rangelands unavailable for use by livestock due to terrain and/or water availability.

As elk populations increase, the potential for fence damage would also increase. Management determinations identified under this alternative would mitigate fence damage through fence modifications and/or construction of low maintenance elk pass structures. Under this alternative, impacts to fences are expected to be minimal. It is anticipated that approximately 30 miles of fence modification would be necessary.

WATER

As elk numbers increase, the demand for available waters is expected to increase. However, conflicts are expected to be minimal. Increased demand for available waters would be mitigated through development of supplemental water facilities for elk within elk habitat management areas away from existing grazing use areas.

RIPARIAN HABITAT

As elk numbers increase, the potential exists for increased impacts to terrestrial riparian habitats, particularly springs and/or seeps and associated wet meadow areas which could be utilized by elk for wallows. Impacts could also occur to spring developments and associated protection fences as a result of concentrated use. Use of terrestrial riparian habitats by elk would vary depending on season of use and elk population densities. However, it is expected that elk impacts to terrestrial riparian habitats would be minimal. Proposed fence modifications within areas of high seasonal use would be effective in mitigating any conflicts with existing spring enclosure fences.

Adjustments in existing livestock grazing management within the resource area have been made in order to attain management objectives for the improvement of stream riparian habitat conditions. Increased use of stream riparian habitats by elk could slow attainment of these management objectives. However, experience in similar habitat types within the Great Basin has shown impacts to stream riparian habitats by elk populations managed through harvest strategies to be minimal or non-existent. Under this alternative, it is expected that impacts to stream riparian management would be minimal due to the nomadic nature of elk and the unlikelihood of elk making concentrated use in these habitat types. Monitoring would identify conflicts and needed adjustments in elk management to ensure attainment of stream riparian management objectives.

OTHER RESOURCE CONSTRAINTS

The impacts of other resource management activities on elk habitat would be analyzed for those areas where elk management objectives are established. For example, an impact assessment for construction or development activities could result in time-of-day and/or time-of-year restrictions to mitigate impacts to critical elk habitat.

PRIVATE LAND RESOURCES

The impacts of elk use to adjacent private land resources would be much the same as discussed under the Alternative 1. As elk numbers increase, depredation of private land resources is expected to increase. Compensation for damage to private land resources would be the responsibility of the NDOW as discussed under Alternative 1. Based on existing legislative funding authorities, increased demand for elk hunting opportunities would increase available funding for addressing depredation complaints.

RECREATION

Increased recreational use within the resource area associated with increased elk population levels would increase on and/or off-road vehicle traffic, causing minor increases in fugitive dust levels and potential increases in road maintenance needs. Increased off-road traffic would cause degradation of watershed values, increasing erosion potentials. Increased recreational use within the resource area could also increase chances for gates to be left open and vandalism to range improvements. All of these impacts are expected to be minimal.

VISUAL RESOURCES

Low level impacts to visual resources would be associated with construction of 15 supplemental water developments within elk habitats. Visual impacts would be addressed on a case by case basis under a site specific environmental analysis.

SOCIO/ECONOMICS

Consumptive and non-consumptive benefits associated with elk are expected to increase relative to overall elk numbers and the number of elk tags issued by the NDOW. Under this alternative, proposed elk population levels are expected to be achieved within the first two years, at which time the hunting tags for elk would be increased to approximately 40, and continue at about that level on an annual basis, with adjustments as necessary, to maintain target population levels.

These 40 tags would provide an estimated 280 hunter days, and 356 non-consumptive wildlife-associated recreation days, annually. Total expenditures are estimated at \$28,750 (1993 dollars), producing about \$8,510 in local area income, and about 0.5 full time equivalent (FTE) jobs (1000 hours). Willingness-to-pay values, the value, or worth, of the experience to the hunter and the recreationist, are estimated at \$34,800.

The State's annual revenue from application fees, assuming 5 percent of the tags issued would be made available to non-residents, should rise to about \$6,180 (assuming 2 of the 40 tags issued being available to non-residents).

Under this alternative any occasional conflicts of elk with livestock grazing are expected to be minor and of no particular economic consequence; i.e. no adverse economic effects can be anticipated. Compensation for any depredation that might occur on private property is available to ranch operators, as discussed under Alternative 1.

Alternative 3 - Preferred Alternative (2,200 elk):

GENERAL

Under this alternative, elk management objectives would be established for six management areas within the WRA, to support a target population level of 2,200 elk (plus or minus 10 percent). This total resource area target population level would include 1,640 (plus or minus 10 percent) north of I-80 and 560 (plus or minus 10 percent) south of I-80.

Appendix C (Figure C-1 and Table C-1) describes the expected elk population growth and corresponding number of tags issued which would occur under a limited hunting/harvest regime beginning with a population of 775 north of I-80. Based on this population growth model, a target level of 1,640 elk (plus or minus 10 percent) would be achieved within about 6-7 years. Target levels could be achieved sooner depending upon whether or not augmentation and/or reestablishment efforts occur.

To maintain the target population level under this alternative north of I-80, the harvest strategy would have to shift from limited harvest to maintenance harvest. Beginning 3-4 years prior to achievement of target levels, the number of animals harvested would be increased from approximately 50 (35 bull tags, 15 cow tags) to approximately 65 (35 bull tags, 30 cow tags).

It is difficult to predict at what rate elk would pioneer available habitats south of I-80. Elk are expected to pioneer available habitats south of I-80 as elk populations expand elsewhere in the resource area. Periodic increases in elk populations would also occur as a result of approved augmentation and/or reestablishment efforts within the criteria outlined in the management determinations for this alternative. Appendix C (Figure C-2 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur south of I-80 beginning with a population of 150. Assuming an initial population of 150 elk managed under a limited growth harvest regime, a target level of 560 elk (plus or minus 10 percent) would be achieved within about 11-12 years.

To maintain the target population level under this alternative south of I-80, a maintenance harvest strategy would begin 3-4 years prior to achievement of target level. The number of animals harvested would be increased from approximately 25 (15 bull tags, 10 cow tags) to approximately 35 (15 bull tags, 20 cow tags).

WILDLIFE

The potential for competition between elk and other native wildlife species would exist as elk populations increase within the resource area. Competition between elk and bighorn sheep is expected to be minimal due to differences in habitat preferences and low population densities. It is difficult to predict just what seasonal use areas might be. However, under this alternative, use of crucial deer winter ranges by elk and the

potential for direct competition for available browse forage would be greater than under Alternative 2 but a low level of impacts is expected. Conflicts in seasonal use areas would be identified through monitoring with priority for management given to mule deer.

RANGE CONDITIONS AND AVAILABLE FORAGE

As elk numbers increase and elk begin to make use of available habitat, some reduction in range condition could occur. However, under this alternative, elk numbers would remain relatively dispersed and low level impacts are expected. The potential for degradation of range conditions would be greatest in areas of concentrated elk use such as within winter/spring use areas along ridgelines and in areas where snow conditions restrict distribution. Monitoring within elk use areas would quantify impacts and serve as the basis for recommending adjustments in local elk population levels.

EXISTING GRAZING USES

Elk populations under this alternative would continue to be supported by forage currently unavailable to existing grazing uses (livestock and wild horses) and impacts to existing grazing uses would be low (Appendix D). The degree of conflict between existing grazing uses would be identified through monitoring. Elk habitat enhancement projects would be effective in achieving maximum use of available habitat by elk, minimizing the potential for direct competition with existing grazing uses.

The potential for fence damage could increase as elk populations increase and seasonal migration patterns become established. Mitigation for fence damage would be mostly reactive as elk seasonal use areas become established. Fence damage is expected to be greatest in areas where fences would cross established travel routes. Management determinations identified under this alternative would mitigate fence damage through fence modifications and/or construction of low maintenance elk pass structures. An estimated 45 miles of fence modification would be required under this alternative.

WATER

As elk numbers increase under this alternative, the demand for available waters is expected to increase. However, a low level of conflict is expected as discussed under Alternative 2. Any increased demand for available waters associated with increased elk use would be mitigated as discussed under Alternative 2.

RIPARIAN HABITAT

Impacts to terrestrial riparian habitats (i.e. developed and undeveloped springs, seeps, and wet meadows) would be much the same as described under Alternative 2. Impacts would vary depending on season of use and elk population densities. Monitoring would identify conflicts and recommendations for changes in elk management.

As elk numbers increase under this alternative, impacts to stream riparian habitat by elk and/or the effects of elk use on attainment of stream riparian management objects are expected to remain minimal as discussed under Alternative 2. Monitoring would

quantify impacts and serve as the basis for recommending adjustments in local elk population levels.

OTHER RESOURCE CONSTRAINTS

Management constraints on other resource management activities would be the same as described under Alternative 2.

PRIVATE LAND RESOURCES

It is impossible to predict accurately whether depredation of private land resources would occur and to what extent. As elk numbers increase, the potential for depredation of private land resources would also increase. Therefore, the potential for conflict is expected to be greater than for Alternative 2. Conflicts with adjacent private land resources would be mitigated as discussed under Alternative 1.

RECREATION

The impacts associated with increased recreational use would be the same as discussed under Alternative 2. The potential for impacts associated with recreational use is expected to increase as consumptive and non-consumptive opportunities increase. However, impact levels are anticipated to be low.

VISUAL RESOURCES

Impacts to visual resources would be associated with development of elk habitat improvement projects. Low level impacts to visual resources could occur as a result of construction of 20 water developments and 2,000 acres of vegetation manipulation projects. Mitigation of visual impacts would be addressed on a case by case basis under a site specific environmental assessment.

Socio/ECONOMICS

Consumptive and non-consumptive benefits associated with elk are expected to increase relative to overall elk numbers and the number of elk tags issued by the NDOW. The number of elk hunting tags issued under this alternative would increase slowly as the numbers of elk increase. Under this alternative, target population levels would be achieved in about 6-7 years north of I-80 and 11-12 years south of I-80. To maintain these target population levels, the number of tags issued would rise to a level of approximately 100 tags in about 8 years. Hunter days are expected to increase to about 700 days, at this time, with about 889 days of non-consumptive wildlife-associated recreation.

Total annual expenditures resulting from this level of elk hunting and recreation are estimated at about \$71,742. This should create an estimated 1.2 FTE jobs (2,400 hours), and provide about \$21,300 in local area income. Value derived by the hunters and recreationists is estimated at a total of \$93,800 and revenues to the State from application fees should reach about \$16,450. While still of no real consequence in terms of the regional economy, the effect is perceptible and positive.

It is recognized that a potential for depredation damage exists, due to the possibility of elk foraging on private land resources. Private losses might be in the form of

damaged fences, loss of some grass or alfalfa hay, incidental loss of aftermath and rangeland grazing, or damage to water or irrigation facilities. Such losses as may occur are expected to be inconsequential due to the relatively small size of foraging elk herds. In most cases, these losses are fully compensable through existing legislation which enables the NDOW to respond to and/or compensate for depredation damage by elk. A discussion of the management strategies available to the NDOW to address depredation of private land resources can be found in Appendix E.

Alternative 4 - Moderate Density (3,500 elk):

GENERAL

Under this alternative, elk management objectives would be established for six management areas within the WRA, to support a target population level of 3,500 elk (plus or minus 10 percent). This total resource area target population level would include 2,570 (plus or minus 10 percent) north of I-80 and 930 (plus or minus 10 percent) south of I-80.

Current populations north of I-80 are estimated between 390-575 (Table 5). Because augmentation and/or reestablishment efforts could be allowed, it is difficult to predict how fast target levels would be achieved. Appendix C (Figure C-1 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur under a limited hunting/harvest regime beginning with a population of 775 north of I-80. Based on this population growth model, a target level of 2,570 elk (plus or minus 10 percent) would be achieved within about 9-10 years.

To maintain the target population level under this alternative north of I-80, a maintenance harvest strategy would have to begin 3-4 years prior to achievement of target levels. The number of animals harvested would be increased from approximately 65 (50 bull tags, 15 cow tags) to approximately 80 (50 bull tags, 30 cow tags).

As elk populations increase elsewhere in the resource area, elk are expected to expand into available habitats south of I-80. Small periodic increases in elk populations would occur as a result of approved augmentation and/or reestablishment efforts as outlined in the management determinations for this alternative. Therefore, it is difficult to predict at what rate elk populations south of I-80 would increase. Appendix C (Figure C-2 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur south of I-80 beginning with a population of 150. Assuming an initial population of 150 elk managed under a limited growth harvest regime, a target level of 930 elk (plus or minus 10 percent) would be achieved within about 16-17 years.

To maintain the target population level under this alternative south of I-80, a maintenance harvest strategy would begin 3-4 years prior to achievement of target level. The number of animals harvested would be increased from approximately 25 (15 bull tags, 10 cow tags) to approximately 35 (15 bull tags, 20 cow tags).

WILDLIFE

As elk numbers increase under this alternative, the potential for competition between elk and other native wildlife species for available habitat is also expected to increase. Minimal competition between elk and bighorn sheep is expected due to differences in

habitat preferences and low population densities as discussed under Alternative 3. Under this alternative, use of crucial deer winter ranges by elk and the potential for direct competition for available browse forage would be greater than for Alternative 3. Conflicts would be identified through monitoring with priority for management given to mule deer.

RANGE CONDITIONS AND AVAILABLE FORAGE

Under this alternative, elk are expected to make increased use of available habitat as elk densities become less dispersed. However, impacts to range conditions are expected to remain low. The potential for degradation of range conditions would be greatest in areas of concentrated elk use as described under Alternative 3. Monitoring of rangeland conditions within elk use areas would quantify impacts and serve as the basis for recommending adjustments in local elk population levels.

EXISTING GRAZING USES

Elk populations under this alternative would be slightly above that range identified as supportable by forage currently unavailable to existing grazing uses (livestock and wild horses). The elk population range supportable by forage currently unavailable to existing grazing uses is presented in Appendix D. Under this alternative, the level of competition for available forage between elk and existing grazing uses is expected to be somewhat higher than for Alternative 3. The degree of conflict between existing grazing uses would be identified through monitoring. Elk habitat enhancement projects would help maximize use of available habitat while minimizing the potential for direct competition with existing grazing uses. However, under this alternative, it is expected that elk habitat improvement projects would begin to lose effectiveness in mitigating conflicts with existing grazing uses.

The potential for increased fence damage associated with increased elk populations and would be the same as discussed under Alternative 3. Approximately 55 miles of fence modification would be required to mitigate conflicts under this alternative.

WATER

Under this alternative, the demand for available waters and the level of conflict would be greater than Alternative 3. Increased demand for available waters associated with increased elk use would be mitigated as discussed under Alternative 2. However, as elk populations begin to make increased use of available habitats, the effectiveness of supplemental water developments for elk to mitigate increased demand of available waters is expected to decline.

RIPARIAN HABITAT

Impacts to terrestrial riparian habitats (i.e. developed and undeveloped springs, seeps, and wet meadows) would be much the same as described under Alternative 2.

As elk numbers increase under this alternative, impacts to stream riparian habitat by elk and/or the effects of elk use on attainment of stream riparian management objects are expected to remain minimal as discussed under Alternative 2.

OTHER RESOURCE CONSTRAINTS

Management constraints on other resource management activities would be the same as described under Alternative 2.

PRIVATE LAND RESOURCES

It is impossible to predict accurately whether depredation of private land resources would occur and to what extent. However, as elk numbers increase, the potential for depredation of private land resources is expected to increase. The potential for conflicts with adjacent private land resources would be the same or slightly greater than for Alternative 3. Conflicts would be mitigated as discussed under Alternative 1.

RECREATION

The impacts associated with increased recreational use would be the same as discussed in Alternative 2. The potential for impacts associated with recreational use would increase as consumptive and non-consumptive opportunities increased. The level of impacts would be the same as for Alternative 3.

VISUAL RESOURCES

Impacts to visual resources would be associated with development of elk habitat improvement projects. Low level impacts to visual resources could occur resulting from construction of 35 water developments within elk habitats and 3,500 acres of vegetation manipulation projects. Mitigation of visual impacts would be addressed on a case by case basis under a site specific environmental assessment.

SOCIO/ECONOMICS

Consumptive and non-consumptive benefits associated with elk are expected to increase relative to overall elk numbers and the number of elk tags issued by the NDOW. This alternative would yield a sustained annual level of approximately 115 tags in 13 years, subject to adjustments for herd size management. Hunter days associated with this number of tags are estimated at 805, and non-consumptive wildlife-associated recreation days are estimated at 1,022.

This level of hunting and recreation activity would produce annual expenditures estimated at \$82,500, resulting in 1.4 FTE jobs (2,800 hours), and an estimated direct income in the local area of \$24,450. Willingness-to-pay values are estimated at \$107,800; and revenues to the state from application fees are expected to be \$17,900.

Depredation of private land resources by elk is expected to occur as elk populations increase. Existing state legislation allows for such losses to be fully compensable enabling the NDOW to respond to and/or compensate for depredation damage by elk. A discussion of the management strategies available to the NDOW to address depredation of private land resources can be found in Appendix E.

It is also anticipated that some competition with livestock grazing on public lands could result under this alternative as elk populations begin to make increased use of available habitat. Monitoring and the application of mitigation efforts would intensify, but at this

elk population level proposed mitigation is expected to lose effectiveness. The potential economic effect on ranch operations cannot be estimated, because potential conflicts with livestock grazing is indeterminate.

Alternative 5 - High Density (4,800 elk):

GENERAL

Under this alternative, elk management objectives would be established for six management areas within the WRA, to support a target population level of 4,800 elk (plus or minus 10 percent). This total resource area target population level would include 3,490 (plus or minus 10 percent) north of I-80 and 1,310 (plus or minus 10 percent) south of I-80.

Current populations north of I-80 are estimated between 390-575 (Table 5). Because augmentation and/or reestablishment efforts could be allowed, it is difficult to predict how fast target levels would be achieved. Appendix C (Figure C-1 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur under a limited hunting/harvest regime beginning with a population of 775 north of I-80. Based on this population growth model, a target level of 3,490 elk (plus or minus 10 percent) would be achieved within about 13-14 years.

To maintain the target population level under this alternative north of I-80, a maintenance harvest strategy would have to begin 3-4 years prior to achievement of target levels. The number of animals harvested would be increased from approximately 90 (70 bull tags, 20 cow tags) to approximately 110 (70 bull tags, 40 cow tags).

As elk populations increase elsewhere in the resource area, elk are expected to expand into available habitats south of I-80. Small periodic increases in elk populations would occur as a result of approved augmentation and/or reestablishment efforts as outlined in the management determinations for this alternative. Therefore, it is difficult to predict at what rate elk populations south of I-80 would increase. Appendix C (Figure C-2 and Table C-2) describes the expected elk population growth and corresponding number of tags issued which would occur south of I-80 beginning with a population of 150. Assuming an initial population of 150 elk managed under a limited growth harvest regime, a target level of 1,310 elk (plus or minus 10 percent) would be achieved within about 20-21 years. To maintain the target population level under this alternative south of I-80, a maintenance harvest strategy would begin 3-4 years prior to achievement of target level. The number of animals harvested would be increased from approximately 35 (25 bull tags, 10 cow tags) to approximately 45 (25 bull tags, 20 cow tags).

WILDLIFE

As elk numbers increase under this alternative, the potential for competition between elk and other native wildlife species for available habitat is also expected to increase. Conflicts between elk and bighorn sheep are expected to remain the same as discussed under Alternative 3. Until elk seasonal use patterns are established, it is difficult to predict what level of conflicts might occur between elk and mule deer on crucial deer winter ranges. However, under this alternative, it is estimated use of crucial deer winter ranges by elk and the potential for direct competition for available browse

forage would be at a greater level than estimated for Alternatives 3 and 4. Conflicts would be identified through monitoring with priority for management given to mule deer.

RANGE CONDITIONS AND AVAILABLE FORAGE

As elk populations increase and elk habitat improvements are developed, elk densities are expected to be less dispersed with seasonal use areas well established. A reduction in range condition due to elk use could occur in areas of concentrated elk use, particularly ridgelines and southern aspects where concentrated winter and spring elk use would occur. However, impacts to range conditions are expected to remain similar to those identified under Alternative 4. Monitoring of rangeland conditions within elk use areas would quantify impacts and serve as the basis for recommending adjustments in local elk population levels.

EXISTING GRAZING USES

Elk populations under this alternative would be above that range identified as supportable by forage currently unavailable to existing grazing uses (livestock and wild horses). The elk population range supportable by forage currently unavailable to existing grazing uses is presented in Appendix D. However, considering the indeterminate factors and the conservative assumptions utilized in this data analysis, it is difficult to predict at what elk population level conflicts with existing uses would occur. However, as elk numbers increase under this alternative, making increased use of available habitat and habitat improvements achieve less effectiveness in mitigating conflicts, competition between elk and existing grazing uses is expected to increase. Conflicts are expected to be greater than for Alternative 4. Under this alternative, habitat improvements are projected to achieve moderate success in minimizing the potential for direct competition with existing grazing uses. Conflicts between elk and existing grazing uses would be quantified through monitoring and serve as the basis for recommending necessary adjustments in target population levels.

The potential for increased fence damage associated with increased elk populations would be mitigated as discussed under Alternative 3. Approximately 55 miles of fence modification would be required to mitigate conflicts under this alternative (same as for Alternative 4).

WATER

Increased demand for available waters associated with increased elk use would be mitigated as discussed under Alternative 2. Under this population level, mitigation measures such as supplemental water development and vegetation manipulations to promote increased use of available habitat by elk would achieve moderate success.

RIPARIAN HABITAT

Impact to terrestrial and stream riparian habitats would be much the same as discussed under Alternative 2. Monitoring would quantify impacts and serve as the basis for recommending adjustments in local elk population levels.

OTHER RESOURCE CONSTRAINTS

Management constraints on other resource management activities would be the same as described under Alternative 2.

PRIVATE LAND RESOURCES

As elk populations increase under this alternative, it is impossible to predict accurately whether depredation of private land resources would occur and to what extent. However, as elk numbers increase, the potential for depredation of private land resources is expected to increase. Conflicts with adjacent private land resources would be mitigated as discussed under Alternative 1.

RECREATION

The impacts associated with increased recreational use would be the same as discussed in Alternative 2. The potential for impacts associated with recreational use would increase as consumptive and non-consumptive opportunities increased. The level of impacts would be the same as for Alternative 3.

VISUAL RESOURCES

Impacts to visual resources would be associated with development of elk habitat improvement projects. Low level visual impacts could occur as a result of construction of 45 supplemental water developments within elk habitats and 5,000 acres of vegetation manipulation projects. Mitigation of visual impacts would be addressed on a case by case basis under a site specific environmental assessment.

SOCIO/ECONOMICS

Consumptive and non-consumptive benefits associated with elk are expected to increase relative to overall elk numbers and the number of elk tags issued by the NDOW. At this population level, the number of tags issued for elk hunting would rise to approximately 155 in approximately 17 years. Hunter days would reach 1,085; and non-consumptive wildlife-associated recreation days are estimated to number 1,378. Total expenditures associated with hunting and recreation activity are estimated at \$111,200, producing direct income in the local area of \$32,900, providing an estimated 1.9 FTE jobs (3,800 hours).

The worth of the recreation experience, for hunters and recreationists combined, is estimated at a willingness-to-pay value of \$145,300. Revenues to the state for application fees are estimated at \$24,100; assuming that only 5 percent of the elk tags would be issued to non-residents, and not projecting for any bid-tag sales.

Competition with livestock grazing for AUMs, potential depredation of private land resources, and the potential economic impact on individual ranch operations would be based on the level of conflict experienced. As populations levels increase, increased levels of conflict are expected with some adverse impact on individual ranch operations likely to occur. Most all economic losses would be compensable through existing legislation allowing the NDOW to respond to and/or compensate for depredation damage by elk. Monitoring would identify conflicts in management of public land

resources and allow for mitigation through recommendations to the NDOW in reductions of elk herd sizes as necessary.

Cumulative Impacts:

All resource values have been evaluated for cumulative impacts. It has been determined that cumulative impacts would be negligible as a result of alternatives presented in this environmental assessment.

Monitoring Needs:

The monitoring described for each alternative is sufficient for this action.

V. CONSULTATION AND COORDINATION

A. Persons, Groups, and Agencies Consulted:

The determination to process this amendment was made in April, 1993. A Notice of Intent to prepare an environmental assessment (EA) level amendment to the Wells RMP was published in the Federal Register on May 14, 1993. This notice also included a 45-day scoping period during which the public was requested to assist the BLM in identifying planning issues, planning criteria, and identifying alternatives they wish to be analyzed in the amendment. A letter to all interest groups, individuals, and agencies was sent on May 13, 1993. Two public scoping meetings were also held (June 1, 1993 in Twin Falls, Idaho and June 2, 1993 in Wells, NV) to receive public comments on the scoping documents. A news release was prepared and sent to all newspapers in northern Nevada. In response, thirty five comment letters were received and oral comments were received from twenty two individuals. Written and oral comments expressed a wide range of concerns and views which are summarized under the heading "Public Attitudes" in Chapter III of this EA.

To facilitate a more efficient preparation of the plan amendment, a Task Force Group was formulated to assist the area manager in:

- formulating planning issues,
- identifying the scope of environmental analysis,
- developing a scoping document,
- reviewing public comments,
- identifying management alternatives to be considered,
- providing baseline information, and
- selecting a preferred alternative.

The Task Force Group is comprised of representatives from resource management agencies, land owners, special interest groups, and county government. The following is a list of Task Force Group members:

Robert Wright	Rancher/Land Owner
Steve Boies	Rancher/Land Owner
Don Campbell	Rancher/Land Owner
John Dits	Elko Chapter, Rocky Mountain Elk Foundation
Gilbert Hernandez	Elko County Advisory Board to Manage Wildlife
Carl Nellis	Idaho Dept. of Fish & Game, Region 4
Larry Barngrover	Nevada Division of Wildlife, Region 2
Boyd Spratling	Nevada Wildlife Commission
Jack Rensel	Utah Dept. of Wildlife, Northern Region
Waive Stager	U.S. Forest Service, Jarbidge Ranger District
Don Ohman	U.S. Forest Service, Twin Falls Ranger District
Gary Carson	BLM, Boise District, Jarbidge Resource Area
Tom Dyer	BLM, Burley District, Snake River Resource Area
Leon Berggren	BLM, Salt Lake District, Bear River Resource Area
Bill Baker	BLM, Elko District, Wells Resource Area
Von Sorensen	Elko County Commissioners, Federal Land Use Advisory Commission
Candice Wines	Elko County Commissioners, Federal Land Use Advisory Commission

B. List of Preparers:

Ray Lister - BLM, Elko District Range Specialist
Kent Undlin - BLM, Wells Resource Area Wildlife Biologist
Paul Myers - BLM, Nevada State Office Economist

C. List of Reviewers:

Elk Plan Amendment Task Force Group
David Vandenberg - BLM, Elko District Planning and Environmental Coordinator
Roy Price - BLM, Elko District Wildlife Biologist
Gary Back - BLM, Elko Resource Area Wildlife Biologist
Ken Wilkinson - BLM, Elko Resource Area Wildlife Biologist
Carol Evans - BLM, Elko Resource Area Fisheries Biologist
Neil Talbot - BLM, Nevada State Office Environmental Planner
Dave Pulliam - BLM, Nevada State Office Wildlife Program Leader
Leticia Gallegos - BLM, Wells Resource Area Range Conservationist

APPENDICES

Appendix A

Adjudication, land use planning, monitoring and their relation to existing livestock use within the Wells Resource Area.

Livestock grazing privileges were originally awarded in accordance with the Taylor Grazing Act of June 28, 1934. The establishment of grazing allotments and determining the number of livestock and wildlife that can be supported by the range resource for a particular allotment, unit, or area was first done through the Bureau's adjudication program in the 1960's. The Bureau's adjudication process involved: 1) the determination of base property qualifications by means of dependent property surveys; 2) the rating of the grazing capacity of the Federal range by means of forage inventories; 3) the rating of the production potential of the Federal range; and 4) the equitable apportionment of the Federal range among the competing applicants for use of the same range area. The range adjudication process and the equitable apportionment of the available forage among the competing applicants established the grazing preference for each qualified livestock operator as well as the area, season, and kind of livestock use.

Section 202 of the Federal Land Policy and Management Act of 1976 directed the BLM to complete Land Use Planning. Beginning in the late 1970's and continuing in the late 1980's the BLM in Nevada was in an intensive land use planning phase. The emphasis which began this effort was the court settlement (NRDC v. Morton), agreed to between the National Resource Defence Council, the BLM and Federal Court wherein, the BLM was to prepare 212 Environmental Impact Statements (EISs) to analyze the impacts of grazing domestic livestock on public lands. Early land use planning efforts contained, in part, the proposed action for the allocation of forage to livestock, wildlife, wild horses and burros which was analyzed in the EIS's. These proposed actions used "one point in time inventories" as a data base to determine the overall carrying capacity of the range and proposed various allocations of the capacity between varying uses. This policy became controversial and centered around the validity of using "one point in time inventories" as the main criteria for allocations. As a result of this controversy in 1982 the BLM Director issued a new policy (Instruction Memorandum 81-548) that required adequate monitoring data to be required in addition to data from "one point in time inventories" when changes in livestock grazing preferences were implemented.

As a result, Nevada's Resource Management Plans made the following types of decisions:

1. Livestock Grazing:
 - a. Identified objectives for vegetation goals.
 - b. Determined where livestock would and would not be allowed.
 - c. Identified the degree of range improvements.
 - d. Identified kind of livestock to be permitted by area.
 - e. Identified goals for authorized levels of livestock use.
 - f. Identified "initial levels" of authorized livestock grazing.
 - g. Identified that "monitoring" would be used to adjust livestock grazing if it was determined that the existing authorizations were not meeting the LUP objectives.
2. Wild Horse and Burros:
 - a. Identified Herd Management Areas.
 - b. Identified "initial levels" of Wild Horse and Burros.
 - c. Identified that "monitoring" would be used to adjust Wild Horse and Burro levels.
3. Wildlife:
 - a. Identified habitat objectives by kind and area or wildlife.
 - b. Identified "reasonable numbers" of wildlife by kind and area.
 - c. Identified aquatic habitat objectives.
 - d. Identified that "monitoring" would be used as the basis for recommending adjustments in wildlife population levels to the Nevada Department of Wildlife.

**Appendix B
Management Determination and Impact Analysis Summary**

Management Determinations					
Alternative	Alternative 1 (No Action)	Alternative 2 (Limited Growth)	Alternative 3 (Preferred Alternative)	Alternative 4 (Moderate Density)	Alternative 5 (High Density)
Target Population	400	900-1,100	1,980-2,420	3,150-3,850	4,320-5,280
Mgt. Areas	2	6	6	6	6
Elk Habitat Improvements	none	15 waters 30 mi fence	20 waters 45 mi fence 2,000 ac. burn	35 waters 55 mi fence 3,500 ac. burn	45 waters 55 mi fence 5,000 ac. burn

Impact Analysis for Each Alternative (Impact Rating/Mitigation Rating)					
Existing Big Game Habitats	0/1A	1/1A	2/1A	3/1A	3/1A
Vegetative Resources/ Range Conditions	0/1A	0/1A	2/1A	2/1A	2/1A
Existing Grazing Uses	0/1A	1/1A,1C	2/1A,1C	3/1A,2	3/1A,3
Fences	1/1C	1/1C	3/1C	3/1C	3/1C
Demand on Available Waters	1/0	1/1C	1/1C	3/2	3/3
Riparian Habitats	1/1A	1/1A	1/1A	1/1A	1/1A
Constraints on other Resource Activities	1/0	3/0	3/0	3/0	3/0
Conflicts with Private Land Resources	1/1B	1/1B	3/1B	3/1B	3/1B
Recreation	1/0	1/0	2/0	2/0	2/0
Visual	1/1A	1/1A	2/1A	2/1A	2/1A
Socio/Economics	+/0	+/0	+/0	+/0	+/0
<p>Impact Rating:</p> <ul style="list-style-type: none"> + Positive benefits associated with increased consumptive and non-consumptive use. 0 No impacts. 1 Minimal impacts 2 Potential increased impacts expected; low level. 3 Conflicts are expected. <p>Mitigation Analysis:</p> <ul style="list-style-type: none"> 0 No mitigation. 1A Mitigation via rangeland monitoring/allotment evaluation to reduce numbers; mitigation via site specific EA. 1B Mitigation - NDOW responsibility (depredation compensation). 1C Mitigation via habitat improvements is effective. 2 Mitigation begins to lose effectiveness. 3 Mitigation results in moderate success. 					

Appendix C

Estimated Elk Population Growth Model

Introduction

In order to formulate an estimate of how fast elk populations in the Wells Resource Area (WRA) could be expected to increase, growth curves and tables were developed for populations north of I-80 (Figure C-1, Table C-1) and south of I-80 (Figure C-2, Table C-2) based on maximum response to a new environment. Existing elk populations within the WRA north of I-80 are estimated at 390-575. Approximately 150 elk also inhabit the Utah side of Pilot Mountain. Because the Pilot Mountain elk population is cooperatively managed by Utah and Nevada under similar harvest strategies, a base population of 775 (current WRA elk population estimate north of I-80 plus the current Pilot Mountain population for Utah) was used to estimate population growth north of I-80. Because established populations do not exist south of I-80 (only occasional sightings of elk have been recorded), a viable base population of 150 was used as a starting point from which to estimate population growth south of I-80.

Assumptions

In developing these population growth estimates, the assumption is made that mortalities are light and based on a limited hunting/harvest regime. Also, limited predator (animal and human) mortalities were used. Assumptions inherent to this population model are based on 25 years data on the Cache Forest in Utah. However, the assumptions utilized were slightly liberalized based on professional judgement as Nevada conditions dictate. The following assumptions were used for this analysis:

- .90 male young survival (post-pre)¹
- .90 female young survival (post-pre)
- .92 female adult survival (post-pre)
- .95 yearling male survival (post-pre)
- .95 male adult survival (post-pre)
- .43 production (summer ratio)

¹ "post-pre" = from post hunting season to pre-hunting season the following year.

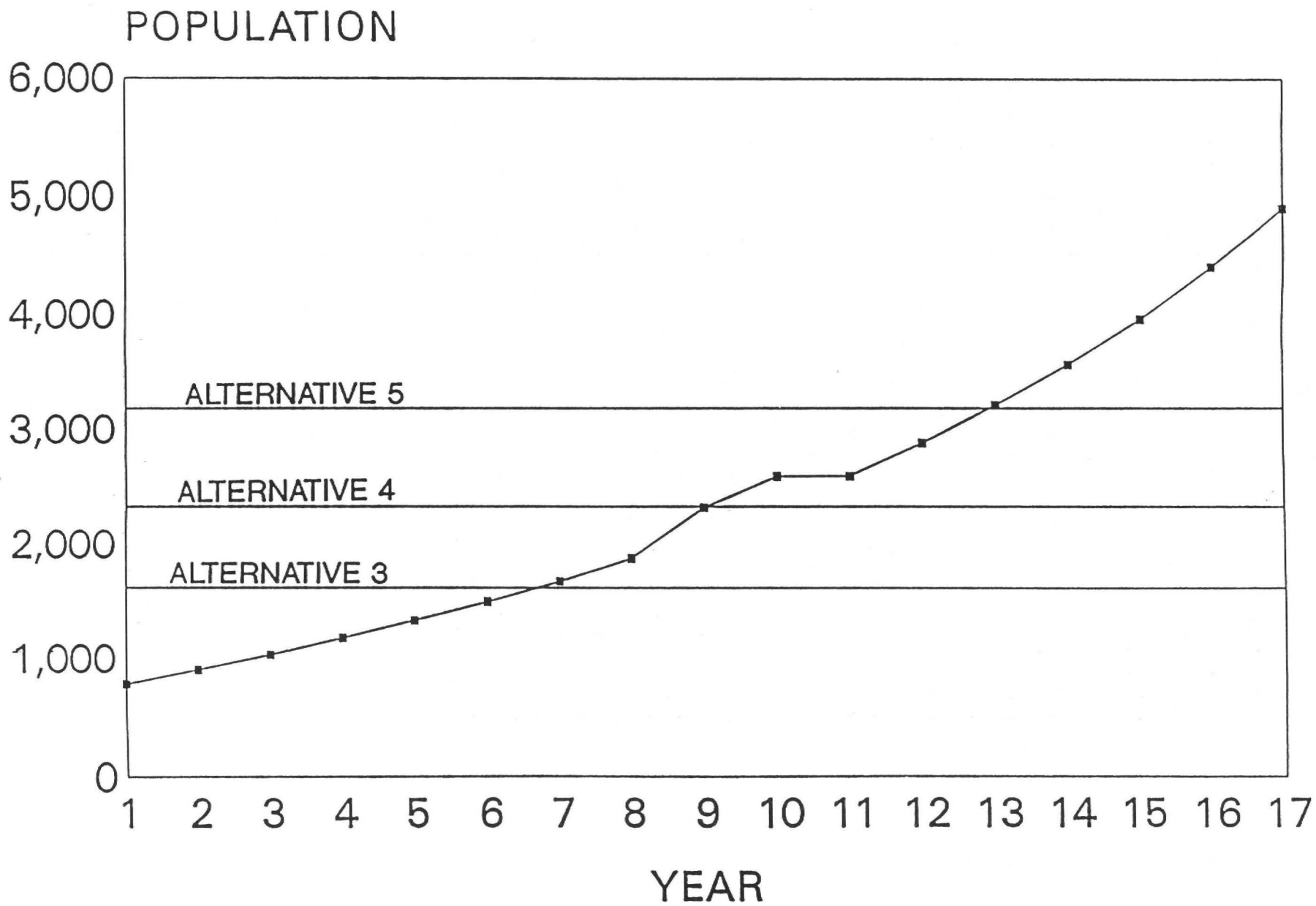
As population levels increase, it would be expected that the growth rate for the herd would decline or level off. However, for this analysis a constant growth rate has been depicted.

Harvest Strategies

When an elk population approaches an objective level, the harvest level needs to be adjusted upwards. Starting several years prior (4 or 5 years) to achievement of the object, the harvest levels (especially for females) need to be increased. Depending on how successful this strategy is at scaling down the growth curve, a harvest of approximately 25% of both the female and male recruitment (increment) would need to be achieved. There are many variables that influence the harvest level and tag quotas and the actual tag quota and harvest would vary from year to year and area to area. These variables include but are not limited to hunter success, number of hunters (congestion), hunters attitude, availability of animals, bull/cow ratios, weather, vegetation type, tree cover, topography, and the class of hunter that draws the tag.

Figure C-1

Estimated Elk Population Growth Curve - North I-80



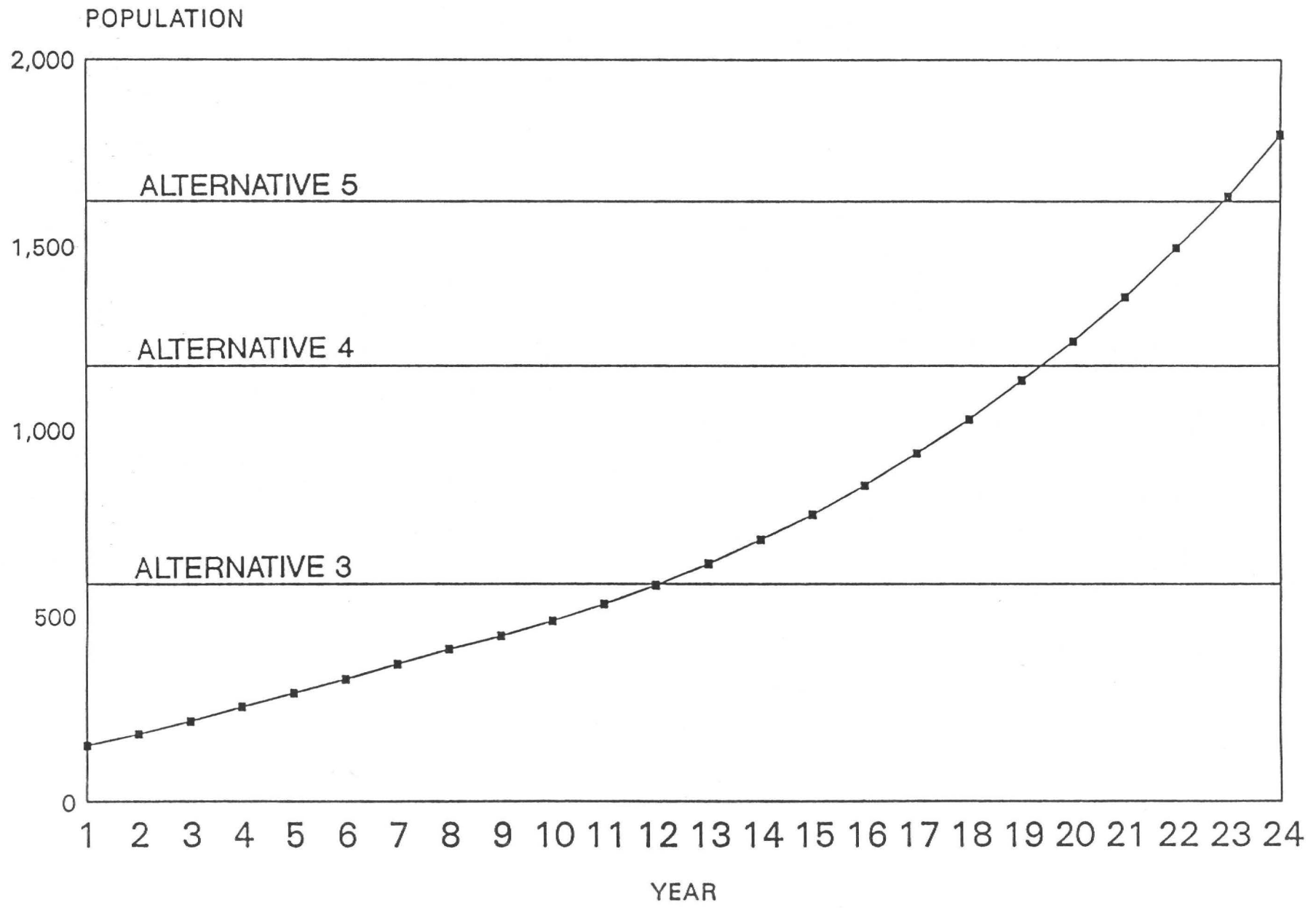
C-2

Table C-1**Estimated Elk Population Growth Table and Tags Issued North of I-80**

YEAR	POPULATION	BULL TAGS	COW TAGS	TOTAL TAGS
1	775	20	10	30
2	899	25	10	35
3	1031	25	10	35
4	1179	35	15	50
5	1330	40	15	55
6	1494	50	15	65
7	1670	50	15	65
8	1870	55	20	75
9	2318	70	20	90
10	2583	70	20	90
11	2586	70	20	90
12	2875	75	25	100
13	3202	80	25	105
14	3562	90	25	115
15	3960	100	30	130
16	4403	110	30	140
17	4897	115	35	150
TOTAL		1080	340	1420

Figure C-2

Estimated Elk Population Growth Curve - South of I-80



C-4

Table C-2

Estimated Elk Population Growth Table and Tags Issued South of I-80

YEAR	POPULATION	BULL TAGS	COW TAGS	TOTAL TAGS
1	150	0	0	0
2	181	0	0	0
3	216	0	0	0
4	254	0	0	0
5	291	5	0	5
6	329	5	5	10
7	370	5	5	10
8	410	10	5	15
9	445	15	10	25
10	486	15	10	25
11	531	15	10	25
12	582	15	10	25
13	639	15	10	25
14	703	15	10	25
15	770	20	10	30
16	847	20	10	30
17	934	20	10	30
18	1027	25	10	35
19	1133	25	10	35
20	1240	35	15	50
21	1361	35	15	50
22	1495	40	15	55
23	1637	50	15	65
24	1802	50	15	65
TOTAL		435	200	635

Appendix D

Elk Available Forage Analysis

Introduction

The planning criteria for this proposed RMP amendment states that monitoring will continue to be the basis for making adjustments in grazing use; e.g. this proposed plan amendment will not serve to allocate or adjudicate forage for specific grazing uses. The planning criteria established for this proposed plan amendment also states ...existing studies, the most current available inventories, current publications, and professional judgement will be used to determine potential impacts (of proposed alternatives) and to make sound management decisions.

Each grazing allotment within the resource area has been classified into a selective management category based on management needs, potential for improvement, and Bureau funding/manpower constraints. Selective management classifies allotments into three categories: "M" (Maintain), "I" (Improve), or "C" (Custodial). Forage utilization data is collected annually for all "I" and "M" category and most "C" category grazing allotments within the resource area. Utilization data is evaluated to determine if grazing management (livestock, wild horses, and wildlife) is meeting long term multiple use objectives and whether adjustments in the numbers of grazing animals are necessary. Livestock grazing use patterns are also mapped to further evaluate livestock utilization and distribution. Use pattern mapping data stratifies grazing allotments or pastures into utilization levels ranging from zero use to severe use. Analysis of this information, with qualifications and limitations, allows for determination of a range of potential elk numbers that could be supported within moderate to high potential habitats in relation to existing grazing uses by livestock and wild horses.

A summary of elk population ranges which could be supported within each proposed management area based on analysis of livestock and wild horse use pattern mapping data is outlined in Table D-1. This analysis does not represent an allocation or adjudication of forage. This analysis only utilizes currently available livestock utilization and distribution data to identify a range of elk numbers that could be supported by AUMs presently unavailable to livestock. This relationship between elk habitat potentials and existing livestock use is only used to assist in determining potential impacts associated with alternative elk target population levels presented in this proposed plan amendment. As stated in the planning criteria for this proposed plan amendment, monitoring data will be used as the basis for future adjustments in target elk population levels. Any conclusions or determinations of potential impacts of elk use based on this data summary must be tempered with the following:

- This analysis shows a range of elk numbers which could be supported based only on forage or habitat areas currently unavailable by livestock and/or wild horses. This makes an assumption of complete dietary overlap between elk and cattle which does not exist. Dietary overlap is a seasonal factor and would be less during fall and winter months. Therefore, elk could utilize winter range, for example, outside those areas shown as unavailable for livestock without conflict.
- This analysis only considers moderate to high potential elk habitat within each proposed management area. A much larger amount of low to moderate potential elk habitat exists within each proposed management area which are not included in this analysis.
- The public acres within the moderate to high potential elk habitat areas identified as unavailable to livestock are based on current livestock use pattern mapping data on file at the Elko District Office of the BLM. Livestock distributions could increase, reducing those acres and AUMs

identified as unavailable to livestock, with development of rangeland improvement projects; particularly water developments.

- This analysis makes the assumption that all acres unavailable to livestock are suitable for elk. Some areas unsuitable for livestock due to lack of water may also be unsuitable for elk.

In addition to the above considerations, it is also important to emphasize the following conservative assumptions utilized to determine (for analysis purposes) the range of elk numbers which could be supported within each proposed management area:

- Only public acres within moderate to high potential habitat areas were included. For the proposed Pilot Management Area, the analysis results show supportable elk numbers about fifty percent of current population management levels. This would indicate that elk populations in this management area are being supported by private lands without conflict. This situation could exist elsewhere in the resource area.
- Only those public acres stratified as zero use and ten percent of those acres stratified as slight use by livestock were included. The average forage use by livestock in the slight use zone is ten percent. Only including ten percent of these acres for use by elk allows for a very conservative potential elk density estimate, allowing for reduced conflict potentials with existing grazing uses.
- The AUMs calculated as unavailable to livestock are based on 11.4 acres/AUM. This is the overall average based on the total public land acres within the WRA and current active preference. Forage production within those areas unavailable to livestock would most likely be greater due to higher elevations, greater precipitation, and later seral stage conditions.
- The Wells RMP utilized a conservative conversion factor of 1.25 elk/AUM. Conversion factors within similar Great Basin habitats range from 1.25 to 3.1 elk/AUM.

Table D-1
Elk Available Forage Analysis

Management Area	Alternative Elk Population Levels	Acres of Mod-High Habitat	Total Mod-High Habitat % Public Land	Public Acres Unavailable to Livestock ¹	AUMs Unavailable to Livestock ²	AUMs Wild Horse Use in Mod-High Habitat ³	% Wild Horse Use Within Areas Unavailable to Livestock ⁴	AUMs Wild Horse Use ⁵	AUMs Available for Elk ⁶	Elk Numbers Supportable by AUMs Unavailable to Livestock ⁷
Jarbidge	Alt. 2 110 Alt. 3 220 Alt. 4 370 Alt. 5 515	95,660	97%	13,909	1,220	0	0	0	1,220	127-315
Snake Range	Alt. 2 40 Alt. 3 100 Alt. 4 170 Alt. 5 240	90,084	61%	6,675	586	0	0	0	586	61-151
Goose Creek	Alt. 2 400 Alt. 3 1070 Alt. 4 1780 Alt. 5 2485	612,285	80%	41,458	3,637	0	0	0	3,637	379-940
Pilot	Alt. 2 250 Alt. 3 250 Alt. 4 250 Alt. 5 250	32,654	49%	11,539	1,012	0	0	0	1,012	105-261 ⁸
Spruce/Pequops	Alt. 2 0 Alt. 3 340 Alt. 4 560 Alt. 5 790	147,959	99%	41,459	3,637	984	80%	787	2,850	297-736
Cherry Creeks	Alt. 2 0 Alt. 3 220 Alt. 4 370 Alt. 5 520	95,990	97%	26,809	2,352	900	95%	855	1,497	156-386

TOTAL RANGE

1125-2789

- ¹ Based on livestock use pattern mapping data depicting areas of "no use" and "slight use" by livestock within those areas identified as having moderate-high elk habitat potential. Total public acres unavailable to livestock is based on 100% of those acres mapped as "no use" and 10% of those acres mapped as "slight use" (1-20% utilization).
- ² Based on WRA average of 11.4 acres/AUM.
- ³ Based on wild horse herd management area initial herd sizes identified in the Wells RMP Approved Wild Horse Amendment and Decision Record, signed August 2, 1993.
- ⁴ Based on wild horse census information and professional judgement to determine wild horse use within "no use" and "slight use" livestock use areas within moderate to high elk habitat areas.
- ⁵ Total wild horse use multiplied by percent use within "no use" and "slight use" livestock use areas.
- ⁶ AUMs unavailable to livestock less AUMs wild horse use.
- ⁷ Based on a conversion factor range of 1.25 elk/AUM - 3.1 elk/AUM.
- ⁸ Current elk population management in the Pilot Mountain Management Area maintains a population of 250 elk in Nevada. Future population management objectives remain the same. This data analysis identifies fewer supportable elk numbers than currently managed. Because the percent public land is only 49%, this would indicate elk numbers being supported by private land habitat without conflict.

APPENDIX E

NEVADA DIVISION OF WILDLIFE ELK MANAGEMENT SUMMARY

INTRODUCTION

The management determinations for Alternatives 2 through 5 of the proposed elk plan amendment stipulate that elk population levels will be managed through population management strategies developed and implemented by the Nevada Division of Wildlife (NDOW). The purpose of this appendix is to provide a summary of current elk management strategies implemented by the Nevada Division of Wildlife (NDOW) together with additional background information.

HARVEST MANAGEMENT

Elk management in Nevada is authorized by provisions set forth in Nevada Revised Statutes (NRS), Nevada Administrative Code, the Nevada State Board of Wildlife Commission Policies, and the Nevada Division of Wildlife's Policies and Procedures. Final management actions, i.e. harvest recommendations and elk transplants, are subject to public review through local County Boards to Manage Wildlife and State Board of Wildlife Commission Public Meetings. Transplants on public lands are further analyzed and reviewed by the public in National Environmental Policy Act (NEPA) documents such as EA's prepared by land management agencies for implementation of proposed habitat management plans.

The Division of Wildlife conducts annual helicopter elk surveys to assess age and sex ratios of the population in order to predict population growth and provide harvest management recommendations. Monitoring of the elk population is aided by use of ear tagging transplanted animals, use of radio telemetry collars, and documentation of elk sightings. A hunting season is initiated as soon as a population becomes established and surveys indicate that the age structure of the male segment of the population is adequate to support a quality elk hunting experience without detriment to the biological health of the herd. Female harvest is normally initiated in response to depredation problems or when federal agency vegetation monitoring supports a need to stabilize or reduce elk numbers. Therefore, elk hunting is utilized to maintain elk populations within the carrying capacity of the vegetative resources.

Depredation legislation, policy and procedures guide elk management where pioneering or established elk populations depredate on private land resources. If vegetative monitoring by public land management agencies supports a conclusion that elk populations are consuming vegetative resources at a level inconsistent with land use planning objectives, one or more of the following actions are taken:

1. Establish an elk hunting season to stabilize the elk population.
2. Establish an elk hunting season to reduce the elk population to an acceptable level.
3. Establish an elk hunting season to eliminate the elk population.

Any and all actions to control elk populations are subject to the normal Division of Wildlife public season setting processes.

DEPREDATION

Elk depredation problems are addressed through provisions outlined in the Division of Wildlife's Program and Procedure regarding Elk Depredation.

In 1989, the Nevada Legislature, with support from the Division of Wildlife, passed elk damage payment legislation. This legislation has enabled the Division of Wildlife to effectively respond to elk depredation complaints through establishment of a fund collected from sportsmen in the application process for elk tags. Sportsmen agreed to an additional \$5 fee for the elk tag application process which generates more than \$25,000 annually for mitigating elk depredation problems. A Program and Procedure has been established by the Division of Wildlife to "adequately respond to and/or compensate for depredation damage caused by elk". Since establishment of the fund, all active elk depredation have been addressed through payment and fencing for both stored and standing crops throughout the state.

In addition to the Program and Procedure governing elk damage and damage payments described above, NRS 503.595 mandates that the Division of Wildlife can implement more drastic measures to alleviate or solve a big game depredation problem, including elk, through a removal program. In general, if pioneering elk, recently transplanted elk, or established individuals become involved in a depredation situation, the Division investigates and implements a course of action including hazing, fencing, damage payments, and removal/dispersal of offending animals by trapping or hunting/shooting designed to solve or eliminate that problem. If possible, the Division attempts to remove offending animals through an emergency depredation hunt with public participation. If conditions do not allow for the safe and/or effective removal of offending animals with a public hunt, Division personnel may remove them by trapping and transplanting or shooting. Elk have been removed in the past by Division personnel to alleviate depredation problems. Any and all actions taken against depredating elk are coordinated with the private land owner and sufficient actions necessary to solve the problem are taken.