

M 10/25/01

United States Department of the Interior



BUREAU OF LAND MANAGEMENT

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~~Spitzer~~ HMA

In Reply Refer To:

4130 (NV-012)

OCT 25 2001

Committee for Idaho's High Desert
P.O. Box 2863
Boise, ID 83701

Dear Ms. Hausrath:

This letter is in response to your correspondence of August 10, 2001, concerning the **Proposed Multiple Use Decision for the Sheep Allotment Complex**. Many of your questions are answered in the Sheep Allotment Complex Evaluation that was mailed to the Committee for Idaho's High Desert on November 3, 2000. I have summarized your questions and responded to them below.

Question: We are concerned with the misleading nature of your calculation of the carrying capacity. Nevada Division of Wildlife commented upon the fact that the AUMs are higher than the actual use, but you did not answer this satisfactorily in the MASR, and we feel that it still needs to be addressed. How did you calculate that 1,094 extra AUMs were available in the Leppy Hills Allotment; 2,545 extra AUMs were available in the UT/NV North and South Allotments; 2,295 extra AUMs were available in the Lead Hills Allotment; 1,762 extra AUMs were available in the White Horse Allotment; 22 extra AUMs were available in the Sugarloaf Allotment; 141 extra AUMs were available in the Ferber Flat Allotment; 945 extra AUMs were available in the Boone Springs Allotment.

Response: Actual use by livestock is based on actual use reports submitted by the livestock permittee each grazing year. Actual use does not necessarily equate to the grazing capacity of the range. To determine the grazing/carrying capacity, we commonly analyze the level(s) of utilization of key forage plants in relation to actual use for the year to determine the number of AUMs that could have been harvested if use had resulted in the desired level of utilization. This involves a calculation using a mathematical formula described in Appendix 2 of the Sheep Complex Allotment Evaluation. When there is insufficient actual use and/or utilization data to determine the carrying capacity for an area, we often refer to earlier vegetation inventories to find an estimate of carrying capacity until additional monitoring information is collected and analyzed.

Determining the number of AUMs available in the Leppy Hills Allotment involved adding together the AUMs for several areas of the allotment. The carrying capacity was first calculated

for those areas in the allotment commonly grazed by sheep during the evaluation period. This involved the calculation of carrying capacity based on actual livestock use and utilization levels of these commonly grazed areas which resulted in an average capacity of 2,633 AUMs. The use area(s) associated with the 2,633 AUMs did not include the historic sheep trail on the east edge of the allotment nor the Morris Basin area in the western portion of the allotment. Secondly, the forage available for livestock use that is associated with the historic sheep trail was added to the total AUMs available. This sheep trail area is no longer needed to trail sheep to other allotments in the area; therefore, the portion of the sheep trail adjacent to the Leppy Hills Allotment is being incorporated into allotment. The carrying capacity of this portion of the sheep trail, 268 AUMs, was based on a compilation of AUMs from a pre-evaluation forage inventory because there was insufficient information on utilization during the evaluation period to otherwise calculate the carrying capacity for this area. Lastly, the carrying capacity of 450 AUMs for the Morris Basin area was added to the total AUMs available for livestock use. This area is within the grazing allotment boundary suitable for sheep grazing and is a distinct area separate from those areas commonly grazed during the evaluation period. Since this area received little use during the evaluation period, we had insufficient information on utilization to calculate the carrying capacity for this area; therefore, the carrying capacity was based on a compilation of AUMs from a pre-evaluation forage inventory. The total AUMs of livestock use to be permitted in the Leppy Hills Allotment is 3,351 AUMs and is the combined total from the three areas described above. The same process was applied to the other allotments in the Sheep Complex to arrive at the number of AUMs to be authorized for livestock use. Please refer to the allotment evaluation and management action selection report for further details.

Question: Under what circumstances would the permittees be allowed to deviate from the turnout dates, increase livestock numbers or deviate from the grazing system?

Response: The numbers of livestock to be grazed will remain flexible according to the needs of the permittee. The grazing system is based on the number of AUMs that may be removed from each allotment/use area. Livestock numbers and periods of use will be applied for on an annual basis. Deviations beyond the flexibility described in the Sheep Allotment Complex Evaluation may be allowed to meet the needs of the resources and the permittee as long as these deviations are consistent with multiple use objectives. Deviations beyond the limits of the flexibility outlined above, including deviations in the turnout date, increases in livestock numbers and deviation from the grazing system, will require an application, and written authorization from the Assistant Field Manager for Renewable Resources prior to grazing use.

Question: Have the permittees applied for TNR use in these areas in the past?

Response: No TNR has been applied for within the Sheep Allotment Complex.

Question: For what TNR use did the permittees apply?

Response: See response above.

Question: On page 16, you state that “when either utilization objective is reached, livestock will be removed from the use area within 5 days. “How will you guarantee this”? We are also very concerned with the grazing schedule of the West White Horse Allotment. It does not rest the range to place the same number of sheep upon 1/3 of the pasture each year. You must reduce the AUMs by a factor of three, indefinitely, to truly rest the range.

Response: Permittees are required to comply with the terms and conditions of their permits. Non-compliance with the terms and conditions on their permits would be un-authorized use. The Elko Field Office BLM will ensure compliance with the Terms and Conditions through frequent monitoring of the allotments.

In the West Whitehorse Allotment, the livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and black sagebrush and 60% on key herbaceous species. When the utilization objective is reached on any key species, livestock will be removed from the use area (allotment) within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

Use so as not to exceed the utilization objectives will help maintain the health of the salt desert shrub and other communities within the allotment. Additional monitoring will be conducted to determine if progress is being made towards attainment of multiple use objectives and standards for rangeland health and further changes made in grazing management, where warranted.

Resting the bench area of the West Whitehorse Allotment will help the shrubs recover. The bench area of the West Whitehorse Allotment represents one third of the available use areas within the allotment. The valley use area represents two thirds of the available use areas within the allotment. The valley use area has more productive range sites and therefore has two thirds of the available AUMs (325).

Question: What exactly are “key areas” and what does this entail?

Response: A key area is a relatively small portion of a unit selected because of its location, use, or grazing value as a monitoring point for measuring change in soil and vegetation and the impacts of grazing. It is assumed that key areas, if properly located, will reflect the current grazing management over similar areas in the unit. They should serve as representative samples of range conditions, trends, and seasonal degrees of use and forage production. The key areas were and will be established in accordance with policy and procedure.

The key areas within the Sheep Allotment Complex are representative of the dominate range sites within the Complex.

Question: On page 28, you state that “no hauling or placement of troughs is allowed in the

boundaries of the Bluebell and Goshute Peak WSAs.” Why did you allow range manipulation in the other WSAs? It is not managing for wilderness characteristics and “non-impairment” to allow the Rock Spring exclosure and trough; Side Hill exclosure and trough; nor the Morgan Basin Spring exclosure and trough. Is the Felt Spring exclosure and trough located on the boundary of the WSA? From the map, it appears to be. Under *Wilderness Objectives*, number 1 states, “manage as wilderness those portions of the Wilderness Study Area (WSAs) which are manageable as a wilderness area and for which wilderness values is considered the best use of the lands (Wells RMP objective).” This is ridiculous! The point of a WSA is to manage it as wilderness for when it actually becomes wilderness. Once an area is a WSA, it is no longer your decision as to whether this is “the best use of the lands.”

Response: The Bureau’s WSAs are managed under the *Interim Management Policy for Lands under Wilderness Review, Update Document*, H-8550-1, Rel. 8-67, 7/5/95 (IMP). The objective of IMP is “to continue resource uses on lands under wilderness review in a manner that maintains the area’s suitability for preservation as wilderness”. The IMP remains in effect, regardless of whether the area is recommended as suitable or not suitable as wilderness, until Congress designates an area as wilderness or releases the area to multiple use management. The IMP allows the “continuation of grazing.... in the same manner and degree in which these uses were being done on October 21, 1976, as long as they do not cause unnecessary or undue degradation of the lands.”

Any proposed actions in WSAs are evaluated according to policies and procedures detailed in the IMP and additional Instructional Memorandums (IMs), such as IM No. NV-96-008 “New, Permanent Livestock Developments in Wilderness Study Areas” and IM No. NV-97-169 “Alternatives to Fencing Riparian Zones within Wilderness Areas”. In general, lands under wilderness review must be managed so as not to impair their suitability for preservation as wilderness (Intro., p. 1). This is the nonimpairment standard. Under these policies, in order for an action to be approved, an environmental analysis must determine that an action enhances wilderness values, causes no new surface disturbance, is substantially unnoticeable, is a temporary use, does not involve permanent placement of structures and would not require motorized vehicle access if the area is designated as wilderness.

IMP clearly states that management under the nonimpairment standard does not mean that the lands will be managed as though they had already been designated as wilderness (Intro., p. 5).

Under the IMP, those grazing uses that existed on October 21, 1976 (the date the Federal Land Policy Management Act was approved) may continue in the same manner and degree as on that date, even if this would impair wilderness suitability (Intro., p. 3); however, they must not cause unnecessary or undue degradation of the lands (I.A.2.). The stated spring developments were present within the Wilderness Study Areas previous to their designation as WSA. Continuation in the same manner and degree does not automatically include or exclude installation of new livestock developments (I.B.8.d.). IMP guidelines also allow for increases in grazing provided it would not impair an area’s wilderness values (III.D.2.a.(1)).

Not allowing water hauling and trough placement in the Bluebell and Goshute Peak WSAs is a management decision that is more restrictive than the IMP guidelines for rangeland management in WSAs. Under IMP, livestock developments existing or under construction on October 21, 1976 may continue to be used and maintained; new, temporary or permanent livestock developments may be approved if, after a specific analysis, they are determined to enhance wilderness values and meet the nonimpairment criteria. New permanent livestock developments also must be determined not to be substantially noticeable and not to require motorized access if the area were designated as wilderness. (III.D.3.)

The Felt Spring enclosure and trough are located within the Goshute Peak WSA along a designated vehicle way. Under IMP guidelines, motorized vehicle travel in WSAs is restricted to existing routes (referred to as "ways") and boundary roads, with a few exceptions (I.B.11.).

The springs within the Sheep Allotment Complex that are located within the Bluebell and Goshute WSA's were developed in the 50's prior to the establishment of the WSA's.

Question: When is the growing season?

Response: White sage begins growth in March or April when temperatures for growth allow, with growth terminating in September/October.

Question: What evidence/reports did you use to decide that grazing before 4/01 will not negatively impact the white sage?

Grazing before 4/01 is before the critical growing period and during plant dormancy when shrub twigs are physiologically inactive. Blaisdell and Holmgren (1984)¹ reported that moderate grazing in winter allows substantial increases in such desirables as black sagebrush and winter fat.

Response: Grazing will either occur prior to the onset of the growing season or terminate early in the growing season. This period of use along with appropriate levels of use will result in minimal impacts to this species.

¹Blaisdell, James P., Holmgren, Ralph C., 1984 Managing Intermountain Rangelands - Salt Desert Shrub Ranges. Intermountain Forest and Range Experiment Station. General Technical Report INT-163

Question: Have you analyzed the effect that livestock grazing has had on the cryptogamic crust in these allotments?

Response: Cryptogamic crusts are a component of ground cover. Data on cover was collected and analyzed for the Sheep Allotment Complex Evaluation. A summary of the cover data can be found on pages 28-29 of the evaluation. Further review of the cover data following issuance of the evaluation concluded that all of the allotments are meeting the upland site standard for rangeland health. These determinations were described in the management action selection report (MASR) that you received with the Proposed Multiple Use Decision for the Sheep Allotment Complex.

Question: Have you analyzed the amount of cheatgrass in the areas with the highest use by livestock, for example, near watering troughs, springs or streams?

Response: The livestock operators haul water for their livestock within the Sheep Allotment Complex. Some surface disturbance is expected along with increases in invasive annuals in the immediate vicinity of the water troughs. Impacts to the water hauling sites are minimized by moving them every two weeks. There are no streams within the Complex and limited use by livestock around springs.

Question: Have you made a use-pattern map?

Response: Yes. Information from the use pattern maps was used in the allotment analysis. A Summary of use pattern map data can be found in Appendix 1 of the Sheep Allotment Complex Evaluation.

Question: How will livestock grazing affect your desire to increase Indian ricegrass?

Response: Increases in Indian ricegrass will be achieved by allowing these grass plants to develop and drop an abundance of viable seed that will germinate and mature when favorable weather conditions allow. Most of the livestock grazing will occur in the late autumn and winter after these grass plants have had an opportunity to grow vigorously for all or most of the growing season, in the absence of livestock use, and drop their seeds. Some livestock grazing is being authorized in certain locations during the early part of the critical growing season for perennial grasses; however, to ensure that Indian ricegrass and other plants have an opportunity to develop and drop seed in most years, annual spring use is being rotated amongst two or more use areas. Livestock use during the autumn and winter along with the rotation of spring use areas and utilization limits are grazing management practices consistent with achieving the desired plant community objectives.

Question: How does livestock grazing affect the attempts to increase other native perennial grasses?

Response: See response above.

Question: How will it affect the attempts to maintain forbs and shrubs?

Response: See response above.

Question: How will livestock grazing affect the riparian areas?

Response: Livestock grazing has had and will continue to have a minimal impact on the riparian areas. The season of use for the complex is consistent with achieving and maintaining proper functioning condition. Springs have been impacted by wild horses as outlined in the Sheep Allotment Complex Allotment Evaluation.

Question: What role did livestock play in the drying up of Serviceberry Spring?

Response: Livestock played no role in the drying up of Serviceberry Spring.

Question: How do you plan to make Tunnel Spring, Rock Spring, Sidehill Spring, Felt Spring, and Perkins Spring meet the proper functioning criteria?

Response: Our data indicates that wild horses are the causal factor in the non-attainment of the riparian PFC objectives. Available information from water inventories and PFC assessments show many of the springs and seeps to be heavily impacted by wild horses in the form of trampling and heavy utilization of riparian vegetation. We believe that reductions of horse numbers to the appropriate management level will allow Tunnel Spring to reach PFC. Except for Tunnel Spring, we plan to fence the other springs to achieve PFC. See pages 41 - 43 and Appendix 4 for a PFC assessment summary of the Sheep Allotment Complex Allotment Evaluation.

Question:

According to your *Recreation Objective*, you must "provide a wide range of recreation opportunities." What are these recreation opportunities? How would these be affected by livestock grazing?

Response:

(A) Recreation opportunities within the Sheep Allotment Complex area are primarily dispersed use. The stated objective of providing a wide range of recreation opportunities will involve maintaining the existing dispersed recreation opportunities, developing an information and interpretive program and providing legal access to public lands. These are the objectives for the Wells Extensive Recreation Management Area (ERMA), in which these allotments are located. As stated in the Sheep Allotment Complex Evaluation, these dispersed recreation opportunities include four-wheel driving, hunting, camping, mountain biking, bird watching, hiking, firewood and Christmas tree cutting and pinenut gathering. Most of this use occurs within thirty miles of

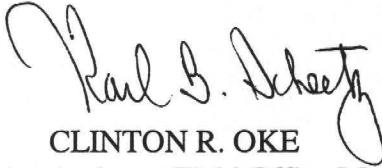
Wendover with the most heavily used areas including Morgan Basin, Ferguson Mountain, Ferguson Spring and Blue Lakes. The International Hawkwatch Program conducts research on the crest of the Goshute Peak WSA. The significant portion of recreation users are from the Wendover area and Salt Lake City, Utah area.

The area is designated "open" to vehicle use with vehicle use in WSAs "limited" to those routes identified during the wilderness inventory. Off-highway vehicle motorized recreation is popular throughout the area with heavy use in portions of the Leppy Hills, Utah-Nevada #1 (north pasture), Lead Hills, and White Horse allotments outside of WSA and the heaviest use in the Spring Gulch area. Competitive OHV events have occurred throughout the area since the 1970s; this use will be more intensively managed in the future. Outfitters and Guides, primarily lion hunters, also use the area during the fall and winter.

(B) The affect of livestock grazing on these recreation opportunities is minor due to the dispersed nature of the use.

If you have any further questions, please contact Bruce Thompson of my staff at (775) 753-0200.

Sincerely,


CLINTON R. OKE
Assistant Field Office Manager
Renewable Resources

United States Department of the Interior



BUREAU OF LAND MANAGEMENT

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OCT 25 2001

FINAL MULTIPLE USE DECISION FOR THE SHEEP ALLOTMENT COMPLEX

Dear Permittee:

On July 31, 2000, the Sheep Allotment Complex Evaluation was issued to the public for comment. That evaluation analyzed monitoring information collected between 1983 and 2000 to determine progress in meeting the multiple use objectives for the allotments in the Sheep Allotment Complex, and to determine what changes in existing management may be required to meet those objectives.

The following documents established the multiple use objectives which guide management of the public lands within the Sheep Allotment Complex: the Record of Decision for the Wells Environmental Impact Statement and Resource Management Plan (RMP) issued on July 16, 1985, the Rangeland Program Summary issued on September 15, 1986, and the RMP Wild Horse and Burro Amendment issued on August 2, 1992.

In accordance with the grazing regulations, the Secretary of the Interior approved standards and guidelines for rangeland health for the Northeastern Great Basin Area of Nevada on February 12, 1997. These standards and guidelines reflect the stated goals of improving rangeland health while providing for the viability of the livestock industry.

Following the 30 day public comment period for the evaluation, the Elko Field Office carefully considered the comments received which prompted changes to the evaluation and proposed management actions. Upon completion of these changes, the management actions to be implemented on each allotment within the Sheep Allotment Complex were selected. The actions selected for implementation were described in the "Sheep Allotment Complex Management Action Selection Report (MASR)". The MASR also provided responses to public comments on the evaluation and described the changes made to the evaluation and proposed management actions.

On July 27, 2001, the Proposed Multiple Use Decision (PMUD) for the Sheep Allotment Complex was issued. The Elko Field Office received one protest letter from the Committee for Idaho's High Desert on August 13, 2001. The points of protest along with the Bureau's response to the protest points is enclosed with this mailing.

Through the consultation, coordination, and cooperation process (CCC), your input, as well as input from the interested public, has been considered in the allotment evaluation process. As a result of the evaluation conclusions and after consideration of input received through the CCC process, it has been determined that: 1) some of the multiple use objectives and Standards for Rangeland Health for the Sheep Allotment Complex are not being met, 2) changes in current livestock grazing management and wild horse management are required, 3) existing management of wildlife has not contributed to non-attainment of multiple use objectives and standards for rangeland health, and 4) deletions, modifications, and/or requantification of some allotment multiple use objectives are required as follows:

1. **The following RPS objectives will no longer be evaluated as they have been attained and/or it is unnecessary to continue monitoring achievement of these objectives at this time.**

Leppy Hills Allotment

- a. Consider allotment boundary adjustment between the Pilot Allotment because of Interstate-80.
- b. If necessary adjust season of use on white sage areas.

White Horse Allotment

- c. If necessary adjust season of use on white sage areas.
- d. Implement a grazing system.

Sugarloaf Allotment

- e. If necessary adjust season of use on white sage areas.
- f. Implement a grazing system.

West White Horse Allotment

- g. If necessary adjust season of use on white sage areas.

Sheep Allotment Complex

- h. Maintain roads for access.
- i. Coordinate sheep trail use with Utah BLM.

Rationale:

Leppy Hills Allotment

The Leppy Hills allotment boundary objective has been met through adjustment of the allotment boundaries by range line agreement dated 2/16/88 and construction of the Pilot-State line fence.

Little use occurs on white sage areas after 4/01. The permittee has cooperated with the BLM in deferring use of salt desert shrub communities after 4/01 since 1991. Grazing use between 4/01 and 4/30 is specifically defined in this decision.

White Horse Allotment

The current season of use in the White Horse Allotment ends on 4/15. The White Horse grazing agreement provides for deferment of white sage areas after 4/01.

The grazing system for the White Horse allotment was signed and implemented in 1987.

Sugarloaf Allotment

The current season of use ends on 4/20. The Sugarloaf Allotment grazing agreement provides for deferment of white sage areas after 4/01.

The Sugarloaf Allotment Grazing system was signed and implemented in 1986.

West White Horse Allotment

Current livestock use on the allotment terminates in February, which is prior to the start of the growing season for white sage.

Sheep Allotment Complex

Roads within the Sheep Allotment Complex are currently maintained by the BLM on a priority-rotation basis.

The administrative sheep trail will be incorporated into allotments therefore eliminating

the sheep trail. The Elko Field Office will continue to coordinate with the Utah BLM on any trailing that involves the Utah BLM.

2. **Modify and/or requantify the RPS and allotment specific objectives for the Sheep Allotment Complex. General land use plan objectives and Standards and Guidelines for Rangeland Health for Northeastern Nevada Great Basin Area will remain unchanged. Modification and/or requantification of objectives will allow for consolidation of objectives that are similar. Refer to Appendix 1 for a complete list of the multiple use objectives to be evaluated at the next scheduled evaluation.**

Rationale: The Sheep Allotment Complex Allotment Evaluation summarized current grazing management, determined whether or not progress was being made toward attainment of the multiple use objectives, and provided recommendations for future management. The allotment specific objectives which were analyzed in the allotment evaluation were formulated based on management issues which existed in 1986 when the RPS was published. Based on monitoring data and conclusions presented in this allotment evaluation, it is necessary to modify and/or requantify the allotment specific objectives to address the following resource issues:

- upland range conditions
- lotic and lentic riparian conditions
- wildlife habitat conditions
- wild horse management

Monitoring studies will continue to be conducted and the effects of grazing will be evaluated periodically to determine if progress is being made in meeting the multiple use objectives and significant progress is being made toward attainment of the standards for rangeland health.

As a result of the evaluation conclusions and after careful consideration of the input received from the grazing permittee (s) and the interested public, it has been determined that some of the multiple use objectives were not met and that livestock grazing and wild horse use on the public lands are significant factors in failing to achieve the standards and conform with the guidelines for rangeland health as identified in the conclusion section (Section V) of the Sheep Allotment Complex Evaluation. In order to ensure progress towards and achieve the standards for rangeland health and multiple use objectives, changes in current livestock and wild horse use are required.

In addition to the above described changes to management objectives, **It is my final decision to implement the management actions identified below for wildlife, wild horse management, and livestock in the Sheep Allotment Complex.** These management actions will be effective at the end of the appeal period of this decision.

I. LIVESTOCK GRAZING MANAGEMENT DECISION

1. Establish a separate allotment for each permittee in the UT/NV #1 Allotment.

The two pastures in the UT/NV #1 Allotment are separated by over 30 miles. Robert and Jon Child will have grazing privileges in the North Pasture which will be known as the UT/NV North Allotment.

Sherie R. Goring will have grazing privileges in the South Pasture which will be known as the UT/NV South Allotment.

Rationale: Establishing individual allotments will allow grazing systems to be implemented to meet each of the permittees individual needs and be compatible with implementation of grazing systems needed to meet multiple use objectives and attainment of the standards for rangeland health.

2. Establish the total number of AUMs of permitted use for livestock and appropriate management level (AML) for wild horses for the Sheep Allotment Complex as follows:

a. Leppy Hills Allotment

Incorporate the administrative sheep trail into the Leppy Hills Allotment.

Leppy Hills Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) ²	Livestock permitted use ¹	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
3,807	320	3,351	96	3,447

¹ Includes 268 AUMs from the administrative sheep trail and 450 AUMs in the Morris Basin Spring Use area.
² The Wells RMP Wild Horse Amendment established an initial herd size of 178 horses for the Goshute HMA, as modified by the Spruce FMUD. Aerial census data indicates that 15% of the Goshute herd used the Leppy Hills Allotment. 178 x 12 months = 2,136 AUMs. 15% of 2,136 AUMs = 320 AUMs.

Rationale: The carrying capacity for the Leppy Hills Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The carrying capacity for the Leppy Hills Allotment was determined to be 2,633 AUMs. Incorporation of the administrative sheep trail into the Leppy Hills Allotment will add an additional 268 AUMs to the Leppy Hills Allotment. An additional 450 AUMs can be found in the Morris Basin area of the Leppy Hills Allotment. The AUMs were derived from an adjudication map in the Elko Field Office. These AUMs will be available for late fall or early spring grazing. Therefore the total carrying capacity for livestock is 3,351 AUMs.

During the evaluation period 20% of the allotment showed the highest significant use. The highest significant use occurred in the northeastern portion of the allotment. Light use has occurred in the eastern, northern, and western portions of the allotment. With the exception of the Morris Basin area, the western two thirds of the allotment is unsuitable for winter sheep grazing due to topography and vegetation suitability.

The Leppy Hills Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography within the allotment.

Livestock permitted use will be adjusted from 3,807 AUMs to 3,351 AUMs while the wild horse AML will be established at 96 AUMs.

b. UT/NV North Allotment

UT/NV North Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) ¹	Livestock permitted use and Use Areas	Wild Horse AML (AUMs) ³	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
3,410	363	2,728 (A & B)	incidental use	2,728
976 (cp)		976 (Morgan Basin ²)	108	1,084
Total - 4,386		3,704	108	3,812
<p>Non-Use (cp) is voluntary non-use for conservation purposes as outlined in the 1997 grazing agreement for the North Pasture of the UT/NV #1 Allotment.</p> <p>¹ The Wells RMP Wild Horse Amendment established an initial herd size of 178 horses for the Goshute HMA, as modified by the Spruce FMUD. Aerial census data indicates the 17% of the Goshute herd used the North Pasture of the UT/NV #1 Allotment. 178 x 12 months = 2,136 AUMs. 17% of 2,136 AUMs = 363 AUMs.</p> <p>² The Morgan Basin area carrying capacity will be established at 976 AUMs. These AUMs were derived from an adjudication map in the Elko Field Office. The Morgan Basin area will be available for late fall and early spring grazing.</p> <p>³ The AML was added to the Morgan Basin use area. Horse use is confined to the Goshute Mountains with incidental use along the benches.</p>				

Rationale: The carrying capacity for UT/NV North Allotment was evaluated in 1997. In the review of carrying capacity the Elko Field Office said that it will conduct necessary monitoring studies and re-evaluate the effects of grazing in 1999.

The carrying capacity for the UT/NV North Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The carrying capacity for the UT/NV North Allotment was determined to be 2,728 AUMs. The capacity did not include the Morgan Basin use area.

The carrying capacity for the UT/NV North Allotment use areas A & B (see map 11 attached) will be adjusted to 2,728 AUMs. The Morgan Basin area carrying capacity will be established at 976 AUMs. These AUMs were derived from an adjudication map in the Elko Field Office. The Morgan Basin area will be available for late fall and early spring grazing.

During the evaluation period, 8% of the UT/NV North Allotment showed the highest significant use. The highest significant use has occurred in the eastern portion of the pasture. Light use has occurred in the western portions of the pasture. With the exception of the Morgan Basin area, the western two thirds of the allotment is

unsuitable for winter sheep grazing due to topography and vegetation suitability.

The North Pasture of the UT/NV #1 Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 4,386 AUMs to 3,704 AUMs while the wild horse AML will be established at 108 AUMs.

c. UT/NV South Allotment

UT/NV South Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) ¹	Livestock permitted use	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
6,599	107	2,646	87	2,733

¹ The Well RMP Wild Horse Amendment established an initial herd size of 299 horses for the Antelope Valley HMA, as modified by the Spruce FMUD. Aerial census data indicates that 3% of the Antelope Valley herd use the South Pasture of the UT/NV #1 Allotment. 299 x 12 months = 3,588 AUMs. 3% of 3,588 AUMs = 107 AUMs

Rationale: The carrying capacity for the UT/NV South Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1985-1999. The carrying capacity for the UT/NV South Allotment using key area utilization was determined to be 2,646 AUMs.

Trend is upward and the standards for rangeland health are being met or progress is being made toward attainment. The increase in ecological status can be attributed to an increase in key forage species.

During the evaluation period, 55%, of the allotment showed the highest significant use. The highest significant use has occurred in eastern, central and western portions of the allotment. Light use has occurred in the southern and northern portions of the allotment.

The South Pasture of the UT/NV #1 Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 6,599 AUMs to 2,646 AUMs. Wild horse AML will be established at 87 AUMs.

d. Lead Hills Allotment

Incorporate the administrative sheep trail into the Lead Hills Allotment.

Lead Hills Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) ²	Livestock permitted use ¹	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
7,930	43	5,609	12	5,621

¹ Includes 1,126 AUMs from the administrative sheep trail.
² The Wells RMP Wild Horse Amendment established an initial herd size of 178 horses for the Goshute HMA, as modified by the Spruce FMUD. Aerial census data indicates the 2% of the Goshute herd uses the Lead Hills Allotment. 178 x 12 months = 2,136 AUMs. 2% of 2,136 AUMs = 43 AUMs.

Rationale: The carrying capacity for the Lead Hills Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The potential carrying capacity for livestock in the Lead Hills Allotment was determined to be 4,483 AUMs. Incorporation of the administrative sheep trail into the Lead Hills Allotment will add an additional 1,126 AUMs to the Lead Hills Allotment. The AUMs were derived from an adjudication map of the administrative sheep trail. Therefore, the carrying capacity will be adjusted from 4,483 to 5,609 AUMs.

During the evaluation period 30% of the allotment showed the highest significant use. The highest significant use has occurred in the northern portion (east of the Goshute Peak WSA and north of Ferguson Mountain), and eastern portion (west of the administrative sheep trail). Light use has occurred in the eastern, northern, and western portions of the allotment.

With changes in management, the livestock permitted use will be adjusted from 7,930 AUMs to 5,609 AUMs while the wild horse AML will be established at 12 AUMs.

e. **White Horse Allotment**

Incorporate the administrative sheep trail into the White Horse Allotment.

White Horse Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs)	Livestock permitted use ¹	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
7,500	incidental use	3,916	incidental use	3,916

¹ Includes 417 AUMs from the administrative sheep trail.

Rationale: The carrying capacity for the White Horse Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The carrying capacity for the White Horse Allotment was determined to be 3,499 AUMs. Incorporation of the administrative sheep trail into the White Horse Allotment will add an additional 417 AUMs to the White Horse Allotment. The AUMs were derived from an adjudication map of the administrative sheep trail. Therefore, the carrying capacity will be adjusted from 3,499 to 3,916 AUMs.

During the evaluation period, 23% of the allotment showed the highest significant use. The highest significant use has occurred in western portion of the allotment (south of the WSA and west of White Horse Pass) and central portion of the allotment (from Dead Cedar Wash south to the allotment boundary). Light use has occurred in the eastern, northern, southern (south of White Horse Pass), and western portions of the allotment. The western and southern one thirds of the allotment is unsuitable for winter sheep grazing, due to topography and vegetation suitability.

The White Horse Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 7,500 AUMs to 3,916 AUMs while the wild horse AML will be established at incidental use.

f. **West White Horse Allotment**

West White Horse - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs)	Livestock permitted use	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
670	incidental use	465	incidental use	465

Rationale: The carrying capacity for the West White Horse Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The carrying capacity for livestock in the West White Horse Allotment was determined to be 465 AUMs.

During the evaluation period, 46% of the allotment showed the highest significant use. The highest significant use has occurred in eastern (on the upper benches), central and western portions of the allotment. Light use has occurred in the northern, and extreme southwestern portions of the allotment. The eastern one third of the allotment is unsuitable for winter sheep grazing, due to topography and vegetation suitability.

The West White Horse Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 670 AUMs to 465 AUMs while the wild horse AML will be established at incidental use.

g. Sugarloaf Allotment

Incorporate the administrative sheep trail into the Sugarloaf Allotment.

Sugarloaf Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs)	Livestock permitted use ¹	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
3,105	incidental use	2,001	incidental use	2,001

¹ Includes 169 AUMs from the administrative sheep trail.

Rationale: The carrying capacity for the Sugarloaf Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1987-1999. The carrying capacity for the Sugarloaf Allotment was determined to be 1,832 AUMs. Incorporation of the administrative sheep trail into the Sugarloaf Allotment will add an additional 169 AUMs to the Sugarloaf Allotment. The AUMs were derived from an adjudication map of the administrative sheep trail. Therefore, the carrying capacity will be adjusted from 1,832 AUMs to 2,001 AUMs.

During the evaluation period, 54% of the allotment showed the highest significant use. The highest significant use has occurred east of the Goshute Mountains west from the Ferber Hills in the east. Light use has occurred in the western portion (Goshute Mountains) and eastern portion (Ferber Hills east to the sheep trail). The western one third of the allotment is unsuitable for winter sheep grazing, due to topography and vegetation suitability.

The Sugarloaf Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 3,105 AUMs to 2,001 AUMs while the wild horse AML will be established at incidental use.

h. Ferber Flat Allotment

Incorporate the administrative sheep trail into the Ferber Flat Allotment.

Ferber Flat Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs)	Livestock permitted use¹	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
2,735	incidental use	2,013	incidental use	2,013

¹ Includes 224 AUMs from the administrative sheep trail.

Rationale: The carrying capacity for the Ferber Flat Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1986-1999. The carrying capacity for the Ferber Flat Allotment was determined to be 1,789 AUMs. Incorporation of the administrative sheep trail into the Ferber Flat Allotment will add an additional 224 AUMs to the Ferber Flat Allotment. The AUMs were derived from an adjudication map of the administrative sheep trail. Therefore, the carrying capacity will be adjusted from 1,789 AUMs to 2,013 AUMs.

During the evaluation period, 40% of the allotment showed the highest significant use. The highest significant use has occurred from the Upper Bench road east to the Ferber Flat Corral. Light use has occurred in the eastern and extreme western portions of the allotment. The western one third above the Upper Bench road (Goshute Mountains) of the allotment is unsuitable for winter sheep grazing due to topography and vegetation suitability.

The Ferber Flat Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 2,735 AUMs to 2,013 AUMs while the wild horse AML will be established at incidental use.

i. Boone Springs Allotment

Boone Springs Allotment - Livestock AUMs and Wild Horse AML				
Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) ¹	Livestock permitted use and Use Areas	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs) (LVST & WH)
3,244	897	2,000 (A use area)	265	3,212
		947 (B use area)		
		2,947	265 ²	

¹ The Well RMP Wild Horse Amendment established an initial herd size of 299 horses for the Antelope Valley HMA, as modified by the Spruce FMUD. Aerial census data indicates that 25% of the Antelope Valley herd use the Boone Springs Allotment. 299 x 12 months = 3,588 AUMs. 25% of 3,588 AUMs = 897 AUMs.

² This was determined by averaging the carrying capacity at three key areas in the Boone Springs Allotment.

Rationale: The carrying capacity for the Boone Springs Allotment was derived by evaluating utilization-actual use data and weighted average utilization data from 1985-1999. The carrying capacity for livestock in the Boone Springs Allotment was determined to be 2,947 AUMs.

During the evaluation period, 17% of the allotment showed the highest significant use. The highest significant use has occurred in the eastern portion of the allotment (east of Alternate Highway 93). The western one third of the allotment is unsuitable for winter sheep grazing due to topography and vegetation suitability. With management, 60% of the allotment will be available for livestock grazing.

The Boone Springs Allotment was historically over adjudicated. The AUMs adjudicated were based on vegetation whether it was available or not and did not consider the topography.

Livestock permitted use will be adjusted from 3,244 AUMs to 2,947 AUMs while the wild horse AML will be established at 265 AUMs.

The following table summarizes livestock permitted use and wild horse appropriate management levels to be implemented on the Sheep Allotment Complex:

Sheep Allotment Complex Summary

Sheep Allotment Complex - Livestock AUMs and Wild Horse AML, and Total AUMs					
Allotment	Pre-Evaluation Carrying Capacity		Post-Evaluation Desired Carrying Capacity (CC)		Total Post-Evaluation CC
	Livestock permitted use (AUMs)	Wild Horse Initial Stocking Level (AUMs) as per the Wells Amendment ¹	Livestock permitted use	Wild Horse AML (AUMs)	Total Post-Eval. Carrying Capacity (AUMs)
Leppy Hills *268	3,807	320	3,351	96	3,447
UT/NV North	4,386	363	3,704	108	3,812
UT/NV South	6,599	107	2,646	87 ²	2,733
Lead Hills *1,126	7,930	43	5,609	12	5,621
White Horse *417	7,500	incidental use	3,916	incidental use	3,916
West White Horse	670	incidental use	465	incidental use	465
Sugarloaf *169	3,105	incidental use	2,001	incidental use	2,001
Ferber Flat *224	2,735	incidental use	2,013	incidental use	2,013
Boone Springs	3,244	897	2,947	265 ³	3,212
Total	39,976	1,730	26,652	568	27,220

¹ As per the Wells RMP Wild Horse Amendment.
² Average actual use.
³ 10% use prior to livestock turnout was used to determined AML/AUMs
* Sheep trail AUMs incorporated.

Rationale: The desired carrying capacity (livestock permitted use and wild horse AML) and rationale for each allotment in the Sheep Allotment Complex are presented above.

The analysis of utilization, actual use, use pattern maps, and wild horse census data as well as the attainment or non-attainment of objectives and standards for rangeland health were used to determine the desired carrying capacity for the Sheep Allotment Complex.

The carrying capacities listed above reflect the proper stocking levels for livestock and the appropriate management levels for wild horses within each allotment. The derived carrying capacity, along with other management actions, will encourage attainment of land use plan objectives and the standards for rangeland health. Maintaining wild horses at the appropriate management level will result in a thriving, natural, ecological balance between horses and other resource values. Continued monitoring within the allotments will show if any adjustment in the AML or permitted levels of livestock grazing is needed.

This evaluation indicates that a decrease of 13,324 AUMs of livestock permitted use is deemed necessary to meet multiple use objectives and attainment of standards for rangeland health.

This will implement Guidelines 1.1, 2.1, 2.4, 3.1, 3.2, and 3.3, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress toward conformance with the Standards for Rangeland Health for Upland Sites, Riparian and Wetland Sites, and Habitat.

3. Implement management systems and/or establish the season of use for each allotment in the Sheep Allotment Complex as follows:

a. Leppy Hills Allotment

Leppy Hills Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
H&R Livestock	11/01 to 2/28	2,816	100	3,351
	3/01 to 4/30	2,816		

See Leppy Hills Use areas map #10 attached.

- (1) Use Area B - Use will be authorized from 11/01 to 3/31. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When either utilization objective is reached, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment

within 5 days.

- (2) Use Area A - From the Playa reservoirs south to the allotment boundary and west of BLM road #1050. Use will be authorized from 4/01 to 4/30.
- (3) Morris Basin Use Area - 450 AUMs can be found in the Morris Basin Use Area. Use in Morris Basin Use Area will be authorized from 11/01 to 12/01 and from 4/01 to 4/30.

The two spring use areas described above (Area A and Morris Basin) will follow the following rest rotation schedule.

Leppy Hills Allotment Spring Use Areas	
Year	Use Area
2002	Morris Basin
2003	A
2004	Morris Basin
2005	A
2006	Repeat cycle

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is authorized, limited duration of use, proper stocking levels, and utilization objectives will prevent overuse of these areas.

b. Utah/Nevada North Allotment

Utah/Nevada North Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Robert and Jon Child	11/01 to 2/28 3/01 to 4/30	3,284 3,284	100	3,704

Implement the grazing system outlined below for the UT/NV North Allotment, including rotations amongst the three spring use areas as follows:(see UT/NV North Allotment Spring Use areas map #11 attached)

- (1) Authorized use from 11/01 to 3/31 will be allotment wide. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When either utilization objective is reached, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, livestock will be removed from the allotment within 5 days.
- (2) Morgan Basin Use Area -Use in the Morgan Basin Use Area will be from 11/01 to 12/01 and from 4/01 to 4/30 (976 AUMs can be found in this use area).
- (3) Grazing use from 4/01 to 4/30 each year will be made on a rest rotation basis as follows:

UT/NV North Allotment Spring Use Areas	
Year	Use Area
2002	B
2003	A
2004	Morgan Basin
2005	Repeat cycle

The Oana corral is located in both A and B use areas. The permittee will be allowed to utilize the corrals each year for loading and handling in the spring.

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being authorized, limited duration of use, proper stocking levels, and utilization objectives will

prevent overuse of these areas.

c. Utah/Nevada South Allotment

Utah/Nevada South Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Sherie R. Goring	11/15 to 2/28	2,408	100	2,646
	3/01 to 4/30	2,408		

Implement the following grazing system for the UT/NV South Allotment (see Map #12 attached which shows the spring use areas in the UT/NV South Allotment). The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01).

- (1) Fall and Winter Use (11/01 to 3/31) will be authorized allotment wide. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When either utilization objective is reached, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.
- (2) Spring Use (4/01 to 4/30) - Located west of the Ferber Flat Road.

Management of this spring use area will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Sheep will be allowed in and around the Ferber Corral during shearing and loading times.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being authorized, limited duration of use, proper stocking levels, and utilization objectives will prevent overuse of these areas.

d. Lead Hills Allotment

Lead Hills Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Thousand Peaks Ranches Inc.	11/01 to 2/28	5,649	100	5,609
	3/01 to 4/15	5,649		

Implement the following grazing system outlined below for the Lead Hills Allotment including the three spring use areas identified below (see Lead Hills Use Areas map#13 attached):

(1) Fall and Winter Use (11/01 to 3/31) will be authorized allotment wide with the exception that no grazing will be allowed in the ACEC after 3/01. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When either utilization objective is reached, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

(2) Spring Use - Grazing use from 4/01 to 4/15 each year will be made on a rest rotation basis as follows:

Use Area A - All land to the west of Alternate Highway 93 and south of Felt Wash to the allotment boundary.

Use Area B - All land west of Alternate Highway 93 and north of Felt Wash to the allotment boundary.

Use Area C - All land on the east of Alternate Highway 93 to the Ferguson Flat Road (#1118). No grazing will be allowed in the Area of Critical Environmental Concern (ACEC) after 3/1.

Lead Hills Allotment Spring Use Areas	
Year	Use Area
2002	A
2003	B
2004	C
2005	Repeat cycle

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being authorized, limited duration of use, proper stocking levels, and utilization objectives will prevent overuse of these areas.

e. White Horse Allotment

White Horse Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
L.W. Petersen, Inc.	11/15 to 2/28	3,918	100	3,916
	3/01 to 4/15	3,918		

Continue the grazing system outlined below for the White Horse Allotment.

- (1) Fall and Winter Use (11/01 to 3/31) will be authorized allotment wide. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When the utilization objective is reached livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

Grazing use from 4/01 to 4/15 each year will be made on a rest rotation basis as follows:

Four spring use areas are identified below:(see White Horse Spring use areas map #14 attached).

Use Area A - All land to the west of Alternate Highway 93 from the north boundary of the allotment south to White Horse Pass

Use Area B - From the West White Horse Allotment boundary in the south then north to 1 mile south of the Ibapah Road.

Use Area C - All land on the west side of the Goshute Mountains to the east of Antelope valley on the upper foothills. Due to its close proximity to white sage this spring use area will be used as a last resort.

Use Area D - All land east of Alternate Highway 93 and north of the Ibapah Road to the Ferguson Flat Road (#1118) on its south and eastern boundary.

White Horse Allotment Spring Use Areas	
Year	Use Area
2002	A
2003	B
2004	D
2005	Repeat cycle

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being authorized, limited duration of use, proper stocking levels, and utilization objectives will prevent overuse of these areas.

f. West White Horse Allotment

West White Horse Allotment					
Permittee	Period of Use	Year	Livestock #'s	PPL	AUMs
Sherie R. Goring	12/01 to 2/28	1	549	100	325
	12/01 to 2/28	2	549	100	325
	12/01 to 2/28	3	786	100	465

The West White Horse Allotment has two use areas (Valley and Bench - see attached Map #18). During years 1 & 2, grazing will be authorized in the Valley use area only). During year 3 of the grazing cycle, grazing will be authorized in both use areas (Valley and Bench). When the Bench area is rested, 140 AUMs will be placed into non-use for conservation of the federal range.

The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and black sagebrush and 60% on key herbaceous species. When the utilization objective is reached on any key species, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

No sheep bedding will be allowed in the Bench areas of the West White Horse Allotment.

Rationale: Utilization on black sagebrush on the Bench areas has averaged 77% over the last 6 years. Resting this area for two out of three years will help these shrubs recover. Use so as not to exceed the utilization objectives will help maintain the health of the salt desert shrub and other communities within the allotment. Additional monitoring will be conducted to determine if progress is being made towards attainment of multiple use objectives and standards for rangeland health and further changes made in grazing management, where warranted.

g. Sugarloaf Allotment

Sugarloaf Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Charles and John Young	11/01 to 2/28	1,770	100	2,001
	3/01 to 4/20	1,770		

(1) Fall and Winter Use (11/01 to 3/31) will be authorized allotment wide. The

livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When the utilization objective is reached livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

- (2) Modify the spring grazing system outlined below for the Sugarloaf Allotment.

Three spring use areas are identified below (see map #15 attached)

Use Area A - All land to the west of the Ferber Flat Road. (#1025).

Use Area B - All land from the northern extent of the Ferber Hills south to the allotment boundary.

Use Area C - North of the Ferber Hills north to the Allotment Boundary and west to the Ferber Flat Road (#1025).

Grazing use from 4/01 to 4/20 each year will be made on a rest rotation basis as follows:

Sugarloaf Allotment Spring Use Areas	
Year	Use Area
2002	A
2003	B
2004	C
2005	Repeat cycle

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage), and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being proposed, limited duration of use, proper stocking levels, and utilization objectives will prevent

overuse of these areas.

h. Ferber Flat Allotment

Ferber Flat Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Sherie R. Goring	11/01 to 02/28	1,950	100	2,013
	3/01 to 4/20	1,950		

(1) Fall and Winter Use (11/01 to 3/31) will be authorized allotment wide. The livestock permittee is expected to move their livestock so as not to exceed established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrub communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and other key shrubs (such as black sage), and 60% on key herbaceous species. When the utilization objective is reached livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

(2) Three spring use areas (see Map #16 attached) are identified below:

Use Area A - All land from the Ferber Flat Road (#1025) west to the Upper Bench Road (#1026).

Use Area B - All land to the east of the Ferber Flat Road.

Use Area C - All land from the Upper Bench Road (#1026) west to Little White Horse Pass and south to the allotment boundary.

Grazing use from 4/01 to 4/20 each year will be made on a rest rotation basis as follows:

Ferber Flat Allotment Spring Use Areas	
Year	Use Area
2002	A
2003	B
2004	C
2005	Repeat cycle

Management of spring use areas will allow for a maximum utilization of 30% of current year's growth on salt desert shrub species and other key shrubs (such as black sage),

and 50% on key herbaceous species. When either utilization objective has been reached, livestock will be removed within 5 days.

Rationale: The grazing system will allow for rest of most of the salt desert shrub communities during the growing season (after 4/01). Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities. Where growing season use is being authorized, limited duration of use, proper stocking levels, and utilization objectives will prevent overuse of these areas.

i. Boone Springs Allotment

Boone Springs Allotment				
Permittee	Period of Use	Livestock #'s	PPL	AUMs
Sherie R. Goring	11/01 to 2/28	2,968	100	2,947
	3/01 to 3/31	2,968		

Implement the following grazing practices for the Boone Springs Allotment.

- (1) The Boone Springs Allotment will have two defined use areas (see Map #17 attached). The description of these use areas, as well as livestock permitted use within each use area, is as follows:

The grazing system outlined below limits the amount of use that each use area will receive to ensure that grazing use is spread across the allotment.

Two use areas are identified below (see Map #17 attached):

Use Area A - North and west of Alternate Highway 93. This area has the capacity to support 947 AUMs.

Use Area B - South and east of Alternate Highway 93. The area has the capacity to support 2,000 AUMs. The permittee will submit an application to graze in each use area.

When Use Area A is grazed, permitted use will be 947 AUMs. When Use Area B is grazed permitted use will be 2,000 AUMs. The permittee will limit use so as not to exceed permitted use within each use area. The permittee will submit a grazing application to the Elko Field Office prior to the start of grazing each year describing use within each use area. Planned use will be reviewed in relation to permitted use.

- (2) The livestock permittee is expected to move their livestock so as not to exceed

established utilization objectives for late fall and winter use, which will allow for healthy salt desert shrubs and other communities. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs and black sagebrush, and 60% on key herbaceous species. When the utilization objective is reached livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

Rationale: Salt desert shrub and other communities will be grazed primarily during the winter dormant period each year. This period of use will minimize grazing impacts to the vegetation, thereby promoting the productivity of these plant communities.

This will implement Guidelines 1.1, 3.1, 3.2, and 3.3, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress towards conformance with the Standards for Rangeland Health for Upland Sites, and Habitat.

4. Annual utilization on current years growth in spring use areas will not exceed 30% on salt desert shrubs or other key shrub species and 50% (moderate) on key herbaceous species. If utilization is exceeded in two consecutive years, the scheduled off date will be adjusted to 3/31.

Rationale: Light utilization on current years growth in spring use areas will help maintain the health of the salt desert shrub and other communities within the complex. Additional monitoring will be conducted to determine if progress is being made towards attainment of multiple use objectives and standards for rangeland health, and further changes made in grazing management, where warranted.

This will implement Guidelines 1.1, 3.1, 3.2, and 3.3, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress towards conformance with the Standards for Rangeland Health for Upland Sites, and Habitat.

5. Annual utilization on previous years growth in use areas will not exceed 50% on salt desert shrubs or other key shrub species and 60% on key herbaceous species. When the utilization objective is reached on any key species, livestock will be removed from the use area within 5 days. If utilization is exceeded in all use areas, then livestock will be removed from the allotment within 5 days.

Rationale: Maintaining proper utilization on previous years growth will help maintain the health of the salt desert shrub and other communities within the complex. Additional monitoring will be conducted to determine if progress is being made towards attainment of multiple use objectives and standards for rangeland health, and further changes made in grazing management, where warranted.

This will implement Guidelines 1.1, 3.1, 3.2, and 3.3, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress towards conformance with the Standards for Rangeland Health for Upland Sites, and Habitat.

6. Vacate the UT/NV #1 Allotment Management Plan (AMP) approved on November 8, 1972.

Rationale: Grazing in the UT/NV North and South Allotments will be in accordance with this Sheep Allotment Complex Final Multiple Use Decision.

7. The terms and conditions on each term grazing permit within the Sheep Allotment Complex will read as follows:

- (a) Authorized grazing use will be in accordance with the Assistant Field Manager's Final Multiple Use Decision dated _____.
- (b) Payment of grazing fees will be made prior to livestock turnout.
- (c) The terms and conditions of your grazing permit may be modified if additional information indicates that revision is necessary to conform with 43 CFR 4180.
- (d) Supplemental feeding is limited to salt, mineral, and/or protein supplements in block, granular or liquid form. Such supplements will be placed at least 1/4 mile from live waters (springs, streams, and troughs), wet or dry meadows, and aspen stands.
- (e) An actual use report (Form 4130-5) showing use by use area within the allotment will be turned in within 15 days after completing annual use.
- (f) No Sheep Camps will be located in Wilderness Study Areas (WSA's) or Area of Critical Environmental Concern (ACEC).
- (g) No water hauling or placement of troughs is allowed inside the boundaries of the Bluebell and Goshute Peak WSAs.
- (h) All range improvements will be maintained/repared by the permittee prior to livestock turn out and throughout the grazing season in accordance with range improvement authorization permits.
- (i) All riparian exclosures, including spring development exclosures, are closed to livestock use unless specifically authorized in writing by the Assistant Field Manager for Renewable Resources.

(j) The numbers of livestock to be grazed will remain flexible according to the needs of the permittee. The grazing system is based on the number of AUMs that may be removed from each pasture/use area. Livestock numbers and periods of use will be applied for on an annual basis. Deviations beyond the flexibility described above may be allowed to meet the needs of the resources and the permittee as long as these deviations are consistent with multiple use objectives. Deviations beyond the limits of the flexibility outlined above, including deviations in the turnout date, increases in livestock numbers and deviation from the grazing system, will require an application, and written authorization from the Assistant Field Manager for Renewable Resources prior to grazing use.

(k) All hay for the use in and around sheep camps must be certified weed free prior to livestock turnout.

(l) Pursuant to 43 CFR 10.4(g), the holder of this authorization must notify the authorized officer, by telephone with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

These terms and conditions will implement Guidelines 1.1, 2.1, 2.4, 3.1, 3.2, and 3.3, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress towards conformance with the Standards for Rangeland Health for Upland Sites, Riparian and Wetland Sites, and Habitat.

8. Construct the following range improvement projects within the Sheep Allotment Complex (see locations on map attached):

Proposed Range Improvements for the Sheep Allotment Complex			
Project	Allotment	Units	Inside WSA
Rock Spring enclosure and trough	Leppy Hills	1	yes
Leppy Hills Well	Leppy Hills	1	no
Side Hill enclosure and trough	UT/NV North	1	yes
Morgan Basin Spring enclosure and trough	UT/NV North	1	yes
Spring Gulch Spring enclosure and trough	UT/NV North	1	no
Felt Spring enclosure and trough	Lead Hills	1	no
Ferguson Spring enclosure	Lead Hills	1	no

Proposed Range Improvements for the Sheep Allotment Complex			
Project	Allotment	Units	Inside WSA
Perkins Spring enclosure and trough	Boone Springs	1	no

Rationale: The spring enclosures are intended to protect riparian areas while providing water outside for livestock, wildlife, and wild horses. The well is intended to provide water for livestock and wildlife in areas where there is no perennial water. Completion of these projects will help achieve multiple use objectives and standards for rangeland health in the Sheep Allotment Complex.

Required National Environmental Policy Act (NEPA) documentation will be completed prior to authorization of the proposed projects.

These management actions will implement Guidelines 1.1, 1.2, 2.1, 2.2, 2.4, 3.4, and 3.6 which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress toward conformance with the Standards for Rangeland Health for Upland Sites, Riparian and Wetland Sites, and Habitat.

9. The permittee(s) will be assigned maintenance of existing spring developments and enclosures. Maintenance responsibility for the proposed Ferguson Spring Enclosure will be assigned to the NDOW. Maintenance responsibility for other future spring developments and enclosures will be assigned to the party(s) deriving the primary benefit(s).

Rationale: It is the policy of the BLM to assign maintenance responsibility, to the extent possible, to the primary beneficiaries of improvement projects. The livestock permittees are considered the primary benefitting parties in relation to the existing spring developments and enclosures since alternatives other than fencing would be adverse to the permittee; therefore, the permittees will be assigned maintenance responsibility. Existing spring developments and enclosures within the Sheep Allotment Complex have been maintained by the BLM since construction and have shown the need for what is considered normal maintenance.

Installation of the Ferguson Spring Enclosure was proposed by the NDOW to help protect the habitat of a mountain vole. A portion of the meadow occurs on public land but most of the meadow area occurs on private land owned by the livestock permittee. The project proposal involves fencing a portion of public land as well as private lands. Since the public land associated with this proposed project receives little use by livestock and most of the benefits would accrue on private lands, it seems appropriate the NDOW be responsible for maintenance of the enclosure unless the permittee/land owner agrees to accept maintenance.

Maintenance responsibility for other new spring developments and exclosures will be assigned to the party(s) deriving the primary benefit(s) in accordance with BLM policy.

10. Establish new key areas in the Sheep Allotment Complex in the following locations.

Leppy Hills Allotment - Within the Pilot Burn

White Horse Allotment - Within the Ferguson Burn

UT/NV South Allotment - On the white sage flats near Ferber.

UT/NV South Allotment - Northwest portion of the allotment.

Boone Springs Allotment - Within crucial antelope winter habitat.

Future locations will be determined on an as needed basis.

11. Continue to conduct necessary monitoring studies and periodically evaluate the effects of grazing to determine if progress is being made in meeting the multiple use objectives and standards for rangeland health. The Sheep Allotment Complex will be re-evaluated in accordance with priorities established in the Elko Field Office Monitoring and Evaluation schedule. If monitoring studies indicate a need to bring grazing use in line with capacity, necessary adjustments will be made. Studies will be conducted in accordance with BLM policy manual guidance as outlined in the Nevada Rangeland Monitoring Handbook and will include, but are not limited, to the following:

Uplands:

- forage production
- ecological condition
- frequency trend
- utilization
- actual use
- Interpreting Indicators of Rangeland Health (BLM TR 1734-6)
- Ecological Site Inventory
- Cover

Riparian:

- Proper Function Condition Assessments (BLM TR 1737-16, 1999)

Wildlife Habitat:

- habitat condition studies, Cole browse, utilization, condition studies, (BLM Manual 6630)

wildlife population census/updated maps (NDOW)

Wild Horses:

wild horse population census
wild horse utilization data

Rationale: Additional monitoring and analysis will be required to determine whether objectives are being met and determine any necessary changes in grazing management.

Authority for the actions contained in this decision is found in 43 CFR 4100.0-8, 4110.2-2, 4110.3, 4110.3-1, 4110.3-2, 4110.3-3, 4120.2 (c), (d), and (e), 4120.3-1, 4130.2 (b), (d), (e), and (f), 4130.3, 4130.3-1, 4130.3-2, 4130.3-3, 4160.3, 4160.4, 4180.1, and 4180.2.

Any applicant, permittee, lessee or other person whose interest is adversely affected by the final livestock grazing portion of this decision may file an appeal and petition for stay of the decision pending final determination on appeal. The appeal and petition for stay must be filed in the office of the authorized officer as noted above, within 30 days following receipt of the final decision.

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

Should you wish to file a motion for stay, the appellant shall show sufficient justification based on the following standards:

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

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

Other Management Actions

1. Implement the Sheep Allotment Complex Fire Management Plan (see Appendix 2).

Rationale: The 1998 Elko Field Office Fire Management Plan identified fire and fuels management goals and objectives for the Elko District. The Sheep Allotment Complex Fire Management Plan is tiered off the Field Office Plan and identifies site specific fire suppression, prescribed fire and fuels management goals and objectives for the public lands within this complex. The Sheep Allotment Complex Fire Management Plan is required to effectively implement the goals and objectives of the Elko Field Office Fire Management Plan within the Sheep Allotment Complex.

A summary of the planned actions is provided below. Specific details can be found in the Fire Management Appendix.

Summary:

1. Create natural ignition areas in the Bluebell and Goshute Peak WSAs and in the higher elevation areas of the Kinsley, Sugarloaf and White Horse Mountains. This is to re-introduce fire into these areas based on the prescriptive parameters listed in the plan to improve vegetative diversity and reduce fuel loadings.
2. Use prescribed fire in the two WSAs to reduce fuel loadings and create a more natural mosaic of vegetative growth and successional stages.
3. Use prescribed fire on a limited basis on the sagebrush alluvial fans of Kinsley, Sugarloaf and White Horse Mountains (600 acres total) to increase herbaceous growth, eliminate patches of over-mature sagebrush and create uneven-aged sagebrush stands for wildlife purposes.
4. Use prescribed fire and mechanical thinning above 6,500 feet in the Antelope Range (300 to 500+ acres) and in the Dolly Varden Mountains (5-100 acres) to open up closed canopy pinyon-juniper stands to improve herbaceous vegetation and to re-create natural fire mosaics improving wildlife and wild horse forage.
5. Re-evaluate the low desert shrub area (polygon) along Alternate 93A to see if this area should be changed to a cheatgrass polygon with increased fire suppression requirements to limit the spread of cheatgrass.

Required National Environmental Policy Act (NEPA) documentation will be completed for specific project proposals.

2. Administer all grazing and any developments or projects within the Goshute Peak and Bluebell Wilderness Study Areas in full compliance with the Interim Management Policy for Lands Under Wilderness Review.

Rationale: The BLM is mandated by the Federal Land Policy and Management Act (FLPMA) to manage Wilderness Study Areas until Congressional decisions are made so as not to impair the suitability of each area for preservation as wilderness. This is generally referred to as the "non-impairment criteria." General policies and specific guidance, which need to be followed are detailed in the Interim Management Policy for Lands Under Wilderness Review (IMP), BLM Manual Handbook H-8550-1. As part of the NEPA review process for any new range development project or wildlife water catchment, all groups on the wilderness CCC list will be consulted.

3. Within the Sheep Allotment Complex, treat invasive and noxious weeds in a manner that is most appropriate to the weed species and degree of infestation. Treatment will be in accordance with the Final Environmental Impact Statement for Vegetation Treatment on BLM Lands in Thirteen Western States, the Programmatic Environmental Assessment of Integrated Weed Management on Bureau of Land Management Lands, and Elko Field Office site-specific Invasive-nonnative vegetation treatment environmental assessment. See Appendix 7 of the allotment evaluation for a list of weed species, their potential habitat and proposed treatment.

Rationale: The BLM is mandated to manage vegetation on public lands. The BLM must control noxious weeds and undesirable plants to maintain or improve the quality of forests and rangeland for all multiple resources. Controlling noxious weeds within the Sheep Allotment Complex will result in a more diverse plant community and therefore will improve wildlife habitat, soil stability and forage plant diversity.

This will implement Guidelines 1.1, 1.2, 2.1, 2.2, and 3.4, which have been developed by the Northeastern Great Basin Resource Advisory Council of Nevada to establish significant progress toward conformance with the Standards for Rangeland Health for Upland Sites, riparian and wetland sites, and Habitat.

4. Manage sage grouse habitat (i.e. leks, nesting, brooding, and summer and winter habitats) consistent with the Western States Sage Grouse Guidelines, as adapted for use in Nevada.

Rationale: Sage grouse is a BLM sensitive species with a high probability of becoming a nationally threatened or endangered species. Maintaining and improving sage grouse habitat will assist in maintaining or increasing populations within the Sheep Allotment Complex and may form a basis for future habitat conservation plans.

III. WILDLIFE MANAGEMENT DECISION

Existing management of wildlife has not contributed to the non-attainment of multiple use objectives; therefore, no management changes are recommended.

1. Construct wildlife water catchment projects within the Sheep Allotment Complex as outlined in EA BLM/EK/PL-97/018.

Rationale: Completion of these projects will enhance habitat for various wildlife species within the Sheep Allotment Complex and allow increased beneficial use of available habitat.

IV. WILD HORSE DECISION

- 1. Establish and maintain an appropriate management level (AML) for wild horses within the Sheep Allotment Complex as follows:**

Appropriate Management Level for the Antelope Valley HMA			
HMA	Allotment	Initial Herd Size⁶ (number of horses)	AML (number of horses)
Antelope Valley	UT/NV #1 South ¹	9	7 (or 15 horses for 6 months)
	West Whitehorse ¹	incidental	incidental
	Whitehorse ¹	incidental	incidental
	Sugarloaf ¹	incidental	incidental
	Ferber Flat ¹	incidental	incidental
	Boone Springs ^{1c}	74	23
	Spruce ²	143	181
	Currie ³	60	40
	Badlands ⁴	3	incidental
	Antelope Valley ⁵	10	8
Total		299	259⁷
<p>1 AML established through the Sheep Allotment Complex Evaluation. 2 AML established through the Spruce Final Multiple Use Decision. 3 AML established through the Maverick Complex Allotment Final Multiple Use Decision 4 AML established through the Badlands Final Multiple Use Decision. 5 AML established through the Antelope Valley Final Multiple Use Decision. 6 Initial herd size was established in the Wells RMP Wild Horse Amendment, as modified by the Spruce FMUD. 7 As per current Washington Office direction, AML is expressed as one number but the population is taken to 40% below AML during gathers. This sets up a 4 year gather cycle.</p>			

AML for the Goshute HMA			
HMA	Allotment	Initial Herd Size¹ (number of horses)	AML (number of horses)²
Goshute	Spruce	34	50h/12m
	Big Springs	84	56h/12m
	Leppy Hills	27	16h/6m or 8h/12m
	UT/NV #1 North	30	18h/6m or 9h/12m
	Lead Hills	4	2h/6m or incidental/12m
	Whitehorse	incidental	incidental
Total		178	123
¹ Initial herd size from the Wells RMP Wild Horse Amendment. ² As per current Washington Office direction, AML is expressed as one number but the population is taken to 40% below AML during gathers. This sets up a 4 year gather cycle.			

Leppy Hills

Wild horse use in the Leppy Hills Allotment is normally independent of livestock use. The majority of wild horse use occurs in the upper elevations during the summer months (23% of the Goshute HMA herd can be found in the Leppy Hills Allotment during the summer months) and the majority of the wild horses winter on the west side of the Goshute Mountains in the Big Springs Allotment (only 1%, on average, of the Goshute HMA herd can be found in the Leppy Hills Allotment during the winter months). However, it is not unusual to find a small number of horses wintering on the east side of the Goshute Mountains in one of the three winter sheep allotments.

It has been determined that the most important limiting factor in the Goshute HMA is the combined winter use areas on the west bench of the Goshute Mountains and in Goshute Valley. The AMLs for these winter use areas have been or will be set through the Final Multiple Use Decision for the Spruce Allotment and the Big Springs Allotment Evaluation. Census data has shown that some of the same horses that use the winter areas of the Big Springs and Spruce Allotments migrate to the summer areas of the winter sheep allotments, thus AML for the Leppy Hills Allotment was based on the AML set for the Big Springs (Shafter Pasture) and Spruce Allotments (Subunits J and C-3). The combined AML for these two pastures is 106 horses or 1272 AUMS. Because data has shown that an average of 15% of the Goshute HMA horses utilize the Leppy Hills Allotment, the AML is 16 horses (15% of 106 h = 16 h) for 6 months (or 8 horses for 12 months) for a total of 96 AUMS.

The Shafter Pasture of the Big Springs allotment and sub-units J and C-3 were designated as yearlong wild horse use areas. Because it is not known exactly how

many horses migrate out of these areas in the summer, or for how long, the AUMS allocated to wild horses in the summer use areas of the winter sheep allotments will be in addition to those AUMS allocated to wild horses in the Big Springs and Spruce Allotments. It is the professional opinion of the Elko Field Office staff that this will not cause an over-stocking of wild horses in the Shafter, C-3 and J use areas, because a small number of wild horses do winter on the east side of the Goshute Range.

UT/NV North

Wild horse use in the UT/NV North Allotment is independent of livestock use. Wild horse use typically occurs in the upper elevations during the summer months (26% of the Goshute HMA herd can be found in the UT/NV North Allotment during the summer months) and wild horses normally winter on the west side of the Goshute Mountains in the Big Springs Allotment (only 3% of the Goshute HMA herd can be found in the UT/NV North Allotment during the winter months). It was determined that the most important limiting factor in the Goshute HMA is the combined winter use areas on the west bench of the Goshute Mountains and in Goshute Valley. The AML for the winter use areas have been or will be set through the Final Multiple Use Decision for the Spruce Allotment and the Big Springs Allotment Evaluation. Because the same horses use the winter areas and then migrate to the summer areas, AML for the UT/NV North Allotment was based on the AML for the Big Springs (Shafter Pasture), and Spruce Allotments (Subunits J and C-3), which is 106 horses or 1272 AUMS. Because data has shown that an average of 17% of the Goshute HMA horses utilize the UT/NV North Allotment, AML has been set at 18 horses (17% of 106 h = 18 h) for 6 months or 9 horses for 12 months for a total of 108 AUMS.

The Shafter Pasture of the Big Springs allotment and sub-units J and C-3 were designated as yearlong wild horse use areas. Because it is not known exactly how many horses migrate out of these areas in the summer, or for how long, the AUMS allocated to wild horses in the summer use areas of the winter sheep allotments will be in addition to those AUMS allocated to wild horses in the Big Springs and Spruce Allotments. It is the professional opinion of the Elko Field Office staff that this will not cause an over-stocking of wild horses in the Shafter, C-3 and J use areas, because a small number of wild horses do winter on the east side of the Goshute Range.

UT/NV South

Wild horse use within the South Pasture of the UT/NV #1 Allotment (located in the Antelope Valley HMA) has been estimated from censuses conducted during the past several years. Data indicates that the South Pasture receives only incidental use by wild horses, with use averaging 50 to 100 AUMS, which is 8 to 16 horses for 6 winter/spring months. Due to the complete lack of water within the allotment, wild horses are only found inhabiting the area when there is snow cover or frequent rain showers to fill up potholes and troughs. AML has been established at the average actual use by wild horses at 87 AUMS or 15 horses for 6 months.

Lead Hills

Wild horse use in the Lead Hills Allotment is independent of livestock use. Wild horse use typically occurs in the upper elevations during the summer months (3% of the Goshute HMA herd can be found in the Lead Hills Allotment during the summer months) and wild horses normally winter on the west side of the Goshute Mountains in the Big Springs Allotment (0% of the Goshute HMA herd can be found in the Lead Hills during the winter months). It was determined that the most important limiting factor in the Goshute HMA is the combined winter use areas on the west bench of the Goshute Mountains and in Goshute Valley. The AML for the winter use areas have been set through the Final Multiple Use Decision for the Spruce Allotment and the Big Springs Allotment Evaluation. Because the same horses use the winter areas and then migrate to the summer areas, AML for the Lead Hills Allotment was based on the AML set for the Big Springs (Shafter Pasture) and Spruce Allotments (Subunits J and C-3), which is 106 horses or 1,272 AUMS. Because data has shown that an average of 2% of the Goshute HMA horses utilize the Lead Hills Allotment, the AML is 2 horses (2% of 106 h = 2 h) for 6 months or 12 AUMS.

The Shafter Pasture of the Big Springs allotment and sub-units J and C-3 were designated as yearlong wild horse use areas. Because it is not known exactly how many horses migrate out of these areas in the summer, or for how long, the AUMS allocated to wild horses in the summer use areas of the winter sheep allotments will be in addition to those AUMS allocated to wild horses in the Big Springs and Spruce Allotments. It is the professional opinion of the Elko Field Office staff that this will not cause an over-stocking of wild horses in the Shafter, C-3 and J use areas, because a small number of wild horses do winter on the east side of the Goshute Range.

White Horse

Census data from the past 15 years has shown that wild horses do not use the White Horse Allotment for winter or summer habitat. If horses are found within the allotment, they are usually just passing through. For this reason, AML is set at incidental use.

West White Horse

Census data from the past 15 years has shown that wild horses do not use the West White Horse Allotment for winter or summer habitat. If horses are found within the allotment, they are usually just passing through. For this reason, AML is set at incidental use.

Sugarloaf

Census data from the past 15 years has shown that wild horses do not use the Sugarloaf Allotment for winter or summer habitat; this is most likely due to the complete lack of water within the allotment. If horses are found within the allotment, they are usually just passing through. For this reason, AML is set at incidental use.

Ferber Flat

Census data from the past 15 years has shown that wild horses do not use the Ferber

Flat Allotment for winter or summer habitat; this is most likely due to the complete lack of water within the allotment. If horses are found within the allotment, they are usually just passing through. For this reason, AML is set at incidental use.

Boone Springs

The Boone Springs Allotment was identified as being a combined winter use area for wild horses and livestock. As per the Wells RMP Wild Horse Amendment, the carrying capacity AUMs were based on 10% use by wild horses prior to livestock turnout.

The AML for the Goshute HMA will be further modified by the AML identified in the Big Springs Allotment Evaluation.

Wild horses within the complex move freely between administrative and allotment boundaries. Census data was used to derive an average percent of the Antelope Valley and Goshute herd that use each allotment. The AUMs of wild horse use which have been established for each allotment is not a future prediction of what the actual wild horse use in each allotment will be.

HMA	Recruitment Rate	AML - To be Managed
Antelope Valley	18%	259 ¹
Goshute	17%	123 ¹

¹ As per current Washington Office direction, AML is expressed as one number but the population is taken to 40% below AML during gathers. This sets up a 4 year gather cycle.

Rationale: The AML is the upper threshold, in numbers of adult animals, the range can sustain before deterioration of the thriving natural ecological balance begins.

Maintaining wild horses within the range of the appropriate management level will result in a thriving, natural, ecological balance between wild horse and other resource values. Continued monitoring within the complex will show if any adjustment in the AML is needed.

2. Inventory, identify and eliminate existing wire hazards. Clean up and dispose of old wire, especially where it creates a significant hazard to wild horses.

Rationale: Wild horses have become tangled in old barbed wire particularly in old spring enclosures and wild horse traps. Entanglement in barbed wire causes extensive injuries and in some cases the need for the animal to be destroyed.

3. Continue to collect combined use utilization data and collect wild horse use only utilization data.

Rationale: Collection of utilization data is necessary to determine if management practices are meeting objectives and will indicate management changes needed in response to climatological changes, such as drought, etc.

4. Continue to collect seasonal distribution data on the Antelope Valley and Goshute HMAs.

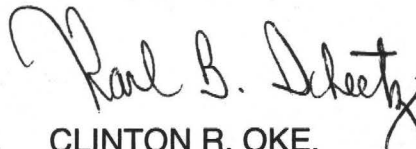
Rationale: In 1991, intensive seasonal distribution flights were begun within the Elko District. These census flights have provided valuable information on horse movements and should continue until monitoring data indicates that the appropriate management level has been attained in all HMAs.

Authority for the actions described in this final decision regarding wild horses is found in Section 3(a) and (b) of the Wild Free-Roaming Horse and Burro Act, as amended, and 43 CFR Parts 4700.0-6(a) and (d), 4710.1, 4710.4, and 4720.1.

Within 30 days of receipt of this decision, you have the right to appeal to the Board of Land Appeals, Office of the Secretary, in accordance with regulations at 43 CFR 4.4. If an appeal is taken, you must follow the procedures outlined in the enclosed Form NV 1840-2, "Information on Taking Appeals to the Board of Land Appeals". Please also provide this office with a copy of your Statement of Reasons. An appeal should be in writing and specify the reasons, clearly and concisely, as to why you think the decision is in error.

In addition, within 30 days of receipt of this decision you have a right to file a petition for a stay (suspension) of the decision together with your appeal in accordance with the regulations at 43 CFR 4.21. The petition must be served upon the same parties identified in items 2, 3, and 4 of the enclosed form titled "Information on Taking Appeals to the Board of Land Appeals". The appellant has the burden of proof to demonstrate that a stay should be granted.

Sincerely,


for CLINTON R. OKE,
Assistant Field Manager
Renewable Resources

enclosures: Appendix 1 - Upland/Desired Plant Community (DPC)/Wild Horse/Riparian Objectives

Appendix 2 - Sheep Allotment Complex Fire Management Plan

Maps 10 -18 Sheep Allotment Complex Use Areas

Map of Proposed Range Improvements in the Sheep Allotment Complex

Form 1840-2 Information on Taking Appeals to the Interior Board of Land Appeals

cc: Bingham Family Ranch
Dave Morris
Stephen Richins
Jeffrey Roche
Darrel Kippens and Sons
Ely Field Office, Bureau of Land Management
Natural Resources Conservation Service (NRCS)
Nevada Division of Environmental Protection (NDEP)
Nevada Division of Wildlife (NDOW) - Elko
Nevada Cattleman's Association
Nevada Commission for the Preservation of Wild Horses
Nevada State Division of Agriculture
Nevada State Clearinghouse Dept. Of Administration
Board of County Commissioners Elko County
U.S. Fish and Wildlife Service
U.S.D.A. Service Center
FLBA of Utah, FLCA
Friends of Nevada Wilderness - Las Vegas
Wild Horse Organized Assistance
Resource Concepts, Inc.
First National Bank
Von L. Sorenson
Sierra Club - Toiyabe Chapter c/o Ross Strickland
Fund for Animals, Rocky Mountain Coordinator
Fund for Animals
Colorado Wild Horse and Burro Coalition
HTT Resource Advisors
M. Jeanne Hermann
Federal Land Bank Western Ag Credit
Western Watershed's Project
Committee for Idaho's High Desert
Hawkwatch International, Inc.
Friends of Nevada Wilderness - Elko

The Wilderness Society - Washington D.C.
Nevada Outdoor Recreation Assn.
Sierra Club - Washington D.C.
Sierra Club - Toiyabe Chapter c/o Marjorie Sill
National Audubon Society
The Wilderness Society - c/o Norbert Riedy
Natural Resources Defense Council
Wilderness Impact Research Foundation
Red Rock Audubon Society
Roger Scholl
Robert McGinty
Paul Bottari
Friends of Nevada Wilderness - Reno

Appendix 1

**Upland/Desired Plant Community (DPC)/
Wild Horse/Riparian/
Wilderness/Recreation/ACEC Objectives**

Long Term Objectives Sheep Allotment Complex

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
	Grass	Grass			
1007 Leppy Hills	Grass ORHY - 15% POSE - 9% SIHY - 1% BRTE - 43%	Grass 25%	Grass 24 - 45% Manage for 3 or more perennial grass species	Increase % frequency of ORHY	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTER - T	Forbs T	Forbs T- 5% Manage for 1 or more perennial forb species	Increase frequency of forb species	
	Shrubs CHV18 - 5% EULA5 - 5% ARSP5 - 13% ATCO - 9%	Shrubs 32%	Shrubs 30 - 50% Manage existing shrub composition.	Maintain existing frequency of shrub component.	

Values/Issues: Antelope yearlong habitat and livestock winter use. Current composition represents conditions during a wet cycle. Cheatgrass (BRTE) is expected to remain a component of the site. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
	Grass	Grass			
1008 Leppy Hills	Grass ORHY - 7% POSE - 3% SIHY - T BRTE - 6%	Grass 10%	Grass 25 - 35% Manage for 3 or more species	Increase % frequency of ORHY	Manage rangeland habitat to provide forage for wildlife.
	Forbs PENST - T ASTER - T ERIOG - T ASTRA - T	Forbs T	Forbs Manage for 3 or more perennial forb species	Increase frequency of forb species	
	Shrubs CHV18 - 3% EULA5 - T ARSP5 - T ATCO - 4% ARARN - 77%	Shrubs 84%	Shrubs 65 - 75% Manage existing shrub composition.	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong habitat and livestock winter/spring use. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area Allotment and Pasture	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
1001 UT/NV North	Grass ORHY - 7% POSE - 1% PONE - T SIHY - 2% BRTE - T	Grass 10%	Grass 10 - 25% Manage for 3 or more perennial grass species.	Increase % frequency of ORHY	Manage rangeland habitat to provide forage for wildlife.
	Forbs AAFF - 3% HACKE - 1%	Forbs 0%	Forbs 0 - 5%		
	Shrubs ARARN - 66% ATCO - 19%	Shrubs 85%	Shrubs 60 - 70% Manage for 2 or more shrub species.	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong habitat, deer year long habitat, wild horse, and livestock winter/spring use. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
1000 UT/NV South	Grass ORHY - 35% SIHY - 1%	Grass 36%	Grass 30 - 40% Manage for 2 or more perennial grass species.	Maintain frequency of ORHY.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTRA - T PHHO - 7%	Forbs 7%	Forbs 4 - 10%	Maintain existing frequency of all forbs.	
	Shrubs CHV18 - 9% ARARN - 27% TETRA3 - 5% ATCO - 16%	Shrubs 57%	Shrubs 50 - 70%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong, wild horse and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight	Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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1013 Lead Hills	Grass ORHY - 5% POSE - 4% SIHY - 4% BRTE - 1%	Grass 13%	Grass 10 - 20% Manage for 3 or more perennial grass species.	Increase % frequency of ORHY.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTRA - 1% PENST - T% PHHO - 9% CRYPT - T% DELPH - T ARARBI2 - 1% ERCA8 - T AAFF - T	Forbs 11%	Forbs 5 - 11%	Maintain existing frequency of all forbs.	Manage upland habitat for possible Big horn sheep reintroduction
	Shrubs CHVI8 - 16% ARARN - 46% EULA5 - 1% KOAM - 1% ATCO - 12%	Shrubs 76%	Shrubs 70 - 85%	Maintain existing frequency of shrubs.	

Values/Issues: Antelope yearlong, incidental wild horse use and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
1014 Lead Hills	Grass ORHY - 1% POSE - 1% SIHY - 1% STTH2 - T HIJA - 3% BLKI - T BRTE - 90%	Grass 6%	Grass 45 - 55% Manage for 5 or more perennial grass species.	Maintain % frequency of perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs SPCO - T HACKE - T OTHRO - T AAFF - T	Forbs T	Forbs T - 5%	Maintain frequency of forb species.	Manage upland habitat for possible Big horn sheep reintroduction
	Shrubs CHVI8 - 18% EULA5 - T% ARSP5 - 9% TESP2 - 9%	Shrubs 4%	Shrubs 35 - 45%	Maintain % frequency of shrub species.	

Values/Issues: Antelope yearlong and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. Objectives are based on BRTE at approximately 10%. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. In 1988, data on percent composition were initially collected at this key area. This was during a drought and the composition of cheatgrass, an *annual*, was only 10%. The current composition column above is derived from data collected in 1999 which shows that 90% of the dry weight consisted of cheatgrass (BRTE). Cheatgrass achieved this high percent composition by 1999 due to a string of above normal moisture years which allowed the cheatgrass to produce abundant seed and vegetative matter. These sorts of fluctuations in percent composition will continue to occur with variations in available moisture and can frustrate the analysis of changes in perennial species.

The desired plant community (DPC) objectives are directed at maintaining the composition and frequency of *perennial* species. In order to compare apples to apples (the status of perennial species between years), we need to stabilize the percent composition for cheatgrass so that it doesn't skew the data interpretations. Therefore, the DPC objectives developed for this key area assume the percent composition of cheatgrass will be 10% with the perennials making up the remaining 90%. The 10% value for cheatgrass is similar to what was found in 1988 when below normal moisture prevented dramatic increases in cheatgrass production. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
1003 White Horse	Grass ORHY - 4% POSE - 8% SIHY - 1% BRTE 1%	Grass 13%	Grass 15 - 25% Manage for 3 or more perennial grass species.	Increase % frequency of perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ERIOG - 3% PHHO - 1% CASTI2 - T	Forbs 4%	Forbs T - 5%	Maintain existing frequency of all forbs.	Manage upland habitat for possible Big horn sheep reintroduction
	Shrubs CHVI8 - 3% ARARN - 59% ATCO - 20%	Shrubs 82%	Shrubs 70 - 80%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong, Deer yearlong, incidental wild horse use and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight	Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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1004 White Horse	Grass ORHY - 7% SIHY - 7% BRTE - 23%	Grass 14%	Grass 20 - 30% Manage for 2 or more perennial grass species.	Increase % frequency of perennial grass species.	Manage rangeland habitat to provide forage for wildlife. Manage upland habitat for possible Big horn sheep reintroduction
	Forbs ASTER - T SPHAE - 3% HAGL - 1%	Forbs 3%	Forbs T - 5%	Maintain or increase existing frequency of all forbs.	
	Shrubs CHVI8 - 32% EULA5 - T KOAM - 15% ARSP5 - 1 ATCO - 10%	Shrubs 58%	Shrubs 50 - 70%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong, incidental wild horse use and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
1005 Sugarloaf	Grass ORHY - 32% POSE - 2% SIHY - 1% STCO4 - 1% BRTE - 2%	Grass 36%	Grass 30 - 40% Manage for 4 or more perennial grass species.	Maintain existing frequency of all perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTRA - T PHHO - 3% MERTE - T CRYPT - T PPFF - 1%	Forbs 4%	Forbs T - 5%	Maintain or increase existing frequency of all forbs.	
	Shrubs CHVI8 - 19% ARARN - 23% EULA5 - T ATCO - 19%	Shrubs 61%	Shrubs 55 - 65%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong, Deer yearlong, incidental wild horse use and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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1006 Sugarloaf	Grass ORHY - 18% POSE - T SIHY - 13% BRTE - T	Grass 31%	Grass 25 - 40% Manage for 3 or more perennial grass species.	Maintain existing frequency of all perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs SPCO - 2% ERIOG - T ASTER - T	Forbs 2%	Forbs T - 5%	Maintain or increase existing frequency of all forbs.	
	Shrubs EULA5 - 1% ARSP5 - 1% ATCO - 63%	Shrubs 65%	Shrubs 55 - 70%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong, incidental wild horse use and livestock winter/spring use. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
FF-01 Ferber Flat	Grass ORHY - 12% POSE - 2% SIHY - 4% STCO4 - 3% BRTE - 1%	Grass 21%	Grass 20 -25% Maintain or increase ORHY	Increase frequency of all perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTER - 6% SPHAE - 1% CRYPT - T PPFF - 4%	Forbs 11%	Forbs 5 - 15%	Maintain existing frequency of all forbs.	
	Shrubs CHV18 - 23% ARARN - 9% EULA5 - 3% ATCO - 30%	Shrubs 65%	Shrubs 65 - 75%	Maintain existing frequency of shrub component	

Values/Issues: Antelope and Deer yearlong, incidental wild horse use and livestock winter/spring use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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WW-01 West White Horse	Grass ORHY - 1% POSE - 54% BRTE - T	Grass 55%	Grass 45 - 50% Manage for 2 or more perennial grass species.	Maintain or increase frequency on ORHY	Manage rangeland habitat to provide forage for wildlife.
	Forbs	Forbs 0%	Forbs 0 - 5%		
	Shrubs EULA5 - 45%	Shrubs 45%	Shrubs 45 - 55% Maintain EULA5	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong habitat, incidental wild horse and livestock winter use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
WW-02 West White Horse	Grass ORHY - 5% POSE - 19% SIHY - 2% STCO4 - 9%	Grass 35%	Grass 30 - 40% Manage for 4 or more perennial grass species.	Increase % frequency of perennial grass species.	Manage rangeland habitat to provide forage for wildlife.
	Forbs ASTRA - T ASTER - 2% ERIOG - T PHHO - T ARARBI2 - 2% PPFF - T	Forbs 4%	Forbs T - 5%	Maintain or increase existing frequency of all forbs.	
	Shrubs CHV18 - 24% ARARN - 11% EULA5 - 15% ATCO - 10%	Shrubs 60%	Shrubs 55 - 70% Manage for 3 or more shrub species.	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong habitat, incidental wild horse and livestock winter use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight	Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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BO-01 Boone Springs	Grass ORHY - 14% POSE - 25% SIHY - 1% STIPA - 1% BRTE - 1%	Grass 41%	Grass 35 - 45% Manage for 4 or more perennial grass species.	Maintain existing frequency of all perennial grass species.	Manage rangeland habitat to provide forage for wildlife and sage grouse strutting habitat.
	Forbs ASTRA - T ASTER - 3% ERIOG - 1% PHHO - 3% PHLO2 - 9% COPA - 1%	Forbs 16%	Forbs 10 - 15%	Maintain existing frequency of all forbs.	
	Shrubs CHV18 - 2% ARARN - 37% OPUNT - T	Shrubs 39%	Shrubs 40 - 55% Manage for 2 or more shrub species.	Maintain existing frequency of shrub component	

Values/Issues: Antelope crucial winter habitat, sage grouse strutting habitat, wild horse and livestock winter use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
BO-02 Boone Springs	Grass ORHY - 6%	Grass 6%	Grass 5 - 10% Maintain or increase % ORHY.	Increase percent frequency of ORHY	Manage rangeland habitat to provide forage for wildlife.
	Forbs	Forbs 0%	Forbs T - 2%	Increase existing frequency of all forbs.	
	Shrubs EULA5 - 94%	Shrubs 94%	Shrubs 85 - 95%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong use, wild horse use, and livestock winter use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Key Area and Allotment	Current Composition % Dry Weight		Desired Composition of Perennials (% Dry Weight)	Frequency Trend Objectives	Wildlife Habitat Objectives
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BO-03 Boone Springs	Grass ORHY - 3% POSE - 7%	Grass 10%	Grass 5 - 30% Manage for 2 or more perennial grass species.	Increase % frequency of perennial grass species.	Manage rangeland habitat to provide forage for wildlife and sage grouse winter habitat
	Forbs PHHO - T% ARARBI2 - 1%	Forbs 1%	Forbs T to 5%	Maintain or increase existing frequency of all forbs.	
	Shrubs CHVI8 - 13% ARARN - 61% GRSP - 12% EPHED - 4%	Shrubs 90%	Shrubs 65 - 95%	Maintain existing frequency of shrub component	

Values/Issues: Antelope yearlong habitat, sage grouse winter habitat, wild horse, and livestock winter use. Continue current management and monitor. Current composition represents conditions during a wet cycle. The range in percentage of desired composition is intended to portray natural fluctuations over dry precipitation and wet precipitation cycles. The objectives are based on a 20 year time frame from implementation of the grazing plan, or 20 yrs following completion of necessary vegetation treatments.

Sheep Allotment Complex Upland Objectives

A. Short term objectives:

1. Maximum utilization of 60% of previous year's growth on key herbaceous species by the end of the grazing season.
2. Maximum utilization of 50% of previous year's growth on salt desert shrub and other key shrubs (such as black sage), by the end of the grazing season.
3. Maximum utilization of 30% on of current year's growth on salt desert shrub and other key shrubs (such as black sage), and 50% on key herbaceous species in spring use areas.
4. Allow for a maximum of 10% utilization by wild horses prior to livestock turnout in the winter combined use areas.

Sheep Allotment Complex Wild Horse Objectives

1. Remove sufficient wild horses to attain the appropriate management level and maintain populations at a level which maintain a thriving natural ecological balance consistent with other resource values.
2. Maintain a healthy, viable population of wild horses within the Sheep Allotment Complex.
3. Adjust the appropriate management level if continued monitoring and evaluation of data shows a need.
4. Manage the wild horses within the Sheep Complex in a manner that maintains their wild free-roaming characteristics.
5. Improve the distribution of wild horses within the Sheep Complex by developing reliable water sources. Emphasis and priority should be given to the Boone Springs Allotment. Ensure the year-long habitat requirements of wild horses are met.

**Sheep Allotment Complex,
Riparian Habitat And Objectives**

Data will be collected using methodology outlined in BLM Technical Reference 1737-16, 1998, "A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas" for seeps/springs. Functional condition assessment is relative to capability and potential. Measurements and objectives are for public land only.

Location	Allotment	Baseline Data	Trend	Long Term Objectives
Tunnel Spring	Leppy Hills	Functional at Risk	Not Apparent	PFC
Rock Spring	Leppy Hills	Non-Functional		PFC
Spring Gulch	UT/NV North	PFC		PFC
Sidehill Spring	UT/NV North	Functional at Risk	Downward	PFC
Blue Lakes (pond)	Lead Hills	PFC		PFC
Little Mud Spring	Lead Hills	PFC		PFC
Felt Spring	Lead Hills	Functional at Risk	Upward	PFC
Serviceberry Spring	Lead Hills	Dry		
Perkins Springs	Boone Springs	Functional at Risk	Downward	PFC

**Sheep Allotment Complex
Wilderness Objectives**

1. Manage as wilderness those portions of the Wilderness Study Areas (WSAs) which are manageable as a wilderness area and for which wilderness values is considered the best use of the lands (Wells RMP objective).
2. Manage and protect those public lands which are under wilderness review, in such a manner so as not to impair their suitability for preservation as wilderness, until they are designated by Congress as wilderness, or until they are released from further wilderness consideration (IMP objective).

**Sheep Allotment Complex
Recreation Objective**

1. Provide a wide range of recreation opportunities (Wells RMP objective).

**Sheep Allotment Complex
ACEC Objective**

Area of Critical Environmental Concern

1. Protect and maintain the existing habitat in its present condition, to ensure the area's continued occasional use and future suitability to support the reestablishment of falcons, either by natural expansion of the peregrine population that may frequent the area or by artificial releases conducted in cooperation with the Peregrine Fund.

Appendix 2

Sheep Allotment Complex Fire Management Plan

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Introduction:

In 1998 the Elko Field Office prepared a new district-wide fire management plan, that encompasses all BLM administered public lands within the Elko District boundaries. This plan was prepared as per national direction and went through public review and internal review. This plan was approved at the national level in 1999. This plan defines the goals and general objectives for fire suppression, prescribed fire and fuels management for the District.

This site specific plan tiers off the Field Office plan and sets specific objectives for this area in the areas of prescribed fire fuels management. The wildland fire suppression objectives remain constant with the Field Office plan. The site specificity of this plan will assist in meeting the goals and objectives of Elko Field Office Plan.

Background Information:

The Field Office fire management plan differentiated fire management goals and objectives by area and vegetation type. These "polygons" are the basis for all fire management activity within the district. The Sheep Allotment Complex Fire Management Plan has five (5) of these polygons located within its scope.

These polygons (Map 1) and their descriptions are as follows:

B-3 District-wide Areas of Annual Vegetation Invasion

Current condition - Cheatgrass and other annuals dominate these polygons. Isolated areas of sagebrush in early to mid seral condition and native perennial grasses are also present.

Future Desired Condition - Resource management objectives for these areas are to restrict the expansion of cheatgrass into surrounding native plant communities and to increase the amount of native vegetation available for livestock grazing and wildlife habitat, and for improving watershed conditions.

Constraints - None, unless archaeological sites are present. Primary emphasis is on preventing the spread of fire into areas of native vegetation.

Appropriate Fire Management Response - Hold unplanned ignitions to 300 acres at least 90 percent of the time. The Battle Mountain Field Office has their adjacent areas in a "C" category. They will prevent the spread of fire in their "C" polygon into this polygon. Fire history in these areas is dominated by large acreage fast-burning fires that often exceed 20,000 acres. They are dependent on the amount of winter/spring precipitation and the resultant amount of annual vegetation growth. These fires expand the annual vegetation areas by burning into native vegetation, which allows the annuals to

colonize the burned areas in the year after the fire. Fire history for this area shows an average of 21 fires per year burning 12,149 acres.

Prescribed Fire/Fuels Management Opportunities - Prescribed fire is to be used in a selective manner in these areas, usually in conjunction with mechanical or chemical treatments. Planned ignitions can be used in a limited way to accomplish specific management objectives within areas of native vegetation. Chainings and seedings within this polygon will be maintained through the use of planned ignitions. These ignitions will not be considered part of the decadal burn targets since they are maintenance of existing developments.

B-4 Woodlands

Current Condition - The primary vegetation type in these polygons is woody vegetation dominated by Utah juniper, pinyon pine, bitterbrush and mountain mahogany with associated perennial grasses and shrubs. Management objectives are for woodland products and big game habitat.

Future Desired Condition - Maintain woodlands.

Constraints - None, unless archaeological sites are present. The critical watershed in this polygon is Taylor Canyon in the Cherry Creek Mountains.

Appropriate Fire Management Response - Fire Management Direction - Hold unplanned ignitions to 300 acres at least 90 percent of the time. The Battle Mountain and Ely Field Offices adjacent pinyon-juniper areas are in "C" polygons that have much higher allowable acreage totals (ranging from 1,000 to 5,000 acres) to hold unplanned ignitions to. The Elko District will be responsible for suppression costs of fires occurring within two miles of the District boundary that will cross boundaries. Fire history in these polygons is that of isolated small (0-10 acres) fires. The vegetation type is conducive to large wind-driven or plume-dominated fires that can burn 500 to 5,000 acres in one to two burning periods. Fire history for these areas show an average of 4.5 fires per year burning 175 acres.

Prescribed Fire/Fuels Management Opportunities - Mechanical vegetation treatments are preferred to change the vegetation age structure and composition. Prescribed fire should be used in a limited role to accomplish wildlife habitat goals while maintaining the woodland resources. When mechanical treatments cannot meet wildlife habitat management goals, use prescribed fire to create openings of 10 to 50 acres.

B-6 Low Sagebrush & Desert Shrub

Current Condition - These areas are dominated by plant communities that do not have fire as part of their natural ecology. Vegetation types are dominated by desert shrub and low sage communities with varying degrees of perennial grasses and forb composition. Management objectives in these areas are to maintain the native community, to provide for livestock and wildlife forage. Some of the areas are important for winter antelope habitat.

Future Desired Condition - Prevent annual vegetation or non-native plant intrusions into this vegetation type resulting from disturbance of the existing community. Maintain native vegetation composition.

Constraints - Low vegetation response potential, limited precipitation and fragile soils mean that mechanized equipment will scar the land and make rehabilitation expensive. Engine usage should be the preferred alternative since most of the fires occur next to roads.

Appropriate Fire Management Response - Hold unplanned ignitions to 100 acres at least 90 percent of the time. All human caused fires will be fully suppressed using minimal impact suppression techniques (MIST). At low fire activity levels, natural ignitions may be monitored if this will cause less ecological impact than suppression. All fires will be fully suppressed using MIST. Ely Field Office has an acreage target for unplanned ignitions of 50 acres for adjacent areas (Steptoe Valley) in the same vegetative community. Elko Field Office will suppress all fires within two (2) miles of the boundary to the higher Ely standard. Fire history in these areas show an average of 6.5 fires per year burning 513 acres.

Prescribed Fire/Fuel Treatment Opportunities - Prescribed fire should be a very minor component in this vegetation type; and then only to achieve site specific resource objectives within the context of the larger area.

C-1 Wilderness Study Areas (WSA's)

Current Condition - The vegetation types in these areas vary from sagebrush and perennial grasses to pinyon-juniper woodlands to mixed conifer woodlands. Primary management objectives for these areas are to maintain their natural characteristics and to comply with the Interim Management Policy for Lands under Wilderness Review.

Future Desired Condition - Maintain the natural ecology of the areas including pre-settlement fire activity. Prevent the encroachment of annual and non-native vegetation into the areas.

Constraints - No mechanized equipment usage. All vehicular traffic must be on routes identified during the initial inventory (1979-1981). Use MIST and "light hand

on the land" techniques.

Appropriate Fire Management Response - Hold unplanned ignitions to 2,000 acres or less at least 90 percent of the time. The fire histories in these areas range from low to high with most being small (0-10 acres). Occasional large (10,000+ acres) fires have occurred in some areas. Both planned and unplanned ignitions can be managed to maintain fire as part of the natural ecology, to reduce fuel loadings and to meet specific management objectives. Fire history for these areas show an average of 3.2 fires per year burning 66 acres.

Prescribed Fire/Fuels Management Opportunities - Use planned ignitions to reintroduce fire into the ecology of the areas. Develop and apply fire prescription guidelines to allow for management of unplanned ignitions through monitoring and/or minimal suppression efforts in these areas if prescription guidelines are met. Planned ignitions will be curtailed if unplanned ignitions meet management objectives. Use MIST in all suppression actions.

U-1 Small Towns, Mining Operations and Recreation Sites - Urban Interface

Current Condition - The primary vegetation type around these areas is sagebrush and perennial grasses with intrusions of cheatgrass and other annual vegetation. The management objective for these areas is to preserve and protect the developed features, life and property. This area also includes the rapidly growing urban interface around Elko and Spring Creek Recreation sites may be developed or undeveloped, but are moderately to heavily used during the summer and fall months.

Future Desired Condition - Maintain or improve the native vegetation in the area. Use vegetation manipulation to create buffer areas around critical developed sites to provide for public safety.

Constraints - Construction of fire line within the recreation sites should be avoided. If necessary, the minimum line needed should be located outside of developed sites, areas of concentrated use or Special Recreation Management Areas. Efforts should be made to keep unplanned ignitions from reaching these areas. Powerlines, communication sites and other critical sites within the mining and oil/gas sites need full protection. Problems associated with these areas include powerlines and arcing and chemical and explosive storage areas. Fire history for these areas shows an average of 9.4 fires per year burning 2,901 acres.

Appropriate Fire Management Response - Hold unplanned ignitions to minimal acreage within this polygon. Fire history is minimal because of their size, however, many can be easily threatened by wildfire. In particular, the towns of Midas and Tuscarora have been threatened in the past.

Prescribed Fire/Fuels Management Opportunities - Use planned ignitions to reduce fuel loadings. Most of the mining areas (Carlin Trend) and urban interface are within Nevada Division of Forestry protection zones. Work with NDF and the mining companies to do hazard fuel reduction (either mechanical or planned ignitions) around critical sites. Area also has great potential for green stripping projects to create buffers around critical areas. The small towns in greatest risk from wildfire are Midas and Tuscorora and are priority for greenstripping or other fuels modification treatments.

Fire History:

The Sheep Complex has a moderate number of wildland fires. In the period from 1980 to 1996 (for all fires) and 1997-1999 (for large fires only) there were 61 documented wildland fires. There is no easily accessible data for small fires from 1997 to 1999, but based on prior history, there were probably an additional 10 to 15 wildland fires. Surprisingly almost 50 percent of the fires occurred in the low sage/desert shrub community. The two WSAs in the complex, Goshute Peak and Bluebell accounted for 33 percent. The rest was spread among the pinyon-juniper woodlands, cheatgrass areas and the urban interface surrounding the Pilot Valley exchange. Most of the wildland fires were small, averaging less than ½ acre. However, there are a large number of fires ranging from 300 to over 3,000 acres in the low sagebrush/desert shrub community. The probable explanation for this is that these areas have been invaded by cheatgrass, which has altered the fire regime in this vegetation type, leading to more frequent and larger acreage wildland fires. Normally, this vegetation type has low fire occurrence. The native plant spacing and fuel loadings are discontinuous and light, *and the native vegetation developed with little if any adaptation to fire.* Recorded fire occurrences are found on Map 1.

Table 1. Sheep Complex Fire History Table

Polygon	Number of Fires	False Alarms	Largest Fire Size and Year	Total Acres
B3 Cheatgrass Areas	5	2	3 - 1995	3.5
B4 Pinyon-Juniper Woodlands	4	0	80 - 1996	93.1
B6 Low Sage and Desert Shrub	29	8	3,170 - 1983	10,941.1
C1 WSA - Goshute & Bluebell	20	1	106.7 - 1988	271.0
U1 Urban Interface	3	0	2 - 1988	2.3
Totals	61	11		11,311

Map 1
 Fire History & Fire Polygons
 Sheep Complex Evaluation



-  Fire Polygons
-  Highways
-  Wildland Fire Ignitions 1980-96
-  Large Wildfires 1980-96
-  Large Fires 1999
-  WSA Boundaries
-  Allotment



Wildland Fire Suppression Tactics:

- A. **Recommendation:** Maintain the current suppression strategies as called for in the 1998 Elko Field Office Fire Management Plan for “polygons” B3, B4, B5, and U1.

Rationale: The fire management plan takes into account fire occurrence and size and location of suppression resources to achieve the “Most Effective Level” of fire suppression for the district in its entirety. The effectiveness of suppression is monitored through periodic evaluations.

- B. **Recommendation:** Evaluate the B6 “polygon” for a possible change to B3 Cheatgrass “polygon” based on documented large fire occurrence. If the change is made, then redo Interagency Initial Attack Analysis (IIAA) to re-validate suppression requirements in the area.

- C. **Recommendation:** Create Wildland Fire Use Areas on the Goshute Peak and Bluebell WSAs (entire areas), and Sugar Loaf, White Horse and Kinsley Mountains from 6,560 feet (2000 meters) up (Map 2). Allow fire to be re-introduced into the ecosystem to assist in maintaining the remnant mixed conifer forests and their associated aspen stands, grass and sage “balds” and associated brush species. This phase will include the cultural inventories necessary under the 1999 State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office.

Wildland Fire Use Areas will follow the guidelines described in Wildland and Prescribed Fire Management Policy, Implementation Procedures Guide of August 1998 and future revisions. This includes:

1. Stage I: Initial Fire Assessment and Go-No-Go decision within two (2) hours of discovery.
2. Stage II: Short-Term Implementation Actions within 24 hours (currently under revision)
3. Stage III: Long Term Implementation Actions if periodic Fire Assessment indicates need.

Fires occurring in these areas may go through one or more of the above stages dependent on fire size, complexity and longevity. Stage 1 is the initial Go-No-Go decision. Stages II and III represent tactical implementation plans which include fire behavior, risk assessment, overall objectives and mitigation plans (holding, limited suppression actions, closures, etc.).

Prescriptive Parameters:

1. Remote Area Weather Station (RAWS) to be used is Spruce Mountain for National Fire Danger Rating System (NFDRS) fuel models F (pinyon-juniper) and G (mixed Conifer).
2. Local Fire Preparedness Levels: 1 to 5
3. Great Basin and/or National Preparedness Levels : 1 to 5. At levels 4 and 5 State and/or National Concurrence is needed.
4. Energy Release Component (ERC) of appropriate fuel model (F or G) as calculated as a seven day average of a maximum of 80%.

Rationale: Goshute Peak and Bluebell WSAs - The Interim Management Policy and Guidelines for Lands Under Wilderness Review states that fire is a natural component of many wildernesses and that the natural role of fire and fire history be considered in fire management planning. The WSAs' vegetation, especially the pinyon-juniper, mixed conifer and higher elevation sagebrush meadows and "balds" had fire as a natural part of their ecology. Due to fire suppression and other management decisions, these areas have missed one to two fire cycles. Wildland fire use areas with the defined prescription parameters would allow fire be reintroduced as part of the natural landscape. The wildland fire use areas will cover the entire WSAs, not just the portions in the Sheep Complex. They will also be covered in allotment specific fire management plans for the Big Springs and the Spruce allotments.

Sugar Loaf, White Horse and Kinsley Mountains - These mountains are an extension of the Goshute Mountains which contain the WSAs. Wildland fire use areas in these mountain ranges above 6560 feet (2000 meter) would allow for the natural re-introduction of fire into the mixed conifer and pinyon-juniper areas on these mountains. This is based on the following reasons: 1- The steep slopes on this range pose definite safety hazards to the firefighter, 2- The fuels on the slopes are very broken and discontinuous, 3- There is visual evidence that naturally ignited fires only burn one or two trees per ignition, 4- The cost of suppressing a fire in the steep rocky slopes far exceeds any resource damage done by occasional one tree fires, 5- The natural fire regime in this area is that of infrequent single tree fires with little potential to become large, and 6- the areas exhibit the same vegetative and topographical conditions, including mixed conifer stands and pinyon-juniper stands with minimal shrub and herbaceous understory as the WSAs.

Table 2. Dispatch Run Card for Wildland Fire Use Areas

Unit Priority	Staffing Class	#Units
E-1W*	1-5	1 engine for monitoring purposes or aerial recon Based on Duty Officer Decision. Immediately start WFIP process.

NOTE : USE SPRUCE MOUNTAIN RAW SITE FOR ERC CALCULATIONS

**Table 3. Goshute Peak, Bluebell WSAs, Sugar Loaf, White Horse and Kinsley Mountains
Wildland Fire Implementation Plan Flow Chart**

Local Fire Preparedness Level 1-5

|
Yes - Stage I time frame 2 hours

|
Great Basin/National Preparedness Level 1-3'

Yes	No----- NSO/National Approval -No---- Suppress

-----	-----Yes

|
ERC (7 Day Average) 80% or less

Yes	No----- Suppress

|
Implement Stage I

|
Ignition still burning after 24 hours (or proposed time frame revision in National Policy)

Yes	No----- confirm out and fire report

|
Implement Stage II

|
Need Assessment Indicates Maintaining Stage II Implementation Actions

Yes	No
Continue Stage II	Implement Stage III Actions

Prescribed Fire and Fuels Management Objectives (See Map 2 for locations):

For an in-depth discussion of fire effects on fire dependent vegetation types, see "Vegetation Treatment by Fire" Environmental Assessment BLM/EK/PL-98/026.

This fire management plan establishes baseline/minimum prescribed fire and fuels management goals for this complex. Other projects may be incorporated into this plan at a future date depending on additional resource needs.

A. Goshute and Bluebell WSAs

Recommendation: Institute an aggressive prescribed fire program in the mixed conifer within these WSAs.

Rationale: The mixed conifer areas within these WSA's are remnant forests where the lack of fire and extended drought periods have decreased the health of the forests and increased fuel loadings. Using prescribed fire in these areas would create a mosaic of uneven aged stands, reduce fuel loadings and reduce the incidence of diseased trees. These actions would lead to the increased health of the forest and reduce the chances of large stand replacement fires that may eliminate these remnants from the ecosystem. Opening up the stands would increase the numbers of pine trees while reducing white fir composition. Forest health in these stands is of great importance so that the mixed conifer forests can be retained. These areas are managed as wilderness, so mechanical treatments are not possible.

B. White Horse Mountain/Sugar Loaf Peak

Recommendation: Use prescribed fire on limited basis on the east foothills North of Little White Horse Pass to improve grass and forb diversity and to prevent the encroachment of juniper.

Rationale: There are intrusions of Wyoming big sagebrush in the draws. There is little cheatgrass in this area and most of the area is comprised of open woodlands with perennial grass/ low sagebrush/big sagebrush understory. Some areas can be burned to keep the open woodland aspect of this area, remove decadent sagebrush, and promote forb and grass growth. It is estimated that approximately 300 acres could be burnt in this area.

C. Kinsley Mountains

Recommendation: Use prescribed fire on the alluvial fans coming off the mountain.

Rationale: There is pinyon-juniper encroachment on the alluvial fans. In areas where cheatgrass is limited, prescribed fire could be used to open up these areas and re-establish the grass forb and shrub components to increase the forage diversity for wildlife and livestock. It is estimated that from 300 to 600 acres could be treated with prescribed fire in this range. The lack of road accessibility greatly limits the possibility of mechanical or fuel wood cutting options to reduce pinyon-juniper encroachment.

D. Antelope Range

Recommendation: Use prescribed fire and/or mechanical thinning from the 6500 foot elevation level up to re-create the natural fire occurrence by creating openings of from 1 to 50 acres in the pinyon-juniper.

Rationale: From the 6500 foot elevation up the area is dominated by closed canopy pinyon-juniper. In the rocky soils this is probably the climax community. In the deeper soils, the fire seral community should be dominated by sagebrush and perennial grasses. The use of prescribed fire would re-create the natural fire occurrence in this vegetation type and create openings for wildlife species and wild horses to utilize for forage. Vegetative species diversity would increase within the burned areas, improving forage for deer, antelope, wild horses and non-game species while maintaining more than adequate thermal and hiding cover. It is estimated that 300 to 500+ acres could be treated by prescribed fire in this area. The lack of road access seriously limits the possibility of mechanical or fuel wood cutting options to open up these stands.

E. Dolly Varden Mountains

Recommendation: Use prescribed fire and/or mechanical thinning from the 6500 foot elevation level up to re-create the natural fire occurrence by creating openings of from 1 to 50 acres in the pinyon-juniper.

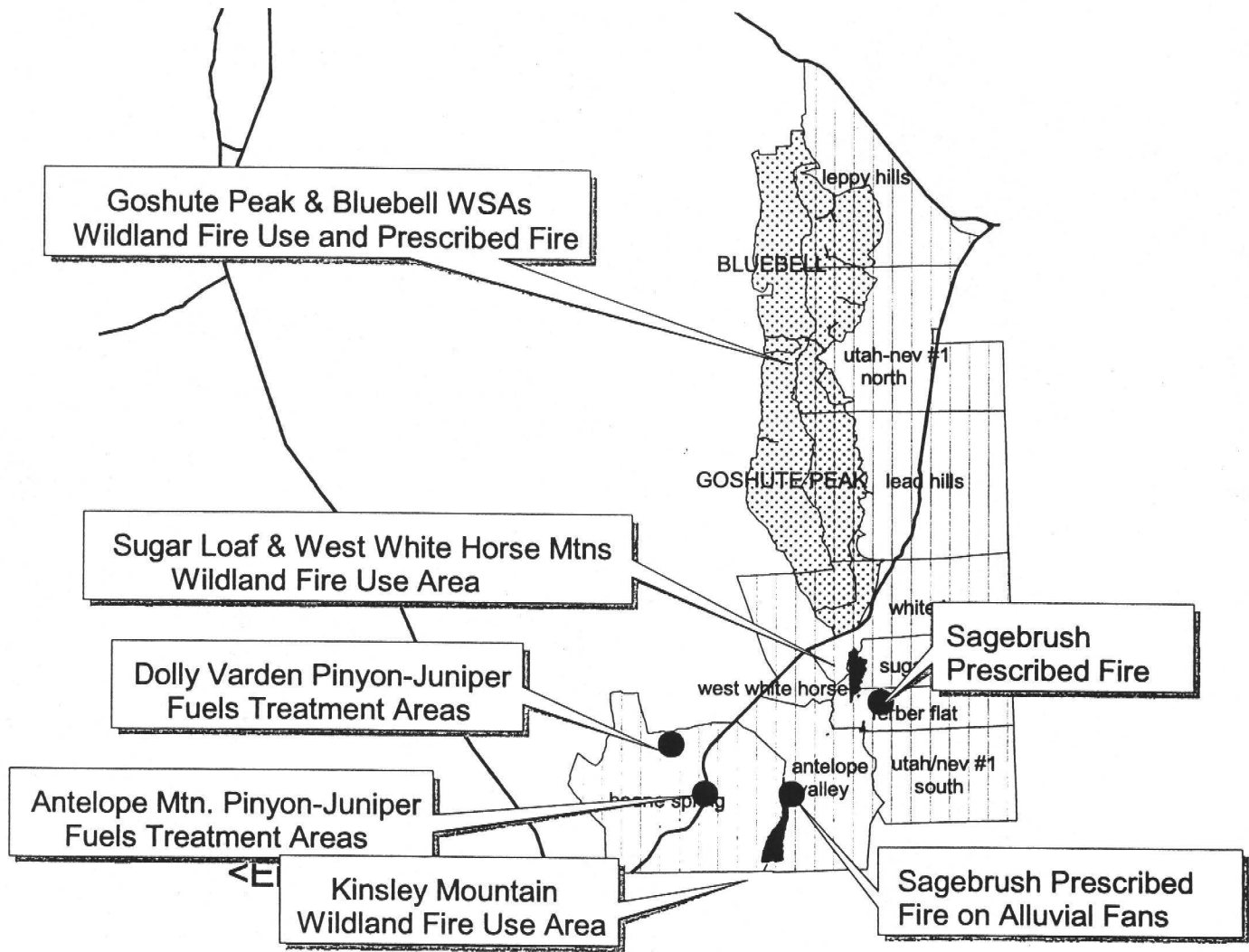
Rationale: Only a small part of these mountains is within the Sheep Complex Allotment Evaluation. Most of the area covered is within the pinyon-juniper vegetation type. There are areas from the 6500 feet elevation and above that could benefit from the same prescribed fire treatment as detailed in the Antelope Range discussion. It is estimated that approximately 5-100 acres within this area could be treated by prescribed fire. The area above 6500 feet is dominated by closed canopy pinyon-juniper. In rocky soils this is probably the climax community. In the deeper soils, the fire seral community should be dominated by sagebrush, perennial grasses and forbs. Prescribed fire would re-create the natural fire occurrence; create openings for wildlife species and wild horses, maintain the important tree thermal and hiding cover; and increase grass and forb diversity. The lack of road access in these areas reduce the viability of mechanical fuels projects such as woodcutting and thinning to create these openings for wildlife.

Monitoring and Evaluation

All management ignited prescribed fires and fuels treatment projects will be monitored. Plots will be established prior to the treatment. The plots will be read pre-treatment and post-treatment to ascertain if project objectives were met. Wildland fire suppression activity will be evaluated periodically to ensure that suppression objectives are being met. This information will be used in modifying future objectives.

Sites with mechanical thinning and/or wildfire implementation plans will have a cultural inventory meeting the standards as outlined in the 1999 State Protocol Agreement between the Nevada State Historic Preservation Office (SHPO) and the BLM. Mixed conifer and aspen sites will be inventoried to obtain accurate data on stand size, composition, age structure, location and fire history.

Map 2.
 Sheep Complex Fire Management Plan
 Wildland Fire Use and Fuels Treatments

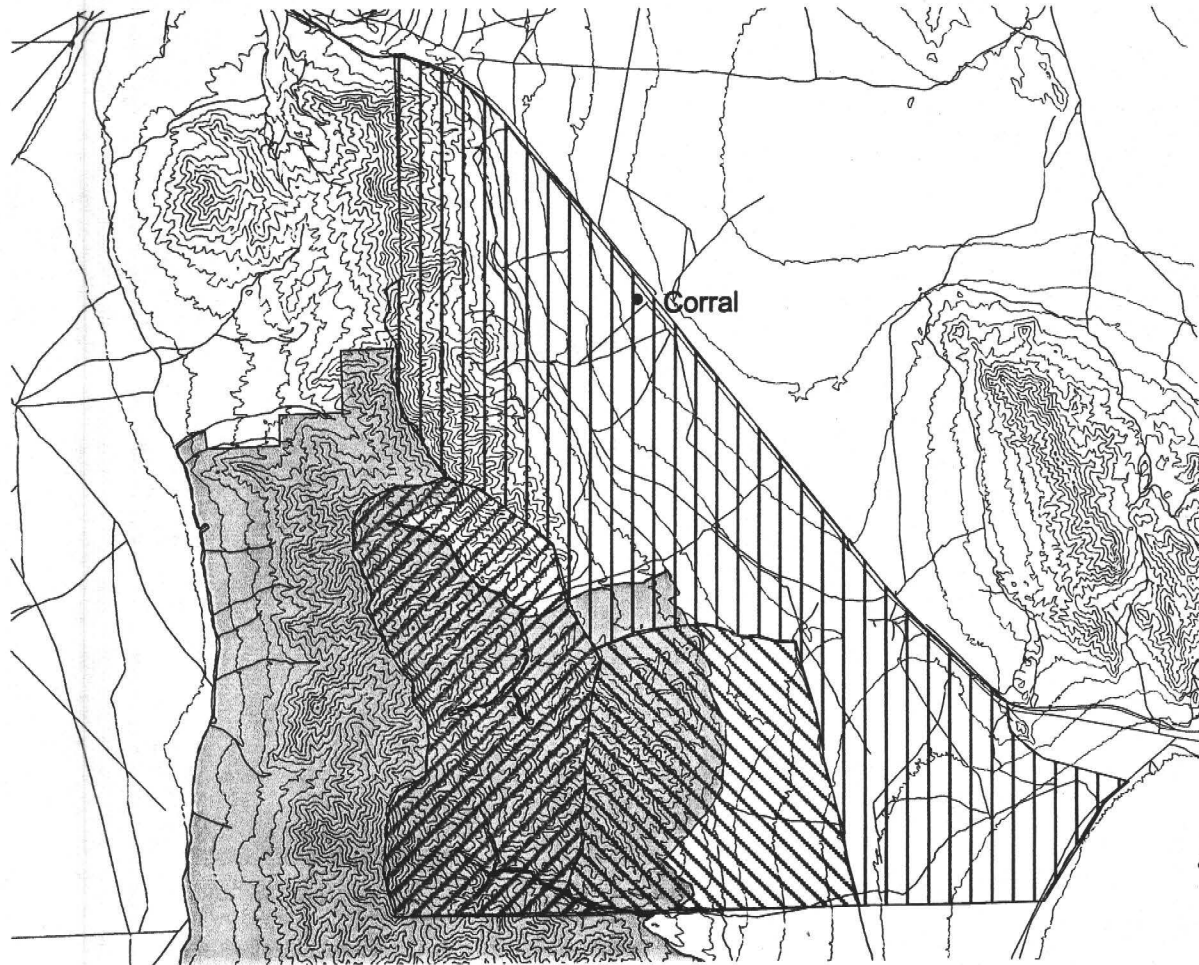







- Sugar Loaf & West White Horse Wildland Fire Use Area
- Kinsley Mtn Wildland Fire Use Area
- Highways
- WSA Boundaries
- Allotment



Map 10

Leppy Hills Allotment Use Areas

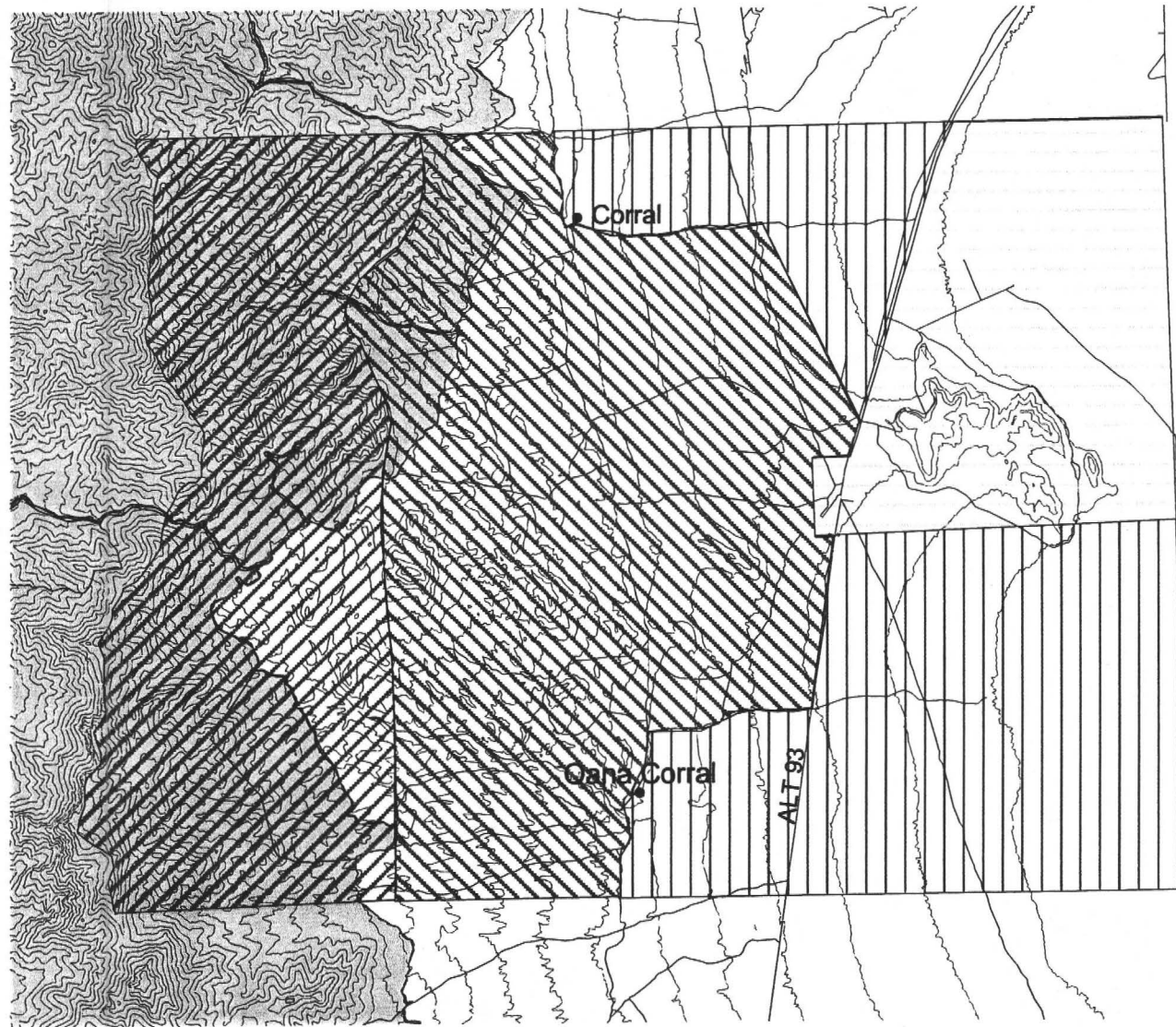








-  Roads
-  Morris Basin Use Area
-  Use Area A
-  Use Area B
-  WSA

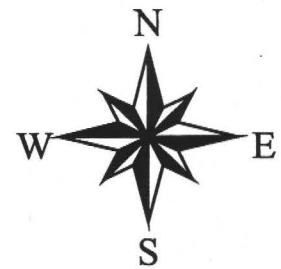


Map 11

UT/NV North Allotment Use Areas

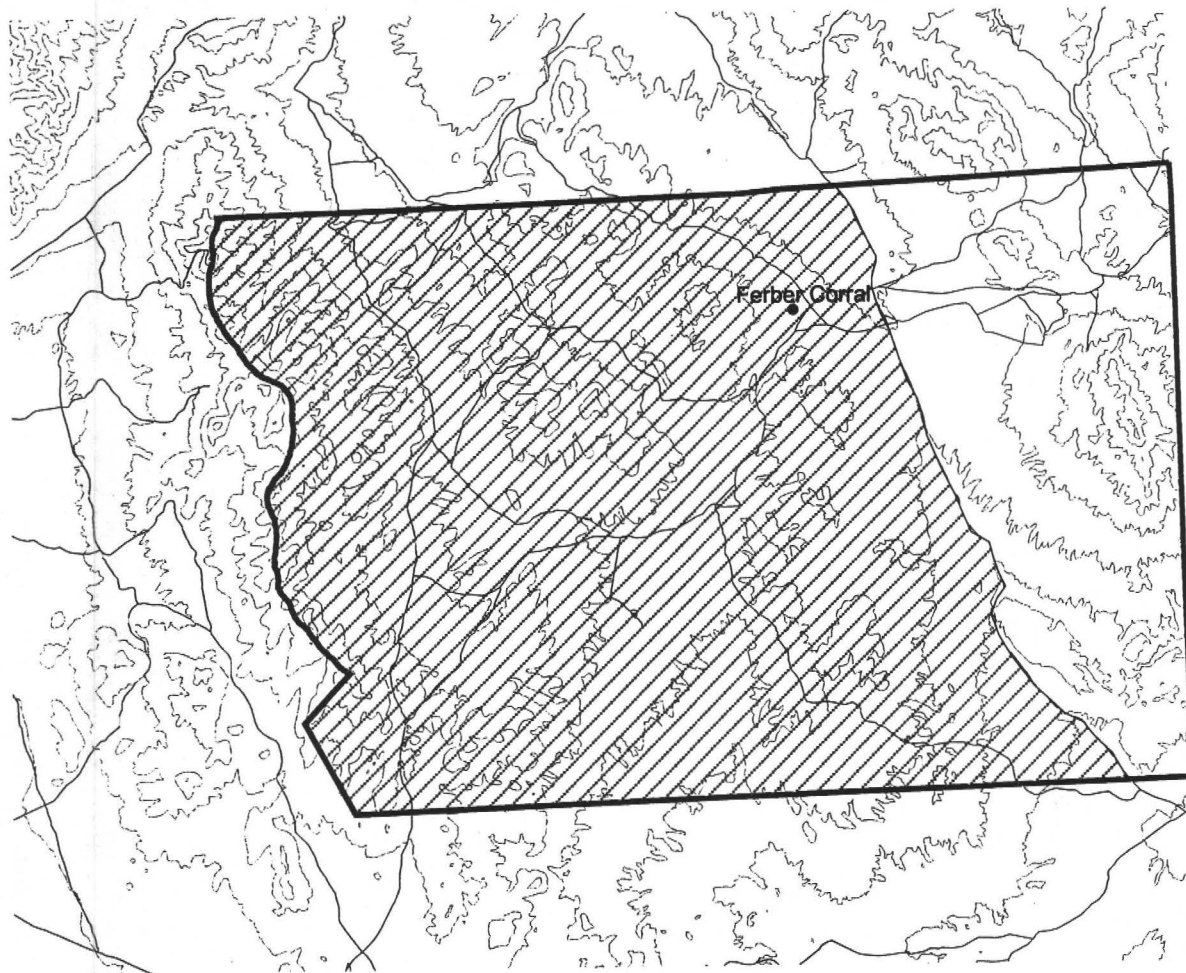


-  Roads
-  Department of Defense
-  Use Area A
-  Use Area B
-  Morgan Basin
-  WSA



Map 12

UT/NV South Allotment Use Areas

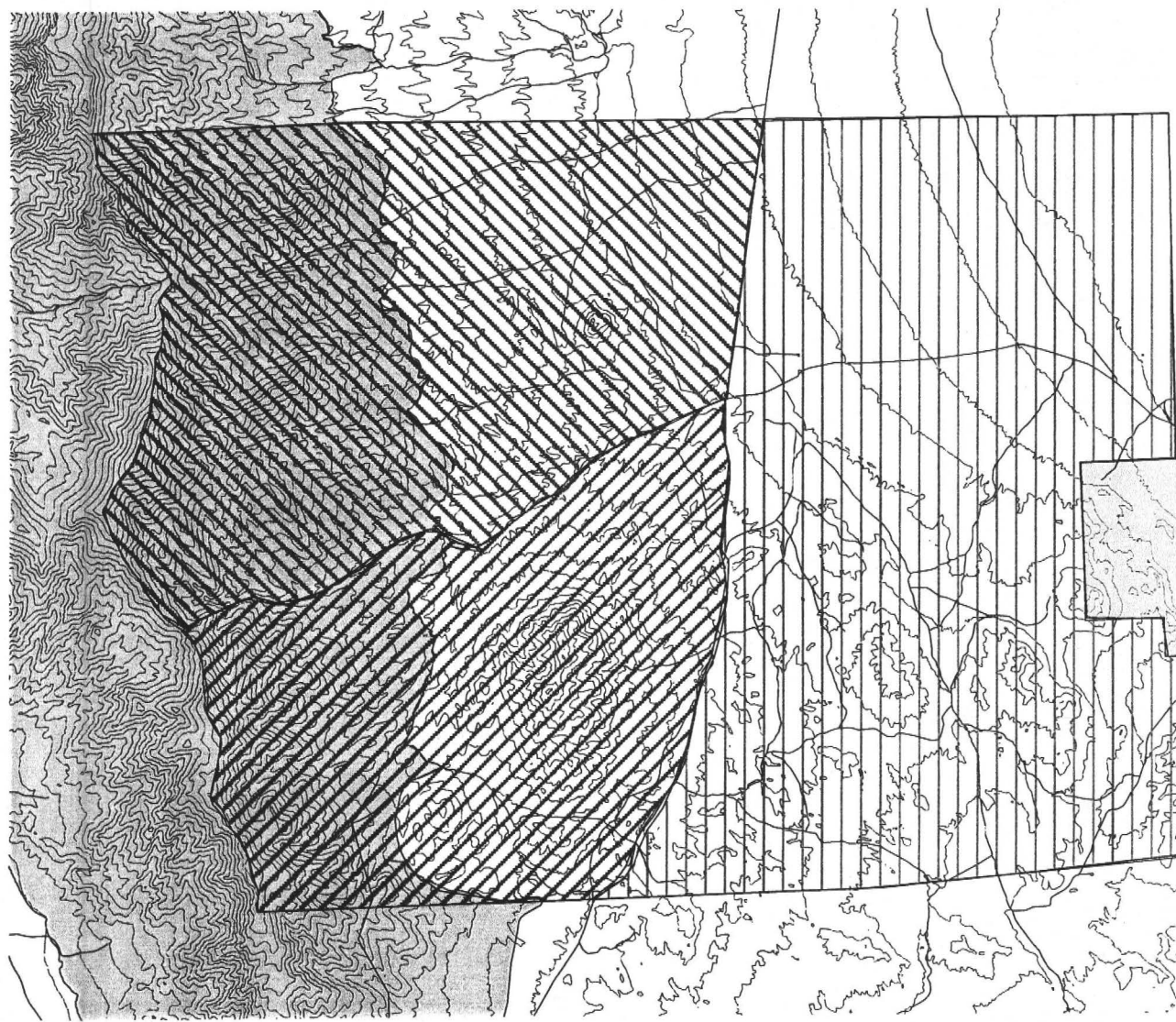



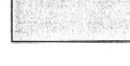
 **Spring Use Roads**



Map 13

Lead Hills Allotment Use Areas

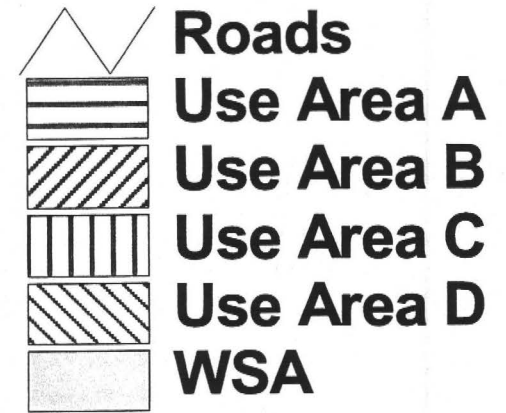
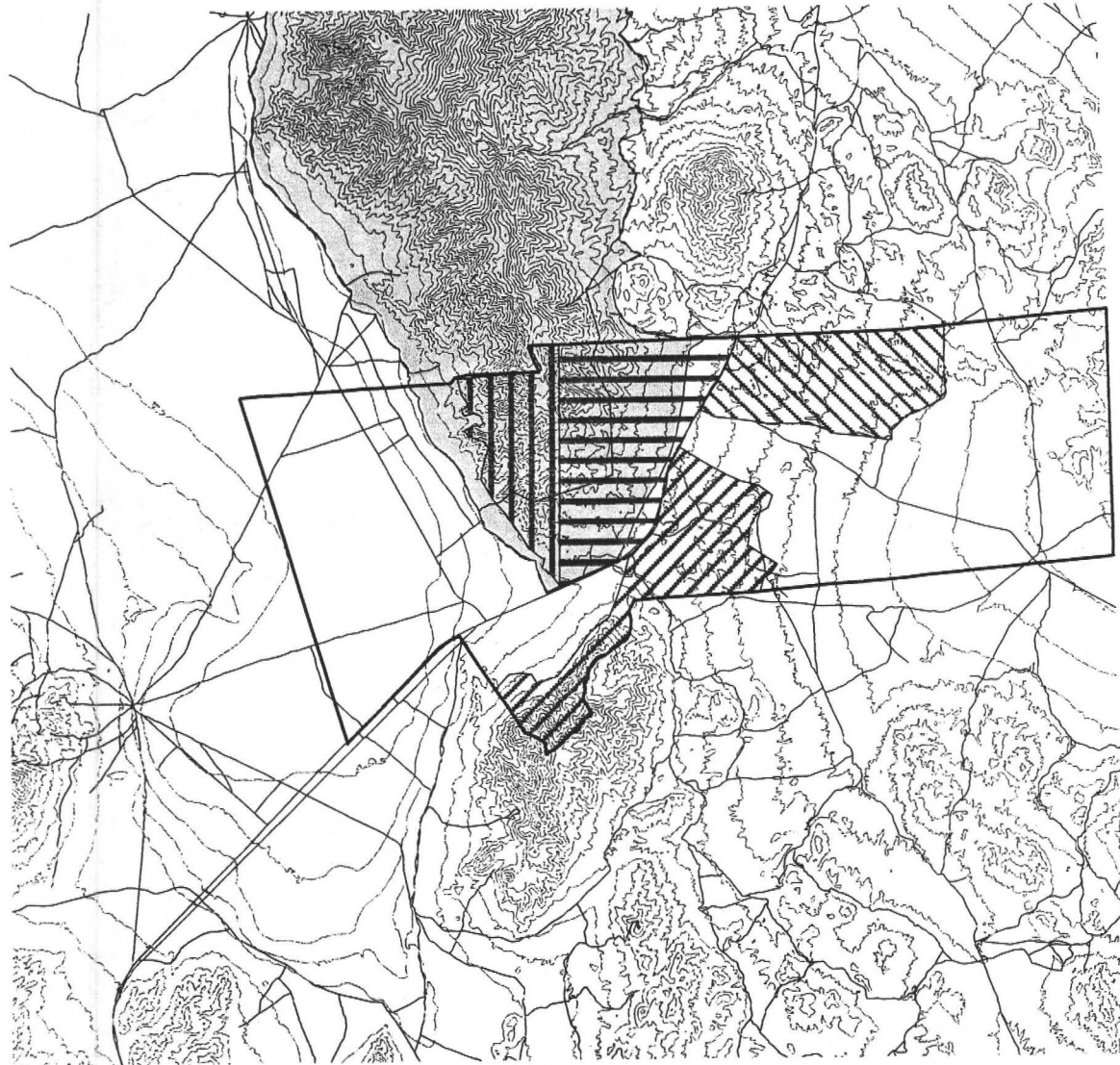


-  Roads
-  Use Area A
-  Use Area B
-  Use Area C
-  ACEC
-  WSA



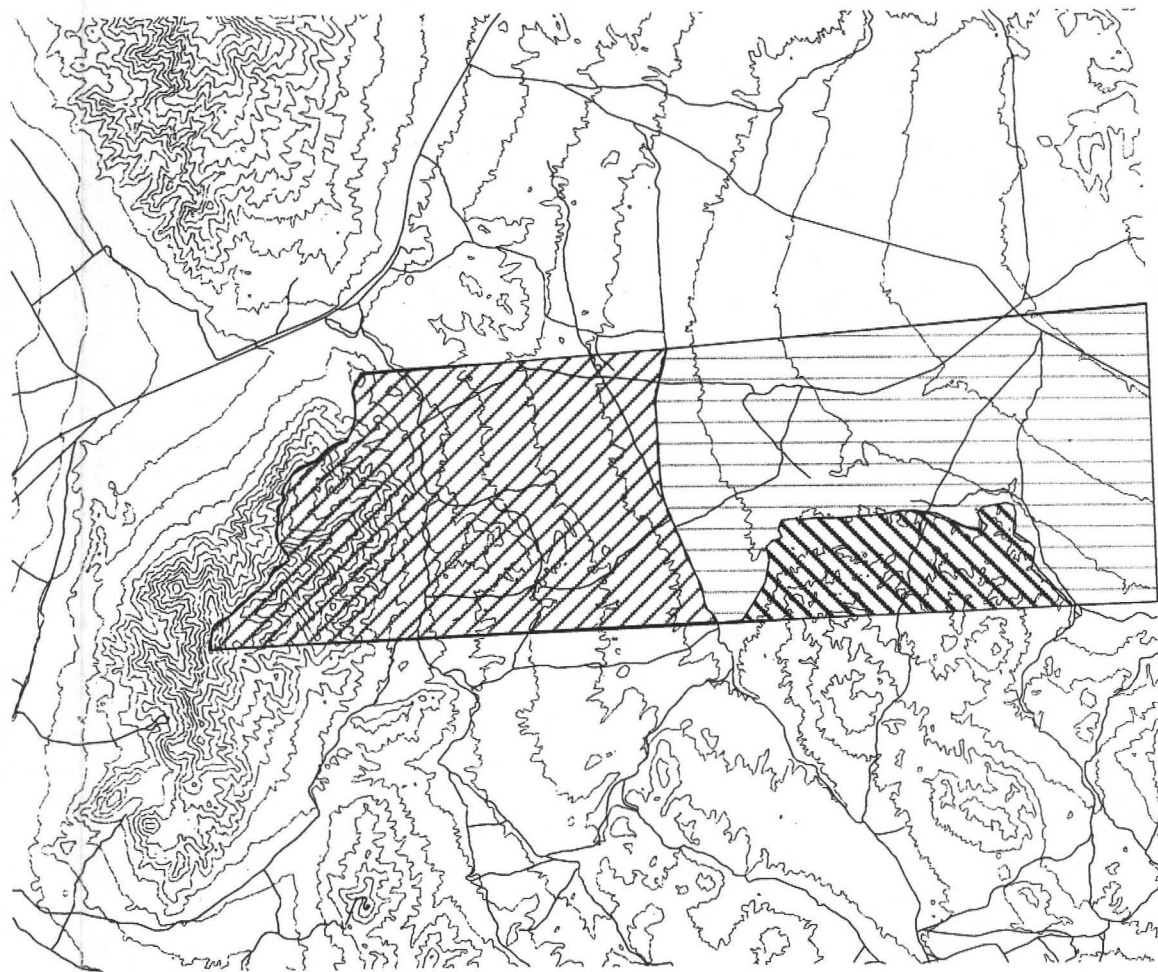
Map 14

Whitehorse Allotment Use Areas



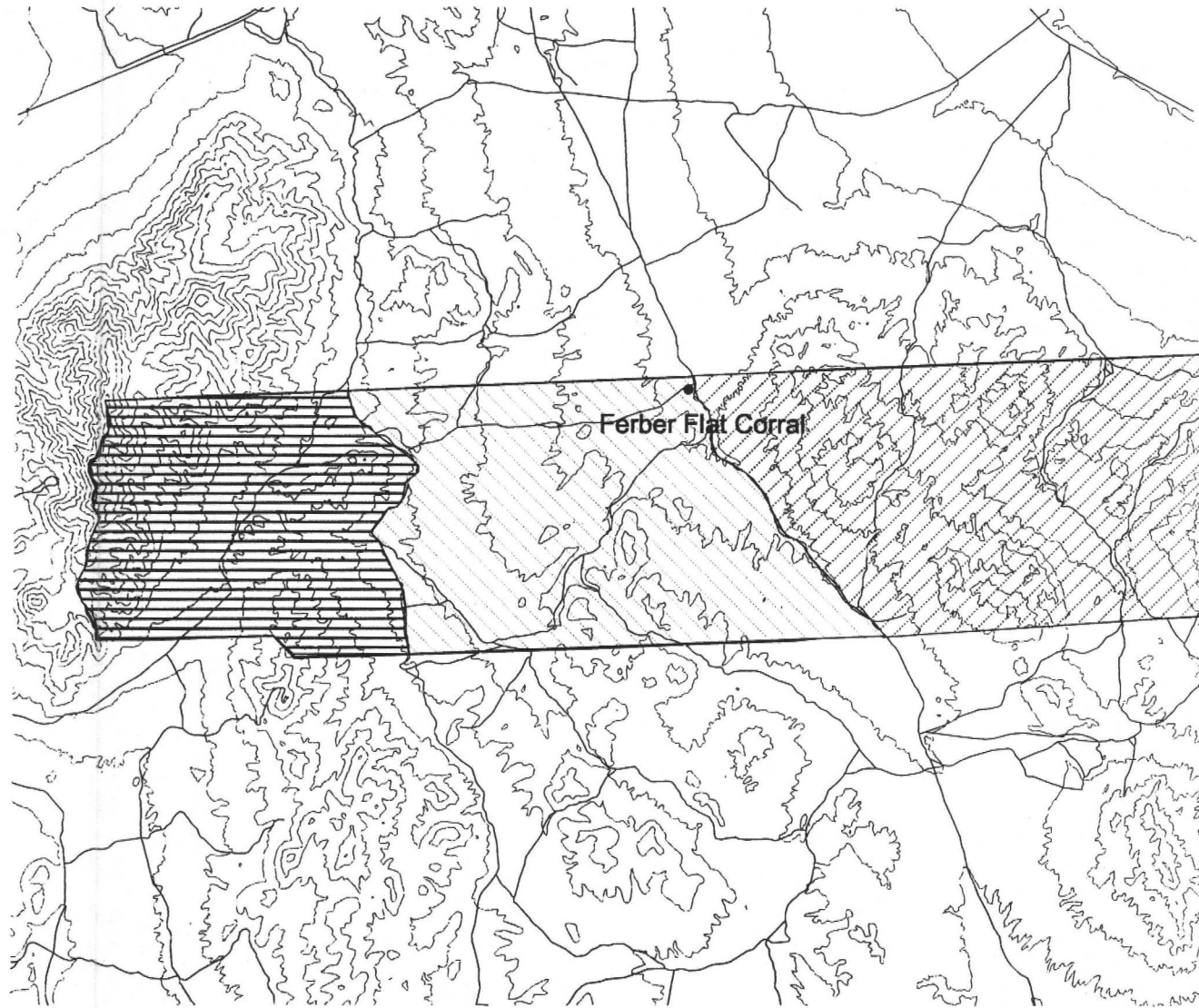
Map 15

Sugarloaf Use Areas



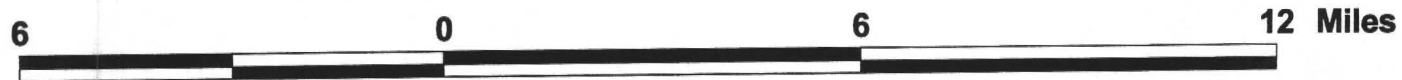
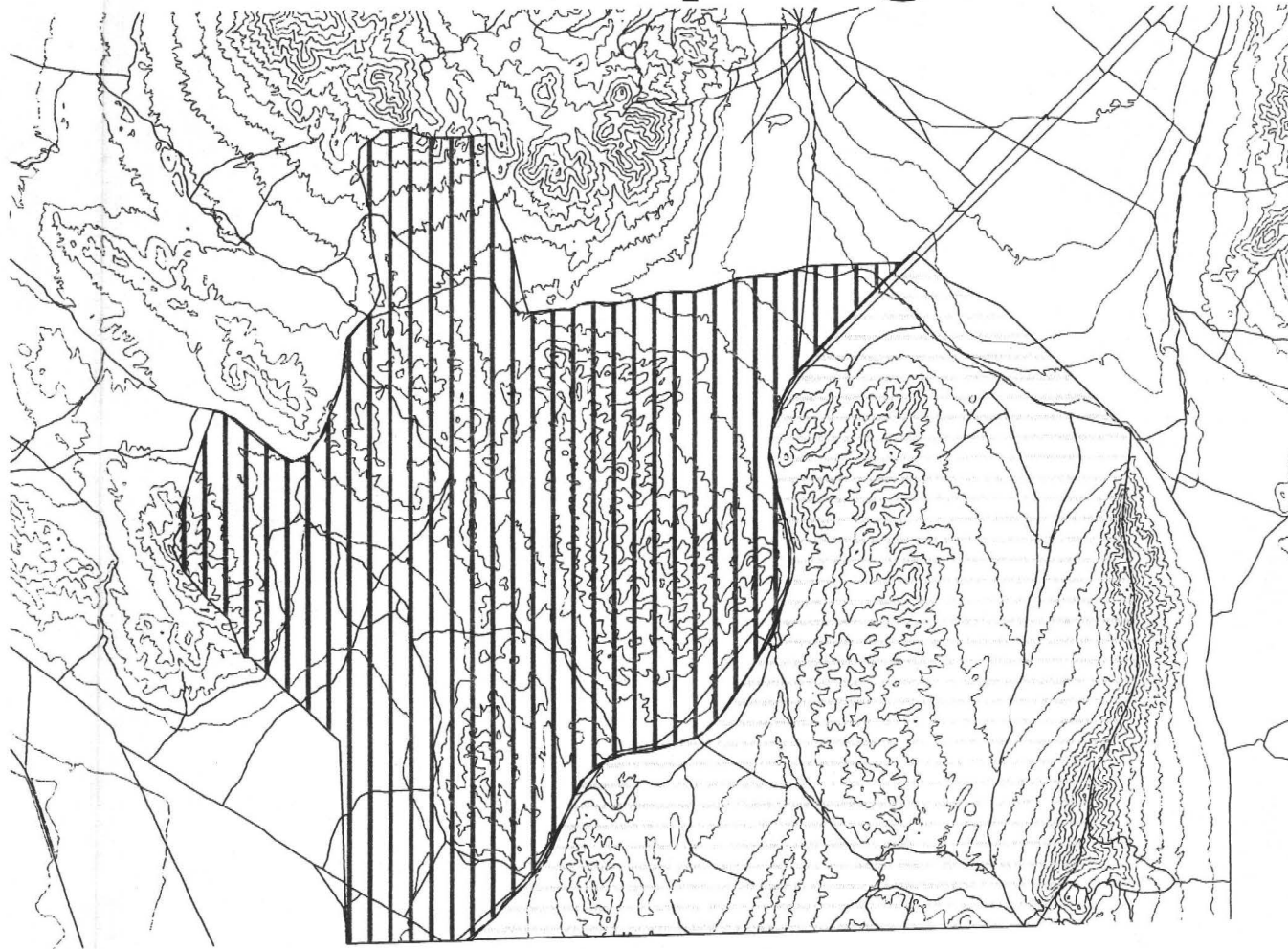
Map 16

Ferber Flat Use Areas



Map 17

Boone Springs Use Areas



Map 18

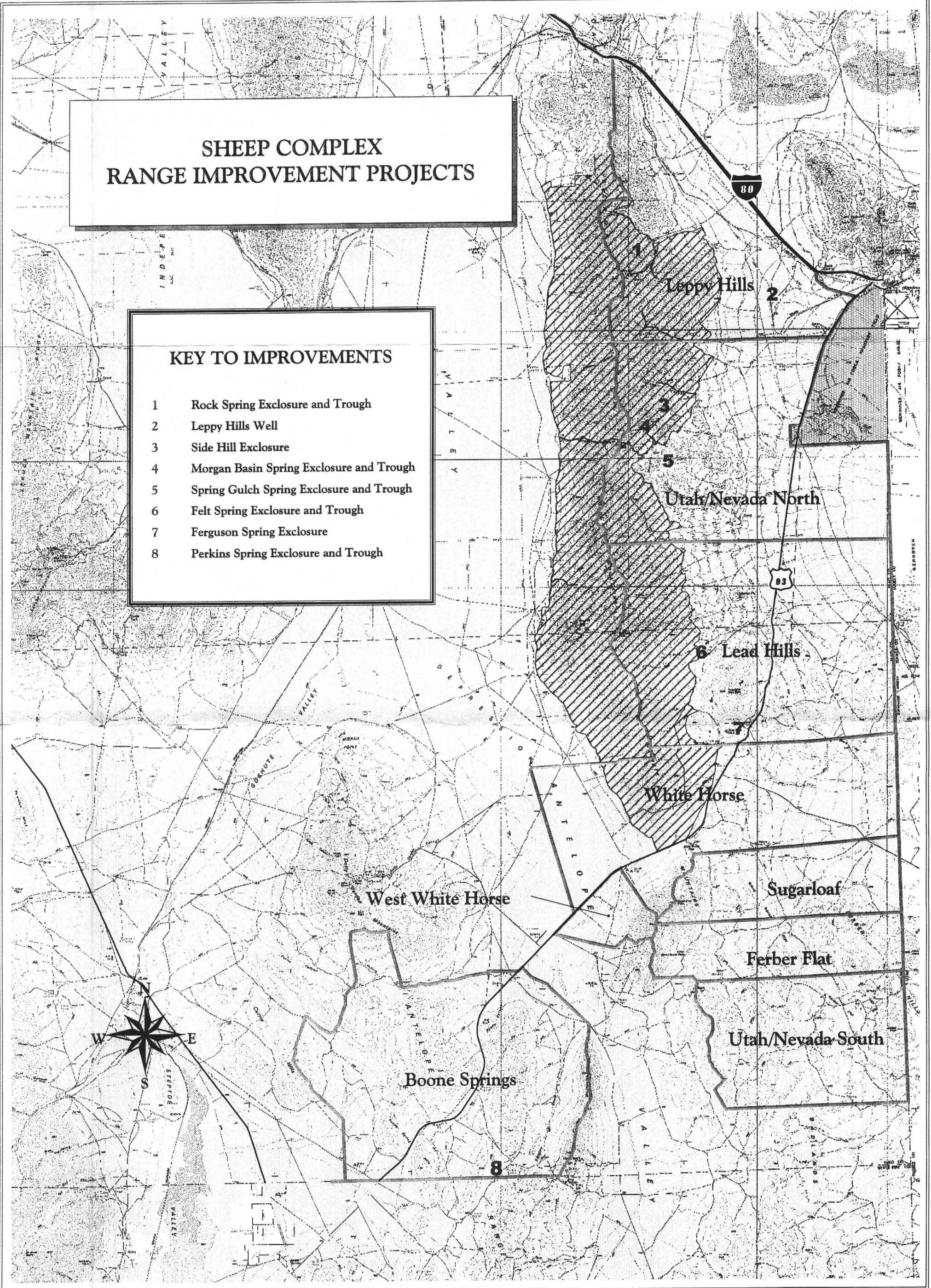
West Whitehorse Allotment Use Areas



SHEEP COMPLEX RANGE IMPROVEMENT PROJECTS

KEY TO IMPROVEMENTS

- 1 Rock Spring Exclosure and Trough
- 2 Leppy Hills Well
- 3 Side Hill Exclosure
- 4 Morgan Basin Spring Exclosure and Trough
- 5 Spring Gulch Spring Exclosure and Trough
- 6 Felt Spring Exclosure and Trough
- 7 Ferguson Spring Exclosure
- 8 Perkins Spring Exclosure and Trough



LEGEND

- Major Roads
- Allotment Boundary
- Wilderness Study Area
- Land Status**
- Public (Admin. by BLM)
- Department of Defense
- Native American Reservation
- Private



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE



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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE



INFORMATION ON TAKING APPEALS TO THE BOARD OF LAND
APPEALS

DO NOT APPEAL UNLESS

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

IF YOU APPEAL, THE FOLLOWING PROCEDURES **MUST** BE FOLLOWED:

1. NOTICE OF APPEAL:

Within 30 days file a **NOTICE OF APPEAL** in the office which issued this decision (SEE CFR SECS. 4.411 AND 4.413). You may state your reasons for appealing, if you desire.

2. WHERE TO FILE NOTICE OF APPEAL:

BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE
3900 E. IDAHO STREET
ELKO, NV 89801

and a copy to

OFFICE OF THE SOLICITOR
SALT LAKE CITY FIELD OFFICE
6201 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UT 84138

3. STATEMENT OF REASONS:

Within 30 days after filing the **NOTICE OF APPEAL**, file a **COMPLETE** statement of the reasons why you are appealing. This must be filed with the:

UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY, BOARD OF LAND APPEALS
4015 WILSON BLVD.,
ARLINGTON, VA 22203

(SEE 43 CFR SEC. 4.412 AND 4.413). If you fully stated your reasons for appealing when filing the **NOTICE OF APPEAL**, no additional statement is necessary. **ALSO SEND A COPY TO REGIONAL SOLICITOR.**

4. ADVERSE PARTIES:

Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor must be served with a copy of:

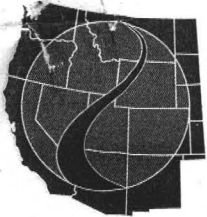
- A. THE **NOTICE OF APPEAL**
- B. THE STATEMENT OF REASONS, AND
- C. ANY OTHER DOCUMENT FILED (SEE 43 CFR SEC. 4.413).

5. PROOF OF SERVICE:

Within 15 days after any document is served on an adverse party, file proof of that service with the **BOARD OF LAND APPEALS**, at the above address. This may consist of a certified or registered mail "return receipt card" signed by the adverse party (SEE 43 CFR SEC. 4.401(C)(2)).

UNLESS THESE PROCEDURES ARE FOLLOWED YOUR APPEAL WILL BE SUBJECT TO DISMISSAL (SEE 43 CFR SEC. 4.402): Be certain that all communications are identified by serial number of the case being appealed.

NOTE: A DOCUMENT IS NOT FILED UNTIL IT IS ACTUALLY RECEIVED IN THE PROPER OFFICE (SEE CFR SEC. 4.401(A))



Western Watersheds Project

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email: wwp@westernwatersheds.org
web site: www.westernwatersheds.org

Antelope HMA

12/8/06

Working to protect and restore Western watersheds

December 8, 2006

Helen Hankins
Bureau of Land Management
Elko Field Office
3900 E. Idaho St.
Elko, NV 89801

Nancy Zahedi
Office of the Regional Solicitor
Pacific Southwest Region
2800 Cottage Way Room E-2753
Sacramento, CA 95825-1890

Appellant: Western Watersheds Project

RE: Appeal and Petition for Stay of Elko Field Manager Hankins's Record of Decision dated November 3, 2006 for the "Final EIS Sheep Allotment Complex, Big Springs and Owyhee Grazing Allotments" and Three Associated Livestock Grazing Decisions for the Sheep Allotment Complex, Big Springs Allotment and Owyhee Allotment, and all other associated documents

GOSHUTE HMA

OWYHEE HMA

NOTICE OF APPEAL, STATEMENT OF REASONS, APPEAL, AND PETITION FOR STAY

NOTICE OF APPEAL AND STATEMENT OF STANDING

Appellant Western Watersheds Project (WWP) files this notice of Appeal and Statement of Reasons concerning Elko Manager Hankin's Final Decision for Elko Field Manager Hankins's Record of Decision dated November 3, 2006 for the "Final EIS Sheep Allotment Complex, Big Springs and Owyhee Grazing Allotments" and Three Associated Livestock Grazing Decisions for the Sheep Allotment Complex, Big Springs Allotment and Owyhee Allotment, and all other associated documents.

Appellant appeals the decision and associated documents and actions, as described below. This appeal is pursuant to all applicable authority, including the Federal Lands Policy Management Act (16 U.S.C. 1752) and implementing regulations of the BLM and Department of the Interior, including 43 C.F.R. 4180 and 43 CFR 4160. 4.



Appellant Western Watershed Project is a not-profit conservation organization with over 1000 members. WWP has participated extensively in on-the-ground site visits relating to public lands in this allotment. WWP and its members have a keen interest in protection of biodiversity and restoration of damaged public lands, and our members use the lands of the Owyhee, Big Springs and Sheep Allotment Complex and the Elko District as well as neighboring lands in Idaho and elsewhere for a wide range of activities from hiking to birdwatching and botanizing.

Appellant promotes the conservation and protection of public land resources through public participation in the public lands planning process and is concerned over the ecological impacts of livestock grazing on vegetation, soil, waters, watersheds, riparian and upland areas, wildlife, cultural and other resources on these public lands.

Appellant is an Interested Public in all Elko allotments as well as neighboring lands. Appellant's members extensively use and enjoy the public lands of these allotments for scientific, educational, recreational (including hunting, wildlife viewing, and botanizing), aesthetic and spiritual purposes. In addition, Appellant has a particular interest in the management of these allotments because despite unsatisfactory habitat conditions in many areas, the allotments contain very significant or remote public wild lands.

These lands are also characterized by exceedingly aridity, with surface waters, such as springs or seeps being exceedingly rare, and limited in flows.

These lands harbor an internationally significant and unique raptor migration and nesting locale, provide very important habitat for species known to be declining over large portions of their range, contain portions of four Wilderness Study Areas (Bluebell, Goshute, South Fork Owyhee River, and Owyhee Canyon), wild landscape areas proposed by The Nature Conservancy as Great Basin Conservation Sites (Nachlinger et al. 2002), an ACEC, and a host of other values that BLM tries its best to ignore, sweep under the rug, or impose new damaging developments and the same old, tired grazing mindset/schemes on.

WWP commented (scoping comment letter of 1/17/05 not provided by BLM in response to comments):

In the Great Basin area of the SSSS EIS, the Big Springs and Sheep Allotment Complex contain scarce desert springs that are essential oases for a native animal species. The unique geographic configuration of the Goshute Mountains results in suitable migration conditions for a stream of raptors in the fall. This area has become a world famous raptor migration area. The flanks and broad valleys provide critical food for refueling migrants. Plus, the beautiful and wild Goshute range provides outstanding recreational opportunities, with large tracts of WSAs and little-roaded lands. It is an island of forested dark green rising above the sagebrush and salt desert shrub lands below. Large areas of the Big Springs and Sheep Allotment Complex and adjacent lands have been recognized by The Nature Conservancy (TNC) as being of great importance to long-term

conservation of Great Basin biota and ecosystems. See Nachlinger et al. 2001, "Great Basin: An Ecoregion-based Conservation Blueprint". The allotments in the SSSS EIS contain portions of four Wilderness Study Areas and significant unrecognized roadless areas.

Given the acknowledged national significance of the lands in the Owyhee ecosystem that spans the states of Idaho, Oregon and Nevada, and relatively intact salt desert, pinyon juniper and montane island communities in Big Springs and Sheep Allotment Complex, BLM's Special Status Species and Springs EIS can not undertake a typical BLM livestock-centered planning process. Accommodating public lands grazing can not be the primary force in this effort. BLM needs to make clear at the very beginning of the EIS process that there are a host of other important and significant public lands values in the lands of these allotments, and that protection and enhancement of these values will drive the EIS effort and a range of reasonable alternatives, its land management decisions, and habitat enhancement or restoration actions.

*ALSO: "BLM must include a description and analysis of all the significant sagebrush, pinyon-juniper, forest, playa, spring, linked aquifer, watershed, and special status species habitat values of the EIS allotments and surrounding lands. This includes a discussion of the regional and national significance of less-fragmented sagebrush landscapes, wild raptor habitats, etc. sage grouse habitats, etc. For example, BLM should describe the setting, and discuss in detail the unique and significant biological features of the lands, as its first and foremost consideration. **The EIS should be seen as an opportunity to evaluate the ecological and conservation significance of these lands from the standpoint of special status species and scarce desert waters. BLM must consider livestock grazing as one of many uses of these public lands, and analyze it accordingly. This analysis must encompass native vegetation, soils, microbiotic crusts, native wildlife specie occurrence and habitats, special status species occurrence and habitats, roadless lands, livestock facilities, fragmentation, weeds, desertification, etc.***

Instead, BLM spent several years and hundreds of thousands of taxpayer dollars ducking recognition and acknowledgement of current ecological science, or even current "range" grazing-specific science. The end product is an EIS filled with vapid and meaningless assurances, divorced from current ecological and range science, wildlife and conservation biology, and the stark realities on the ground. See Photos.

This EIS began when a federal district court in Nevada found BLM's lack of information led to "**vast uncertainty**" concerning the ecological impacts of the MUD grazing schemes on sensitive species and other important values of these allotments.

BLM itself has long known, and admitted in the midst of the old MUD (Multiple Use Decision) processes, that: "**Viable management decisions can not be made until current surveys ensue**". (Elko BLM SAC MASR at 2). Yet, throughout this entire process, BLM failed to conduct necessary species occurrence, wildlife habitat and population surveys using scientific methodologies, and thus collect and analyze necessary data and information so that it can make viable management decisions, despite receiving

abundant public input. The same old gaping deficiencies remain. BLM still can not make a viable management decision here. BLM relies on old, limited out-dated, and at times even LESS information than it had assembled in the MUD process in development of the EIS. Mapping, EIS and FD text are riddled with omissions, errors, contradictions and confusion.

BLM has also failed to collect new habitat assessments, range trend, ecological site, or other important information that is required to understand the current conditions, including the effects of prolonged drought, and continued explosion of invasive species across the allotments in the wake of livestock, fire, roading, mineral exploration, vegetation manipulation/treatment and other disturbance. BLM conveniently refuses to use even the data that it has on hand related to cheatgrass and other habitat problems for sensitive species. BLM also ignored information and concerns repeatedly raised by agencies on the lack of biological information, important and sensitive species habitat degradation and loss, impacts of BLM livestock facility construction on wildlife, and impacts of BLM stocking and grazing schemes, and also the lack of certainty related to water rights for the plethora of projects.

BLM has still failed to establish an environmental baseline of species occurrence and habitat condition and use across these allotments. Habitats must be properly identified and delineated using scientifically valid methodology, their location, composition and condition must be examined. The basic environmental setting "Affected Environment" of these allotments must be clearly established as the base for any scientifically tenable analysis. BLM abjectly failed to do this. The effects of grazing schemes, project development and vegetation manipulation scenarios on sensitive species, springs seeps and riparian areas, diverse arid upland shrub and forested vegetation community sensitive species habitats must be analyzed.

BLM even avoids valid analysis of even grazing impacts by making the linch pin for assessment of livestock impacts on vegetation and ALL other components of the environment – and thus BLM's understanding of sensitive species habitats and impacts- a couple of minor and obscure literature references - and a pamphlet related to a livestock industry theory of "herbivory" (Dietz Sunshine Press pamphlet), currently embraced by Elko cattle interests - rather than taking a "hard look" at grazing and trampling impacts of its livestock grazing schemes and a plethora of foreseeable construction and development projects ad vegetation manipulation.

In fact, BLM's analysis and conclusions run counter to a broad body of widely accepted ecological literature and analyses provided by commentators on the EIS and basic "range" literature of which BLM is well aware.

All the while it is vapidly discussing "herbivory", BLM steadfastly avoids collecting data on baseline habitat conditions and the on the ground conditions and effects of livestock and management actions on sensitive species and their habitats and populations, springs and seeps, and other very significant values of these public lands.

This EIS represents some of the very worst industry-biased anti-science ruminations of the current political atmosphere. BLM includes at the front of its Final Decision the Bush administration grazing regulations, without revealing that these regulations have been enjoined by a Federal District Court. BLM unlawfully based its ROD and Decision on regulations that have been enjoined, and contain very harmful provisions on “flexibility”, inability of BLM to reduce grazing by any significant amount in any reasonable time frame, industry “ownership” provisions for new livestock facilities – further interjecting great uncertainty into any understanding of grazing schemes or outcomes of project development schemes. BLM has unlawfully based its EIS, ROD and grazing decisions on regulations that have been enjoined.

In addition to species specifically mentioned in Judge McKibben’s order, a number of other species classified as BLM “Sensitive Species” are also known or are likely to occur on these lands – including sagebrush or salt desert shrub dependent species such as loggerhead shrike, pygmy rabbit, flammulated owl and numerous rare bat and migratory bird species occur on these lands. BLM has completely ignored analysis of impacts to these and other important species, many of whose habitats and populations - such as the pygmy rabbit - BLM’s construction binge will greatly harm. The EIS is wholly inadequate to meet BLM’s obligation under NEPA. See *Center for Biological Diversity v. BLM*, 422 F. Supp.2d 1115 (n. D. Cal. 2006) stating that if numerous species are omitted from the environmental baseline, neither the Court nor the public can be assured that BLM took a ‘hard look’ at the environmental impacts on those species.

The allotments also contain yearlong and critical habitat for big game species – antelope, mule deer, elk and potentially bighorn sheep. These lands also lie within several wild horse herd HMAs. Elko BLM also exhibits extreme bias in its use of wild horses as a scapegoat for nearly all ecological problems while turning a blind eye to cattle and sheep impacts, and acting to shift and increase domestic livestock use in important habitat and herd areas.

Important values of these lands will be directly, indirectly, synergistically and cumulatively affected and harmed by the industrialization and depletion of the public lands for the financial benefit of livestock interests that will stem from this deficient and meaningless EIS and associated decisions that will result in new and expanded weed invasions, as depletion of remaining better condition native vegetation communities and habitats.

STATEMENT OF REASONS

NEPA requires all federal agencies to undertake a thorough and public analysis of the environmental consequences of the proposed federal actions, including a detailed EIS for all major federal actions that may have a significant impact on the human environment, and site-specific and cumulative analysis of the likely environmental consequences of proposed actions. Such analysis must include consideration of a reasonable range of alternatives to a proposed action, and means to mitigate adverse impacts.

FLPMA requires BLM to consider the multiple uses of the public lands, and to protect these lands from undue degradation.

BLM violated NEPA, FLPMA and other federal regulations in issuance of the Final Decision. We appeal BLM's actions for the following reasons, as BLMs EIS, ROD and grazing decisions exhibit gross deficiencies and errors that include:

- Relied in the EIS, ROD and Decisions on Bush administration grazing regulations that have been enjoined by a federal court;
- Relied on limited, old, stale and haphazardly collected information on ecological conditions and habitat conditions;
 - * Failed to assess pertinent information on the local, regional and national significance of these lands and values, and consider designation of ACECs to prevent further environmental deterioration and irreparable harm;
- Conducted a meaningless EIS based on generalities, livestock industry myth and bias, and casting aside and thwarting meaningful public input.
- Failed to comply with the resource objectives and management provisions established by the Resource Management Plans.
- Failed to identify the existence of important wildlife and rare plant species, and their habitat condition and habitat requirements and populations, including sensitive species;
- Failed to use Best Available Science. BLM incorrectly identified or ignored the impacts of the proposed action to the values and resources of these public lands, including soils and microbiotic crusts, diverse native vegetation communities, spring and seeps, intermittent and perennial streams; extent and risk of invasive species increase, all of which affect the habitats and populations of sensitive species here.
- Failed to examine and incorporate into its analysis current ecological science
- Failed to examine and incorporate into its analysis current or even widely accepted range science – instead relying on an obscure theory of herbivory impacts largely found in a pamphlet
- Failed to assess current conditions related to cultural sites and locales, soils, microbiotic crusts, wildlife including sensitive species, recreational, watersheds, water quality, exceedingly scarce riparian areas, and other important attributes;
- Violated of provisions of RMPs related to protecting important attributes on public lands, including sensitive species habitats and populations, from adverse impacts;
- Authorized grazing systems that do not meet the requirements for improvement of rangeland health and sensitive species habitat or functioning riparian areas, springs, seeps and watersheds;
- Authorized grazing use that exceeds the capacity of the land and that would continue the degradation of rangeland health, adversely impact wildlife habitat, and aesthetic values; Authorization of grazing use at or above levels known to have caused significant rangeland health problems, failure to meet or make progress towards Land Use Plan or other Objectives and management requirements;
- Failed to consider a reasonable range of alternatives, including alternatives with significant real reductions in stocking rates or more conservative and protective levels of use.

- Interjected industry bias, in conducting a blindered evaluation of limited range of alternatives – based on obscure and unproven theory of herbivory
- Failed to weigh impacts, cost and benefits of actions including an unknown number of proposed range improvements
- Failed to reveal significant ecological and other problems and conditions related to existing facilities and to determine their environmental impacts;
- Authorized livestock grazing across 70,000 acres of recently acquired lands where necessary studies and analyses have not been conducted to determine the suitability, capability, carrying capacity or other important information necessary to understand environmental effects and protect lands and important values from undue degradation;
- Failed to manage the Wild Horse Herd Management Area (HMAs) to maintain a thriving ecological balance, to comply with the Wild Horse and Burro Act, and authorization of actions that rob the horse herds of food, water and space, and increase competition between horses, wildlife and livestock in order to benefit livestock interests;
- Failed to comply with FLPMA and balance the many competing uses of these lands; Failed to consider that FLPMA does not require that every square inch of public lands be grazed to an artificial “carrying capacity”;
- Failed to comply with the Taylor Grazing Act and manage these lands on a sustainable and orderly basis and to protect the soils, vegetation basic components of the environment and sensitive species habitats from adverse effects or further loss;
- Failed to require measurable standards of use be met as Terms and Conditions within the grazing permit;
- Failed to provide copies of the Final Grazing permit.
- Failed to apply measurable standards of use in keeping with current science, and arbitrarily provided no or reduced protections for many areas
- Conducted a purposefully segmented NEPA process so as to avoid full consideration of environmental effects of a “essential”, “foreseeable and an unknown array of projects;
- Developed an EIS and Decisions riddled with errors, omissions, gaps, and complication so as to stymie any reasoned analysis or understanding and create further uncertainty;
- Failed to provide data and analysis necessary to understand the magnitude and severity of adverse impacts
- Failed to assess a wide range of adverse, indirect and cumulative impacts and foreseeable impacts.

Appellant incorporates by reference our Scoping comments, comments on the DEIS, Protests of the Proposed Decisions and DEIS, and other submissions to BLM. We also incorporate the Administrative Record for the litigation that resulted in the Order to BLM that required preparation of an EIS.

BACKGROUND

"Viable management decisions can not be made until surveys ensue", Elko BLM Sheep Allotment Complex MASR at 2.

BLM finalized a series of Multiple Use Decisions (MUDs) in the Owyhee (2002), Big Springs (2002) and Sheep Allotment Complex allotments (2001) and failed to adequately consider environmental effects. The Sheep Allotment complex consists of 9 allotments.

The MUD processes were fraught with problems, omissions, and deficiencies including spottily collected data or no data at all for vast areas of the affected lands. They lacked necessary surveys and data to understand species occurrence and environmental conditions of wildlife habitats and populations across the allotments, and the status and condition of springs, seeps, riparian and upland areas that provide critical habitats components.

Under litigation brought by WWP and the Committee for the High Desert (CHD), BLM was ordered by a federal court to consider the environmental effects of these decisions to alleviate "vast Uncertainty" and understand the environmental effects on sensitive species, exceedingly scarce springs, seeps and riparian areas, uplands and other very significant values of these lands that affected by grazing decisions.

Appellant is left with no choice but to Appeal this decision, as the BLM failed to address a broad range of concerns raised repeatedly, and scientific information that was repeatedly provided and explained to BLM. We believe this decision will lead to unnecessary and undue degradation of the public lands, and continued ecological harm across over 1.3 million acres of public lands, and affecting habitats for populations of wide-roaming species shared between states. It is not in the public interest, but instead is strongly biased towards perpetuating overstocking, overuse and woeful degradation by the livestock industry.

APPEAL

This decision authorizes harmful livestock grazing numbers and levels of use in the significant public wild lands of the Owyhee, Big Springs and Sheep Allotment Complex, comprising over 1.3 million acres of public lands. This decision adversely affects WWP. We are negatively impacted by the perpetuation of damaging high stocking rates, and new zones of intensive and damaging concentration of livestock use in the areas of the new livestock facility projects that are proposed for these fragile lands and important wildlife and rare plant habitats. These sites are highly vulnerable to soil erosion, weed infestation, degradation or loss of special status plant and animal species habitats. Existing livestock facilities and projects negatively impact many recreational uses and enjoyment of these lands, and are leading to weed invasions, continued depletion and degradation of native vegetation communities and sensitive species habitats over vast areas, as well as conflicts with other uses such as recreation and wild horses.

This decision sets in motion a highly uncertain and nearly unlimited construction binge of spring developments and dewatering and piping (number, location and effects unknown),

pipelines (number, location and effects unknown), vegetation manipulation (number, location and effects unknown), and increased damage to the public lands.

This project construction binge occurs in a landscape littered with the remains of past failures (see WWP photos), where exceedingly scarce springs and seeps have been destroyed by past developments and alteration and grazing abuse, where weeds are exploding across the landscape into sensitive species habitats, and where BLM itself acknowledges that it doesn't have the time to look for weeds, nor does it care enough to make the permittees do so. See FD at 9.

When a permittee does not live up to the meager BLM expectations for livestock grazing use on these allotments, as set forth in convoluted and uncertain decisions, BLM in its "endless frontier of unexploited resources out there" mindset, can simply just build more livestock facilities destined to become junk heaps under the umbrella of this EIS and FD, and adversely alter and degrade native vegetation communities across large areas of currently less-impacted habitats. Yet those impacts are never honestly assessed.

If this complicated series of actions are put in place, even more springs on public lands here will be developed and partially or wholly (if "development" kills spring surface flows as is common here) de-watered for livestock use, with no honest and adequate assessment of the impacts of existing projects, as well as the new habitat alteration and losses that projects would cause. Each new each spring development would cause permanent alteration of soils, and spring water flows in areas such as the Toano and Goshute Ranges where waters are exceedingly scarce and flows are minimal at best. For example, in Big Springs, portions of the multifingered tributary drainage network of East Squaw Creek have already been altered, de-watered, ditched all the while being subject to intensive livestock grazing and trampling, and other wise had surface flows, reduced, altered, or killed. Yet other springs remain still intact. The East Squaw Creek watershed, instead of being a short segment of "stream", is really a connected drainage network with intermittent AND perennial flows in the multifingered tributary and springbrook areas. The EIS provides no information necessary to understand the complexity of the environmental setting here, as a basis for reasoned analysis of impacts.

The "Affected Environment/Environmental Consequences" of the EIS (strangely lumped together by BLM here – perhaps to cover up the lack of baseline information) is astonishingly devoid of basic, factual information and on-the-ground conditions necessary to understand agency actions and consequences of that action.

BLM has woefully failed to accurately characterize the "Affected Environment" of these public lands that provide locally, regionally, nationally and internationally significant habitat for wildlife species. BLM defied the federal court order, and violated NEPA that provides that agencies must take a "hard look" at the consequences of their actions.

Over-stocking of the already much depleted public lands will occur. Plus, even more harmful fences will be constructed in important mule deer, antelope, sage grouse, pygmy rabbit, loggerhead shrike and other special status species habitats. BLM authorizes

excessive stocking rates – the levels shown to be destructive to a broad spectrum of public lands values in BLM's own 2000 quasi-FRH evaluations. These were the last (and only) examination of resource conditions on the allotments. Since that time, environmental conditions have only worsened, as shown by cheatgrass and weed increases across broad areas of the landscape, a prolonged drought, fires, shrub die-off, and depleted condition of vegetation, soils and other resources has occurred.

There is also now widespread scientific recognition of the magnitude of habitat losses and fragmentation faced by sagebrush dependent species such as sage grouse and migratory birds dependent on the sagebrush ecosystem including raptors such as ferruginous hawk (Knick et al. 2003, Connelly et al. 2004, Dobkin and Sauder 2004). Large-scale new sensitive species fragmentation and loss has occurred with fires of 2005 and 2006.

BLM proposes flooding lands with livestock during during active and critical growing seasons for native plants, and nesting and birthing periods for native wildlife including sensitive species. The levels of utilization (50% and higher) fail to provide sufficient residual cover for special status species like sage grouse, or allow recovery of sorely depleted communities greatly vulnerable to invasive species increase or dominance.

BLM proposes the construction of new range projects without necessary baseline studies (such as an inventory of occurrence of sensitive wildlife species across the allotments so that BLM can determine how projects might affect these sensitive species, or careful assessment of current conditions of existing sensitive species habitats and other public land values). BLM woefully fails to analyze the impacts of its existing facilities on these public wild lands and the important sensitive species habitats that they encompass.

Such information is needed to understand impacts of both the convoluted and uncertain grazing schemes, the multitude of existing and proposed projects and junk piles of projects, the open-ended vegetation manipulations, and the high stocking rates.

BLM currently knows so little about what is out there (no information on spring flows, changes in flow rates over time, characteristics of springs that may inform environmental effects of digging into their heart and piping water), etc., no systematically collected baseline information on nearly all sensitive species, presenting primarily incomplete "random" or incidental "sightings" as the basis for understanding raptor occurrence, no complete cultural inventories, etc. Great uncertainty surrounds the grazing schemes, projects and resultant impacts. A purpose of an EIS is to take a "hard look" and minimize the uncertainty of the environmental consequences of agency action.

BLM perpetuates stocking levels and intensities of livestock use shown to lead to violations of the Fundamentals of Rangeland Health for watersheds, riparian and wetland areas, stream channel/floodplain, native plant communities, water quality and Threatened and sensitive/special status plant species, and even increases use in some areas.

Current Conditions of Sensitive Species Habitats, Watersheds and Waters Across 1.3 Million Acres Remain a Mystery

BLM provides only the most minimal and superficial discussion of the environmental setting and conditions in the EIS. See, for example, FEIS at 2-49. The EIS fails to adequately characterize the environmental setting and critical habitat components for the sensitive species. No attempt was made to systematically determine the relationship of livestock grazing to sensitive species habitats and environmental conditions and rangeland health, or whether significant progress towards meeting Rangeland Health standards has been made or could be made. The few described impacts are inaccurate, inconclusive, or show that habitat depletion and loss continues (continued riparian failures in Squaw Creek, cheatgrass “common” in some native plant communities in the Owyhee allotment, weeds now exploding in SAC salt desert and lower elevation sagebrush habitats).

BLM fails to systematically collect or present to the public current or necessary surveys, habitat assessments, or other studies on the important values of the public lands necessary to understand the impacts of proposed agency actions on these lands, their ecological health, and the important and sensitive species that inhabit them.

Other than sage grouse lek surveys, no current systematic baseline studies have been conducted on the location, distribution, occurrence and condition of sensitive species habitats and populations. No systematic surveys of current conditions of habitats associated with springs, wet meadows, or intermittent and perennial segments of riparian areas have been conducted here.

Little Information is Known or Presented on the Diverse Sensitive Species, and Their Habitats and Populations

Careful current baseline inventory, and analysis of habitat conditions must be conducted for sensitive species. The old MUD process did not collect baseline data for sensitive species – and was plagued with vast uncertainty. Since the old information was collected, and the old and limited FRH Determinations were conducted, much greater awareness of habitat requirements, effects of habitat disturbance and fragmentation, and population effects in many sagebrush species has risen. Several species of migratory birds and other species are known to be declining. Sage grouse and pygmy rabbit have been petitioned for listing under the ESA, (Knick et al. 2003, Connelly et al. 2004, Dobkin and Sauder 2004, Welch 2005). New species have been added to the sensitive species list.

A current science-based assessment of conditions and impacts to sensitive species from agency management actions must include some adherence to standard methodology, habitat assessment procedures, and produce something other than a random mishmash and map such as Map 3-5 that shows random and database “raptor sightings” – with no indication if they are historic vs. 2006 current sightings, if they were made during nesting season, or what exactly dots on a map may represent.

A reader of the EIS has no idea of the population status, habitat conditions, locations of a variety of important habitats for important species (such as raptor territories), occupied vs. historic territories, changes in occupied raptor territories over time, conditions of territories, acres of potential habitat vs. occupied habitat, components of fragmentation of habitats and their effects etc. Concerns about species like burrowing owls were stressed by NDOW in the MUD process. These concerns continued in the EIS process, yet BLM never even bothered to conduct a systematic survey, or even a habitat assessment of any kind, for this or any other species of concern.

Nowhere in the EIS does BLM even deign to tell us where empty (historic) or unoccupied burrowing owl territories are located vs. currently occupied territories, or if it examined habitat conditions or condition changes here.

The only shred of allotment-specific information we are presented with is a "sighting" dot on a map – and these are very few. Burrowing owl "sightings" across 450,000 acres of the SAC appear on FEIS Map 3-5 (pink circle = burrowing owl). There is only 1 (ONE) symbol representing a burrowing owl "sighting" on this map that lies within the SAC. How can there be only ONE burrowing owl "sighting" in this vast (450,000 acre) allotment? We note that BLM cares so little about this species that it does not even portray burrowing owl "sightings" or occurrence (or unfortunate absence under BLM's management) in much of the Big Springs allotment.

Plus, if there is only ONE burrowing owl "sighting" in this vast allotment, shouldn't that trigger BLM alarm – and a reasoned discussion of possible management causes or shortcomings here?

BLM does not even provide and assess information that it knows exists. EIS Map 3-9 of the Owyhee allotment fails to include recent "sightings" by BLM personnel of the burrowing owl. Here a burrowing owl "sighting is indicated by a pale pink symbol. There are 5 pale pink symbols depicted on Map 3-9, and one outlier on private lands. Yet, a WWP FOIA request seeking information on BLM "fuels"/sagebrush killing projects revealed that BLM personnel had found clusters of new burrowing owl sightings – as they were planning to conduct the sagebrush mowing projects that impose additional habitat fragmentation and disturb stable sagebrush sites so that cheatgrass and weeds invade on many soil types across an unknown dozens (if not hundreds) of miles across the Owyhee allotment. See Photos A. Those sightings do not even appear to be shown on the map. The potential impacts of this action and other management activities in altering and fragmenting habitats - including direct, indirect and cumulative, have never been assessed.

BLM provides no information to inform a reader just what BLM means by a "sighting". If BLM means a nest locale, is it currently Occupied, or Historic? Was a "sighting" just a random drive-by observation? Did BLM, perhaps, acting as if time froze on the date of issuance of the old MUDs, include only "sightings" known from that time period?

Instead of conducting surveys using valid and recognized science-based survey techniques across the allotments for the burrowing owl (such as requested by NDOW) and similar established scientific survey and habitat assessment techniques for other sensitive species, BLM conducted a deskbound paperwork exercise.

Unless BLM understands **what species occur where** across these allotments, and examines the current conditions of their habitats using sound scientific methodology (see for example, Milk River study submitted by WWP), it **can not** comply with NEPA's "hard look" requirements, FLPMA's requirements to avoid undue degradation, can not ensure adequate assessment and compliance under the FRH, etc. And BLM certainly can not have assessed the direct, indirect, additive and cumulative impacts of the livestock stocking, grazing schemes, facility constructions binge and accompanying shifted, intensified and often concentrated livestock use on alteration and depletion of soils, microbial crusts and vegetation communities that are the foundation of sensitive species habitats.

Significant new scientific studies have been conducted that detail many of harms and habitat impacts and fragmentation caused by livestock grazing practices and livestock facilities (Knick et al. 2003, Connelly et al. 2004, Dobkin and Sauder 2004) to the sagebrush biome and the sensitive species that inhabit it. Nevada's own studies, such as the Nevada Natural Resources Status Report have long informed BLM of serious ecological concerns associated with depletion or disturbance of arid lands.

Without essential, adequate and high quality baseline data on sensitive species occurrence and habitat composition, BLM cannot assess the direct, indirect and cumulative impacts of its actions, including construction of a multitude of new projects that often entails significant crosscountry travel by heavy equipment and soil disturbance, removal of swaths of native vegetation, development of new roads in association with projects, longer-term depletion, weed invasion and other impacts from shifted, altered and/or concentrated livestock use under development or grazing schemes. Without current inventories, BLM can not conduct a valid S&G assessment, or EIS analysis, for sensitive plant or animal species.

Yet, without even conducting a baseline inventory of the allotment to understand the occurrence and habitat condition of rare plants and animals and their population, BLM bases its livestock grazing scheme and increased stocking rates on construction of even more livestock projects, with many project locations and impacts unrevealed to the public.

For example, a foreseeable cattle development that BLM would impose in the heart of some of the most remote country in the lower 48 states in the Owyhee allotment is a new well right on the Idaho border – with a pipeline extending into unknown areas. Such development would shift and intensify livestock use in currently less disturbed areas that provide critical habitat for the pygmy rabbit and other native species in a remote and unique wild land area. See WWP ACEC proposal (submitted with scoping), see Photos.

It is informative to contrast the modern day view of Idaho BLM on livestock pipelines with that of Elko: The Owyhee Resource Area of BLM, which touches the northern boundary (both Idaho Tent Creek and 45 allotments) of the Elko Owyhee allotment in its RMP analysis stated in 1999: "due to seven additional pipeline miles [for Alt. E where 10 miles of pipeline are proposed across the whole 1.3 million acres of the RA in the next 20 years!], identified in Alternative E, **additional adverse impacts** could occur". Now, Elko BLM's EIS seeks to foreseeably punch a new well and associated pipeline and roading into contiguous ecologically identical lands in very important sagebrush habitats, without ever assessing the ecological consequences of its actions to this shared landscape. We also note that the Owyhee RMP envisioned no new wells – yet Elko in contiguous lands authorizes 5 or more wells and pipelines and even more pipelines extending over likely dozens of miles – with specific details – including even the ultimate number that might be built under the umbrella of the EIS - never all revealed.

Science Blinders: Elko BLM Fails to Use Adequate and Sound Science

In the EIS, BLM failed to use widely accepted, current, and best available science related to the habitats and populations of important and sensitive species, aquifers, watersheds, impacts of grazing on soils, microbiotic crusts, native vegetation, facilitation of weed invasions, impacts to cultural values, impacts to recreational uses, and many other important values and concerns associated with public wild lands.

BLM refused to collect necessary baseline data on species occurrence and use of habitats, as well as conduct a current, science-based assessment of the environmental effects of livestock grazing on important and special status species and their habitats, scarce desert springs, seeps and riparian areas, and a broad array of other values affected by the proposed livestock grazing actions, facilities/industrialization of the landscape, foreseeable treatments, and other actions here. BLM's statement about why the EIS was being prepared is revealing. At the January 2005 Open House held in Elko on the DEIS and attended by WWP's Fite, BLM stated they were doing the EIS: "because the Judge told us to".

Sadly, BLM has viewed this entire process as a paper exercise, and has made no real effort to understand the impacts of livestock grazing on important and sensitive species, springs and seeps, and the array of public land values it is obliged to consider under its Land Use Plans and federal regulations.

BLM's blindness to ANY science other than that which supports continued overexploitation and heavy abuse of public lands by privately owned livestock is shown in BLM's steadfast refusal to consider current ecological science.

In EIS Response to Comment PC-24-2, BLM states: "*WWP provided a list of references that only serve to support the case that livestock grazing is damaging to the land and vegetation. While BLM readily recognizes this body of science, it also recognizes that much [sic] of these studies were conducted on grazing systems that have no relevance to the current alternatives*". What in the world does that mean? That for science – say on

livestock trampling harm to microbiotic crusts to inform a decisionmaker - it has to be carried on a grazing allotment that has a system IDENTICAL to the systems (or lack thereof!) of the Elko MUD allotments?

This is deadly typical of the anti-science view of the current administration – which pervades the EIS. Or that for one to understand that livestock trampling disturbance across uplands in Wyoming big sagebrush habitats facilitates cheatgrass spread, a study had to be conducted under an identical grazing scheme to that here?

And where are the scientific studies, if any, that BLM could use to support claims of any claimed benefits of livestock grazing, and how do they compare to the broader body of ecological science? Studies, analyses and comparative review articles by Fleischner 1994, Belsky et al. 1999), provided by WWP to Elko BLM as references, excerpts and at times hard copies, provide sound evidence documenting a broad array of serious adverse impacts. BLM provides no references to back up its assertion here.

Every day, there is more of a broad body of scientific evidence that livestock grazing causes serious and often irreversible harms to arid western lands. See Steinfeld et al. UN Report 2006 .

Instead, Elko BLM conveniently shrouded EIS analysis in a narrow and blindered livestock industry world view.

Outrageously, Elko BLM claims, in order to excuse its EIS abandonment of current science and methodologies, and any semblance of an objective analysis or current methodologies related to livestock grazing impacts on vegetation: **“this [reliance on Dietz and a couple of obscure references] eliminated the need to cite numerous and often conflicting studies that purport to have determined the effect of grazing on vegetation, riparian areas, wildlife, etc.”**. Indeed, why bother citing any scientific studies that might run counter to what you have made up your mind to do?

BLM proceeded to base its **“Assessment Methodology”** for grazing impacts to native vegetation communities, soils, ecosystem processes, etc. on an obscure theory of plant productivity and the narrow livestock industry “herbivory” impacts based primarily on a hand full of obscure references FEIS at 3.1.2.3.1. See (FEIS at 3-8), “the effect of herbivory on plants is a function of time, duration, intensity” citing (Briske and Richard 1995).

BLM of course ignored the fact that herbivory is only one of **many** deleterious impacts of livestock grazing on vegetation communities and processes. See Fleischner 1994, Jones 1999). Livestock grazing alters the composition, function and structure of arid land ecosystems – including vegetation communities – and the impacts extend far beyond BLM’s constrained view of “herbivory”.

Even if one were to blindly accept BLM's assertions, the initial condition and health of the vegetation, soils, etc. greatly effects the outcome/a plant's ability to withstand an "herbivory" event, the plant community's resilience to grazing disturbance, etc.

One of the primary bases for BLM's obscure theory turns out to be nothing more than a **pamphlet** - see FEIS bibliography, where BLM includes a pamphlet by Dietz "**Grass: the stockman's crop**", much espoused by cattle interests in the Elko area, which is cited as the basis for much of the EIS analysis! It revolves around a local livestock industry theory about some grazing impacts to vegetation.

WWP had hoped that BLM would have devoted extensive effort to gathering current and sufficient data and using sound science to analyze impacts to sensitive species habitat conditions here. The Herbivory theory does not tell you anything about whether necessary shrub cover exists for sage grouse to inhabit an area, whether the sheep have so heavily browsed shrubs that they have died out across the landscape so that no reliable perennial forage remains, or whether raptor prey species may be declining due to extensive cheatgrass domination of understories with wildly erratic swings in 'productivity' and cover.

So instead of examining a broad body of ecological science as well as rangeland science in order to determine the effects and especially the adverse effects of livestock grazing on soils, vegetation, watersheds, etc. and thus establishing a sound scientific basis for analysis of impacts including adverse impacts on sensitive species and other important resources of these public lands, BLM chose to base its analysis on a couple minor and obscure range references and a pamphlet.

BLM's entire examination of a pivotal element of its "herbivory" theory is timing of herbivory on shrubs (FEIS at 3-8 and 3-9). Here, BLM cites ONE reference - a pamphlet: See FEIS at 6-2 "*Dietz, H. E. 1989. Grass: The stockman's crop. Sunshine, Unlimited. Lindsborg, KS*". The "science" that is one of the three EIS linchpins for understanding grazing effects on vegetation in sensitive species habitats in the EIS turns out to be a pamphlet from the Sunshine folks in Kansas.

The second of BLM's three EIS linch pins is based in part on "Duration and Intensity of Herbivory". In assessing such impacts on Shrubs" FEIS at 3-9, BLM relies on a single reference, Norton and Johnson 1983. FEIS at 6-4 shows this to be a study on "Pattern of defoliation by cattle grazing crested wheatgrass pastures" found in a "Grasslands" symposium. The great majority of these lands are NOT crested wheatgrass, an alien seeded grass of little value to native wildlife. They are also not grasslands - they are an arid lands shrub-bunchgrass system (see Mack and Thompson 1982). The only other study cited here relates to "simulated" winter browse use. BLM continues in the same vein when discussing grazing effects on grasses - relying solely on a handful of minor references, and disregarding information readily available to it, ignoring science that shows adverse impacts and a wealth of contradictory information provided by WWP and others in comments throughout the EIS process, in a two week hearing over Squaw Valley and Spanish Ranch allotments (the latter contiguous with the Owyhee allotment

and containing the headwaters of several Owyhee streams including Winters Creek and Milligan Creek – and where we note that BLM never considered cumulative impacts of degradation in headwaters on sensitive species habitat and populations in the EIS Owyhee allotment, and in numerous comment submission periods over the years..

BLM has squandered taxpayer dollars and lost several years of time in addressing serious sensitive species habitat degradation here, by its unwavering political allegiance to the livestock industry and disregard for alternative values and uses of these lands ranging from birdwatching to production of reliable and clean water. Reliance on a pamphlet as a pivotal part of the EIS scientific analysis demonstrates BLM's disdain for the public.

BLM's EIS is greatly deficient in current ecological literature related to the impacts of livestock grazing on vegetation, soils, ecosystem processes, etc.

BLM then, following its aberrant and deficient analysis of effects on Vegetation Resources and application of range science based on an obscure and narrow minor herbivory theory and a pamphlet, proceeds to draw sweeping conclusions about beneficial effects of its grazing and stocking schemes: For example, FEIS at 3-50, supposedly discussing "environmental consequences" of the grazing scheme under Alt. 2 on "Non-Native, Invasive Species" (the presence and persistence of which of course are linked to health of vegetation and soils and functioning ecological processes).

BLM claims the interim and final grazing systems "would reduce the level of impact to vegetation at water sources and in native pastures". BLM has not shown that this is the case. In fact, BLM forgets it shifted AUMs into the native North Pequop area under the FMUD, and this is continued in Alt. 2.

BLM also claims that "plant vigor would be increased", but this hoped-for increase in vigor is based on reliance on: 1) Dietz Pamphlet and a couple of other minor papers used in a theory of herbivory that forms the basis of the EIS analysis of grazing impacts; 2) BLM ignoring a broad body of current ecological science on livestock disturbance and weeds invasion, spread and persistence; 3) BLM ignoring consideration of any grazing or range science literature other than the pamphlet and obscure references to inform its understanding of the effects to vegetation, soils, etc. of the grazing schemes; 4) BLM failing to collect and assess necessary data – or even consider older data presented to it (see WWP letter of 1/22/06) on the serious ecological problems and weed presence in the allotments.

BLM claims "plant vigor would be increased, which reduce [sic] the potential spread" of weeds and "keep them as a minor component of the plant community". BLM has never defined "minor" or where weeds are considered to be a "minor" component vs. being a "major" component – so has no basis for any analysis. BLM claims it would somehow reduce "entry points" for weeds, yet it is allowing the same – or in some cases more under the interim system as well - stocking/active use of AUMs to occur in lands of the allotment – so there would be just as many "entry points".

BLM admits that: “once established, the non-native species can colonize other sites ... regardless of the utilization levels. Therefore, the overall affect [sic] of the grazing system would be to reduce entry points”. This, of course, makes no logical sense whatsoever. BLM is allowing the same number – or more livestock to be grazed, as well as expanding areas of intense use into new areas through project disturbance and resulting shifts and concentration of livestock use from projects, as well as in areas like the SAC where BLM shifts use into the WSAs.

It is informative to examine what BLM admits in FEIS at 3-56, under “Non-native invasive species” (FEIS at 3-56) for the same areas: “other more aggressive species such as cheatgrass would require additional measures to eradicate existing infestations”. BLM has never provided any plan for dealing with the existing cheatgrass and other weed problems across the allotments.

Instead, BLM practices essentially an “endless frontier” approach to grazing here. Beat it out with projects, and over-stocking, deplete it so that cheatgrass and other weeds move in, then try to shift and concentrate use in any remaining better conditions areas so that they too become weedlands.

BLM’s improper use of the term “rest” from grazing use even deviates from that widely accepted by range science. BLM’s EIS analyses make great claims about benefits of “rest” - but BLM defines “rest” (Appendix D, Response to Comments at PC-30-133), describing “rest” as “no grazing during the growing season”. This means that plants can be grazed repeatedly, winter, spring and then fall – in any one year, and BLM can claim “rest”. WWP notes that BLM fails to accurately delineate growing periods here – that many grasses that are actually the basis of “forage” here – such as the small *Poa*, green up and grow with fall rains and remain green and growing in early spring – thus even BLM’s “rest” does not occur. This aberrant use of the term is an effort to eke out extra AUMs on lands depleted and desertified by repeated and excessive grazing use, where BLM even has to rely on cows and sheep eating sagebrush (and thus greatly altering to an unassessed and unrevealed degree - an essential habitat component for native wildlife) to support its bloated and harmful stocking rates.

BLM further demonstrates the absurdity of its chiding, anti-science approach to management of public lands. BLM states (PC 30-142): “there is a basic disconnect between BLM and WWP on **how plants grow**” [what does this mean?], and BLM then claims plants produce more foliage than is necessary to sustain the plant, and so removal of plant material at the levels of BLM’s pamphlet herbivory theory is fine. BLM provides no science, not even range science, to back its Response assertions.

The third and last of BLM’s “herbivory” is “timing”. Indeed timing can have serious adverse impacts to plants – causing weakening or death. However, BLM ignores a broad body of current science, including its own Technical Bulletin, in its management schemes across the allotment, and devises grazing schemes that impose active growing season across nearly all pastures or Use Areas. See Anderson 2001, BLM Technical Bulletin.

Plus, BLM's "flexibility", inability to control waters on private lands, and many other factors render the claims of control on "timing" very uncertain.

Plus, BLM NEVER analyze the impacts of timing of use on disturbance to native species, such as sage grouse, during critical periods of the year. See Sherwood (1994) discussing "no grazing of nesting areas until the hatch is off", and "limiting grazing of brood rearing areas". This is type of "timing" Holechek et al. (1998) found that grazing systems such as rest-rotation (in which lands are grazed periodically during a multi-year rotation scheme – here the standard use of "rest", not BLM's aberrant self-serving use) had limited or no benefit in promoting recovery of degraded areas within arid conditions. They noted specifically that: "Rest and deferment were not sufficient to overcome the effects of periodic heavy use on primary forage plants when rest-rotation grazing was applied on big sagebrush range in northern Nevada."

The effect of conservative vs. heavy grazing use by cattle on two pastures was determined in a New Mexico study (Galt et al, 1999). Both of these pastures had experienced conservative use for over 10 years. In 1997, one pasture was changed to heavy use. Conservative use was 35 – 40%, while heavy use was 60 – 65% of forage species including grasses and forbs. This study indicated that heavy stocking rates resulted in serious declines in productivity in the succeeding year. Perennial grass production was reduced by 57% and forbs by 41% in the heavily grazed pasture compared to the conservatively grazed pasture. The authors cited a number of other studies in arid environments that showed heavy stocking was accompanied by decreases in forage production when compared to conservative use. After drought, the ability of forage plants to recover was directly related to the standing crop levels (ungrazed portions) maintained during the dry period. The studies cited showed that grazing during different seasons was less important than grazing intensity.

In a study of five long-term stocking rate studies from three different locations in Arizona, New Mexico and Utah, similar patterns were documented (Holechek et al 1999a). In the Desert Experimental Range in Utah, a 13-year study using moderate (35%) and heavy (60%) use by sheep resulted in annual forage production of 198 lbs/acre and 72 lbs/acre. The authors recommended 25 – 30% use of all forage species. A 10-year study at the Santa Rita Range in Arizona demonstrated that perennial grass cover and yield showed an inverse relationship to grazing intensity, while burweed, an undesirable species, increased with increasing forage use. The authors recommended a 40% use level. A 37-year study at the Jornada Experimental Range in New Mexico involving conservative (33%) and moderate (45%) use showed that the lower grazing intensity resulted in greater black grama (perennial grass) cover. Lowland areas with high clay content and periodic flooding grazed at moderate intensity had higher cover of Tobosa, a perennial grass, than heavily grazed areas. They recommended 30% be used as a stocking intensity with no more than 40% removed in any year. A 10-year study at the Chihuahuan Desert Rangeland Research Center looked at four grazing intensities of 25%, 35%, 50% and 60%. Light (25%) and moderate (35%) use produced 70% more forage than 50% use and more than double that achieved at heavy, or 60% use. Here, the author

recommended conservative stocking at 30 – 35%. Hutchings and Stewart (1953) suggested that 25 – 30 % use of all forage species was proper. They recommended this level because routinely stocking at capacity will result in overgrazing in half the years and necessitate heavy use of supplemental feed. Even with this system, they recognized that destocking would be needed in 2 or 3 out of ten years.

Holechek et al (1999a) concluded that the research is remarkably consistent in showing that conservative grazing at 30 – 35% use of forage will give higher livestock productivity and financial returns than stocking at grazing capacity. They also recognized that use by rodents and other wildlife must be taken into account as part of this utilization or rangeland productivity would suffer even at these levels of use. Galt et al (2000) recommended levels of 25% utilization for livestock and 25% for wildlife with 50% remaining for watershed protection. Even these consumption levels for wildlife and livestock combined exceed the levels that Crider's greenhouse experiments (precursor to BLM's Dietz pamphlet) would cause reduced root production and would be unsustainable

In a review paper that considered grazing systems, grazing intensity and season of use, Holechek et al (1998) determined that, "*financial returns from livestock production, trend in ecological condition, forage production, watershed status and soil stability are all closely associated with grazing intensity.*" They found that grazing systems such as rest-rotation had limited or no benefit in arid systems. Citing long-term studies in Arizona, they documented that after 12 years of rest-rotation management compared to continuous grazing, neither forage plant densities nor forage plant production differed between the treatments. Grazing intensity employed was 30 – 35% use with occasional high use of 50% or more. "*Rest and deferment were not sufficient to overcome the effects of periodic heavy use (65%) on primary forage plants when rest-rotation grazing was applied on big sagebrush range in northern Nevada.*" In an Arizona study comparing winter-spring grazing with summer-fall rest to continuous grazing, the rotation scheme was inferior to the year-long system from the standpoint of perennial grass density and production. Perennial grass production was closely associated with the degree of use and was highest where grazing use was lowest. In a Vale, Oregon study, lasting over 20 years at moderate grazing intensity, rotational grazing showed no advantage over season-long grazing in improving range condition or forage production. "*The key factor in range improvement appeared to be the reductions in grazing intensities that were applied when the project was initiated...*". This is the Vale, Oregon District project costing tens of millions of dollars and involving massive seedings, pipelines, water developments and rotation grazing.

A review of the "classic" range studies, which are the long-term stocking rate and grazing system studies that provide the scientific foundation for modern range management again shows that light use is closer to sustainable use, while heavy use is not (Holechek et al 1999a). Definitions of "heavy", "moderate" and "light" grazing developed in 1961 were cited. Heavy grazing was defined as the degree of forage utilization that does not allow desirable forage species to maintain themselves. Moderate grazing was defined as the level at which palatable species can maintain themselves. Light grazing was defined as

the degree of utilization at which palatable species are able to maximize their herbage producing ability.

It must be emphasized that vast areas of these allotments are so depleted, and production so low, with dozens of acres needed to support a single AUM, that these lands would not even be suitable for such "classic" grazing studies.

In arid regions, the research showed that moderate grazing use was 35 – 45%. When the average forage production change over time was compared with use, heavy stocking resulted in a 20% decline in production, moderate use experienced no change and light use resulted in an 8% increase. During drought, moderately stocked pastures produced 20% more forage than heavily stocked pastures, light grazing produced 49% more forage than heavy and 24% more than moderate stocking levels. Heavy stocking resulted in a downward trend and light stocking an upward trend in ecological condition. Moderate stocking showed a slight, but not significant increase in condition.

This is an example of the kind of "timing" that BLM was supposed to be addressing in this EIS process, but unfortunately it has been nearly entirely ignored.

Sensitive Species Science Deficiencies - Examples

BLM has puffed up the list with numerous raptor references but has not collected the survey and habitat data and analyses to be able to put it to use in any valid or scientific way.

BLM has provided a large list of raptor references, but unfortunately –if one follows BLM's reasoning related to understanding the impacts of livestock grazing – this was not conducted in the lands grazed like these allotments so their "science" can not be applied!

BLM references appears to be highly selective in inclusion of very relevant and important information related to raptors and sagebrush dependent species. For example, there are curious omissions of several studies on sensitive raptor species that were conducted by Hawk Watch International in the Goshute Range, and are mysteriously omitted from the Lit. citations. There are also omissions of recent studies, including many provided by WWP, that describe important habitat problems such as fragmentation. For example, Knick 2003.

We stress that while BLM has done a Lit Search, related to some raptor references, primarily involving some basic biological information, BLM never integrates biological information with a valid analysis of the on-the-ground conditions on the allotments.

BLM fails to conduct analyses in the EIS in step with current widely accepted science – instead – preparing a few paragraphs of cursory information in its greatly abbreviated, general and junior high level "Affected Environment/Environmental Consequences" paragraphs of the EIS. BLM selectively also omits information - both literature citations such as Knick et al. 2003 that would illuminate and inform understanding and analysis of

adverse conditions or impacts of its grazing schemes and projects here, as well as information within the literature that it does cite on adverse, or a full range, of environmental impacts.

Microbiotic Crusts Ignored: Another Example of BLM's Purposefully Blinded and Woefully Deficient Analysis

BLM's FEIS Response to Comments Appendix D (PC-24-3) further demonstrates how Elko BLM avoids use of current science in management activities and decisionmaking. Here BLM responds to WWP's comments and literature submissions related to the role of livestock grazing in adversely altering soils and microbiotic crusts, and the key role of microbiotic crusts in arid western lands - including their critical role in protecting soils from weed invasion, fixing nutrients and preventing wind and other erosion).

Microbiotic crusts are key protective components of soil surfaces in the uplands of sage-steppe ecosystems, acting to stabilize soil surfaces, slow runoff, prevent soil erosion and rilling, exclude weeds and fix nitrogen. Disturbance such as trampling by livestock destroys these vital and protective crusts, exposes soils to erosion and accelerates desertification processes (Anderson et al. 1982; Johansen 1993; Beymer and Klopatek 1992; Belnap 1995, Belnap and Gillette 1997, Belnap et al. 2001 - BLM Technical Bulletin).

BLM agrees that microbiotic crusts "*are an important resource*", yet ducks any duty to examine the condition and status of crusts in the allotments or the effects of livestock grazing on crust, stating: "we lack the data to determine if microbiotic crusts are present in the allotments or what the appropriate goals would be to manage crusts". WWP notes this is in keeping with BLM's entire analysis of the livestock grazing impacts and the effects of its actions on the environment, which is based largely on the Dietz Sunshine pamphlet.

Agency Information and Data Used in the MUD Processes, Too, Is Cast Aside

BLM continues its EIS anti-science stance/"If we don't look for any problems, we won't find them" approach, as previously discussed for grazing impacts to vegetation and microbiotic crusts, and current ecological literature science

In Response to Appendix D Comments at PC-24-4, BLM outrageously claimed that WWP's comments contained in a letter of 1/22/06 "are comments on the allotment evaluation, not the DEIS. **It is not the BLM's intent to respond to comments on the allotment evaluation; the public comment period was for submitting comments on the DEIS, not the allotment evaluations, MASRs, FMUDs, etc.**".

We ask IBLA to review WWP DEIS Comment letter of 1/22/06, where WWP cites over one hundred examples from documents on conditions of public lands on which the FMUDs were based, and that demonstrate serious ecological problems related to weeds and invasive species, fire and habitat fragmentation, stocking rate concerns, range trend

condition problems, depletion of native vegetation and habitats, sage grouse, riparian, and science. We also stress that this information that BLM attempts to bury and ignore is not just WWP's spin on BLM documents – the citations are from Nevada Division of Wildlife Letters, and BLM's data and analysis itself!

As an illustration excerpted below is a portion of WWP's 1/22/06 letter on Weeds, Cheatgrass, Invasive Species that BLM is trying to sweep under the rug.

WEEDS/INVASIVES Livestock degradation causing cheatgrass and other invasive species invasion and dominance of sites is largely irreversible or requires tremendous funds and large-scale restoration with limited or no grazing to reverse. BLM's old documents narrowly focused on "noxious weeds", despite abundant information in the record concerning cheatgrass and other invasives being much more widespread and significant habitat problems across the allotments. WWP has provided abundant scientific references, and Nevada-specific references about harms caused by cheatgrass, halogeton, etc. and other "invasive" species, and many NDOW comments, plus NNHP.

Whisenant 1991, Billings 1994, others describe catastrophic ecosystemic change brought about by cheatgrass and the "extensive and disastrous" range fires it causes, Fleischner 1994, Belsky and Gelbard 2000, Knick et al. 2003, Federal Register Notices re: sage grouse, pygmy rabbits. Connelly et al. 2004, Dobkin and Sauder 2004, Nevada-specific references, including Nachlinger et al. 2004, Nevada Natural Resources status Report.

All experts and current science agree these processes operate across the arid West. This is precisely what IS now occurring in Nevada.

BLM had repeatedly claimed "stable" trends are a basis for claiming habitat conditions are acceptable. BLM has NOT measured current conditions – even at the time of Allotment Evaluations, and most data was old or quite limited. Also trend could start out very bad, and remain bad and highly degraded. Just because a poor condition site remains stably poor does not mean that management is proper. Many poor condition sites were termed "stable" (under lower stocking rates that occurred in the past). There is no analysis of how INCREASED use under all DEIS alternatives will affect stable degraded or poor condition sites.

BLM's own pictures used for white sage/winterfat in the evaluations and Administrative Record show there are often few if any bunchgrasses and abundant bare soils – providing for weed invasion following livestock trampling disturbance, and then weed spread.

*NDOW Big Springs letter (AR 98) at 9: "Data inferred from individual pasture use indicates average actual use has been 10, 827 AUMs since 1987. If permittees were to stock up to the new proposed permitted use, a 57% increase in actual use would be realized. Given the poor condition of riparian habitats **and the trend toward invasion of the allotment by exotic forbs and grasses**, we don't believe this allotment can sustain this use without further resource damage.*

AR at 324. Fire Closure Agmt. Big Springs: Describes East Pequop Bench .”the Big Springs fire burned through range sites dominated by big sagebrush with a cheatgrass understory in the East Pequop Bench pasture ...”

NDOW AR at 44 (SAC): “the invasion of cheatgrass is continuing at a rapid rate on some other portions of the Complex”

AR at 63 (SAC): Noxious weeds. Map. BLM: June 4, 2003.

NDOW AR at 44 (SAC): “the fact that 9 of 15 key area sites show a downward ecological trend does not provide a good argument for potentially increasing actual livestock use on the allotment complex. While horse numbers appear to be cut in half the recommendations and permitted livestock use remains significantly higher ... than actual use reported through the evaluation period. If operators stocked up to these proposed new levels, we would see an average annual use increase of 60%”.

Thus, there is a very GREAT likelihood of weed increase and spread and degradation and loss of important and special status species habitats, as MORE livestock will mean more disturbance to soils and vegetation, as well as more vectors of weed introduction and spread under ALL alternatives provided for ALL allotments.

Owyhee NDOW letter (AR 72), MASR (AR 75) at 9. “the invasion of cheatgrass on uplands, the lack of woody riparian vegetation and lack of residual herbaceous vegetation are major concerns”. Yet, BLM failed to provide data, assessment and analysis of the extent of such invasion and its effects in important and special status species habitats. across these allotments.

Owyhee (AR 72) NDOW letter, “areas in close proximity to water ... which now have higher densities of cheatgrass”. This demonstrates the impacts of new watering sites or other developments across the uplands, and the drastic alteration in vegetation communities and fire frequency that will result.

Owyhee Owyhee MASR (AR 75) at 14 Nevada Natural Heritage Program: “evaluation fails to address noxious weeds and sensitive plant species ... both current conditions and status, and as to the effects implementation of the Technical Recommendations may have on these vegetative resources. Implementation of the recommended vegetative manipulation measures has the potential to increase the extent of noxious and invasive weed infestation on the allotment ... the known population of grimy ivesia [special status plant] ... is bisected by a fence, and “livestock concentrations along this fence could negatively impact this population”

Owyhee MASR page 19 or 20 OAE discusses ‘poor forage diversity’ and lack of perennial native vegetative cover” and “heavy composition of cheatgrass”.

Owyhee EA (AR at 81) at 11: **“noxious weeds: “3 species were identified and mapped at 59 sites, “hoary cress “on 28 different sites” (map in AR shows weeds widespread across eastern half of allotment).**

Owyhee EA at 15 minimally refers to “soils”, without any description or assessment of microbiotic crusts that are critical to preventing weed infestation. BLM in the DEIS continues to ignore the assessment and inventory of microbiotic crusts, as well as assessment of impacts of increased stocking rates and all associated management actions on them. Microbiotic crusts are critical to preventing weed invasion of important and special status species habitats in arid lands, including sagebrush, salt desert shrub, and pinyon-juniper communities (USDI BLM 2000).

Owyhee EA at 17-18 recognizes that: “noxious weeds can be spread by vehicle tires, livestock and wind”, but only addresses noxious weeds – but says nothing about invasive species, which are a gigantic problem across these allotments. With more livestock, there will be more spread of weeds, more loose and disturbed soils and wind erosion and spread of weeds, and more management activity spreading weeds with vehicles hauling water, trying to control herds, etc.

Owyhee EA (AR 81) at 27: “with no proposed range improvement activities, a lower chance of noxious weed spread would be likely”, yet this is ignored in the DEIS and current analysis, and scope and scale of invasive species linked to existing or proposed activities and the degradation of important and special status wildlife species habitats that will result is never measured, quantified or accurately described by BLM.

Old analyses – such as that for the Owyhee allotment – used only very limited citations, primarily from agencies, and of course the SAC was even worse.

Big Springs MASR (AR 101) at 11: NDOW comment: “the invasion of cheatgrass, **halogeton**, and other exotics are also **major** concerns as these species may be reducing forage availability for our native birds of prey”. BLM’s DEIS fails to map, detail, quantify, assess or in any way allow reasoned analysis of the current extent of halogeton infestation across these allotments or its impacts to important and special status wildlife species and other species habitats or watershed function and health.

BS MASR (AR 101) at 12: NDOW: “While healthy riparian habitats are indeed critical to the life cycles of several species within the allotment, the majority of wildlife in this allotment depend on healthy, native habitats for their survival”. Despite BLM long knowing this,

BS MASR at 20: Pequop Mtn. Pasture – “**cheatgrass competition and livestock grazing**”. MASR at 20 erroneously and illogically concludes “condition and trend met”. Despite serious problems, BLM increased (shifted) more use into this pasture under the MUD, and under Alts. 3 and 4.

Big Springs EA (AR 107) at 26 includes an "Invasive, non-native species" section that only discusses noxious weeds. Yet, NDOW expressed concerns re: cheatgrass. BLM ignored that, and only admits: black henbane, Canada thistle, hoary cress, Scotch thistle. Then later, in cumulative impacts, BLM only discusses "noxious weeds" under heading entitled "Invasive, nonnative species". Thus was never an accurate inventory or assessment of invasive species conducted, and BLM did not conduct such a study as part of this EIS, so has no way to gauge impacts of any of its management actions on important and special status species habitats.

In Big Springs EA at 29, under the discussion of soils, there is no mention of microbiotic crusts. BLM here admits that livestock spread weeds, yet the EIS never reveals the impacts of increased livestock numbers above actual use under all new action alternatives on livestock spread of weeds into and through important and special status species habitats and watersheds.

SAC DNA. Weeds. BLM admits that the "EIS [Land Use Plan – Wells RMP] was silent on the critical element of invasive, nonnative weeds". BLM then claims element was "present, but not affected" by the proposed action". This stance was continued in the BLM's Responses to WWP, ignoring science, and continues to this day as BLM still has never assessed invasive species/weed infestations and their effects on important and special status species habitats across the allotments.

Owyhee MASR at 2: BLM states: "the Elko RMP/EIS contain the needed elements for site specific analysis, i. e. specific levels of livestock use are identified, forage conditions are projected into the future, specific range improvements are identified, and the related impacts of these proposals on other resources are specifically analyzed. The specific design of each project is selected when each project is analyzed more closely prior to approving construction". Well, scientific understanding has changed! Large-scale fires, weeds, habitat fragmentation, new science, species concerns are escalating. The old LUPs no longer allow BLM to rely on them for baseline conditions, current inventories or facility or other impacts analyses. BLM needed to conduct such analysis in this EIS to understand the impacts of facilities on fragmenting habitats and these impacts to local, regional and nationally significant populations and habitats. BLM has failed to do so.

HARM FROM FIRE CYCLES/HABITAT FRAGMENTATION

Big Springs EA at 11 describes "the Big Springs Fire of 2000", largely ignored by BLM in its DEIS. Big Springs EA (AR at 107) 11 describes "the Big Springs Fire of 2000", and maps show a large irregular fire pattern in the North Pequop Pasture.

SAC FMUD, Appendix 2. SAC Fire Mgmt Plan. SAC contains 5 mgmt polygons. B3 polygon is one of "areas of annual vegetation". These are shown on Map 1, and constitute significant areas.

B3 Polygons are located:

White Horse allotment on West side of Goshute Range

Large area extending north-south from Leppy Hills to Utah-NV north to Lead Hills allotment (= extensive areas of the valley edge/alluvial fans along the eastern Toano and Goshute Ranges.

Wedge-shaped area in the northern Boone Springs allotment. Is this cheatgrass dominance a significant factor in the extirpation of Boone Springs leks???

*“Current condition” of this polygon is described as: “**cheatgrass and other annuals dominate these polygons**”. RNOs: “to restrict the expansion of cheatgrass”: “primary emphasis is on preventing the spread of fire into areas of native veg.”*

“fire history in these areas is dominated by large acreage fast-burning fires that often exceed 20,000 acres”, and “these fires expand the annual veg areas by burning native vegetation, which allows the annuals to colonize the burned areas”.

*Fire history: “The SAC has a moderate number of wildland fires”, “surprisingly, [many of the fires occurred in the low sage/desert shrub community] ... “most of the fires were small. However, there are a large number of fires ranging from 300 to over 3000 acres in the low sagebrush/salt desert shrub community. **The probable explanation for this is that these areas have been invaded by cheatgrass, which has altered the fire regime in this vegetation type, leading to more frequent and larger acreage wildland fires.** Normally, this vegetation type has low fire occurrence”.*

*Plus, in its FMUD at 31, BLM plans to establish 2 new Key Areas in burns – indicating they are a significant part of the landscape. And under “other management” FMUD at 33: BLM plans to examine a large block of land to see “if this area **should be changed to a cheatgrass polygon**”.*

*SAC AE at 63. **Lead Hills allotment “much of Key Area 1014 (Ferguson Flat) is dominated by cheatgrass (BRTE) causing the ecological status to decline”.** SAC at 64. **White Horse allotment. “Much of key area 1004 is dominated by rabbitbrush and cheatgrass”.***

Plus, in discussions of antelope habitat in the AR show that in some areas 99% of the land is cheatgrass! So yes, extensive cheatgrass and weedland monocultures do exist, but nowhere in previous analyses or the DEIS does BLM assess how extensive this is, or relate it to important and special status species habitats and populations, and losses or changes in habitats, sightings or populations over time.

NDOW has observed a “rapid rate” of cheatgrass invasion on portions of the SAC. See AR No. 44. Cheatgrass invasion of the uplands here, along with lack of residual herbaceous vegetation, is considered a “major” concern by NDOW (See AR No. 75, at 9), and also notes its occurrence in areas impacted by heavy livestock use.

Owyhee allotment fires affected 3.7% of acreage between 1986 and 1999. Owyhee AE (AR 65) at 10: BLM termed # of wildfires “moderate”, based on 1996-1980 fires. See Fire Mgmt. Appendix. AE Appendix 3 at 4: Total acres 1980-1996- 14,017 acres.

HOWEVER, Owyhee MASR (AR 75) at 24 shows there had been significant new fires. **"the large fires that have occurred in this vegetation type in the past two years have been predominately in over-mature closed canopy sagebrush stands with an understory of cheatgrass"**. "As an example, the Cricket fire in 2000 burned 62,000 acres. The Owyhee allotment encompasses 376,268 acres. Now, we have the Wilson Fire burning 50,000 acres in or near the allotment in 2005. So, it is likely that one third of the Owyhee allotment may be greatly lacking in sagebrush and other shrubs required for sage grouse, jackrabbits as prey of golden eagles, many small bird and mammal prey species of raptors, etc. On top of this, BLM has destroyed areas of sagebrush with mowing. And nowhere in the DEIS is the complete fire history and scale of shrub loss revealed, nor is the cheatgrass dominance of the understory in still unburned lands ever assessed.

These fires have resulted in widespread – yet unrevealed by BLM and unassessed – increase in cheatgrass, an unsustainable forage. Scientific literature is replete with info on cheatgrass causing long-term, often irreversible changes and livestock grazing disturbance being a causal factor in spread of cheatgrass and other weeds.

Big Springs FMUD (AR 108) Map 2. Map shows area of "West Pequop Fire" 2001. – approx. 8 sections. Map 3 - shows Big Springs Fire – 2000.

*Owyhee AE at 19. Mule deer habitat conditions in the huge Star Ridge Pasture **"heavy composition of cheatgrass"** at one of only 3 BLM monitoring sites. Nowhere can a reader of the DEIS understand the condition of any mule deer, sage grouse, or any other species current habitats in any allotment, nor of the extent of cheatgrass occurrence in, and dominance of, understories.*

*Owyhee AE at 46. **Cheatgrass invading Key Area while native grass decreased.***

*Owyhee AE at 66: Cheatgrass **"an undesirable annual grass that competes with native vegetation and effectively compromises forage diversity and cover on the site"**. This compromise of forage diversity and cover on sites has never been adequately assessed, nor has the irreversible harm it has caused to important and special status species habitats. By increasing stocking rates above past use levels under all alternatives, BLM will only ensure accelerated loss.*

*AR at 70 (Owyhee) letter. From NNHP, NV Clearinghouse: BLM's "evaluation fails to address noxious weeds and sensitive plant species, both as to their current conditions and status on the allotment, and as to the effects implementation ... may have on these veg. resources" ... **"implementation of the recommended veg. manipulation measures has the potential to increase the extent of noxious and invasive weed infestations on the allotment if these measures occur in or near existing infestations"**.*

Owyhee AR at 93. Noxious Weed Infestations in the Owyhee Allotment. Map shows widespread infestations throughout eastern portion of allotment. Dated June 10, 2003. Canada thistle: 220 acres, Hoary Cress 985 acres; Scotch thistle 175 acres, thistle spp.

1500 acres. When this is compared to the 1998 data, large-scale increases are seen. It must be emphasized that BLM weed inventories in almost all instances are only concentrated along roads, and do not reflect infestations in the hinterlands.

BLM thus denied abundant information in the agency's own record on conditions in these lands that should have alerted BLM of the need to go out and find out just much worse conditions might be in 2006. Understanding the degree of environmental degradation and changes in levels or degree is essential. This information is critical to understanding sensitive species habitats, and BLM's attempts to cast it aside renders the EIS scientifically invalid.

As other examples in hand of habitat concerns, see Response to Comments PC-8 and PC-9 sage grouse habitat components degraded and deficient, and concerns with grazing impacts to sage grouse habitat in the Owyhee allotment, the importance of residual grass cover, sagebrush canopy cover, and stubble height, and a scientific reference that BLM then relied on that supports the necessity of sufficient taller grass cover. Now, in its blindered and livestock industry-biased EIS prepared by a local contractor, BLM tries to run away from these problems, and sweep them under the rug.

WWP notes that this is the same Elko BLM whose staff sat for two weeks in a hearing regarding Squaw Valley and Spanish Ranch allotments (grazed by the same lessee as currently in the Owyhee and Spanish Ranch allotment borders the southern boundary of the Owyhee allotment). In that hearing, microbiotic crusts were repeatedly discussed in detail, BLM's own Technical Bulletin on microbiotic crusts and other scientific evidence was entered as evidence. So BLM's claim "we lack the data to determine if microbiotic crusts are present" could be readily solved by a BLM staffer stepping outside the pickup and examining at the surface of the land. WWP's Fite notes microbiotic crusts were observed and repeatedly pointed by Appellant and concerns expressed to BLM staff during the spring 2005 tour of the Big Springs allotment in which WWP participated. BLM knows there are supposed to be microbiotic crusts present across these lands, and that livestock trampling alters and destroys crusts, facilitating weed invasions. In fact, any current FRH understanding of ecological conditions and livestock impacts on habitats requires understanding and examination such soil conditions. See EIS at 1.4, and FD at 6-7.

One of the purposes of conducting this is EIS to assess impacts of grazing schemes to habitats for important and special status species. In order to do that, BLM must examine critical habitat components – and collect data to alleviate uncertainty! It did not do this. The whole basis for BLM's analysis focuses on "create conditions for plant vigor" under the Dietz sunshine herbivory theory – even, apparently, chestgrass vigor, and ignores many other important elements of wild land ecosystems. Unfortunately, the plants that appear now to be most vigorous and on the increase in many areas of the allotments are cheatgrass and other alien weedy species.

BLM Appendix D Response to Comments (PC-24-4) claims that WWP's 1/2//06 comments regarding cheatgrass are "incorrect, misleading, taken out of context". Yet,

WWP provides abundant evidence, including repeated comments by the Nevada Division of Wildlife (NDOW)!

BLM also claims “the cheatgrass areas can not be adequately addressed until the grazing system has been implemented”. Well, a grazing system can’t be *properly implemented* until the cheatgrass lands (as well as the lands “at risk” of cheatgrass spread or dominance) are carefully identified, mapped, delineated, identified so that mitigation and management can prevent new adverse impacts, so that stocking rates can be set appropriately based on sustainable perennial forage, etc. We also note that BLM elsewhere in the EIS admits it can not readily deal with cheatgrass.

Instead of acting as a responsible steward for the soil, microbiotic crusts, native vegetation - the underlying foundation of healthy sensitive species habitats on these lands (i. e. reducing or better mitigating livestock impacts, undertaking restoration), BLM’s response instead is to **kill the native vegetation that remains** “treat the vegetation to reduce fuel loading” and, likely, replace it with alien grasses or hybridized cultivars to produce livestock forage.

WWP stresses that BLM in its sage grouse analysis relies primarily on a local Elko area effort conducted much under the repression of the public lands livestock industry and that has been subject to no NEPA or rigorous scientific review, and that was conducted prior to the large-scale new habitat losses of 2005 and 2006. Please see Connelly et al. 2004 to place the populations in a broader perspective, to understand oscillations in sage grouse populations over time, the trajectory of sage grouse populations over time, etc.

BLM Cuts Funding from Raptor Study with Direct Relevance to Sensitive Species EIS Lands — and Even Omits Study from EIS Literature

BLM’s FEIS ignored discussion and analysis found in a March 2006 HawkWatch International (HWI) Report – despite the fact that Nevada BLM itself had funded this report. Plus, BLM in Nevada cut off funding for this study to continue in 2006. BLM had contracted with HawkWatch International to census raptor nests in 2004 and 2005, and then cut off funding in 2006, perhaps because the HWI report dared to mention “rancher” activity near nests. The HWI March 2006 summary Report on the 2004 and 2005 studies is conspicuously **absent** from the Sensitive Species EIS Literature of May 2006.

See *Smith, J. P. and A. Hutchins, March 2006. Northeast Nevada Raptor Nest Survey, Contract Report. Prepared for USDI Bureau of Land Management, Elko Field Office.* Here, HWI conducted field surveys for raptors from mid-March to early August in 2004 and 2005. This survey included the lands of the Big Springs (Toano Range), Toano Draw (Collar and Elbow) and Sheep Allotment Complex (Leppy Hills) north of I-80. See Report Table I “Region” descriptor.

Here BLM had skilled field biologists conducting a study in the northern portions of two EIS areas, and could have readily have used the same methods or expanded the study to come up with some pertinent information on land south of the Freeway – such as make to

detect currently occupied nests and territories, note conditions and disturbances related to nests or territories, make comparisons between Historic vs. Occupied nests, or even observations of potential impacts of ranching disturbance – such as sheep water hauling on public lands. Instead, BLM dumped the study.

WWP notes that the nesting survey conducted by HWI took place from mid-March to early August. Livestock grazing occurs across the SAC, Big Springs, and Owyhee allotments during portions of this time period, with the earlier times during nesting activity being especially important critical. WWP notes that the Bush administration grazing regulations that BLM Attaches to the FD show that the broad use periods in the EIS can be further extended by 14 days so livestock use periods across the allotments in very many instances are in direct conflict with nesting periods of sensitive species (FD at 6).

WWP notes that several harmful provisions of these regulations have been enjoined by a federal district court in litigation that we have brought. BLM has never analyzed the changed circumstances and environmental impacts of management of livestock under the old vs. the new Bush regulations and their impacts, including adverse impacts, to important and sensitive species habitats and populations and other important values of these public lands.

Table 8. of the HWI report includes “Examples of sporadic human disturbances around known nest sites in 2005”, and includes notations such as LEPE “Guide Service ATV and Horse rentals set up at base of nest cliff”, military jet flyovers, vehicles, ATVs.

Table 9 of the report “Examples of recurrent human disturbance around known nest sites in 2005” includes TWRA “daily frequent travel and ranching activity”. HWI, in a separate report, and observess probable cause of burrowing owl reduced productivity was tall cheatgrass growth obscuring nests in high rainfall year.

Thus, this HWI report includes local scientific observations that points out some components or occurrences of significant habitat disturbance - that BLM could have readily analyzed and designed strategies to minimize or mitigate under the EIS.

WWP also notes that the HWI study area includes the Big Springs Collar and Elbow Pasture, where BLM plans to shift cattle to try to meet riparian objectives elsewhere. BLM never analyzed the full scale of the DISTURBANCE impacts associated with various grazing schemes –especially related to road use or livestock concentration during critical nesting and brood rearing periods.

Additionally, page 7 of the HWI report lists density of nests, and lands of the EIS allotments appeared to have relatively low densities of nests. Table 4 shows the importance of juniper for nesting ferruginous hawks here – with all but 2 of 70 nests located in junipers. Also, juniper nest substrates were of critical importance here to Swainson’s hawk – with 13 of 14 nests in juniper. Yet, BLM vegetation treatments, including those under the Fire Plan of the SAC or Big Springs, and broadly referenced in

the EIS, very foreseeably could radically alter such habitats – and destroy nesting sites and also foraging territories (completely undefined by BLM here) that these species require.

The HWI report states: “The Nevada Bird Conservation Plan (Neel 1999) identifies prairie falcons, ferruginous hawks, Swainson’s hawks, and burrowing owls as **priority species in their habitats of occurrence**, and recommends **relevant conservation strategy objectives**”. BLM does not examine the compatibility of its schemes with “conservation strategy objectives” for these species, and how it may or may not be complying with these under the EIS/Decisions. The HWI report (at 4) also states “for most raptor species, **it is critical that direct disturbance to the nest be severely restricted until chicks have hatched**”. Burrowing owl nests are known to be collapsed by livestock trampling (Holmes et al. 2003, Red Willow Research 2004), so timing of grazing can have serious adverse disturbance or habitat alteration impacts to sensitive species.

WWP stresses that Elko BLM fails to analyze any alternatives that may enhance species and habitats, including by incorporating avoidance of grazing use periods and freedom from livestock use disturbance - such as water hauling, livestock trampling grazing and trailing presence - during sensitive nesting periods, food tub placement, or other disturbance activities in the vicinity of nests or nest territories.

The HWI report also notes there **are significant declines in golden eagles** in portions of the nesting range, while BLM omits any such data or information, refusing to provide information population changes, or population changes over time.

BLM Contortions and Distortions Are Mind-Boggling

BLM engages in the most amazing of contortions to try to justify its continued violations of the law (NEPA, FLPMA, APA, MUSYA and the Taylor Grazing Act). BLM in the MUD processes steadfastly refused to collect current data on sensitive species, despite knowing as it conducted the processes that such data on sensitive was critical: “**Viable management decisions can not be made until current surveys ensue**” (Elko BLM SAC MASR at 2). Now all the EIS does is repeatedly refer to and massage old analysis of its own selection – such as the FRH processes of 2000 and the MUD FDs.

Yet, when WWP provides a detailed summary of the BLM’s old data that is counter to the livestock industry spin BLM’s EIS analysis is blindered by, BLM suddenly claims that its very own information in the FMUD process has no relevancy or validity. BLM outrageously states that WWP can not use or cite this information because: “**the references to the EAs regarding non-native, invasive species are not relevant to the DEIS, as the DEIS examined the impacts of the alternatives on the establishment and spread**” (Appendix D, Response to Comments PC-24-3). Plus, even if one were to accept BLM’s outrageous claim that suddenly its very own info is not relevant, accurate understanding of invasive species presence is necessary to inform development and evaluation of ANY alternative course of action. BLM simply wants to live in its own

blinded livestock-industry-centered world, ignoring current biological and ecological science, and its own data that may run counter to the livestock industry spin BLM tries to place on conditions and grazing schemes here. And WWP notes that the documents WWP referred to here and were discounted by BLM were not merely EAs to be scorned (BLM never even did an EA for the SAC in the first place – only a “DNA”), but include a broad range of information, including from BLM’s own scientists, NDOW scientists, and others.

NEPA requires the use of sound science, and that BLM take a “hard look” at environmental impacts. By ignoring a broad body of current ecological science, BLM has violated NEPA. Plus, as BLM continues to ignore science, BLM violates FLPMA requiring that lands be properly managed to prevent undue degradation.

BLM also violates its own policies for sensitive species, which is to manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act.

WWP provided BLM with a scientifically detailed ACEC proposal for the Owyhee region that stressed the important scientific, biological, cultural and other values of these wild lands, and that alerted ever-blinded Elko BLM to the fact that wildlife populations – both big game as well as sensitive species such as sage grouse or raptors – readily move back and forth across state lines here in meeting their seasonal and critical habitat requirements.

WWP also provided BLM with current science documenting the impacts of habitat fragmentation on sage grouse and other sensitive species of the sagebrush biome (see Bibliography, WWP letters and info in Record and Attached), yet nowhere does BLM assess the impacts of its existing grazing and development schemes on continuing, and/or expanding such fragmentation and its adverse impacts – and especially the impacts of the proposed construction binges.

There is no examination of the impacts of BLM actions on inter-state wildlife populations and habitats shared between Idaho, Nevada and Oregon (Owyhee allotment), or between Nevada and Utah (SAC). Elko thus shirks its duty to identify, and understand impacts on habitats and populations.

It is also important to note that BLM analysis in the contiguous Idaho Owyhee Resource Area (northernmost portion of the Owyhee allotment extend inside Idaho – but poor mapping in the EIS fails to show this) found: “impacts of developing ... livestock projects ... would depend on exact locations but could result in deteriorated habitat conditions and prey abundance for some special status animals in the vicinity of these developments (IV-27), construction of fences may have adverse impacts if it results in concentration of livestock within special status species habitat”. So it has long been recognized by BLM scientists working in the sagebrush biome that adverse impacts to sensitive species stem from such actions.

To understand the impacts of these change agents/threats, BLM must first undertake baseline inventories, and integrated and systematic analysis of species occurrence and habitat conditions.

BLM Fails to Apply Sound Rationale or Science in Setting Stocking Rates, or Adopting Grazing Schemes, in the Allotments

BLM has failed to conduct for each pasture and "Use Area" the detailed studies necessary to determine the stocking rate that would allow for the protection and enhancement of resources, sustainable use, or sustaining or enhancing important and sensitive species habitats under any of its alternatives, or a variety of more conservative actions and alternatives. BLM has failed to prepare current studies of livestock grazing suitability, productivity, ecological condition, productivity, stocking rate, carrying capacity or other information or studies that provide a current examination of the ability of the land to sustain livestock grazing in this allotment. For example, the uncertain measurable levels of livestock use applied – and that are NOT requirements specified in the Terms and Conditions of the grazing permits – are woefully out of step with current ecological or range science. The active growing season use periods and use levels also deviate from current understanding for less harmful use periods (Anderson 1991 BLM Technical Bulletin). BLM continues the practice of growing season spring grazing in numerous pastures in the SAC, Big Springs and Owyhee Allotments. This treatment will not meet plant requirements to allow the desirable herbaceous plants to reproduce and increase in density. Scientific studies have found that to meet plant requirements one must: (a) rest plants during the growth cycle to restore plant vigor and/or to prevent plant mortality from over-use (Anderson 1991); (b) rest plants until seedripe for seed production, and (c) rest a cycle for new seedling establishment. Continuous spring grazing cannot meet these requirements unless stocking rates provide for light grazing use. BLM continues grazing during active and critical growing periods without any period of rest.

Some of the SAC proposals **double or other wise increase** the stocking into a smaller area during the plant growth periods and will result in additional over-grazing of the less steep areas that are usable by livestock. The impacts of this, especially shifting and concentrating livestock use in areas already much used by wild horses, and resultant competition for food, cover and space between livestock, horses and wildlife including sensitive species, have not been assessed. BLM has not shown that it has balanced the suitable acreages within each pasture or Use Area (as in the SAC), or that a thriving ecological balance be maintained. Consequently, there will be less forage in one or the other pasture, resulting in excess pressure/use occurring.

Stocking pastures at light grazing levels must be considered to allow plants to re-establish and regain vigor, for trampling damaged microbiotic crusts to heal, to meet Rangeland Standards, and protect the food, space and cover requirements of sensitive species, and wild horse herds.

As an example of how BLM has forsaken current science in setting stocking rates,

Holechek et al. (1998) found that grazing systems such as rest-rotation (in which lands are grazed periodically during a multi-year rotation scheme – here the standard use of “rest”, not BLM’s aberrant self-serving use) had limited or no benefit in promoting recovery of degraded areas within arid conditions. They noted specifically that: “Rest and deferment were not sufficient to overcome the effects of periodic heavy use on primary forage plants when rest-rotation grazing was applied on big sagebrush range in northern Nevada.”

The effect of conservative vs. heavy grazing use by cattle on two pastures was determined in a New Mexico study (Galt et al, 1999). Both of these pastures had experienced conservative use for over 10 years. In 1997, one pasture was changed to heavy use. Conservative use was 35 – 40%, while heavy use was 60 – 65% of forage species including grasses and forbs. This study indicated that heavy stocking rates resulted in serious declines in productivity in the succeeding year. Perennial grass production was reduced by 57% and forbs by 41% in the heavily grazed pasture compared to the conservatively grazed pasture. The authors cited a number of other studies in arid environments that showed heavy stocking was accompanied by decreases in forage production when compared to conservative use. After drought, the ability of forage plants to recover was directly related to the standing crop levels (ungrazed portions) maintained during the dry period. The studies cited showed that grazing during different seasons was less important than grazing intensity.

In a study of five long-term stocking rate studies from three different locations in Arizona, New Mexico and Utah, similar patterns were documented (Holechek et al 1999a). In the Desert Experimental Range in Utah, a 13-year study using moderate (35%) and heavy (60%) use by sheep resulted in annual forage production of 198 lbs/acre and 72 lbs/acre. The authors recommended 25 – 30% use of all forage species. A 10-year study at the Santa Rita Range in Arizona demonstrated that perennial grass cover and yield showed an inverse relationship to grazing intensity, while burroweed, an undesirable species, increased with increasing forage use. The authors recommended a 40% use level. A 37-year study at the Jornada Experimental Range in New Mexico involving conservative (33%) and moderate (45%) use showed that the lower grazing intensity resulted in greater black grama (perennial grass) cover. Lowland areas with high clay content and periodic flooding grazed at moderate intensity had higher cover of Tobosa, a perennial grass, than heavily grazed areas. They recommended 30% be used as a stocking intensity with no more than 40% removed in any year. A 10-year study at the Chihuahuan Desert Rangeland Research Center looked at four grazing intensities of 25%, 35%, 50% and 60%. Light (25%) and moderate (35%) use produced 70% more forage than 50% use and more than double that achieved at heavy, or 60% use. Here, the author recommended conservative stocking at 30 – 35%. Hutchings and Stewart (1953) suggested that 25 – 30 % use of all forage species was proper. They recommended this level because routinely stocking at capacity will result in overgrazing in half the years and necessitate heavy use of supplemental feed. Even with this system, they recognized that destocking would be needed in 2 or 3 out of ten years.

Holechek et al (1999a) concluded that the research is remarkably consistent in showing that conservative grazing at 30 – 35% use of forage will give higher livestock productivity and financial returns than stocking at grazing capacity. They also recognized that use by rodents and other wildlife must be taken into account as part of this utilization or rangeland productivity would suffer even at these levels of use. Galt et al (2000) recommended levels of 25% utilization for livestock and 25% for wildlife with 50% remaining for watershed protection. Even these consumption levels for wildlife and livestock combined exceed the levels that Crider's greenhouse experiments (precursor to BLM's Dietz pamphlet) would cause reduced root production and would be unsustainable

In a review paper that considered grazing systems, grazing intensity and season of use, Holechek et al (1998) determined that, "*financial returns from livestock production, trend in ecological condition, forage production, watershed status and soil stability are all closely associated with grazing intensity.*" They found that grazing systems such as rest-rotation had limited or no benefit in arid systems. Citing long-term studies in Arizona, they documented that after 12 years of rest-rotation management compared to continuous grazing, neither forage plant densities nor forage plant production differed between the treatments. Grazing intensity employed was 30 – 35% use with occasional high use of 50% or more. "*Rest and deferment were not sufficient to overcome the effects of periodic heavy use (65%) on primary forage plants when rest-rotation grazing was applied on big sagebrush range in northern Nevada.*" In an Arizona study comparing winter-spring grazing with summer-fall rest to continuous grazing, the rotation scheme was inferior to the year-long system from the standpoint of perennial grass density and production. Perennial grass production was closely associated with the degree of use and was highest where grazing use was lowest. In a Vale, Oregon study, lasting over 20 years at moderate grazing intensity, rotational grazing showed no advantage over season-long grazing in improving range condition or forage production. "*The key factor in range improvement appeared to be the reductions in grazing intensities that were applied when the project was initiated...*". This is the Vale, Oregon District project costing tens of millions of dollars and involving massive seedings, pipelines, water developments and rotation grazing.

A review of the "classic" range studies, which are the long-term stocking rate and grazing system studies that provide the scientific foundation for modern range management again shows that light use is closer to sustainable use, while heavy use is not (Holechek et al 1999a). Definitions of "heavy", "moderate" and "light" grazing developed in 1961 were cited. Heavy grazing was defined as the degree of forage utilization that does not allow desirable forage species to maintain themselves. Moderate grazing was defined as the level at which palatable species can maintain themselves. Light grazing was defined as the degree of utilization at which palatable species are able to maximize their herbage producing ability.

It must be emphasized that vast areas of these allotments are so depleted, and production so low, with dozens of acres needed to support a single AUM, that these lands would not even be suitable for such "classic" grazing studies.

In arid regions, the research showed that moderate grazing use was 35 – 45%. When the average forage production change over time was compared with use, heavy stocking resulted in a 20% decline in production, moderate use experienced no change and light use resulted in an 8% increase. During drought, moderately stocked pastures produced 20% more forage than heavily stocked pastures, light grazing produced 49% more forage than heavy and 24% more than moderate stocking levels. Heavy stocking resulted in a downward trend and light stocking an upward trend in ecological condition. Moderate stocking showed a slight, but not significant increase in condition.

Moreover, Elko BLM implementing its complicated schemes is dependent on completion of wells, pipelines, fences, etc. Yet, no feasibility study was referenced showing if all of these wells, pipelines, etc. are feasible. Presumably, without the projects, the grazing systems and schemes fall apart – yet BLM never bothers to find out if the projects are feasible, or conduct an integrated analysis of environmental effects where the effects of projects were analyzed at the same time as the putative impacts of the grazing schemes.

The host of other projects (exact number and location unknown) authorized under the Decision, are possible. With current funding limitations (BLM can not even afford to look for weeds that projects spawn), it is unlikely BLM will be able to complete the projects heaped into the allotments, or if it does, BLM has already admitted it will not be able adequately monitor effects.

Wild horses use the creek bottoms as well as the areas currently less used by livestock due to distance from water.

Large acreages of rugged, rocky, steep, forested mountainous terrain characterizes the Goshute and Toana Ranges. Plus, alkali or playa conditions exist in the Goshute Valley and other areas. BLM has not shown how it determined what areas were or were not suitable areas for livestock or were capable of producing sustainable forage in establishing grazing capacity for livestock.

Cattle are dispersed in many areas across the allotments when mud puddles hold water, or stream flows are present in intermittent drainages (Big Springs valleys and Owyhee – but not the very arid SAC). Livestock grazing is already dispersed across many areas under these circumstances, and is causing significant harms - like the "common" cheatgrass in understories of native communities in the Owyhee allotment.

BLM has failed to provide current and adequate ecological information to enable understanding of where remaining better condition plant communities and habitats are located in these allotments. This is essential to understand the degree and severity of how project construction would shift and intensify cattle use in the remaining better condition areas, lands critical to horses, sage grouse, sensitive species, wintering big game and

other wildlife. This is especially the case as even the interim stocking rate is at or increased above the actual use levels that have resulted in deteriorated conditions (as shown in both the AIE and the limited recent information of the EA). This is common sense. Cattle simply will not use steep, rocky slopes. Heavy grazing use will continue in riparian areas, valley bottoms and drainages. Plants in these areas will receive continuous grazing during growing periods with no ability to complete growth requirements

The EIS description of impacts to riparian areas is inadequate and often incorrect. Hot season grazing, widely recognized to have many deleterious impacts to riparian areas, continues even in the exceedingly damaged Squaw Creek watersheds. Severely damaged riparian areas within the Owyhee allotment will still be grazed during the hot season as has been occurring (see FEIS at 2-37) Chimney Creek year 2, Lower Fourmile year 1, Upper Fourmile Year 1, for example.

Severely damaged riparian areas within the Big Springs allotment will still be grazed during the hot season. Pastures in East Big Springs that will receive hot season use are shown in FEIS at 2-22, Table FEIS 2-27 – East Beacon/South Squaw Creek (appears to correspond to FEIS Map 2-3 “Squaw Creek Riparian”, North Squaw Creek/Baker Spring appears to correspond to “Upper Squaw Creek Riparian”). Payne Basin also would receive relentless hot season use.

In West Big Springs (FEIS 2-21, Table 2-26), North Pequop Mountain pasture North Use Area will receive relentless hot season use (appears to correspond to West Squaw Creek riparian pasture in FEIS).

WWP emphasizes that several BLM pasture names in the FEIS do NOT correspond to the pasture names on the map of the Final Decision, adding further uncertainty to an already greatly complicated and uncertain grazing scheme.

We are also alarmed at BLM's scheme to sacrifice important sagebrush, pinyon-juniper and salt desert uplands to a highly uncertain and open-ended grazing scheme: FEIS 2-22 footnote states “Collar and Elbow pasture would be open as a place to move cattle when utilization objectives on East Squaw Creek in the North Pequop Mountain Pasture are met” (also found in FD at 19) with no analysis of how this will impact the diverse native sagebrush and pinyon-juniper communities here in Collar and Elbow.

FD “Initial stocking level” (Active Use) is not specified for any pastures other than North Pequop Mountain (1250 AUMs), Payne Basin and Long Canyon/Six-Mile (375 AUMs), and FFR (17 AUMs). This means that BLM imposes 8508 “aggregate” AUMs on Railroad Field, Windmill Field/seeding East Squaw Creek, Collar and Elbow, East Pequop Bench, Shafter, Squaw Creek ranch, Lower Squaw Creek. BLM provides a “carrying capacity” figure for each pasture – but it is impossible to determine how many AUMs will be in all of these 9 pastures, including the two largest pastures in the allotment.

WWP stresses that the stocking levels in both East and West Big Springs are significantly above the average actual use that has occurred here, and now this “aggregate use” further complicates understanding of just how much grazing is to occur here.

BLM presents a highly uncertain Interim grazing scheme in the West Big Springs allotment. It is impossible to determine how many AUMs will be grazed, and how the number to be grazed will be determined, for the North Pequop Mountain and Holborn pastures. FD at 17, table 8.

BLM also inflicts nearly year-long grazing on the Independence Valley pasture, with no protection of any kind from areas being repeatedly grazed – through herding, rainfall dispersing cattle drinking out of puddles, etc. Across the area. Areas of this pasture are extraordinarily depleted, and winter feeding has occurred complicating any understanding of ‘carrying capacity’ under BLM’s archaic formula.

Plus, BLM claims that livestock use of the Use Areas is dependent on turning water on and off, yet much of the water is located on private lands often not fenced separately from BLM lands or where gates can readily be opened, so there is no certainty of control of livestock use areas.

Harmful Use Levels

BLM Imposes Harmful and Out-dated Utilization Levels and Never Adequately Assesses Their Impacts on Species and Habitats.

BLM never analyzes a range of alternative use levels, or provides any credible science to justify imposition of use levels under the alternatives on the lands of these allotments.

Even if one were to believe BLM’s Dietz (Sunshine Press) theory of livestock grazing/herbivory, BLM never examined the effects of the levels of vegetation use that it allows under the decisions – and that the greatly flawed “carrying capacity” uses. These levels remain the same under all alternatives. BLM was supposed to examine the effects of management on sensitive species habitats, and has not examined the impacts of a range of reasonable use levels, including conservative levels or levels based on current science.

There has been no science-based evaluation of alternative utilization level or other measurable use standards and impacts to sensitive species habitats, watersheds, and/or aquifer recharge and watershed processes associated with springs, seeps and riparian areas and other important habitats in the allotments.

No Evidence “Forage” Is Available for Any Particular Stocking Rate in Any of the Use Areas” - as in the SAC

BLM draws Use Area lines on a maps unrelated to any geographic, topographic or other feature, and chops the various Sheep Complex allotments into various “Use Areas”, but provides no information to demonstrate the current vegetation composition or

productivity, ecological condition, soil type and characteristics, slope, usable vs. non-usable areas, etc. of any of the SAC Use Areas. No information is presented on locations where water sources including water haul sites are located. Thus, there is no evidence that BLM based stocking rates, levels of grazing use (utilization and browse), etc. on information that is necessary to understand the amount of land area actually able to be grazed, or the vegetation that is grazable at a sustainable level on these lands.

Large areas of the Toano and Goshute Ranges are rugged, rocky, or densely forested – and are not grazable even by sheep. Plus if sheep would be grazed in isolated more open areas, they would have to repeatedly trail back and forth through narrow or constricted areas, inflicting great damage to soils, vegetation and habitats. In fact in the past, BLM has relied on claims that sheep do not access mountain areas with springs in the SAC – whenever WWP raised the issue. Now here, BLM designs Use Areas to purposefully inflict grazing and trampling use on mountainous areas and fragile seeps and springs – as in Morris Basin, with minimal or NO flows or already degraded by development and other alteration. See Photos Tunnel Spring, Rock Spring, Morris Basin Spring photos. Plus, FD also imposes grazing on Morgan Basin.

This all creates a confusing and uncertain management scheme where assessment of impacts to other important values of the public lands is impossible.

BLM assumes that additional watering sources and some band-aid exclusions will reduce riparian use but never addresses the impacts of such continued use (and often more concentrated use) on riparian areas across the allotments.

The decision to apply a 50 percent utilization rate and various browse levels does not address the problem of over-stocking. It in no way ensures recovery of any of the many areas currently suffering from grazing-related harms or more intensive use.

We stress again that BLM stocks these lands at or above the levels of actual use known to have caused FRH violations and ecological problems in the first place. BLM even increases levels above average active use in Big Springs even under its “interim” system!

BLM does not even base 2006 FD stocking rates on Actual Use that that has been grazed during the past 6-7 years, including in prolonged drought – but only on the bygone days of the MUD evaluation period. Drought episodes are periodic and common, so BLM avoidance of examining sustainable use on the basis of levels of grazing use during drought fails to provide a logical basis for stocking of public lands and preventing undue degradation from occurring. BLM always lags years behind in any grazing-related drought reductions – and new damage occurs under high stocking rates and use levels with each new drought episode.

WWP repeatedly commented on, and protested, BLM’s failure to conduct current grazing suitability, carrying capacity, productivity and other studies to determine sustainable levels of livestock use in these allotments, asking that BLM provide analysis that:

- 1) *Catalogues and describes lands unsuitable for grazing due to lack of herbaceous vegetation "production"; distance from natural water sources; slope, rockiness (much of these lands); existing environmental damage (downcut gullies, wet meadows with shrinking wetted areas due to livestock damage, springs desiccated due to past harmful developments, lands "at risk" to weed invasion and spread and thus loss of sustainable forage; lands so seriously depleted that they are no longer able to support livestock grazing on a sustainable basis (larger stature native bunchgrasses largely absent); and lands that are "at risk" of crossing thresholds to increase/dominance by annuals (due to livestock degradation) from which recovery to native vegetation communities will not be possible.*
- 2) *Catalogues and describes lands unsuitable for grazing based on their important (and often overlapping) values to rare and declining species, recreational uses, wild horse values, cultural sites, aesthetic value, and other legitimate uses and values of public lands that are harmed or degraded by the chronic effects of livestock grazing.*

In a landscape where drought is common, and minimal growth on cheatgrass and other annual weeds will occur during drought episodes, BLM has made no effort to determine sustainable use levels, or sustainable numbers of livestock. Upland conditions, as previously described, have obviously worsened in many areas since old ecological site inventory studies were conducted. See WWP letter of 1/22/06, in Response to Comments 24.

BLM Fails to Conduct a Current Inventory or Analysis of Weeds and Invasive Species Problems Across the Allotments

BLM provides no current inventory or assessment of weed occurrence. Outrageously, BLM relies on a spotty 1998 noxious weed inventory to detail impacts in 2006.

A current invasive species inventory and analysis is critical to understand the effects of roads (existing and extended under facility development scenarios), livestock projects, salting sites, and conditions of important wildlife and plant habitats. BLM fails to assess the vulnerability of bare, disturbed soils that are found in most pastures to weed invasion and spread due to livestock grazing and trampling impacts. This is despite BLM knowing that exotic annuals like cheatgrass are "common" in areas of the allotments.

Continued over-stocking in these areas will promote the spread of invasive species, and threatens the productivity and sustainable use of the allotments. Because of the risk of continued spread of cheatgrass, and other exotics (most of which provide unreliable or poor quality forage and out-compete native plants including rare plants and which harm sage grouse, loggerhead shrike, pygmy rabbit and raptor and other important sensitive species habitats) through livestock trampling and grazing disturbance, it is imperative that a grazing system and management be applied that meets the total plant requirements for the area, protects habitats, and minimizes disturbance to soils and microbiotic crusts (crusts help to exclude weeds).

The old, tired systems (many components of which have been largely in place since the MUDs were issued and even prior in many instances), stocking rates and even more livestock projects will not prevent the spread of cheatgrass or noxious weeds, especially as BLM has shirked its duty to collect current data on infestation occurrences across the allotments, or to accurately represent and assess even the data from the MUD processes.

These species and other exotics pose grave threats to sensitive species habitats and populations across the allotments. Depressions made by livestock hoof prints provide ideal sites for weed invasion of salt desert, Wyoming big sagebrush, Basin big sagebrush, big sagebrush-bitterbrush, low sagebrush, black sagebrush, juniper, pinyon-juniper, mountain mahogany and other plant communities and sensitive species habitats here.

Science resoundingly demonstrates the role of livestock disturbance in spread and infestation of weeds (Belsky and Gelbard 2000, Masters and Sheley 2003, Pyke 1999).

Construction of pipelines and watering systems involves soil and vegetation disturbance, and crosscountry travel by heavy equipment and soil disturbance across unknown areas. Fence construction may also involve extensive crosscountry travel. New roads are likely to develop in association with all these projects (Braun 1998, Freilich et al. 2003, Connelly et al. 2004), as the disturbed areas are driven, or driven for maintenance, or are exceedingly slow to recover from vegetation removal associated with project development. All carry great risk of spreading cheatgrass, white top, Scotch thistle, knapweed or other highly invasive weeds across the allotments.

The role of livestock grazing in increasing fire risk and weed domination is not addressed by BLM, although the agency asserts that grazing will reduce catastrophic fire, with no evidence provided. Grazing at levels necessary to significantly reduce fire would be catastrophic - to rare plant habitat, sage grouse habitats, etc. BLM applies no science, and provides no information on the degree of grazing use that would be necessary to fire-proof lands, or the degree of damage to soils, vegetation and other resources such extreme grazing use may cause.

Although the record is replete with descriptions of cheatgrass occurrence in the allotment (WWP letter of 1/22/06, for example in Appendix D), BLM fails to assess how its decision may increase zones of cheatgrass presence or domination of understories, thus leading to altered fire cycles, and greater risk of catastrophic fire. See Whisenant (1991), Billings (1994), Monsen 1994, Sands et al. 1999, Pyke 1999, Knick et al. 2003, Connelly et al 2004 describe how exotic annual grasses (that invade zones of disturbance from livestock, roading, livestock projects and facilities, etc.) increase risk of frequent, large-scale fires. Now, the flammable invasive annuals have moved into BLM's "firebreaks"/sagebrush thinning projects on coarser soil types in the Owyhee allotment. See WWP Photos, likely increasing the risk of fire in these wild land areas. These species are also readily able to invade livestock or project-disturbed soils.

BLM Fails to Protect Upland and Riparian Soils from Harmful and Irreversible Erosion

BLM's narrow, flawed and industry-biased EIS analysis of the impacts of livestock grazing schemes ignored the impacts of livestock trampling – as part of grazing across the allotments on soils, vegetation, watersheds, etc. – as well as microbiotic crusts that are critical to soil health, weed exclusion, nutrient fixation, watershed processes, etc. This is despite a broad body of peer-reviewed literature, and even BLM's own scientific reports and Technical Bulletins that demonstrate the importance of healthy soils and microbiotic crusts to functioning native ecosystems.

BLM Maintains largely the same number of livestock - or even more – than are known to have caused the ecological problems across the allotment under the MUDs, while at the same time disregarding the impacts of drought, continued loss or depletion of perennial forage and damage or loss of microbiotic crust, etc.

BLM cares so little about soils across these allotments that it does not even provide mapping of soil types or necessary information to understand the occurrence of soils, including those that may be critical to sensitive species. See Milk River Report describing burrowing owl use of deeper soils. See Pygmy Rabbit Fed Register Notice, Columbia Basin DPS, describing deeper soil use.

Plus, understanding the soil characteristics and type is essential to understanding the susceptibility of sites to weed invasion by particular weeds following disturbance. See Photos of cheatgrass invading zones of BLM mowing 'sagebrush thinning' disturbance in Owyhee allotment. Such basic information on soil or other susceptibility to weeds following disturbance is critical to understanding the short, mid and long-term impacts of grazing schemes and project binges on native vegetation communities and sensitive species habitats as well as watershed processes.

BLM fails to protect erodible soils in uplands and riparian areas of the allotments, including soils where active gullying is occurring and watersheds increasingly prone to flash flood damage and intermittent flows (Owyhee, Big Springs) from chronic livestock-caused degradation and erosion. BLM proposes numbers of livestock that will result in raw, bare soils exposed to both wind and water erosion across uplands.

Continued loss of microbiotic crusts that serve to protect soils from erosion and weed invasion will occur. Even worse, in many areas, BLM's management schemes and project binge of an unknown extent, would result in new and extended soil disturbance.

Plus, BLM adopts grazing schemes, for example in the SAC, that would strip vegetation and trample soils in fall and winter across the allotment area, and then in spring concentrate all use by herds into smaller "Use Area". This provides no opportunity for vegetative regrowth to buffer soils from a concentrated spring trampling event. As water runs off faster, proper infiltration will not occur, and site drying and desiccation/desertification will increase. Sheridan CEQ 1981, Dregne 1986.. See also UN Report Global Shadow.

BLM ignores the impacts of trailing cattle or sheep across these lands.

BLM plans to graze livestock numbers in rugged country with narrow riparian arteries and springs (Big Springs), or where waters are exceedingly scarce so convergence of livestock on waters over large areas may occur.

BLM has never revealed where, and how many, water haul sites, mineral feeding, artificial ha or other feeding sites exist across these allotments – despite BLM acknowledging the issue being raised during Scoping. This is essential to understand the impacts of concentrated livestock use across the allotments, and impacts to sensitive species. Impacts to sensitive species include trampling burrow sites (burrowing owl, also ferruginous hawk known to nest on ground, loggerhead shrike, pygmy rabbit for example). Placement of water in vicinity of raptor or other sensitive species nests causes disturbance and possible abandonment of nesting site. Or placement of water within territory of nesting raptors, migratory birds, pygmy rabbit burrows may greatly deplete vegetation and alter and diminish food availability – both as an immediate effect, but also in the longer term as arid lands vegetation is very slow to recover and unresilient. Plus, if weeds move into the soils disturbed by intense trampling in association with water, salt or mineral placement, changes may be long-term and irreversible.

Plus, given the extraordinarily depleted conditions of many riparian areas and intermittent drainages here. Water hauling in upstream locations that may result in further alteration and stripping of vegetation and compaction of soils in areas currently receiving less use would accelerate runoff into downslope or downstream areas in poor condition – leading to more rapid erosion in those areas.

Critical and Important Big Game Wildlife Habitat Needs are Unaddressed

RMP Maps show spring/summer/fall and crucial winter range habitat for pronghorn antelope, mule deer and other critical or important habitats for big game species. BLM fails to assess how its livestock management schemes may affect habitat components (food, cover and space/freedom from disturbance). BLM also fails to assess the importance of habitats for interstate populations of wildlife that may migrate over large areas.

BLM abjectly fails to assess the impacts of the recent large-scale wildfires on big game habitats (as well as sensitive species habitats), and how this large-scale recent habitat loss may have elevated the need for much more conservative and protective management for remaining unburned sagebrush, bitterbrush and pinyon-juniper wild lands in these allotments. The EIS did not adequately describe impacts to mule deer, antelope, California quail and chukar partridge and their habitats, and habitat for bighorn sheep. Continued heavy utilization and high levels of browse use from the proposed heavy stocking rates, and extended intense livestock use of uplands resulting from pipelines with routes and troughs in unknown areas will reduce forage for antelope and mule deer on the critical winter ranges and in other important habitats. Plus, grazing-related

disturbance is likely to push wild horses into more intensive use of big game habitats not being grazed.

More Grouse Concerns

Sage grouse are to be managed according to the Western States Guidelines which require a 7 inch residual and new growth of herbaceous vegetation for nesting. None of these requirements will be met with the current stocking rate, as if grasses are grazed to 40% or 50 % utilization, grass height necessary for successful nesting will not be present. In addition, the numerous livestock projects will further degrade, fragment or alter important sage grouse habitats.

Fences are known to affect sage grouse use of areas, as sage grouse evolved in, and are adapted to, landscapes without vertical features like fence posts (Braun 1998, Connelly et al. 2004). Fences also provide perches for raptors and nest predators of sage grouse and migratory birds, and cause grouse and other bird mortality from collisions (Braun 1998, Connelly et al. 2000, Connelly et al. 2004). Plus, fences provide elevated perches for brown-headed cowbirds to scan for nests of migratory songbirds to parasitize. Existing enclosure fence projects in the allotment contain small fenced areas, with lands outside enclosures being extremely degraded by grazing and trampling impacts to soils, microbial crusts and vegetation. Thus, if grouse do not use, or only infrequently use, areas inside enclosures, construction of even more fences and spring developments will result in significant and accelerating new loss of critical brood rearing habitat and water sources for sage grouse. Plus, spring projects will de-water associated wet meadows to an unknown and unrevealed extent. Sage grouse avoid use of steep canyons for water, so will not readily use sections of streams in canyons in the Owyhee allotment.

If BLM's Decision is implemented, it is completely unknown how many springs or stream areas in Big Springs, and usable stream areas in Owyhee, will remain undeveloped, how much water will remain in areas inside fences vs. at a distance from fences, or without fences. This is critical to understanding what areas may be avoided by grouse, or cause additional predation or other impacts to sage grouse. See Braun 1998, Freilich 2003, Connelly et al. 2004 for discussion of fencing impacts.

Sage grouse are to be managed according to the Western Association of Fish and Wildlife Agencies Guidelines to manage sage grouse populations and their habitats (Connelly et al. 2000) that recommends perennial herbaceous cover averaging greater than or equal to 18 cm. In height with greater than or equal to 15% cover for perennial grasses and greater than or equal to 10% for forbs, and also a diversity of forbs. The Guidelines recognize that local conditions may vary and suggest that "local biologists and range ecologists develop height and cover requirements that are reasonable and ecologically defensible. Unfortunately, BLM provides no evidence that the "local conditions" here are not the result of livestock grazing, and imposes an extremely high use level that will not allow attainment of necessary habitat components.

Livestock forage utilization at excessive levels will not leave sufficient vegetation cover to meet the needs of upland birds and other wildlife species, as 40 or 50% use of native grasses will not provide 7 inches of residual nesting cover. Grazing at the proposed stocking will continue to suppress wildlife populations, and lead to further losses or extirpation. See USDI BLM Jarbidge Field Office 2003.

Riparian Concerns and Condition of Springs, Seeps and Wet Meadows are Unaddressed.

Appellants Protests provided numerous concerns about deficiencies of BLM's EA and analysis related to scarce high desert riparian areas.

Among Appellants many scoping comments related to springs and seeps:

Springs, Seeps, Wet Meadows, Springbrooks, Streams

BLM must conduct a full inventory and assessment of the location, condition and characteristics of all spring, seep and wet meadow areas, including historically wetted sites. BLM must study the role of historic and ongoing livestock grazing and trampling activity (and other disturbances such as roads, mining, wild horse use, etc.) in altering, degrading or desiccation of these scarce sites. The inextricable link between the health of springs, seeps and wet meadows and watersheds must be addressed.

A full suite of restoration actions for damaged, degraded or diverted riparian areas must be assessed under all alternatives – including an array of passive treatments, such as stubble heights, rest to jump start recovery, or until recovery, then limited, if any grazing.

BLM's own data and photographs provide evidence of the failure of past structural or excavational developments and its failed riparian management actions – especially accompanied by high livestock stocking rates - to protect public land values. Despite the damage it has caused in the past, BLM proposes to develop and irreversibly alter even more fragile springs.

Springs are “hot spots of “hot spots” in arid lands. 75 percent of 505 springs surveyed by Sada in northern Nevada were highly or moderately disturbed (Sada and Herbst 2001). Degradation of springs in the Great Basin is widespread. Their isolation and small size render many spring communities particularly vulnerable to disturbance and loss.

“The continued development of springs for livestock by ranchers and state and federal agencies also poses a threat to the continued existence of spring biota”. These actions typically involve fencing off an area, immediately adjacent to springs, piping most or all of the water off the site to livestock tanks. Although some riparian vegetation may be retained, “the essential flowing character of the spring is lost, and often no exposed water remains on the surface”. Livestock grazing poses a serious threat to spring communities. Livestock trampling reduces substrates to mud, can completely eliminate vegetation, and alters flow characteristics. The magnitude is likely great because of

complete alteration of vegetation and substrate structure.
www.biology.usgs.gov/s+t/SNT/noframe/gb150.html

Sada and Pohlman (2003) provide a series of protocols to be followed to assess spring conditions [sic]. Given the scarcity of springs across these allotments, the extreme damage that has been caused by livestock grazing and other disturbance, often coupled the ill-conceived developments that have occurred, often killing all natural water flows at spring sources, BLM must conduct Level I (locate and provide reconnaissance level characterization of springs, delineate important species distribution and salient aspects of habitat, and unique circumstances/challenges) Level II (qualitatively sample riparian and aquatic communities to determine community structure quantitatively sample salient physiochemical elements to identify aquifer affinities), and Level III Surveys (quantitatively sample to determine aquifer dynamics, sample riparian and aquatic communities and habitats to determine spatial and temporal variation in environmental and biotic characteristics, and to quantitatively determine biotic and abiotic interactions). Identify and characterize all sites. BLM must then follow this with surveys that fully assess the ecological scene, and the effect of management and livestock use and other uses, across a broad area.

These Protocols must include collecting information necessary to assess the extreme importance of springs and the continuum of hydric and mesic vegetation communities in their vicinity to sage grouse, especially in providing essential summer brood rearing habitats (green forbs); to migratory birds (deciduous shrubs and trees); and many other important attributes vital to other native animals. Level III surveys can add this element. Thus, in addition to all the important issues raised for consideration, the importance to sage grouse and other wildlife must be fully considered. We believe this elevates ALL spring areas here (especially since so much damage - including harmful development - has been allowed to occur, and the potential at many sites so greatly reduced) that ALL springs, seeps, wet meadows here are worthy of restoration to whatever potential can be achieved.

We urge BLM to very carefully examine all intermittent and ephemeral drainages, as well. Often, water not only persists in intermittent and perennial drainages in pockets as a result of runoff, but seep, spring and mesic areas may be present, and interspersed along the length of these drainages. Erosion, downcutting and lowered water tables stemming from livestock grazing is often a primary cause of perennial reaches becoming intermittent. BLM must also determine if stock ponds or other livestock facilities have been built/placed/gouged into or on top of spring, seep or meadow areas. Restoration potential must be assessed, and plans must be developed to restore such sites and increase perennial flow under all alternatives.

BLM must conduct studies of all desiccated, dried up, or otherwise altered springs, and develop plans for restoration of riparian area structure (areal extent of wetted area, native vegetation components), and flows. The benefits of restored or more natural springs to native species must be assessed. For example, what are the characteristics of a

riparian community sufficiently restored to support nesting Cooper's hawks in the vicinity?

Aquifer sources: Springs are supported by precipitation that seeps into soil and accumulates in aquifers (through fault zones, rock cracks, or orifices that occur where water creates a passage by dissolving rock) where it is stored. The hydrology of springs is affected by regional and local geology, and how water moves through an aquifer.

Perched aquifers often characterize high elevations, where local aquifer springs may be fed by adjacent mountain range precipitation, and may change annually due to recharge from precipitation in mountain range. They typically have cool water, and may dry out during extended droughts. Regional aquifers support warmer springs fed by several recharge sources that may extend over vast areas. Aquifer flow is complex, and may extend beneath several valleys and topographic divides. Seeps are small springs that support vegetation adapted to drier conditions. Springs may be small, but have larger aquatic habitats, and support larger riparian zones with moist-soil affinity species. Springs are characterized by the morphology of their sources.

Each spring and seep is a unique combination of physical and chemical conditions (Sada and Herbst 2001, Sada and Pohlman 2003). These, coupled with disturbance factors, are dominant influences on riparian and aquatic plant and animal communities. Highly modified springs have less diverse riparian communities, and may include non-natives, and upland-associated species. Plant and animal communities associated with spring-fed wetlands are a function of physical and chemical characteristics of water and soils, proximity to other aquatic habitats, and prehistorical connections with regional drainage systems (Sada and Herbst 2001, citing Hubbs and Miller 1948, van der Kamp 1995, McCabe 1998). Primary abiotic factors that influence biotic qualities of unmodified springs include habitat persistence, geographical and geological settings, and aquifer dynamics Sada and Herbst 2001 (citing Ferrington 1995, van der Kamp 1995). Springs have a more integral connection with ground water than streams (Sada and Herbst 2001).

BLM ignored this. The sum total of the EIS descriptions of springs and seeps can be found at FEIS 3.2.2, 3.3.2, and 3.4.2.

Appellants Protested: BLM must locate and provide reconnaissance level characterization of ALL springs in this and surrounding lands, delineate important species distribution and salient aspects of habitat, and unique circumstances/challenges); qualitatively sample riparian and aquatic communities to determine community structure quantitatively sample salient physiochemical elements to identify aquifer affinities; and quantitatively sample to determine aquifer dynamics, sample riparian and aquatic communities and habitats to determine spatial and temporal variation in environmental and biotic characteristics, and to quantitatively determine biotic and abiotic interactions. After identifying and characterizing all sites. BLM must then follow this with surveys that fully assess the ecological setting, and the effect of management and livestock use and other uses. This must include collecting information necessary to assess the extreme

importance of springs and the continuum of hydric and mesic vegetation communities in their vicinity to sage grouse, especially in providing essential summer brood rearing habitats (green forbs); to migratory birds (deciduous shrubs and trees); and many other important attributes vital to other native animals. In addition to all the important issues raised for consideration, the importance to sage grouse and other wildlife must be fully considered. We believe this elevates ALL spring areas here (especially since so much damage - including harmful development - has been allowed to occur, and the potential at many sites so greatly reduced) that ALL springs, seeps, wet meadows here are worthy of restoration to whatever potential can be achieved.

BLM must also conduct studies of all desiccated, dried up, or otherwise altered springs, and develop plans for restoration of riparian area structure (areal extent of wetted area, native vegetation components), and flows.

BLM ignored Appellants concerns, and issued a Decision that failed to provide any significant new information of an kind to alleviate the vast uncertainty associate with BLM's grazing and development schemes. See also Belsky et al. 1999, for outline and summary of many of the livestock grazing impacts to riparian areas in arid western lands – nearly all ignored by BLM and its single-minded focus on an “herbivory” theory.

Woeful Spring Uncertainty

BLM provides an appallingly deficient analysis of springs and seeps in the EIS, defying a federal court order.

Instead of actually examining current flow rates, current vs. predict/anticipated flow rates following development, management changes, etc. health, aquifer and watershed characteristics, and the full effects of all existing facilities on waters (junk heaps though they may be, or having sucked every drop into a pipeline) across the allotments – BLM simply lists its same old, tired projects and pretends that it can dig into springs with tiny amounts of flow and somehow “develop” waters –without ever assessing the aquifer characteristics, spring layer stratigraphy, flow rates, etc – all of which is necessary to understand if ANY water will be left at spring sources, if the surface expression of a spring may be killed entirely, or if the demands anticipated to be placed on any spring or development can be met – and/or met without inflicting undue degradation.

The Sheep Allotment Complex contains 22 springs and seeps listed by BLM in FEIS Map 2-1, with the majority of the springs located inside the WSA.

When seeking information on these springs and seeps in the SAC in the “Affected Environment” section of the EIS, a reader finds a ONE PARAGRAPH discussion. See FEIS Section 3.2.2.1 at 3-25. BLM generally talks about vegetation, no perennial steams, and “limited flows and narrow zones of dry to wet meadows” (3-25). BLM refers the reader to FEIS Map 2-1.

Nowhere does BLM explain how extraordinarily limited surface water is here, what flow rates or the areal extent of wetted zones or length of springbrooks may be, or the impacts of the various spring developments, digging, etc. that has occurred at some of the springs.

The most detail that the FEIS provides is: "Mud Spring has been fenced and cottonwood reproduction occurs both within and outside the fence". (BLM conveniently fails to mention that the development at Mud Spring has dried up all the surface water outside a pipe).

The Wetlands/Riparian Zone "Environmental Consequences" 3.2.2.2 of the FEIS consists of 2 brief paragraphs. Here, the FEIS glibly describes the springs and seeps of the SAC as "the springs and other water developments are **dependable water sources for wild horses and wildlife ... Wild horses and wildlife inhabit the area on a year-round basis. The springs are primary water sources for these animals, with increased importance in late summer**".

Note: In many instances, the springs on FEIS Map 2-2 the map are **no longer dependable water sources**. BLM's own assessment found Serviceberry Spring "dry", and Mud Spring (where we have been informed in the FEIS there is a fence and trees) as a "seep". WWP's site visits found springs (such as Rock, Chokecherry #2, others) dry or with minimal flows, and only damp soil with no visible surface water outside a pipe and trough at Mud Spring. So just how "dependable" are these water sources? BLM did not systematically collect any field data that would allow it to understand anything whatsoever about the "reliability" of the majority of springs in the SAC!

Then, a reader seeking to understand the specific "Environmental Consequences" of "Alternative 2 – Implement the Multiple Use Decision as Modified" (FEIS at 3.2.2.2.2) is informed a **single paragraph** of all the environmental consequences of the decision on the 21 springs and seeps, as well as playas and Blue Lake. Again, even the less than one hundred words that BLM puts on paper contains inaccuracies. BLM states: "seven spring areas would be protected by construction of exclosures and development of water troughs", yet FEIS Table 2-13 at 2-10 lists 5, not 7 areas where water is to be developed. WWP stresses that is because at least in the case of Rock Spring, there is no longer any water to develop, and surface flows may have been killed in previous development attempts.

This single paragraph refers a reader to a list of "SOPs" in Appendix B. Here BLM

We note that Appendix B references Executive order 11990, where BLM is "use measures of avoidance, mitigation, or preservation with public input before proposing new construction in wetlands". BLM did not attempt "avoiding" grazing here – instead, as in the case of Morris Basin, it purposefully extended sheep grazing into the 3 spring areas of Morris Basin – Tunnel Spring, Rock Spring, BLM's FEIS Map mis-labeled FEIS Map "Sheep Camp Spring" that is really Morris Basin Spring on 1:100,000 Maps.

Under SOPS, BLM claims that disturbed soils will be monitored for weeds. Yet in the FD BLM informs the reader that it **“lacks funding and staff” to monitor weeds at projects** (FD at 9).

Of more pressing concern is that 5 of the 7 projects are accompanied by troughs. This means water will be piped to troughs. Appendix B, SOP “Water Projects” states” vehicular use along the pipeline route would occur with routine maintenance, BLM can disturb an area 30 feet wide along the pipeline corridor as well as around each trough, and otherwise alter vegetation and soils. Nowhere is there an analysis of how this will impact the WSA values and attributes of the SAC, or how this disturbance may affects sensitive species habitats.

Also, the SOPs allow, under “Fence Projects”, ‘minimal’ blading, grading, scaling of the fence line ... with surface disturbance allowed up to a 20-foot corridor. How in the world is this necessary to build a fence? Nowhere is there a discussion of how thus blading, grading and scaling would affect WSAs values, or disturb sensitive species habitats.

BLM’s SOPS claim that the permittee will ensure that troughs are left full to provide water for wildlife – well, there are junk troughs all over these allotments that are not full and are not providing water for wildlife. Plus, there is no way that a permittee can ensure there will be water when BLM has not conducted re-development studies necessary to understand the outcome of development digging into the heart of wild springs.

The SOPs also do not commit to surveying the vegetation that may bladed, graded, or scaled in the 20 foot wide, or the 30 foot wide pipeline corridor or trough area claim that

Sheep Allotment Complex - No Information on ANY Conditions on Over Half the SAC Springs and Seeps/Riparian/Wetland, No Current Condition Information on Others, No Information on Flows, or Changes Over Time

BLM’s old SAC MUD Appendix 4 contains a Table that lists 1999 PFC category for 8 springs (Tunnel Spring, Rock Spring, Spring Gulch, Sidehill Spring, Little Mud Spring (seep), Felt Spring, Serviceberry Spring (dry), Perkins Spring. No information on flows, areal extent, previous developments, etc. is provided. Nor is any information or analysis from any water inventories provided anywhere.

SAC AE at 94 under “Proposed range improvements for Sheep Allotment complex” lists 6 spring developments “exclosures and troughs”: Rock, Sidehill, Morgan Basin, Spring Gulch, Felt Spring, Perkins Spring. BLM provides no PFC assessment for 2 of the springs that it proposes to develop.

However, BLM’s FEIS Map 2-1 lists 22 springs (Mud described as “seep” in the old SAC AE, Dead Cedar, Tunnel, Rosebud, Sheep Camp (Morris Basin), Rock, Erickson, Summit, Chokecherry 1, Chokecherry 2, Sheep Camp, Lion, Morgan Basin, Perkins, Sidehill, Spring Gulch, Felt, Ferguson, Serviceberry 1, Serviceberry 2, Isabel). BLM provides **no information of any kind on at least 10 springs** in the SAC.

BLM also may (or may not) have dropped a development at Rock Spring. The FEIS provides contradictory information. FEIS Map 2-1 indicates an existing trough at Rock Spring, and that BLM plans a “proposed” development.

BLM also depicts an existing development at what it labels Sheep Camp Spring in Morris Basin (#17 on FD Map 2-5). (Sheep Camp Spring is labeled Morris Basin Spring on the BLM 1:100,000 Land Status Map). BLM appears to have mis-labeled this spring in its EIS mapping.

BLM in the FEIS Table 2-13 at 2-10 lists livestock developments planned for: LeppyHills/Rock Springs, UT/NV North/side Hill spring, UT/NV North/Morgan Basin Spring, UT/NV Gulch Spring Gulch Spring, Lead Hills/Felt Spring, Lead Hills Ferguson Spring, Boone Springs/Perkins Spring. FEIS also assigns permittees maintenance of existing spring developments and exclosures.

BLM failed to provide any updated PFC assessments and other necessary studies (see WWP comments) for ANY springs in the SAC. BLM failed to provide ANY PFC assessments on the majority of springs in the allotment, or any other necessary data and analysis requested by commentors.

WWP notes that BLM has been engaged in a long-standing cover-up, perpetuated under the FEIS (3-25) that sheep do not graze the “higher” elevations where springs are – that is simply not the case in all instances, and BLM’s FD now purposefully imposes concentrated use on these areas. The springs and seeps here are not at the highest elevations. During winter, south and west faces of slopes may remain snowfree for long periods, especially in dry winters and sheepherders move animals ABOVE the inversion that may settle in at lower elevations near the Salt Lake. Moreover, the sheep use period extends well into spring, and sheep may access springs and sensitive mountain and canyon habitats – for example, the sheep grazed under the FD’s authorization of **new, extended and shifted** grazing use by sheep in Morris Basin or Morgan Basin.

In glossing over effects of sheep use, BLM’s outrageously limited description of the “Affected Environment”, also only makes mention of sheep browsing use, and no analysis of sheep trampling effects. WWP provided BLM with repeated references to work by Sada et al 2001, Belsky et al. 1999, Lusby 1979 and other scientific literature that describes the impacts of trampling on riparian areas and watersheds. See also UN Report “Long Shadow”.

The only crumb of information that BLM provides on any individual spring is that at Mud Spring there is a fence and trees grow there. BLM never reveals that this spring is nearly completely de-watered at the source by a spring development project, with surface water now killed and only moist soil present. At the BLM development here, the only water above the surface of the earth drips - and we do mean drips – one tiny drip or so every second –into a metal trough. So a pipe now delivers every drop of water into a trough, with no real surface water present either inside or outside the exclosure

(observations of WWP site visit of 11/7/06, see Photos). WWP notes this project certainly appears to be one that BLM developed, or “upgraded” – judging by relatively new age of trough, and can not blame on others.

BLM never provides any evidence or data to show just how “dependable” any of the springs of the allotment are, how there flows have varied or changed over time, or vary seasonally. See Photos.

Instead of providing on-the-ground data, BLM falls back on its standard “solutions”. Dig into it. Pipe it. Put up some fence that the horses will breach almost immediately. Walk away. See Photos.

BLM also falls back on its favorite “stalking horse” – wild horses, as the source of all riparian problems. The wild horses did not “develop” Mud Spring so that all surface flows are diverted into a pipe that drips a very small amount of water into a metal tank. They did not put sheep water tanks at Rock Spring in the past and kill every bit of surface water.

Under FEIS Alt. 2 – seven spring areas would be protected by construction of exclosures and development of water troughs outside the exclosures (FEIS 3-25). This means that BLM will dig into the heart of the spring and transport water in a pipe to some unspecified location. BLM then claims “the spring and riparian vegetation would return to functioning condition”. Nowhere does BLM provide the necessary review of just how wonderfully effective past spring developments and excavation of springs and springbrooks have been here, and how such developments have managed to Kill all surface flows at springs and seeps across the allotments (see Photos, NDOW comments, etc.). Nowhere does BLM reveal flow rates, characteristics of individual springs, or any information sufficient to understand current conditions, changes in flows or conditions over time in the past, or to determine outcomes.

BLM does not provide information on the number of developed (current) vs. undeveloped springs here, the number that would remain undeveloped after the latest projects, or the effects on important sensitive species and wilderness values of developed vs. undeveloped springs.

BLM’s analysis does claim, however, that by reducing horse numbers all will be better. Yet, BLM has not provided site-specific data on current conditions necessary to determine the impacts of horses vs. historic sheep use vs. current sheep use here vs. development/excavation/piping. Nor has it described displacement of horses by sheep and competition with sheep that may be forcing horse concentration on more remote springs. We note that competition with sheep for scarce surface waters here includes use of occasional water in the playa reservoirs.

BLM refers to SOPs in Appendix B. SOPs provide no data on current conditions. There is no guarantee that any if the SOPs would be followed, or the feasibility of following

them in the first place. BLM has not provided data necessary to understand the outcome of its actions.

A BLM SOP is “BLM will obtain all necessary permits” – yet BLM never describes the uncertainty associated with permits for water developments in Nevada, where stockwater permits are under the current Nevada water law and political situation where BLM can NOT hold stockwater “rights”. See Nevada Clearinghouse Letter in Response to comments, also.

BLM provides no mitigation for wild horses in its extremely limited fencing actions.

BLM does not describe the very strong likelihood of increased roading, or improved roading leading to more human disturbances in the future, that may stem from development/disturbance of the springs under its Proposed Action. Which of the springs proposed for “development” currently have roads leading to them, and what is the condition of the road? Which do not? How will roading be altered with development?

BLM’s woefully deficient maps fail to depict the roading, or delineate type of road, across the allotments, and in the vicinity of the many projects. This is alarming, as one of BLM’s SOPs is, under Water Projects and maintenance of the pipeline system”: “No roads would be constructed, but vehicular use along the pipeline route would occur with routine maintenance”. We stress that after digging into the heart of wild land springs in its “development”, BLM intends to pipe the water for each spring development an unknown distance through a pipeline to a trough in an undisclosed location – and then allow routine use.

Plus, just getting heavy equipment into an area may result in general access road upgrades – and increased human pressures on watersheds, soils, sensitive species, native vegetation communities that would be exposed to more vehicular traffic and more weeds, etc.

We stress that many of these springs are located in or near the Bluebell and Goshute WSAs. BLM fails to assess impacts on WSAs of this runaway spring development. Unauthorized extended road intrusions in WSAs are a constant problem for BLM. See 2005 letter of WWP Fite, for example.

Wells Wilderness EIS at 11 describes solitude being impacted by vehicle travel near cherrystems and ways, and that “naturalness and opportunities for solitude” would be lost on areas due to seismic lines. WWP notes that Fite observed seismic crews blocking an access road to the allotment in November 2006. The WSA description in the Wells Wilderness EIS “existing features” lists NO existing spring developments in the Bluebell WSA.

BLM has failed to provide information on the historic significance of the locales in which these springs occur (see Photos), or that BLM still has not learned that in wild horse country, it can not rely on fencing.

BLM never reveals what its management “strategy” is for the springs it does not intend to dig into the heart of – including those as in the WSAs that will suffer increased impacts from newly shifted and concentrated sheep use of Use Areas under the grazing scheme.

BLM does not adequately characterize the wild horse numbers, or present data and information on recent round ups, etc. and what impacts these may have had on conditions at any riparian area across any of the allotments (horse numbers, lentic surveys, etc.).

Until BLM collects and analyzes the necessary baseline information on springs and seeps, it has no basis of any kind for developing alternatives, let alone analyzing any alternative under NEPA.

BLM has abjectly failed to conduct and provide systematic science-based surveys of the characteristics of springs and seeps, and environmental conditions at them so that a science-based, and reality-based analysis could occur. BLM has defied the court’s order.

For the Leppy Hills area that includes Morris Basin, BLM’s FD Map 2-1 shows Tunnel Spring, Rock Spring, mis-labeled Sheep Camp Spring, and Rosebud Spring – all as currently “developed”, with a green symbol. Nowhere does BLM systematically describe what any existing “development” consists of – did someone shovel out a pool, is a trough present, was an area bulldozed in the past? And what were the environmental effects - on surface expression of water, length of springbrook, project maintenance, etc.

In FD Map 2-1 BLM depicts the ONLY undeveloped springs as Isabel Spring, Serviceberry Spring #1, Serviceberry Spring #2, (one of which we know from the SAC is dry), Chokecherry Spring #2 (WWP field visit in 2006 search found no water, just some chokecherries and maples here), and Lion Spring, and Map #10 has a spring symbol but is labeled playa reservoir (was this dug into a spring, or is this another map mis-labeling?). It is essential to understand what the conditions ARE, and how any new BLM development may further alter or destroy these exceedingly scarce resources.

BLM never provides assessment of conditions at “flowing wells”. Besides Perkins Spring, proposed for development by BLM, Boone Springs on Map 2-1 depicts #6 and #8, labeled as “flowing well” – but no information of any kind is provided on type of well – flow rates, perennial of flows, water quality, was this dug into a seep or spring area to begin with, or other characteristics.

Springs Are Sacrificed to Livestock Interests

Digging into the heart of a spring may permanently destroy soil layers where water seeps to the surface, and kill all surface flow. Springs are nearly always cultural sites, and artifacts are disturbed.

Cumulative impacts of new development, alteration and de-watering of even more springs where so many springs have already been permanently and irreparably altered for livestock purposes are never adequately addressed.

Outrageously, BLM claims (FEIS at 3-66) that the cumulative impacts of its proposed use levels and open-ended construction and spring development and pipeline building spree in Big Springs “do not result in significant impacts to the human environment”. BLM never collected and analyzed necessary information and data so that it could make this determination, or understand cumulative effects in any of the EIS allotments.

The wells and the pipeline extensions are even more egregious. Newly gutted and developed springs may be fenced with small exclosures to exclude livestock. The configuration of any fences, the length of distances bulldozers or other heavy equipment will dig into fragile high desert soils laying pipelines, perhaps on steep slopes, to pipe water from “developed” springs to troughs, is never revealed. NLM does reveal, however, that it plans to greatly segment actions here – first de-watering and piping to troughs then foreseeably building and extending pipelines into unknown areas.

The FRH require that BLM manage riparian areas for rangeland health. BLM has BLM not assessed current conditions at lentic (spring) sites across the allotments, and has not collected data necessary to understand the direct, indirect and cumulative impacts of its Decision on springs, spring flows, and sustainability of water resources on public lands.

BLM Ignored Collecting and Assessing Basic Baseline Information on Wildlife Species Occurrence

BLM failed to conduct systematic current inventories to determine where species currently are found, or any study of the current composition and extent of habitat areas with suitable habitat characteristics.

WWP Protested (6/15/06):

We Protest BLM's failure to collect and compile sufficient information on habitats and populations, and public lands resources in these nationally significant wild lands that are home to a world famous raptor migration site, contain parts of the Owyhee sagebrush ecosystem, contain portions of four WSAs, and harbor many other important and unique values including reference communities of native vegetation in lands little-accessed by livestock.

So great is BLM's disdain for obtaining any real understanding of how grazing is affecting and will affect important species and other public land values in the allotments that BLM never really provides site-specific science-based data and analysis of the current status, condition or extent of habitats for important or special status species, few if any details on the affected environment and array of habitat needs (food, cover, space and other needs) of any species, omits description of areas of habitat loss/fragmentation related to important and special status species, and ignores sound evidence of the role of

current livestock grazing or management actions in disturbance of wildlife habitats and populations, and habitat impairment or loss.

We Protest BLM's failure to provide specific information on conditions of many critical raptor, sage grouse and other special status and important species habitat components across the allotments and surrounding lands; and there is no information on local or regional population trends, and how native species in these lands are tied to local, regional or national populations throughout all stages of their cycles. In a separate comment letter, WWP supplied BLM with just one of dozens potential science-based approaches to aid understanding and analysis of wildlife habitat needs and the habitats conditions. Such analysis, fine-tuned for the sagebrush-biome, should have been incorporated by reputable contractors. It is readily available on the Internet, if one bothers to conduct even simple key word searches. BLM, in its FEIS response, scorned WWP' efforts to provide input and a template for modern-day science-based analysis of species and their habitats and habitat needs – and the effects of management actions on this.

We raised these and numerous other concerns related to scientific information inadequacies, methodological concerns, throughout scoping, protests, attendance at meetings, various e-mal correspondences, etc. BLM ignored this – intent only on re-messaging its limited or old data, the provisions of the old FMUDs.

WWP also Protested: *The one thing that BLM claims it has to consider, and where its old, out-dated analysis was deficient, is some special status bird species. Well, BLM has not used **best available science**, current accepted scientific methodology and has not collected necessary baseline data and surveys and conducted analysis necessary to understand or assess impacts any better than it had before being ordered by Federal Court to do so. BLM specifically rejected use of current techniques, including systematic survey techniques, identification [sic] of populations and assessments of habitats and fragmentation factors as well as population status/viability, and regional trend data to study sensitive bird species and their habitats, and the overwhelmingly body of scientific literature related to impacts of livestock and management and grazing schemes on these species needs, and current methodology to assess habitat conditions. BLM has known since NDOW comment letters on the original evaluation processes (circa 2000) that there were serious habitat and grazing management problems/conflicts facing sensitive birds and other wildlife such as wintering or migrating mule deer on these allotments. BLM has steadfastly refused to use best available science and develop stocking rates and management schemes appropriate to protect and enhance - and not cause adverse impacts to - special status and important species. In fact, BLM ignores the sustainability of forage production in current vegetation communities, as well as the physical limitations of the lands of the allotments in making its calculations of carrying capacity based on collection of very limited and spottily collected utilization data at a hand full of greatly scattered points that do not represent the full range of environmental concerns across the allotments, and that were in no way designed to measure habitat characteristics for wildlife species, but were instead set up to track how much grass was eaten by livestock at a point in space not very much impacted by livestock.*

WWP also Protested 6/15/06: *Sage grouse populations may be either migratory or non-migratory (Connelly et al. 2000, Connelly et al. 2004). Understanding the migratory vs. non-migratory nature of the populations is critical to understanding habitat components, the viability of populations that use habitats, and the degree of fragmentation and threats to a population. BLM ignores essential information and descriptions of populations and behavior.*

WWP commented:

With the GIS capabilities available today, BLM can overlay values or threats such as cheatgrass domination of understories, old seedings, understories lacking forbs, areas that have undergone or are threatened by wind or water-caused erosion, relatively intact communities, etc. and produce maps that clearly show important lands, threats, etc. Following the very disappointing statements about lack of mapping information made by BLM at the public meeting, I have followed up with USGS in Boise, spoken to several scientists there, and have learned that a wealth of mapping information can be tapped into for this effort, and have spoken and e-mailed Elko BLM about this. Then, the next step in adding habitat information necessary to understand special status species occurrence, habitats and needs is to gather, assess, map and analyze information from systematic on-the-ground surveys.

WWP (Fite) also contacted Ray Lister by phone, and NDOW (then a Cooperating Agency), and provided agencies with information on available mapping that could greatly aid information and analysis in the EIS effort. We Protest the failure of BLM to provide data that we know it has in its possession - such as the Nevada mapping circa 2003 or 2003 of the presence of cheatgrass in understories – just such mapping was produced for the Squaw Valley administrative hearing. Plus, that would have provided a baseline for new 2005 or 2006 cheatgrass mapping to track trajectories of change across the allotments and surrounding lands.

Unfortunately, BLM ignored input and comments, and failed to alleviate the vast uncertainty surrounding the impacts of grazing and development schemes across these allotments.

Scientific Habitat Assessment and Methodology Ignored

Following review of the shallow and glaringly deficient sensitive species analysis in the DEIS, WWP commented on 1/22/06, and provided BLM with an example of reasonable modern-day habitat analyses:

“ ... any similar effort for Elko lands must be based on specific species habitat requirements and attributes, derived from the scientific literature, scientific expert opinion and consultation with appropriate state and federal wildlife agencies, and also using information from USGS Sagemap and other federal databases. I had specifically spoken about these important sources of information with former EIS Project Manager Lister, after personally contacting USGS biologists and GIS mappers about information that was available to BLM, but BLM ignored this input.

Such Habitat Assessment (Milk River study) by itself is NOT ALONE sufficient to understand species habitat needs, but must be undertaken as one part of any effort made to comply with the Federal District Court Order.

As you can see, such efforts require QUALITY current information on vegetation community attributes, including specific measurable attributes, and their spatial distribution across the landscape. Thus, current site-specific information on canopy shrub cover and structural diversity of canopy cover for various native plant communities, understory composition including cheatgrass dominance, annual weedlands, current ecological condition info such as depletion of larger-sized native grasses or forbs, etc. must be collected, elements of fragmentation such as roads, weedlands, sheep bedding sites, livestock pipelines, etc. must be integrated into a Habitat Assessment.

WWP also provided BLM with references specific to Nevada – describing the location of ferruginous hawk nests in relation to sagebrush and winter fat communities. Of course, Elko BLM could not be bothered to identify where winterfat communities might still remain (and not be killed out by intense grazing and lost to halogeton and other weeds) in the allotments, so it could make some assessment and predictions of important habitats and territory components for the ferruginous hawk, or selectively survey likely habitats for species occurrence and use.

Unfortunately, BLM ignored this and presented vegetation and habitat information devoid of necessary detail to understand impacts to sage grouse, ferruginous hawk, or any other sensitive species.

Numerous Sage Grouse Concerns Are Not Addressed

The allotments include areas occupied by sage grouse populations at the very fringes of occupied ranges – such as Boone Springs in the Sheep Complex or West Big Spring leks south of I-80. Important populations are in danger of suffering significant declines, or blinking out altogether (see WWP 6/15/06 Protest at 5). The population in Boone Springs appears to be extirpated. No information is provided on sage grouse leks or populations that are a shred interstate resource (Owyhee). No information on historic leks and numbers of sage grouse in the Owyhee and Big Springs allotments are provided, or changes in habitats and populations from past decades. Areas of habitat loss, fragmentation and degradation are not identified. Cumulative impacts of large-scale habitat loss and fragmentation from grazing schemes, livestock facilities, fires, shrub die-off and other factors are not assessed.

Basic information necessary to understand the current habitat and species use of an area is not provided. WWP Protest 6/15/06: *Sage grouse populations may be either migratory or non-migratory (Connelly et al. 2000, Connelly et al. 2004). Understanding the migratory vs. non-migratory nature of the populations is critical to understanding habitat components, the viability of populations that use habitats, and the degree of*

fragmentation and threats to a population. BLM ignores essential information and descriptions of populations and behavior.

FEIS Map 3-7 shows some sage grouse lek and habitat information. However, it is unclear whether BLM omits leks to the north, or understand the environmental setting, habitat connectivity vs. fragmentation, and the broader population context.

Map 3-7 does show is the **isolation** of three leks south of Interstate 80. Much of the land in the vicinity of these leks has burned in a recent fire – and the area has dense cheatgrass (see Photos) and has been seeded with an alien shrub not used by sage grouse –forage kochia. BLM never considers the relative isolation of these leks – to the West lies the Goshute Range and Sheep allotment complex, then the Great Salt Lake. To the north is the Freeway, and various communication towers and now BLM seeks to impose fencing hazards across much of the land north of the Freeway, as well. Note: EIS Map 3-6 depicts the Big Springs 2000 fire here. Also note that squinting at Map 3-6 shows only a small amount of big sagebrush and no low sagebrush in this area, yet there is no analysis of the available nesting habitat (such as very limited big sagebrush and its condition including forbs and grasses in undestory), or the effects of grazing schemes on such habitats and the ability to provide for sage grouse habitat requirements.

It is biologically unconscionable for BLM to ignore detailed analysis of impacts to these isolated leks, and failure to act to habitats and populations here.

In fact, the primary the primary focus of BLM in Big Springs allotment is only to further fragment and destroy habitat for sage grouse in the closest leks and important seasonal use areas with a battery of new projects. In lands north of the Freeway, BLM authorizes a slew of “essential” projects (exact number and location of many still unknown). BLM leaves the door open to an unknown amount of new fencing, spring-gutting development and pipelines. See FEIS Map 2-4, sage grouse habitat, and compare to FEIS Big Springs Project Maps. BLM imposes an unknown and unknown series of spring and fencing projects (and subsequent pipelines – inevitably into uplands to destroy habitats) across sage grouse lek, winter, and late summer habitats by constructing a large number of new livestock facilities, including drilling a new well in the heart of the leks in the north. Plus, BLM proposes additional destruction of sagebrush and intensive manipulation of vegetation.

See FD Map 2-3 “proposed range improvements” A, B, C, D, on top of a landscape already littered with defunct projects and junk. In this landscape, weher epast projects have only led to further depletion, BLM seeks to impose existing potentially dozens of new facilities including fences, pipelines, reservoirs, troughs, and wells. Imagine how much fencing would exist here once BLM gets done with “developing” and/or “fencing” all of the foreseeable springs – as well as segments of carving out portions of East Squaw Creek in various fencing schemes. BLM’s decision authorizes construction of an unknown configuration of projects here –including both its required and foreseeable projects. See EIS Map FD Map.

To the south, BLM's map of some special status species records for the SAC shows (Map 3-5) appears to show that no leks lie to the east. BLM fails to provide any analysis whatsoever of whether the grouse in the three isolated leks in East Big Springs, are migratory or resident – if resident – what their numbers are, how viable the population is, trends in the population over time –or any of the basic, nuts and bolts information that is required to understand the changes in sage grouse numbers in that area over time, the danger of extirpation, - and then develop necessary management strategies so that adverse impacts are not occurring to the uplands and riparian habitats.

This same information is ignored for the leks north of the freeway. How many grouse are present at each lek symbol? What historic leks are no longer occupied? What are changes in numbers over time at each lek, and how does that compare to leks in other areas, how have facilities affected lek occupancy, etc.

Instead, BLM fails to provide essential information and analysis, or consider a broad array of actions to maintain, enhance or protect habitats. WWP will be providing subsequent information related to sage grouse.

Poor and Grossly Inadequate Vegetation Mapping Provides no Valid Basis for Assessing Sensitive Species Habitats, Populations, Management and Project Impacts

As previously described, the EIS provides no substantial information of any kind on the environmental setting/affected environment. Unfortunately, mapping with the EIS is also greatly insufficient, with serious omissions, various inaccuracies and inconsistencies, and/or at a scale so general that it is near-meaningless. The FEIS contains 3 “Vegetation Maps” Map 3-8 Owyhee allotment vegetation types”, Map 3-6 Big Springs Allotments Vegetation, and Map 3-4, Sheep Allotment Complex Vegetation map of the allotments, with varying amounts of information, and that fail to provide critical information on the complexity and diversity of vegetation communities across the allotments, as well as critical ecological information such as presence or domination of cheatgrass or other weeds across the allotment at present.

Information on areal extent of vegetation communities and vegetation conditions such as cheatgrass domination in understories or as a near-monoculture is essential in understanding the habitat conditions for all important and special status species. Instead of providing this information, some of it – such as cheatgrass percent or dominance – that is readily available on GIS layers available to BLM, BLM continues living in its paper fantasy land – divorced from realities on the ground, frozen in past decades by showing greatly idealized vegetation communities in a near-meaningless manner – particularly in the case of SAC and Owyhee mapping.

When the Big Springs allotment map is compared with the Owyhee and SAC map, it is glaringly evident that BLM used greatly sub-standard data in generating both the SAC and Owyhee Maps. Plus, as WWP commented – the Big Springs, map, though more detailed, does not provide sufficient information to understand occurrence of many communities, weed invasion or dominance of understories, ecological status or condition,

etc. It also is at a scale and lacks essential information that would allow identification of important sensitive species habitats.

On its SAC Map, BLM does not show any annual grass or weedlands – yet significant areas overrun with/dominated by weeds occur in the Leppy Hills and other areas of the allotments – particularly in the lands that have been grazed intensively by the sheep in recent years, where sheep have killed the winterfat, shadscale and sagebrush from excessive browse and trampling.

WWP provided BLM scientific literature, comments and analyses related to the harmful impacts of cheatgrass dominance not just on fire cycles but also on sensitive species including the raptors, and their prey base. Understanding the composition and health of the vegetation is key to understanding current habitat conditions for these species.

We stress that the lands of the SAC are not just “any old place” – but contain well-recognized greatly significant wild land habitats for nesting birds of prey – as well as an internationally significant raptor migration locale – where resident and migrating raptors seek prey in these vegetation communities.

BLM astonishingly does not even map or depict the Goshute Hawk Watch raptor monitoring site, or provide any information on raptor migration numbers, patterns, species observed, scientific importance – anything at all – related to the unique nature and great significance of this area for migrating raptors and other avian or bat species, as well as residents. BLM omits information on sensitive species related to the site, or HWI surveys, inventories, or other studies.

For example, HWI has been conducting studies on the on the flammulated owl in the Goshute Range. The flammulated owl is a native raptor species known to occur in the Goshute Mountains, yet BLM provides no information of any kind on its EIS Map or in text that identifies even a “sighting” of a flammulated owl here. See SAC Map 3-5.

BLM cares so little about important plant communities like mountain mahogany or pygmy forests (pinyon-juniper), or spruce, that it lumps all of this vegetation into “Forests-woodlands” in its simplistic SAC Vegetation Mapping. BLM cares so little about the outlier/largely isolated sage grouse leks and nesting habitats in the Boone Springs allotment that it does not even bother to separate black sagebrush communities from Wyoming big sagebrush communities (much more likely to be used for nesting as Wyoming big sagebrush is larger and serves to screen nests for aerial predators view as well as some scent screening from ground predation).

WWP Protested (6/15/06): *With the GIS capabilities available today, BLM can overlay values or threats such as cheatgrass domination of understories, old seedings, understories lacking forbs, areas that have undergone or are threatened by wind or water-caused erosion, relatively intact communities, etc. and produce maps that clearly show important lands, threats, etc. Following the very disappointing statements about lack of mapping information made by BLM at the public meeting, I have followed up with*

USGS in Boise, spoken to several scientists there, and have learned that a wealth of mapping information can be tapped into for this effort, and have spoken and e-mailed Elko BLM about this. Then, the next step in adding habitat information necessary to understand special status species occurrence, habitats and needs is to gathered, assessed, map and analyze information from systematic on-the-ground surveys.

WWP (Fite) also contacted Ray Lister by phone, and NDOW (then a Cooperating Agency), and provided agencies with information on available mapping that could greatly aid information and analysis in the EIS effort. BLM refused to provide and analyze data that we know it has in its possession - such as the Nevada mapping circa 20032[sic] or 2003 of the presence of cheatgrass in understories – just such mapping was produced for the Squaw Valley administrative hearing. Plus, that would have provided a baseline for new 2005 or 2006 cheatgrass mapping to track trajectories of change across the allotments and surrounding lands.

WWP Protest (6/17/06): The failure of BLM to identify the levels of cheatgrass or other weed infestation that could compromise the long-term composition of native perennial grass and forbs and shrubs, and thus the ability of the lands of these allotments to sustain wildlife and other uses. Which Key Areas are found in habitats or communities that are compromised at present, and how does this relate to attainment/compliance with land Use Plan Objectives?

We Protest Elko BLM failing to provide any analysis of the structural diversity, compositional diversity, age class diversity, and other critical features of the vegetation communities necessary to understand the assertions of needs for aggressive treatment or other livestock management actions made in the EA. Where is the data, and how were the areas labeled with letters on EA maps identified?

We Protest the failure of BLM to provide any specific information on health of aspen communities in both the East and West Big Springs allotments, and the failure to address the health of these communities in both allotments. Where are these communities located? What areas have recently burned? What livestock impacts have been measured on aspen here in the past? Under what conditions does aspen grow in these allotments? What is the current habitat condition of aspen clones for native wildlife species? The same applies to mountain mahogany and bitterbrush. What is the extent of aspen loss/clone extinction or near-extinction in Big Springs, and what sites are a particularly at risk? How might this affect raptor species?

BLM's old LUP no longer is a current inventory of baseline conditions (see preceding NDOW, WWP Photos, etc.). BLM needed to conduct comprehensive, vegetation, weed and other analysis as part of the EIS process to delineate important habitats and their condition, and to understand impacts. It failed to do so.

BLM FEIS Maps of vegetation, are in fact giant steps backward, and sweep long-known information on cheatgrass dominance of lands under the rug. As WWP pointed out in its 1/22/06 comment letter: SAC FMUD Appendix 2. SAC Fire Management Plan contains 5

management polygons. B3 is one of "areas of annual vegetation". These are shown on Map 1, and constitute significant areas". NDOW's comments on the MUD processes show that BLM needed to consider CURRENT cheatgrass presence or dominance or other weed dominance, in order to properly assess impacts of actions on sensitive species. BLM steadfastly refused to do so, always minimizing concerns about invasive species - and as the fire polygon map shows, and as the readily available cheatgrass and other vegetation mapping that Elko BLM employed throughout the lengthy Squaw Valley Hearing process showed, data is now readily available with GIS technology. In order to conduct a scientifically valid 2006 EIS addressing impacts on conditions of, and impacts to special status species habitats, BLM needed to use this information throughout the EIS process.

Instead, BLM produced a map that only shows extremely generalized "climax"/PNC plant communities that once upon a time may have existed on these lands, and they are shown at a scale where it is impossible to provide any real information on complex interspersions of communities - like where is winterfat still present? Where does winterfat intersperse with junipers and sagebrush and provide very important nesting territory vegetation for the ferruginous hawk? The mapping is so poor and general that it fails to differentiate between many different plant communities - such as between black sagebrush and big sagebrush, winterfat, or pinyon-juniper vs. other conifers!

BLM's FEIS, as at 3-13, then provides less than ONE page of rambling description of vegetation communities, never revealing how many acres of each community, cheatgrass presence in undertories, weed dominance, shrub communities converted to weedlands, shrub communities at risk of conversion to weedlands, etc. - all of that are critical to any reasoned and science-based assessment of species and their habitats.

All of this information is critical to understand, as explained in WWP's comments on the EIS: *What are the lands and the specific vegetation types and communities- including location and acreage - that BLM bases stocking rates on for each use area?*

Irreversible Weed Invasion Impacts and Risk Unassessed

BLM fails to adequately assess areas where irreversible weed invasions have already occurred in the wake of livestock, fire and other disturbance across these vast arid land areas. BLM fails to identify land areas and vegetation communities "at risk" of weed dominance - or crossing the thresholds that BLM often discusses. BLM fails to accurately assess the impacts of its actions that continue and/or increase disturbance - and thus weed invasion likelihood - across the allotments.

Since BLM in the EIS makes such an issue of roading being responsible for weeds (and we note BLM never provides accurate mapping of road so that it could assess the severity of this impact to habitats), it should be even more alarmed - given that roads are driven hundreds - perhaps thousands of times a year in water hauling to hundreds if not thousands of unrevealed locations in order to water the domestic sheep in the SAC,

unknown miles of roading would result from the pipelines and fencing in Owyhee and Big Springs.

Elko BLM has not even reviewed its own record, yet claims WWP has taken comments regarding cheatgrass "out of context". See PC-24-4, previously discussed. Also related to BLM's Response to Comments attempts to cast aside WWP concerns: We note that at present, cheatgrass is present mainly in only small amounts in drier sites on some soils in the higher elevations of the Goshute and Toano Range. At the area referenced, BLM erroneously fails to read (or understand) its own record in this case. However, BLM ignores the fact that cheatgrass is likely to increase with shifted and increased livestock use and soil disturbance in unsuitable mountainous areas under the FD "Use Areas" and stocking.

BLM presents no evidence that it has collected any subsequent range trend, ecological site, or other important information, conducted any systematic weed/ invasive species inventories, and even ignores use of readily available GIS information that could illuminate understanding of current invasive species problems and habitats "at risk" in the important and special status species habitats in these allotments. Response to Comments PC 4-10, states: "There are several undesirable plant species of which cheatgrass poses the greatest threat in some areas" !!! BLM cites Wisdom as "the risk of cheatgrass invasion in the Owyhee allotment is low". Well, BLM under the current grazing and disturbance system has managed to generate abundant cheatgrass growth in zones of disturbance since the Wisdom report was assembled!

We stress that BLM's FEIS finally admits: Cheatgrass is "common" in the understory of some native ranges in the Owyhee allotment (FEIS 3-67). Yet, BLM fails to inform on where these native ranges with cheatgrass understories are located (in relation to facilities, sensitive species nesting, foraging, wintering or other habitats), wild horse use areas, etc.

PC 12-4. BLM's EIS Responses and claims to WWP comment letter of 1/22/2006 are NOT substantiated by scientific references, nor its own information. BLM in Response to Comments claims that cows and sheep do contribute to noxious weed spread ... but to a much lesser extent than by humans along roads and through road maintenance activities". and "a strong correlation between weed occurrence and roads". BLM never grapples with the reality that the same number, or as in the case of Big Springs, INCREASED amounts livestock trampling/hoof disturbance will occur – more animals, more trampling! Plus, BLM never assesses the soil and microbiotic crust disturbance impacts of grazing cattle and calves or sheep with lambs – impacts to soils and also vegetation is greater.

Nor does BLM assess the likelihood that much of the driving on remote roads (and often the main cause of roading on BLM lands in the first place) is livestock management. For example, the hundreds (thousands???) of trips made to haul water into and through the roads of the SAC with each annual grazing bout.

So, even if one accepted BLM's claims that it could conduct an EIS in 2006 and rest on the laurels of nearly decade-old or older data on weeds (the FMUDs, the 1998 weed inventory) this record (NDOW comments, BLM's own studies such as the fire polygons for the SAC, the cheatgrass-dominated Owyhee sites, etc.) show that serious problems existed even then.

BLM's own Field Trip Handout for the SAC in 2005 shows that BLM knows there are severe problems with cheatgrass and weedlands.

BLM Failed to Consider WWP ACEC Submissions, and Accompanying Scientific Information on Importance of Resource Values and Lands that they Included

WWP submitted scientifically defensible ACEC proposals for large areas of the Owyhee, Big Springs, and Sheep allotment complex lands, based on comprehensive work done by The Nature conservancy in Nevada. See Nachlinger et al. 2001, "Great Basin: an ecosystem-based conservation blueprint". Not only did BLM not respond in any way to these proposals, through its analysis, including of important or special status species, the environmental effects – including harms – of inflicting more concentrated livestock use, more projects, stocking rates at levels that are causing current damage, etc. on these lands.

BLM likewise ignored the abundance of ecological science and habitat information presented in the various ACEC proposals, as well as WWP and other comments and Protests, throughout its EIS process and Final Decisions, instead relying on the limited to no information on the importance of unique, less disturbed, less fragmented vegetation communities and habitats, concerns about fragmentation or degradation of important or unique habitats.

Essential Information on Livestock Projects (Both Old and New) Is Lacking

The description of the proposed pipeline projects or spring development de-watering piping does not include the exact location and length (i.e. feet, miles). The impacts cannot be accurately identified, let alone analysis of the full range of environmental effects be undertaken. See also discussion of mapping uncertainties, WSA concerns, etc.

Under the proposed grazing systems, planned water developments will cause livestock concentrations and further denude vegetation in the surrounding areas and create ideal new sites for weed infestation and spread. Even worse they will extend areas of heavier livestock use and disturbance of soils and vegetation into remaining better condition sensitive species habitats – such as brood rearing areas for sage grouse, raptor nesting areas will be disturbed, habitats will be altered and reduced. Critical habitat for small mammals and birds will also be reduced.

BLM does not even reveal the route of pipelines, trough locations, fence paths or layouts associated with the plethora of projects (there are no specified routes for any pipelines or trough locations in Big Springs) only small symbols for springs or general areas marked; only some of the foreseeable pipelines in Owyhee are shown – for example no pipeline

route is shown for the Star Ridge pipeline (FEIS Map 2-5). BLM in BS and Owyhee also depicts straight line fencing in steep, rugged country where fences may be constructed in much different areas than shown on the gross scale of the mapping provided. Surveys necessary to determine the location of cultural sites, rare plant habitats **or sensitive species habitats have not been conducted**, so it is impossible to understand impacts, or alternative routing that might be chosen when and if projects were built. Essential information on aquifer characteristics and demands, flows and changes over time, water rights, costs, etc. have not been provided.

Thus, it is impossible to determine the full array of environmental harm and adverse impacts that will result from project construction and the operation and use of the projects themselves – on top of existing projects and grazing effects. One of the primary environmental harms is extensive new disturbance from construction, maintenance and new concentrations and shifts in livestock use that will provide ideal sites and opportunities for the weeds that have already gained a foothold in the allotment (white top, Scotch thistle, cheatgrass, knapweed, alien mustards), unbeknownst to BLM, and which are ready to explode across the landscape.

Extensive livestock project or management-related roading, or other roads cut across large areas of portions of the allotments, and in some areas are now increasingly the focus of OHV events and use. Vehicles may transport weed seeds along roads, and then livestock act as vectors to disperse weeds across the landscape. Synergistic and cumulative impacts of these uses in invasive species spread have not been assessed. BLM authorizes OHV races/events in both the SAC and Big Springs, but has never assessed impacts – including to disturbance of sensitive species habitats.

BLM does not disclose the cost of proposed projects (many hundreds of thousands of dollars) and who will pay for projects, or who will have ownership of projects. The plan should include some type of reasonable cost-benefit analysis to determine if monies invested would provide adequate benefits to the resources and the public. Yet, BLM in its FD makes sweeping claims about balancing uses of the public lands in choosing its deeply flawed Alternative and MUD actions – without ever providing basic economic information to enable understanding on how much this all will cost taxpayers, or the economic effect on mining company permittees, absentee owners, large ag ranching operations, banks, land or water speculators, etc. that may now hold these grazing permits.

The ownership question is critical, banks, foreign interests, mines or others may hold interests here, and BLM may be sacrificing public resources for the benefit of such interests. Is BLM proposing these projects so that ranchers can get more loans on public lands grazing operations? What loans or liens are already held on these properties or permits of base property owners or lessees here? Who currently holds water rights, and on what waters are they held, in these allotments? What water right applications exist?

With current federal funding limitations, and the change in use of Range Improvement monies, it is highly unlikely that expensive projects such as wells could be completed, adding to uncertainty.

There is no way to assess the direct, indirect and cumulative impacts of these projects, as necessary site-specific and baseline information on effects of existing projects, as well as new projects, have not been conducted.

Extended Harms to Wild Horses in the Lands of the HMAs Not Addressed

Wild horses in the HMAs are already being blamed for everything under the sun. As human populations grow and BLM-authorized OHV races and events promote extensive motorized use - as in lands of HMAs south of Wendover, horses are likely to be increasingly displaced by recreational uses. Now, in the EA, BLM plans facilities and management schemes that compress sheep into "Use Areas" where sheep herds may further displace horses and degrade HMAs. In the Owyhee, BLM plans a plethora of foreseeable projects in the middle of wild horse herd area. Horses will be sandwiched, variously, between increasing recreational uses, harmful new livestock projects including fences on top of harmful old livestock projects including fences, shifted and extended and intensified livestock use in currently less used lands, and stocking of areas of the HMAs with livestock numbers in excess of those found in the past to be sustainable.

In the Owyhee, an endless and unknown location of foreseeable pipelines and other developments are likely to cause further conflicts between horses and cattle, on top of the forage and habitat losses caused by recent fires in the HMA.

BLM's MUDs and EAs establish a permanent forage allocation for wild horses, designated minimum and maximum numbers of horses, and established the wild horse areas. BLM, which has never demonstrated that the management levels and forage allocation for wild horses can maintain a healthy and viable population of wild horses, that they are allowed to roam freely and not be displaced by domestic livestock concentrations, or that adequate forage remains after domestic livestock use (especially with the astonishingly high stocking rates carried forward). Nor has BLM examined WHERE horses are to find extra sustainable perennial forage to replace that lost to increasing weed domination of portions of the HMAs.

For example, in Idaho, BLM in its 1999 RMP recognized "movement of wild horses away from traditional use areas", and that "implementation of livestock grazing systems and the development of supporting rangeland improvements, i.e. fences, water developments, and seedings" has modified the wild horse distribution and free roaming behavior patterns that existed in 1971", and "the expansion of domestic livestock grazing has created competition for forage that did not previously exist". These are important considerations that Elko BLM has failed to consider in relation to existing and proposed actions.

Unfortunately, Elko BLM fails to provide any assessment of such impacts to wild horses in the HMAs of the allotments here.

With project-expanded livestock concentration and depletion of native communities, and livestock-related and other human disturbance, conflicts may now exist and will certainly increase under the development and shifted livestock use schemes and stocking rates of the FD. Particular areas, such as winter ranges or waters, would become even more crucial, while at the same time habitat components in HMAs where livestock use has been most common have been sharply reduced (livestock depletion, drought, shrub die-off, weed domination). On top of this is the new loss of HMA areas (as in Owyhee) from recent fires.

BLM has never analyzed the full range of harmful impacts that this high number and altered, shifted or intensified use by livestock will have on wild horses, and the resources and lands allocated for their sustainable use. As horses are further displaced, forced into more concentrated areas, or depletion proceeds, even greater impacts of horse grazing and trampling disturbance will be exerted on remaining better condition sensitive species habitats, watersheds, etc.

Plus, the battery of new projects, still of unknown specific location and design, will further extend and increase conflicts with livestock, as horses and even more livestock are compressed into smaller Use Areas, with greater numbers of animals being grazed at any particular time. Not only would this conflict with sensitive species needs, the shifts in intensity and timing of horse use of affected lands is not addressed. Right now, as in the Owyhee and SAC, wild horse sign is present across the HMA areas. There is no "new frontier" of unused lands and resources out there for BLM to shift livestock use onto. BLM has not addressed the fact that the forage, space, and other resources here are limited, and its management schemes are not going to somehow change this.

Assuring adequate forage and providing for uninterrupted distribution and movement is important for a healthy and viable herd of wild horses. Regrettably, the EIS and FD fail to do assure this. Fences can result in death of wild horses, if gates are not left open, and horses are cut off from water sources, movement to winter range, or panic and become entangled in fences. Problems with horses and fences will escalate as increased human use pushes horses into smaller areas, and gates are left open, or closed, when they are not supposed to be by the recreational public.

BLM repeatedly claims that rounding up horses will solve problems. However, the ability of BLM to round up horses in a timely manner - if one were to believe BLM's claims - is full of uncertainty and risk - varying with annual budget whims, priorities, etc. Recall that this is the same BLM that in the FD claimed it could not find the time or staff to visit livestock facilities in the allotments to look for weeds. Also, BLM has never considered the harmful impacts on social groups and horse band use of herd areas that such round ups cause.

BLM Has No Required Measurable Standards of Livestock Use

Remarkably, BLM does not even require an upland utilization standard as a term and condition of the grazing permit. Despite the degraded riparian and upland conditions and water quality impairment, BLM does not require that any use standards of any kind be met by the permittees.

Without these Objectives, or use levels being met, and their enforcement, the success of any Decision in meeting legal mandates of making "significant progress" toward attaining the FRH and Standards and Guidelines, and compliance with FLPMA, can not be met.

Measurable standards of use and many other Objectives or provisions claimed by BLM in its EIS, and FD to protect riparian areas, springs and seeps and upland habitats are **not** mandatory Terms and Conditions on the permit. The non-mandatory use levels address aspects of proper range management including upland utilization or browse, and a very localized and limited application of stubble height and browse use in one very small and uncertain area of Big Springs. It is also often confusing and uncertain how any actions will be implemented.

BLM as in FD at 14, FD at 9, and FD at 11 provides very broad use periods, Here BLM also lists any measurable Use Levels as "short term objectives", with no guarantee of enforceability, and no guarantee that **all** AUMs scheduled for use over a prolonged period may not be removed in a much more abbreviated time period by dramatic increases in herd size. Such shifting or compressing of grazing use is of particular concern where large operators livestock roam over many allotments or large land areas – especially Owyhee and SAC, as well as portions of Big Springs.

BLM Regulation: 43 C.F.R. 4130.3-1 through its subpart, 43 C.F.R. 4130.3-1(c), states:

" Permits and leases shall incorporate terms and conditions that ensure conformance with subpart 4180 of this part". BLM does not ensure conformance. BLM fails to comply with this regulatory mandate by not incorporating mandatory grazing permit Terms and Conditions governing levels of livestock use on soils, watersheds, native vegetation, cultural sites, and wildlife habitats, and by not providing clarity on how implementation of decision actions will occur.

BLM's EIS found that some utilization, stubble height, trampling and browse limitations were necessary to ensure conformance with the Fundamentals of Rangeland Health and the Standards and Guidelines For Healthy Rangelands (43 C.F.R. 4180). BLM's Decision violates its own regulations, and further interjects uncertainty to environmental effects here.

Allowing permittees great flexibility under the MUDs and FDs interjects even greater uncertainty. Under the FD, BLM can swamp lands of pastures or Use Areas with compressed use by large numbers of AUMs - as long as the total number of AUMs

allowed is not exceeded. The number of livestock present during any part of the use period is not even, and can fluctuate wildly. On top of this, BLM allows repeated bouts of use or trailing in or across these lands in unknown and unrevealed areas, and there is no analysis of such effects on conditions.

The effects of these activities – stocking large numbers in a compressed period of time - can seriously disrupt sensitive and important species and habitats, or displace species into sub-optimal areas. Livestock rapidly stripping and removing necessary habitat components and thus increasing predation or nest loss or altering prey availability, etc. This has not been considered and assessed. In addition to BLM allowing uncertainty under the FD, BLM also Attaches the Bush industry grazing regulations which have been enjoined by a federal court to the FD, and that allow 14 days MORE leeway on any use period beyond the leeway in timing of use (FD at 1-7), and also interject even more confusion.

BLM Fails to Adequately Address Impacts of Livestock Grazing and Agency Proposals to Cultural Sites

Livestock trampling damage impacts cause soil and vegetation disturbance, soil compaction, and other damage to surfaces protecting cultural sites. BLM shifts and intensifies use, allows stocking at levels of present or significantly higher even in the interim. Projects may not only disturb or destroy sites, livestock use will be extended and intensified in association with projects. Livestock use in mountainous areas of the SAC is extended and concentrated, including during periods when soils are moist and damaged by compaction. Compaction and disturbance impacts, disruption of site stratigraphy, and livestock –exacerbated wind and water erosion all may alter cultural sites. BLM's EIS provides no valid analysis of impacts to cultural sites. BLM failed to properly conduct consultation, and can not properly consult until it conducts necessary site-specific examination of projects - and it has not done so.

Conditions in, and Impacts of BLM Proposals on, Wilderness Study Areas, Including Sensitive Species Habitats and Populations, and Spring Values, Remain a Mystery

BLM is required to manage the lands of the WSAs in these allotments under *the Interim Management Policy for Lands under Wilderness Review*. The objective of the IMP is to “continue resource uses in a manner that maintains the area’s suitability for wilderness” and management must ensure that suitability for preservation as wilderness is not impaired. BLM conducted no analysis – either in the DNA process, or with the actions of FEIS - to ensure that the Wilderness suitability of the 4 WSAs will not be impaired by shifted, altered, compressed, or concentrate livestock use, grazing management scheme and use levels, projects, or any component of the MUDs, including the severed Fire Plan that BLM now attempts to insert back into a lumped FEIS and old FMUD Decisions.

BLM has not shown that the FD continues grazing schemes or facilities in the same manner and degree as those that existed/were present on October 21, 1976. BLM never

presents data and information the current health of the land and habitats in WSAs, the levels of livestock use that occur or will be shifted, altered or increased in WSAs, the intensity or concentration of livestock use and impacts that occur in WSAs or will be shifted, altered or increased. BLM provides no significant information on the impacts of livestock grazing on WSA lands --- including how its actions would affect wild land springs and seeps in WSAs of the Goshute and Toano Ranges.

BLM fails to examine the impacts of its grazing schemes and management on the unique characteristics including important and natural values of the WSAs that may comprise important habitat values. Also, wildlife populations are important special features of the natural, wild, untrammeled landscapes of the WSAs, and the human uses and enjoyment of these areas.

BLM's EIS has failed to collect necessary baseline data, and analyze the impacts of its actions, and particularly the level and degree of adverse impacts to natural values and wildlife populations including sensitive species, as required under NEPA, including specifically in WSAs. BLM has failed to determine the magnitude of the effects (positive and adverse) on WSAs, wildlife habitats and populations, and other important uses of these public lands.

BLM's grazing schemes, management activities and projects under the EIS FD on exceedingly scarce and critical resources and attributes in WSAs are not assessed. For example, how will BLM's actions affect the perennial flows of the exceedingly scarce springs that it was supposed to be conducting an EIS to alleviate uncertainties about? How will concentrating sheep use in compressed periods or new "Use Areas" in the WSAs affect natural values and sensitive species? How will BLM activities contribute to new scarring and motorized use in WSAs, deplete exceedingly scarce waters, destroy cultural sites, accelerate weed infestation and spread? There is no way to understand impacts, because BLM has failed to conduct such analysis.

Sheep Complex Stocking of Morris Basin and Morgan Basin

The stocking of the scenic and historically important Morris Basin area in Leppy Hills in the SAC with domestic sheep (shifted from depleted weedlands at lower elevations) imposes new and heavy competition with wild horses on very scarce water and vegetation resources of the WSA, including wintering mule deer habitat. Lands in a portion of northern Morris Basin area were burned in a fire several years, and have dense cheatgrass in places. Cheatgrass is also present in the understory of unburned big sagebrush and other vegetation communities, including some pinyon-juniper in Morris Basin. The "double whammy" of first the fire, and sheep grazing now being imposed here will result in significant cheatgrass increase/problems that have never been assessed.

The FD authorizes sheep grazing in Morris Basin, with use as a "substitute" for other areas (A or B), on an "annual basis". WWP is alarmed at this action. Many areas of the Leppy Hills allotment at lower to middle elevations have been converted to seas of annual weeds as the result of intense sheep grazing at the stocking rates carried forward

under the FD. These depleted lands were then subject to a prolonged drought closure. Essentially, in dry years there is no longer ANY sustainable "forage" on the lower elevation sheep-depleted weedlands (lands NOT accurately represented on BLM's EIS Veg. Map). BLM has now opened the door, especially in dry years when the weeds don't grow and there is a forage deficiency at lower elevations, to impose sheep into the WSA lands.

BLM essentially sacrifices the Morris Basin lands of the Bluebell WSA to be a dumping ground for sheep. There is significant risk, backed by current ecological science, for irreversible damage to the WSA with this authorization of shifted, increased and intensified sheep grazing use in this limited and fragile WSA area.

It also the dead opposite of any movement towards reintroducing bighorn sheep to the Toano and Goshute Ranges, as domestic sheep harbor all manner of pathogens that sicken and kill bighorn sheep – as well as transmitting various diseases to humans, too.

BLM basically adopts a livestock forage "mining" management strategy - in violation of FLPMA and the TGA. Instead of managing livestock for sustainable use of public lands, it has allowed destruction of lower elevation communities in the Leppy Hills allotment to occur to such an extent that winterfat, sagebrush and other shrubs have died out, and other reliable perennials have been largely eliminated and replaced by weeds. Thus, having depleted the lower elevations so that reliable forage production no longer occurs in series of drought years – BLM now seeks to accommodate the sheep in areas already receiving extensive use by wild horses (see Photos) and that include critical mule deer winter range (see RMP Map 5).

As photos, taken on November 2006 show, there is little herbaceous forage left for sheep – even in one of the wettest years on record – by the time BLM would impose a November –December use. Or, alternatively, BLM in dry years would impose a spring use period during the active growing period or when soils are exceedingly moist (note reference to "too much snow" FD at 13) for the already stressed native vegetation in the Morris Basin area.

BLM's EIS institutes stocking of the Morris Basin WSA area with sheep in an area that had not been grazed, or has been grazed very little for an unknown period of time (perhaps as springs like Rock Springs started to permanently dry up?)

We are alarmed that FD at 1 claims benefits of sheep grazing to suppress fuels, but never assessed any of the negative or harmful impacts – of intensifying use to such an extreme level that fire would not burn – or the irreversible consequences to public lands (soil erosion, complete depletion of any remaining natives, and weed expansion in intensively disturbed areas) in following years. Neither the FD or the EIS provide any analysis of grazing in Morris Basin and impacts to the WSA, or grazing sheep to extreme use levels that would be necessary to provide any annual fire "protection. Plus, such extreme use would result in extensive bare soils and depletion resulting in even greater weed problems in subsequent years.

Even in this very high moisture year (2006), wild horse use of these lands results in areas of bare soils, and NO excess vegetation available for use by domestic sheep. See Photos. This also results in new and intensified use by sheep in the WSA, and imposition of new and concentrated sheep grazing in important wild horse herd area.

Sheep Allotment Complex Springs, Seeps, Playas

The springs and seeps in these arid lands are exceedingly scarce, with very small and limited surface flows – and some that BLM considers “Springs” have completely lost all natural flows. Example: SAC AE Appendix 4, Serviceberry Spring, see Photos. Chokecherry Springs, including Chokecherry #2 on FD Map 2-1. BLM never even bothered to conduct its meager and deficient MUD PFC process on numerous springs in WSAs, and fails to reveal or analyze any new analyses. Springs or seeps inside WSAs that were NOT assessed are Chokecherry #1, Chokecherry #2, Isabel, Lion, Summit, Sheep Camp/Morris Basin, Rosebud. Dead Cedar(???). See BLM 1:100,000 Land Status Map, and FEIS Map 3-1 (presented at a scale where it is exceedingly difficult to determine details).

Springs, seeps, or now-desiccated areas **inside WSAs** where BLM plans to construct facilities include: Side Hill Spring, Morgan Basin Spring, Felt Spring, Rock Spring, Spring Gulch Spring (?)

BLM never provided data and analysis of any existing developments on the springs. If they were “developed” in the past, what was the nature, extent and effects of the development? Did developments dig into springbrook areas and attempt to impound flows? Was water piped to a trough in the past? If so, what was the result? What are base flows? What does any historical information on flows show? What was the historical vs. current extent of wetland or meadow areas (examine soils!), and how has that changed over time? What are the cultural values associated with springs and seeps here?

The EIS did NOTHING to alleviate the environmental uncertainty associated with BLM proposals to dig into and pipe water from wild land springs in or near WSAs.

There is no assurance of any kind that any fencing or “development”/piping an unknown distance to a trough in an unknown location – will not create significant new scarring and result in extended motorized use in the WSA lands.

There is no assurance that changes in grazing use will not unduly concentrate livestock use in WSA lands, result in higher levels of livestock use, result in periods of livestock use, or that may conflict with important and sensitive species habitat needs.

BLM never conducted analysis necessary to weigh the relative values and effects of its proposal here. BLM never balanced the public good or public interest with that of a tiny number of ever-shifting permittees. Nor does it ever weigh the relative scarcity and inherent natural values of undeveloped springs across public lands in the exceedingly arid

mountain ranges of the Goshute, Toano and Pequop, Dolly Varden, Kinsley Ranges or the Owyhee Desert.

No Evidence That Sustainable “Forage” Is Available for Any Particular Stocking Rate Imposed on Any of the Use Areas or in Particular Use Periods

The Big Springs and SAC allotments include the rugged mountains of the Toano and Goshute Ranges and the Wilderness Study Areas here. BLM chops the various Sheep Complex allotments into “Use Areas” – but provides no information of any kind that shows the current vegetation and its ecological condition, the soils, slopes, usable vs. non-usable areas, etc. f any of the use areas -or other information necessary to understand the amount of land area actually able to be grazed, or the vegetation that is grazable at a sustainable level on it.

Large areas of the Toano and Goshute Ranges are rugged, rocky, or densely forested – and are not grazable even by sheep. BLM has never determined which lands are simply NOT grazable by sheep here.

BLM Stocks Lands At or Above AUM Levels Known to cause FRH Violations

FD Table 3 shows that BLM stocks the lands of these allotments with the number of sheep that are nearly the same (17,474 AUMs) as the number of sheep that have been causing depletion, weed invasion, etc. (17, 573 AUMs), and this is also above any longer term average of actual use. BLM fails to analyze any Alternative that would significantly reduce AUMs over all or part of the areas to promote recovery allow restoration of weed lands to occur, etc.

BLM has not revealed that in Big Springs, it is stocking the lands with cattle in numbers well above the level of actual use that contributed to ecological problems, depletion and degradation found in the FRH (see FEIS at 2-18 for numbers of cattle to be grazed). See also Photos.

FD Table 9 shows 12,175 AUMs FMUD carrying capacity, 10,150 AUMs “Initial stocking level” for Alt 2. FEIS Table 2-30 at 2-31 for Alternative 3 shows East Big Springs: 11,149 AUMs, and West Big Springs 4,389 AUMs under Alt. 3 with no “interim” stocking level. FEIS Table 4 somehow claims to “adjust grazing in key sensitive species habitats”, yet stocks grossly above average actual use as well. BLM appears (we are not sure how and it is not explained - to have calculated ‘carrying capacity’ to avoid some use of sensitive species habitats. Uncannily, the carrying capacity displayed in Table 2-31 is identical to the Carrying capacity found in Alt. 2 in the FD --- 12,175 AUMs. It is impossible to understand just how this “accommodation” was to work. Thus in Big Springs, BLM analyzed NO alternatives that would result in any significant reduction in numbers.

Yet, FEIS at 3-44 to 3-45 states that actual use during the period 1987 to 1999 for West Big Springs averaged 2730 AUMs, and for East Big Springs averaged 7770 AUMs. Thus,

BLM's claim of supposed "interim" use based on average actual use is false! This totals **10,500 AUMs** for all of Big Springs. Thus, BLM allows stocking in the "interim" at levels well above this. See FD at 6, Table 2, Big Springs Allotments Comparison of Alternatives), somehow claiming 13,581 AUMs "average actual use", and also "Initial Stocking Rate (Alt. 2-4). BLM misleads the public by claiming reductions under interim use.

Plus in examination of Table 2, we see that BLM purposefully has higher AUMs under Alternative 4, which is completely irrational and likely done to further bias analysis of this alternative.

WSA and other areas of SAC - Grazing Schedule Uncertainty. The FEIS includes Tables 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12 while all the FEIS only contains tables showing the various alternating year or otherwise compressed schedules primarily in *spring* for various SAC "allotments", the FD, however, only includes rotation schedules for three of the SAC allotments. Typically, unfettered use across the "allotments" is allowed throughout late fall and-winter, and livestock in the spring and growing periods are then compressed into one of two or three delineated Use Areas.

The Leppy Hills, Lead Hills, UT/NV North, Lead Hills, White Horse, all contain significant WSA lands to the west, and all receive the additional compressed use in some years. The impacts of this concentration of sheep during sensitive nesting periods for sensitive species, likely higher recreation periods for portions of the WSAs have not been analyzed by BLM.

BLM Map 2-1 shows how the use areas are divided - with dashed lines representing the various areas. A visual comparison/overlay of FD Map 2-1 Use Areas with FEIS Map 3-1 shows that certain Use Areas may have much more wilderness and much less flatter ground than others. Thus, it appears that use will be heaped and compressed in Use Areas - including during sensitive periods for nesting raptors and other sensitive species when they may be highly vulnerable to disturbance from livestock and associated human activity.

Also, close scrutiny of Map 2-1 shows that in some allotments (Lead Hills, White Horse), use is "authorized", i. e. Use Areas extend right up to the crest of the Goshute Range, but and not in Utah/Nevada north. Note: The new Morris Basin Use Area lies almost entirely in Wilderness.

WWP also notes that BLM SAC Map 4 of "approximate key area locations" shows that some of the Use Areas have had NO Key Area data collected at all so that there was no baseline, or, as in the case of Morris Basin, a Key Area was located in Morris Basin which had received very little use. This further demonstrates the arbitrary nature and uncertainty with BLM's stocking of these important wild lands and sensitive species habitats, including in WSAs.

In fact, SAC AE Map 4 "Sheep Complex Approximate Key Area Locations" appears to show that several of the Key Areas are in or very near the Wilderness, which are the lands that BLM elsewhere claims receive little domestic sheep use (including the springs and seeps) due to winter snow, no water hauling, or other reasons, and where horses cause all the damage. Leppy Hills, UT/NV North – the ONLY appears to be in Wilderness, and White Horse, one of 2 Key Areas. So this means BLM has not been tracking the areas that suffer a typical intensity of sheep grazing and trampling use here.

SAC AE Map 5 also shows that the northern Morris Basin Area includes mule deer "winter" range and the entire Wilderness and other mountainous areas of the SAC provide year-long mule deer range. Map 6 shows Year-long pronghorn range across most of the SAC area, including extending into portions of the WSAs.

BLM also never assesses the impacts of repetitive or back and forth livestock trailing, and its impacts here and in other FEIS allotments, if livestock are moved into rugged or confined country.

FEIS Map 3-1 shows topographic differences between Use Areas, and 3-4 shows "forests-woodlands" in most portions of the WSAs/western Use Areas.

What are the likely impacts of concentrated spring use in Morris Basin, or the western use Area of UT/NV north in the vicinity of the eagle "sightings" shown on Map 3-5? The EIS provides no information.

WWP notes that we can only express utter dismay at how BLM could prepare a map of "raptor sightings" for the SAC, and not have a single "sighting" associated with the internationally renowned Hawk Watch International site in the Lead Hills allotment at the crest of the Goshute Range.

Big Springs Riparian/Wetland Spring

As one squints at the mishmash of information on Maps 2-2 and 2-3, it is apparent that the environmental situation and development schemes in the Big Springs allotment are very complicated, and requires much greater delineation, depiction/mapping and analysis than BLM provides.

Paralleling its woefully abbreviated "provide no substantive information whatsoever" in the SAC, BLM takes the process one step further the Big Springs.

In Big Springs, a reader is never even informed of the names or specific locations of all of the springs that BLM plans to foreseeably develop, whether they are already "improved"/developed (in a similar manner to those of the SAC). As impossible as this may seem, there is even less information provided related to Big Springs seeps, springs, springbrooks and streams on FD Map 2-2 and FEIS Maps 2-2, 2-3 and 2-4, or in any text.

As with SAC, BLM's FEIS provides an equally abbreviated and scant assessment of the environment and the limited alternatives.

Nowhere does BLM describe how it has determined what constitutes a spring here, how a spring is separated from a drainage/tributary arm in the multi-fingered tributary network of East Squaw Creek, or West Squaw Creek either.

It is outrageous that BLM does not describe, depict and analyze in much greater detail the multi-branched drainage network of the East Squaw Creek area. See WWP Letter,, Photos.

WWP commented, letter of June 20, 2005, alerting Lm to the complexity of t environmental setting, and our concerns:

We are strongly opposed to the construction of a riparian pasture here – it will only serve to shift livestock use to areas outside the pasture, which are woefully damaged by livestock already. Plus, the area you are proposing is much too small to be a pasture – and make a meaningful difference in the overall watershed health, even if some measure of improvement occurs. We note that the MUD, which BLM claims to be following here, shifts and INCREASES livestock use in the North Pequops. Having spent the better part of 2 days hiking in the Squaw Creek watershed and other areas, plus visiting other portions of the allotment in previous years, and observing and photographing conditions, I firmly believe that this entire watershed should be excluded from livestock grazing, due to: proliferation of exotic species in areas disturbed by livestock; livestock-caused erosion and desiccation of stream, meadow and spring areas that needs to be restored; the need to address the impacts of ditching and alteration of the streamcourse; the importance of the area to sage grouse and other sagebrush-dependent wildlife..

BLM's effort at mapping and depicting "riparian" areas in Big Springs consists of Map 3-6, where only two areas (underneath the "D" for Oasis Fire, and near the "B" on this map) are visible. This provides no information whatsoever on the areal extent of springbrooks, drainage networks, etc. Likewise, the information on Map 3-2 is not discernible by the naked eye, and fails to show areal extent of any specific spring or springbrooks, intermittent vs. perennial portions of drainage networks, etc.

BLM only deigns to show a series of headwater springs (depicting them as if they are severed from connectivity with the drainage network/stream system here.

The drainage network has perennial or near-perennial flows, side spring or meadow areas obviously receiving some extra sub-surface water (i. e. Spring flow!) in many areas in the numerous tributary drainages. See Photos.

BLM ignores weighing the uniqueness of a potentially flowing stream and tributary network system (East Squaw Creek) in the vast arid landscape due west of the Great Salt Lake and restoration possibilities – instead proposing to develop, re-develop, and carve off a whole series of de-watering projects and developments surrounded by patches of

barbed wire – while allowing concentrating livestock use, including hot season use, to continue in all areas outside the band-aid exclosures. BLM has never analyzed the impacts of such actions on further damaging, desiccating and killing surface flows in springbrook areas and stream segments located outside any band-aid exclosure.

Nor has BLM analyzed the new and extended roading from excavation, pipelines to troughs in unknown locations, and all that may be spawned and is so poorly depicted and poorly revealed in Maps of Proposed and foreseeable projects here.

All of this information is critical to understanding the environment and assessing any beneficial - or adverse – outcomes of the actions - including for important and sensitive species.

Plus, BLM provides no guarantee of any kind that the so-called “exclosures” will not be opened to grazing at a later date and all supposed benefits of band-aid fencing obliterated.

BLM also allocates these lands -some portions were in checkerboard - that it recently acquired for grazing use – without ever weighing the relative value of the lands, and their capability or suitability for grazing.

BLM FEIS Map 2-2 shows what are labeled “existing range improvements”. In Pasture “M”, note numerous spring symbols, but it is not revealed how many are “developed” vs. natural un-altered springs. FEIS Map 2-3 of “Proposed” range improvements shows no specific actions and is devoid of spring symbols – substituting 2 instances of the letter “D” instead for “spring exclosures”. Then, on FEIS Map 2-4, BLM switches letters and marks one area with “C” for spring exclosures. BUT – also note that Map 2-4 has the letter ‘G’, indicating “pipelines” in 2 locations in the North Pequop Mountain pasture. We are left with no more information than in the musty old FMUD. All this series of mapping does, and EIS table and text of 2-48 to 2-53 does is to repeat and re-massage the same old lists of projects without ever providing the environmental data necessary to understand the feasibility of the projects, let alone their impacts especially adverse impacts. is to reinforce that BLM plans to woefully segment environmental analysis under NEPA. We already know from EIS text that BLM has not analyzed its “proposed projects in the EIS, and the maps portray that BLM after segmenting out a series of spring “improvements”, then plans to build pipelines in a series of even later “foreseeable” actions. ALL this would be done without collecting BLM collecting and analyzing the necessary current baseline environmental information necessary to understand the direct, indirect and cumulative impacts on these scarce riparian areas and sensitive species habitats in both riparian areas as well as across the uplands where cattle use would be shifted outside “exclosed areas” and later where pipelines would be imposed.

We are alarmed at how BLM simply revels in segmenting necessary analysis and avoiding collection of necessary information as part of this Sensitive Species EIS process. See Response to Comments PC-30-155, for example, where BLM proclaims “the exact location of the projects is determined after the MUD” [WWP notes that there

has been quite a **long time** after the old MUDs]. The projects are laid out on the ground (i. e. flagged) and then the cultural surveys, etc. Are conducted. In the case of a pipeline or fence, if a resource is present, the route is relocated to avoid the impact and a new route is surveyed. Once all the baseline data is available, the NEPA document can be prepared. This is part of what is referenced in the EIS as Standard Operating Procedures. The impacts are identified in the field and avoidance measures taken”.

The failure of BLM to undertake necessary on the ground examinations, i. e. take a “hard look” at conditions, impacts, feasibility, etc. of the projects that it predicates its complicated grazing schemes and assessments on violates NEPA, common sense, and a federal court order. What if, once BLM set foot outside the pick-up and finds that it is in the midst of a major cultural site, all around a spring slated for pipeline de-watering that forms the basis of supposed “better distribution” of cattle, and it can not simply find another route? Does the whole system, fall apart? Or what if BLM finds that Basin big sagebrush pygmy rabbit habitat surrounds the entire area – does BLM then destroy habitat for this important and sensitive species, since the whole grazing scheme already set in stone in the MUD revolves around the well, pipeline, etc. development?

Nowhere does BLM provide any systematic or current information of any kind on the current conditions at each of these ‘developments’, or adequate assessment of any kind of environmental setting or impacts of any “developments” on sensitive species and their habitats and use of these lands. These are essential first steps in understanding the impacts of any of the many additional range projects – both spring ‘developments’ – may as well be called spring killing projects in many places, piping of water, or fencing –as shown on Map 2-3.

We stress that Big Springs EA (AR 107) at 32: regarding springs “the areas assessed as FAR and NF **“were rated as such mostly due to livestock use and water development”**”.

Here is what the FEIS deigns to say about Big Springs in its less than one half page discussion of the “Affected Environment” (FEIS at 3-56): ‘the riparian habitat is limited ... springs in East Big Springs ... and west .., and there are larger springs on private lands and a source water protection area. **“... many of the water sources have been piped, consequently vegetation is minimal to nonexistent”**’.

Then, in FEIS Alternatives analysis, FEIS at 3-57 states, when describing alternatives: **“when all the water is collected and removed, or stored in reservoirs, the riparian value of the spring is virtually eliminated”**. This is precisely why BLM needed to provide detailed analysis of spring characteristics, flows, stratigraphy, aquifer characteristics, etc. – because there are very serious risks of BLM killing or greatly diminishing flows and permanently destroying spring habitats or their potential in the FD planned development sprees! BLM has not shown that it can restore flows at a single spring in the allotments where development has killed surface expression of waters, yet seeks to construct potentially dozens of new projects (exact number unknown).

BLM's flawed EIS then quickly disposes of analysis of environmental consequences in two brief introductory paragraphs, informing us that "the Big Springs allotment is used by cow/calf pairs, dry cows, and yearlings, wild horses and wildlife – and that all of these are present year round".

BLM conveniently omits mention of the fact that there are **no wild horses** in the Big Springs lands north of I-80 or in most of the southern area, either. Thus the areas with by far the largest concentration of publicly owned springs, seeps, and the stream drainage network – are not grazed by horses – but instead solely by very large numbers of domestic cattle. See FEIS Map 3-2, lower right hand (SE) corner Goshute HMA, and the southernmost part of the Pequop Range in the allotment is the Spruce-Pequop HMA.

This "analysis" is followed by less than one half page of text under "Implement the MUD as Modified" (FEIS at 3-57). BLM claims (FEIS at 3-57, referring reader to Table 2-25) that it applies 4 inch stubble height. WWP has observed a resounding failure to meet this over the past several years. Plus, BLM has in the past adamantly denied that it applies to all drainage network/spring areas. WE fear, and under the EIS lac of specificity, it is impossible to tell what would occur - that BLM would only measure this at unknown and unrevealed "Key Areas" – which would very likely be located a significance distance from the new zones of extreme use by fence lines or other areas where topography concentrates cattle use. Also, when one turns to FEIS at 2-21, Table 2-25, there is NO stubble height or other utilization/use standard of any kind displayed. The FEIS misleads the reader.

Just where might any stubble height be applied? FD Table 9 at 19 "East Big Springs Allotment Grazing system" has a footnote – for the North Pequop Mountain Pasture only - and also that it appears to **only** apply to East Squaw Creek. A review of FEIS Map 3-2 shows that BLM has labeled "East Squaw Creek", see purple line in legend and on Map - and this is only in the lower areas of the ESQ drainage, and in no way includes the complex headwater drainage network.

WWP stresses that the lower portion of Squaw Creek is very different from the upper elevations characterized by many springs and seeps in or near the network of tributary drainages. The portion of East Squaw Creek marked by the solid purple line is in broader, open, flatter bottom, includes a small private pasture that become public land with the checkerboard Land Trade and that is in relatively much better condition than the surrounding BLM riparian areas, and that has also received the benefit of irrigation water delivery (from ditches and ditch segments and other digging and past alteration) see WWP letter of June 2005. Thus, this is NOT characteristic of the vast majority of the East Squaw Creek watershed, tributaries and springbrooks (or what remains of them).

By our estimation, 2/3 to 4/5 of the drainage network, and numerous springs and seeps here – are NOT defined and depicted by BLM as East Squaw Creek on Map 3-2. Nowhere has BLM defined what it means by East Squaw Creek. Is it the entire multi-fingered drainage network? Is it one Key Area on one stream? Please see BLM 1:100,000

“Wells” Land Status Map) note: checkerboard pattern does not represent current post-Trade ownership here).

WWP notes BLM mapping shows 10 or more springs in North Pequop (East BS) here – so this may not apply to these areas and any remaining flows in springbrooks outside any band-aid fencing once springs are dug into and water piped outward to a trough a future larger pipeline projects??? This meager stubble height provision, at any rate, extends to no riparian area outside the North Pequop Mountain Pasture. And the bottom line is uncertainty over what areas within of East Squaw Creek, specifically, this might apply to, as well as where within those areas any measurements might occur.

Also, it is clear that FD Table 8 “West Big Springs” provides NO protective stubble height/browse standards for any stream segments or springs and seeps here. BLM has never provided a science-based rationale for why some springs rate protective standards, while others do not, and can be grazed and trampled to bare dirt with impunity on an annual basis. WWP stresses that there is NO standard of livestock use applied to any stream, seep, spring or wet meadow - outside “East Squaw Creek” - across any of the allotments. This is arbitrary, and defies sound science, and compliance with requirements under the FRH that riparian areas achieve PFC, and that actions be taken before the start of the next grazing year to do so.

BLM does not detail in any way what exactly it will do, and where the exact location of any developments, fence lines, or pipelines will be placed, in Map 2-3 of the FD under “D” – spring exclosures. Does BLM plan to re-develop each and every one of the “developed” springs - actually what BLM marks with spring symbol on this map are often just portions of headwater continuous drainage networks, and not discrete, separate springs. BLM does not even deign to study, map and describe these areas at a detail necessary to understand even the real environmental setting/context upon which its spring projects and grazing schemes would be imposed.

Nowhere has BLM assessed the overall effects on the tributary and springbrook network of East Squaw Creek in constructing an elaborate series of band-aid exclosures, piping and de-watering/flow reduction projects. What will the impacts be of constructing a small series of band-aid exclosures while re-digging and destroying already greatly diminished surface flows here? How will this affect the watershed hydrology, and flows in lower Squaw Creek, or in any of the tributaries? What are these flows at present? Zero information on these critical issues is revealed by BLM.

What total area of “protected” riparian systems will result? What total area of unprotected or “sacrifice” zones will result? How will fencing increase habitat loss of fragmentation for sage grouse, or other wildlife, and affect their use of, or movement through, an area? What additional mortality of sage grouse may result from fence collisions, predation, etc.? BLM fails to address concerns raised by WWP about the “ditching” of drainages, springs, springbrooks that has been done in several areas of the East Squaw Creek watershed.

The existing developments on the allotments have resulted in loss of public resources and undue degradation of the public lands here – and BLM has never collected necessary site-specific data to assess the full scale of impacts on soils, water, watersheds, vegetation – and in sum – important and special status species habitats –from the plethora of existing developments and development-related debris and other junk on these lands.

BLM could not even be bothered in the course of the FMUDs or now in after lengthy delays in finalization of a court-ordered EIS, to examine the stock pond dead zones, or the junk and debris strewn across the allotments in association with existing ill-maintained or wantonly neglected projects. This track record – and BLM’s own admission that it doesn’t have the time or people to even monitor weeds or conditions at facilities – should have triggered an alternative to remove facilities – until BLM has a reasonable and manageable number of them out there.

Moreover, the public has no certainty of any kind that serious adverse impacts to important and sensitive species will not occur across the allotments under the increased development scenario, and continued stocking at and above the very same rates that caused the problems in the first place.

BLM has simply defied the Judge’s order to analyze the impacts of its actions on springs and seeps. BLM likewise failed to assess BLM’s claimed “purpose” of the EIS – “to maintain and enhance productivity for all rangeland values, including habitat of the sensitive bird species ...”.

Nowhere does BLM address the many issues and concerns raised by WWP in comments to BLM on the need to analyze restoration of the East Squaw Creek watershed as a functioning watershed with upland and riparian systems repaired.

Instead, BLM proposes continued extremely damaging hot season use, and fencing off some small areas along with even more “development” of already greatly developed - and abject failure developments.

BLM claims in the EIS that the No Action Alternative is the Baseline. Unfortunately, in nearly all instances, BLM used the often decade old or more spotty to virtually non-existent information in the MUD process as the 2006 baseline.

WWP notes that after refusing in the EIS to provide even a scrap of actual data or any new assessment, or other information, and never providing data on how many acres of meadow, springbrook, etc. habitat would remain as “habitat” for any sensitive species that might use any riparian or wetland habitat type (as well as migratory birds, wild horses or big game species), after BLM got done developing springs, building pipelines, and concentrating more grazing use in any unfenced areas, it proceeds in its supposed assessment of impacts on sensitive species to make sweeping assumptions about how certain sensitive species such as the short-eared owl would benefit so much from its actions. BLM repeatedly raves about great improvements for short-eared owl. The main

habitats for SEO are broad, flat, wide open marshy or grassy meadow non-canyon areas – which are VERY rare on BLM lands especially of the SAC and BS.

For example, in the SAC, the primary Short-eared owl habitat would be an area like Blue Lakes, where sheep are not really grazed to any degree, anyway and not the small, isolated areas of lands associated with the various spring projects at all. Basically, BLM blows improvement for some sensitive species all out proportion to the actual habitat usable by that species in the allotments under any possible scenario.

Owyhee Riparian/Wetland

Lastly, in the case of the Owyhee allotment, the FEIS continues in lock-step with BLM's non-information campaign. See FEIS 3.4.2.

The FEIS provides a two paragraph description, where BLM minimizes riparian habitat values of intermittent and ephemeral drainages, and notes that willows grow some places, and there are 2 springs, and that one (Bookkeeper) receives heavy use by horses [no mention of cattle!]. (FEIS 3-71). Then, BLM provides a one paragraph summary of “environmental consequences, informing readers that “the wild horses and wildlife are present throughout the entire year, and livestock for 10 months”. This is followed by 150 words or so that address the environmental consequences of implementing the MUD (Alt. 2) as modified, and equally scant assessments of all other of the limited alternatives.

BLM FEIS Map 2-5 of the Owyhee allotment shows TWO springs in the allotment. Devils Corral in the north is already developed. Bookkeeper Spring in the extreme southeast. Thus, the only undeveloped spring here is proposed for development under the FMUD – foreseeable under the EIS.

Foreseeable Actions and Impacts on Owyhee WSAs

Idaho Wilderness Study Reports Volume 1, presents the following information on conditions and wilderness-worthy attributes of the Little Owyhee River and South Fork Owyhee WSAs. In order to understand the impacts of Elko BLM's decisions, it is necessary to fully explore just how BLM has ignored the visual impacts of ANY visible development in wild land country to render areas unsuitable for wilderness – and in the case of the wide open and sweeping vistas of the plateaus of the Owyhee Uplands – even when developments were miles away –yet visible from within a WSA.

It is essential to understand the setting of the proposed action and the analysis of the Important and Special Features of WSAs – (Naturalness, solitude, primitive and Unconfined Recreation, and special Features (often wildlife- related). See also WWP Owyhee Canyonlands ACEC proposal, submitted during EIS Scoping).

Little Owyhee River WSA “consists of flat to gently rolling sagebrush-, bitterbrush and bunchgrass-covered plateaus”. “Site-specific signs of man’ – “rangeland developments including fences ... and livestock reservoirs’. The WSA's outstanding opportunities for

solitude are attributed to the isolation and seclusion of canyonlands and the vastness of desert plateau lands and distant mountain ranges ... from high points on the plateau, hundreds to thousands of square miles of open spaces can be seen stretching from Steens Mountain in Oregon to Juniper Mountain in Idaho and southward to the Bull Run Mountains of Nevada”.

“The WSAs outstanding opportunities for **solitude** are attributed to the isolated, secluded canyonlands and the vastness of seemingly undisturbed desert plateau lands and distant mountain ranges”. ... from high points on the plateau, hundreds to thousands of square miles of open spaces can be seen stretching from Steens Mountain in Oregon to Juniper Mountain in Idaho southward to the Bull Run Mountains of Nevada”. These vast open spaces instill a sense of separation from civilization”. Primitive and unconfined recreation includes “outstanding” opportunities, scenic natural features, wildlife viewing, botanical studies ... hiking on the plateau provides an opportunity to experience vast open spaces stretching onto the distant horizon.” South Fork WSAs “Special Features: include scenic, scientific, wildlife and cultural values.

Vehicle access is “via some gravel roads but mostly along dirt roads which have received minimal construction and little to no maintenance”.

South Fork Owyhee River WSA: Lands include “flat to hilly sagebrush-, bitterbrush-, and bunchgrass-covered plateau. The WSA report describes impacts of roading, and developments, and BLM’s claims that, since the El Paso Gas Pipeline and accompanying road can be seen from a small portion of the southern part of the WSA, BLM did not “recommend” the area where impacts from outside the WSA were visible inside the WSA as suitable.

IWR Table 4, “Comparative Summary of Impacts” shows that BLM believes that even a distant sight of a development OUTSIDE a if visible from inside a WSA is reason to exclude large areas, especially of plateau uplands, from Wilderness consideration”. Loss of naturalness and primitive recreation on 2,662 acres from utility corridor construction activities”.

As described elsewhere, only the most primitive of roads - an unbladed faint track two parallels the northern boundary of the allotment inside Idaho in the area where the FD shows a foreseeable well would be drilled. Only a very primitive of roads runs from the Idaho border inside the Idaho Tent Creek allotment south into the northern portion of Star Ridge pasture in the area where a well would be drilled. Construction of a well and livestock water sources and pipelines in this part of the world would result in upgraded and NEW roading – in the heart of one of the least-developed areas in the lower 48 states. Plus, shifted, concentrated and intensified livestock use would result in large areas of new disturbance, weed infestations, shifts or displacement of wild horse use in Nevada, Idaho

As the sorry situation at the existing BLM dustbowl and junk piles at the Star Valley Line Camp and Star Valley well shows, “maintenance” is not common part of the routine here, where that area – which is closer to civilization - and the ranch operation headquarters

than the Star Valley location – was not maintained, was turned into a junk heap, and is surrounded by extraordinarily depleted vegetation communities over large areas of surrounding lands.

Upgraded or increased use of roads here, plus new roads stemming from well development and pipeline construction in an unknown area would detract from the wild and primitive nature and extreme solitude of this very remote area, and detract from WSA values.

Other Owyhee Concerns

Star Well, and associated shifted and intensified stocking rates to Idaho 45 Ranch and Tent Creek allotments: Impacts to Idaho lands and allotments. BLM Final Decision Map inaccurately portrays the land management and northern borders of the Elko Owyhee allotment. Idaho BLM Owyhee PRMP Map M 55 “LVST-1 Livestock Grazing Allotments” (Attached) shows the southern boundary of the Idaho BLM-managed Tent Creek (#0661), and 45 (#0629) allotments. The Elko Owyhee allotment extends into Idaho, bordering these two allotments. Elko BLM has failed to assess the impacts of such development on Idaho wild lands, including the inevitable infestation, increase and spread of cheatgrass and other alien weeds in the lands surrounding wells, troughs, pipelines, etc. – and the expanded zone of intense impacts to remnant less-used native Wyoming big sagebrush uplands. Soil types in the area near the Idaho border are VERY susceptible cheatgrass and other weed infestations. See Photos.

Thus, drilling a well and constructing pipelines, and/or associated intensification of livestock use in and disturbance of this area, would greatly expand cheatgrass presence in native understories.

The vicinity of the Fourmile Well and pipeline that BLM proposes are even more vulnerable to cheatgrass – much of the surrounding areas is greatly depleted already, cheatgrass is abundant in remaining native understories (Fite, field observations several years ago). Plus recent fires have burned large areas just to the south, as well as much of the Owyhee allotment across the river from the Four Mile area.

BLM has provided no data to show that sufficient sustainable “forage” production exists to support the stocking rate and forage demand that will be placed on these very dry lands. BLM never reveals how much cows actually rely on eating sagebrush in the more depleted areas here.

BLM has failed to assess the impacts of a well and intensified concentration of livestock (and inevitable ugly cheatgrass, exotic mustard or other weed infestation and spread) on visual qualities of this remote, wild country. Please see WWP ACEC proposals, in which WWP made BLM fully aware of the great importance of the wild land settings of the Owyhee area – and that the ecosystem values were SHARED with Idaho and Oregon.

Wells are inevitably accompanied by roading, upright storage tanks and other features. ANY upright structures in this remote country –where the tallest visual feature is sagebrush – will be visible for distances of many miles.

Construction of new facilities here will result in greatly ‘improved’ roading. Wells need frequent maintenance – (and the track record of any maintenance here is dismal, at best – see photos iof Jnk at line shack. Frequent maintenance requires good roading – no good roading exists here – and the LACK of good roading is critical to protection of the wildlife resources shared in this tri-state area. Nowhere has BLM assessed the impacts of existing roading, the link between roading and livestock facilities, and the impacts of any of its proposed grazing schemes or new or existing facilities on roading in these important wild land areas and wildlife habitats.

BLM Has No Current Ecological Data as Basis for Stocking Rates

BLM knows full well that the stocking rates under the old adjudications – which laid the basis for the stocking rates carried forward as “active grazing preference, aka “permitted use” under the FD at 3 were not based on the reality of grazable and capable lands or current condition of lands. BLM states (FD at 3) “the active grazing preference was derived from the carrying capacity that was calculated in the FMUDs for each allotment”.

This calculation process is deeply flawed – and assumes uniform dispersion of ‘forage’ across all acres of a pasture or other land area that may vary tremendously in condition,”average precip’, accessibility, grazability, etc. BLM multiplies the utilization it has observed by acres in pasture.

BLM’s “carrying capacity” calculations are generally divorced from reality, and calculations fluctuate wildly with varying precipitation, shifted livestock feeding tubs or locations, etc.

BLM has very few Key Areas (locations where use to plug into carrying capacity calculation are taken) over these vast allotments, and the ones that do exist are often unrepresentative of many grazed areas of the allotments. Plus, BLM usually places the very few Key Areas where it takes utilization at levels or measures any “trend” at significant distances from water or water haul sites.

In fact, in these allotments BLM had a very limited and insufficient number of Key Areas to track any trends over vast acreages. Several of the Key Areas in the SAC are in or very near the WSAs – lands that BLM claims receive less use due to “snow”.

The utilization measurement that forms the basis for the carrying capacity figure does not address any improvement of use in the areas that receive excessive/greater than allowable use. If there are significant areas of degradation that exist under the old actual use, then continuing with the same use levels will result in the perpetuation or worsening of damage to those areas, as well as likely expanded depletion.

Also, BLM bases its utilization on "Key Species", which are typically the grasses that are supposed to be present at Potential Natural Community – i. e. the larger-sized bunchgrasses. In depleted and desertified lands, the Key Species – typically larger sized native bunchgrasses - may be exceedingly depleted and sparse – with smaller sized grasses or weeds much more common. Thus, utilization measured on now "rare" larger native bunchgrasses in no way reflects the use that may be occurring to a broad array of more common native species across the landscape, or ecological condition of an area.

BLM has NOT taken into account the continued loss and depletion of available perennial "forage" across the allotments in setting stocking rates and on watersheds and sensitive species habitats. BLM knows that cheatgrass, halogeton, annual mustards and other weeds are greatly increasing in many areas, yet tries to hide this.

BLM did not incorporate new data into the FD in order to develop an "updated" carrying capacity calculation that would reflect the impacts of a prolonged drought, shrub die-off (since in some allotments such as SAC BLM here even allows 50% use on sagebrush!). Where has there been sagebrush or other shrub die-off, so that there are fewer woody shrubs to browse to this very high level, and what will the environmental effects of such use be?

BLM Fails to Provide Information and Guarantee of Recovery of Flows at Developed or De-Watered Springs and Seeps

BLM provides no range of alternative actions related to recovery of developed springs or removal of existing facilities. It does not provide information on flows, characteristics of spring strata, etc. that would enable it to even understand which of the de-watered springs and seeps – both in the SAC including the WSAs, as well as in the East and West Big Springs allotment and the Owyhee allotment - may be recoverable, or how this would be undertaken. To do this would necessitate new digging, likely new fencing, and other actions that would further shift and intensify livestock use in new areas.

The lands of these allotments are exceedingly arid. Water sources are an important basis for grazing domestic livestock across these allotments. The location of existing and proposed livestock water facilities, and/or natural water sources, are critical in understanding impacts to vegetation, soils, important and special status species habitats, recreation, unique attributes of wild lands, cultural sites, and other important feature. This is necessary in setting the basis for an array of alternatives to be analyzed under NEPA, taking a "hard look" at impacts of various alternatives, as well as protecting public wild lands from undue degradation from management activities and livestock.

BLM must explain its actions adequately so that it can be determined that the actions are not arbitrary. In the EIS, BLM never provides a rational basis for the need for any of the new facilities (as WWP shows, the projects in the Owyhee allotment resulted from a permittee "wish list" from a permit holder 3 owners ago - for developments that were accepted unquestioningly and without any analysis by BLM.

Grazing Scheme Impacts to Sensitive Species Habitats, Populations, Watersheds, Perennial Flows, Water Quantity and Quality- Are Unassessed

The stocking rates, hot season use, prolonged use and other elements of the grazing schemes applied by BLM are arbitrary, are based on perpetuating the status quo or increasing use, on the basis of little to no data on: Current ecological conditions on the land, Current production of “forage” on the land, effects of drought or depletion due to overstocking or overuse, deterioration of sustainable production to smaller sized grasses or weeds replacing larger forage producing species (one of the symptoms of desertification), water quantity, water quality. See Photos.

Such impacts on watershed conditions, and water quantity and quality across the allotments, are not addressed based on current science, and despite current science showing serious impacts. Belsky et al. 1999, Sada et al. 2001.

BLM Fails to Provide Adequate Monitoring or Mitigation

Given that BLM has constructed a loose, flexible and ever-changeable grazing scheme replete with footnotes, exceptions, flexibility, Use Areas, it is essential that BLM provide a detailed and planned commitment to regular during-grazing-episode monitoring. This has not occurred. We have also described how the Key Areas are extremely limited, and there are only a very limited number of things BLM even contemplates monitoring. There is no commitment, for example, to monitor water quality during grazing use in any areas outside exclosures in East Squaw Creek or any other spring or seep.

BLM’s pathetic list of SOPS in no way provide adequate mitigation for the tremendous new damage more facilities would inflict on the public lands and waters. In fact, some of the SOPs provide MORE harm – such as allowing pipeline route to be driven as a matter of “routine” maintenance, allowing the clearing of 20 foot wide strips to build a fence, etc.

BLM’s Decision Is Fraught with Uncertainty and Confusion

BLM’s Decision is fraught with uncertain environmental effects, as discussed throughout this Appeal. We have no idea what BLM actually will or will not do on our public lands, or whether the various grazing schemes and management will be carried out. For example, in Big Springs (PC-30-80) BLM admits it has no control over water sources that, for example, are used to dictate the “Use Areas” that form the basis of its convoluted grazing management schemes across large areas of Big Springs. PC 30-80: “Many of the wells and other water sources are located on private land”. Or another example, FEIS Map 2-5 in the Owyhee allotment, BLM plans a Dry Creek pipeline from a “private well”. BLM has provided no information on this well, how it would be able to regulate rancher provision of water, etc.

BLM even attempts to glide away from efforts to provide water at all developed de-watered spring sources, claiming “a strict interpretation [of a Nevada law requiring this be done] might not require BLM provide any water at the source. Also, BLM states “those springs that are in their condition due to development/and or grazing will re-designed and re-developed to the extent practicable”. What is *practicable*? This is what this EIS is supposed to do – Take a hard look at conditions such as aquifer and spring characteristics and flow rates, and tell us what Is or Is Not “practicable”, and tell us specifically how and what an agency will do with our public lands and waters and wildlife habitats, and lay out all direct, indirect and cumulative impacts to the environment – both positive and adverse. What is the condition of *all* springs, how will any BLM actions be carried out and where, and how will this affect important and sensitive species habitat? Is any change feasible? Plus, WWP stresses that BLM relies on its faulty, very limited and old information across the allotments – calling areas “springs” that now are seeps or dried up altogether dry.

BLM refuses to provide basic information on existing facility maintenance and cooperative agreements related to springs and seeps, fences, wells, etc. See PC-30-81 “each project is unique, some projects are maintained by the livestock operator ...”. Well, if each project is “unique” – where is the data and analysis in the EIS that adequately describes the ‘unique’ project and its “unique” effect on resources and sensitive species habitats or scarce surface waters across these allotments and surrounding public lands? This is precisely the information that BLM needs in order to analyze conditions and impacts on sensitive species habitats. Junk and abandoned projects – many of which contributed greatly to loss of riparian or upland habitat components - litter these public lands. Maintenance requirements have long been part of grazing permits or authorizations – and little to nothing has been done, including since issuance of the FMUDs.

BLM hides how out-dated its information is, or what information it is actually relying on. BLM (PC-24-5) states that it issued all 3 evaluations in 2000, and that data was collected within months – while some data may have been collected within months, the great majority of the data was not - Ecological Site Inventories were conducted 15 or more years ago, the last survey for weeds was 1998, PFC assessments were conducted on less than half of the springs and seeps in SAC – in 1999, the EIS Response to Comments makes reference to supposed 2004 surveys – but the EIS never presents and analyzes this information – what good is it if it is not being used to inform the public and decisionmakers on habitat conditions. Plus, BLM at Response to Comments at 25-4 refers to a 1979 and 1984 “district water inventory”, yet BLM never reveals a shred of information or data from this that could inform understanding of changes in flow rates, perennial availability of water, lengths of springbrooks, etc. here – all of which are essential to understand the effects of its grazing and development schemes both past and present. There is no systematic examination of the conditions on Four Mile, Winters, Chimney, Milligan and playa wetland across the Owyhee, etc.

BLM fails to clear up great uncertainty over which existing pit reservoirs in the Owyhee allotment will be allowed to fill naturally or modified, or the condition and impacts of the pit reservoirs, or what projects any action –or natural filling of the pit reservoirs – would

spawn. See PC 30-81: "some of these pit reservoirs have been documented by BLM and others have not ... there are some two-track roads" that lead to the projects while other roads that haven't been used in 50 years are impossible to locate". Has BLM ever heard of an airplane?

This was an important issue laid out by BLM itself in relation to harmful impacts of berms and other impacts of the reservoirs on sage grouse habitats and bird use of these areas as part of the MUD process. PC-30-81 shows that BLM knows little about what is actually on the land – such as the location of pit reservoirs and roads - and never bothered to find out as part of the EIS process.

We have previously discussed the limited, poor, and often completely inadequate mapping that BLM uses to buttress its EIS grazing management and project development schemes. Another blatant example is found in the mapping for the Owyhee allotment. FEIS Map 3-3 is the only information provided on roads in the allotment, and it is woefully deficient – and even fails to show a primary road disturbance artery in the allotment – a large natural gas pipeline. It appears to be based on road information from the old AMP. The FEIS Map does not even show the large very well-bladed road paralleling the gas pipeline, or the gas pipeline itself and the utility corridor slicing diagonally across a northern portion of the Owyhee allotment. WWP notes that we repeatedly commented about the impacts of roads and developments, including to sensitive species like sage grouse, and BLM itself placed overwhelming emphasis on the role of roads rather than livestock in alien species spread.

Plus, BLM does not show the large utility corridors designated in the Wells RMP that slice through portions of Big Springs allotment, and where BLM is aware that a portion of a massive new project – Southwest Intertie Project (SWIP) may be built. This is certainly a foreseeable development, and could have potentially very serious adverse impacts to wildlife populations here, including sensitive bird species. This and other such utility or energy corridors and infrastructure – including of development on private lands must be assessed.

PC 30-81 "BLM is considering gap fencing and "this option will be analyzed in a site specific NEPA document". BLM delays any understanding of feasibility or impacts of projects until the future – PC-30-81: "each action would comply with NEPA prior to construction or implementation".

BLM can not understand the impacts of livestock management schemes, activities and projects on sensitive species until it provides adequate information and assessment of current conditions and developments existing on these lands.

Serious Water Rights Uncertainty: Nevada Clearinghouse Comments. Appendix D, 12/21/05 Zofia Alicja Targosz: "for all alternatives any water used on the described lands should be provided by an established utility or under permit issued by the state engineer's office, and also notes that Owyhee waters are under adjudication". BLM provides no

evidence that it has obtained the necessary permits and clearances, nor that it has conducted well site investigations and other activities.

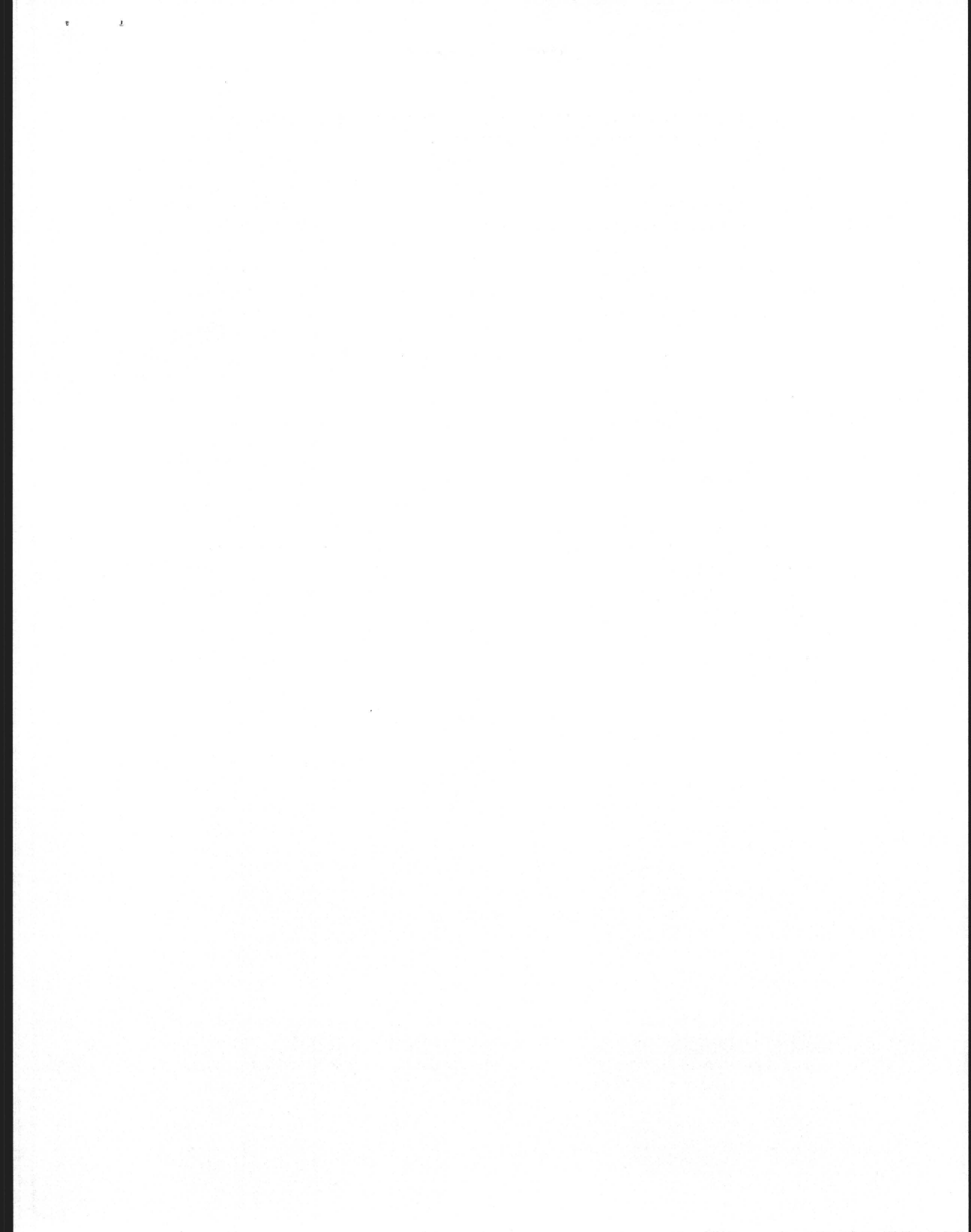
BLM's Response to the NCC Water comments further maximizes uncertainty surrounding Alternative 2, stating: (PC-35-1): "One, **maybe two**, new wells in Alternative 2, although several pipelines or pipeline extensions are proposed". WWP notes that BLM FEIS and FD Maps and lists of projects only depict ONE well – Four Mile as supposedly "essential" for implementation. BLM also lists SAC – one well, Big Springs – 3 new wells in west Big Springs, one new well in East Big Springs. BLM then states: "due to current restrictions on water rights ownership for stockwater by BLM, **these projects may not occur, unless the permittee is willing to fund most of the developments, or management can make an exception in unusual situations**".

Thus, there is no certainty that ANY of the well/pipeline water projects will be constructed. Yet BLM adopts an Alternative based not just on the wells and pipeline extensions as described above, details to be worked out in highly segmented processes down the road, but also on numerous OTHER "foreseeable" developments, such as the Star Valley Well (Owyhee), the unknown Big Springs spring developments, etc. Whenever there is a livestock problem, BLM just proposes a further construction binge – and never analyzes any alternative that would significantly reduce AUMs shown to have caused the serious environmental problems here, or to levels where recovery of areas of depletion could occur. WWP also notes BLM has never provided an explanation for why the permittee needs a well in Leppy Hills – since water can readily be hauled from a town or other source here.

Existing Project Uncertainty. FEIS PC-33-11 provides another example of the great uncertainty surrounding the location, condition and impacts of existing projects. BLM states: "Many of the projects are on private land, land that was private prior to the land exchange, or projects that were built prior to NEPA. **BLM is in the process of evaluating the condition of the projects and determining ...**".

Cultural sites and values impacted by the Decisions remains a mystery. WWP notes it originally pointed out to BLM after site visits to the SAC allotments when BLM had failed to consult with the SHPO Over the DEIS, "some of the projects identified in the scoping process as range improvements were actually historic wild horse traps [SAC – see photos]. These will require consultation with SHPO before they can be removed or altered". Again, there is no certainty that BLM can fulfill its management promises based on the development binge, stocking rates and grazing schemes of Alternative 2. BLM Had not bothered to consult with the SHPO. The EIS never reveals whether any of affected sites are suitable for inclusion in the National Register, or of any significance that would result in no or highly altered projects at all the development sites.

BLM then states: **the alternatives have been modified in the FEIS to include only the range improvements essential to implementation** of the grazing system". Well, BLM never conducted an analysis sufficiently detailed to show why suddenly these projects in 2006 were so much more essential than others. Plus, BLM has not shown that the projects ARE essential, or that many other alternative actions would not work as well –such as



requirement for vigilant herding as a term and condition of the permit, reductions in AUM levels or conservative use levels so that ranchers can better control their livestock or minimize impacts through shorter or altered use periods, etc. Mining companies, large highly subsidized ag interests, or very large operators hold permits or lease grazing here, and there is no reason that BLM can not make real and necessary changes, rather than re-shuffling its old and tired grazing actions that have caused the problems in the first place.

WWP stresses BLM either still does not know what it is doing here, and has not told the public exactly what it will do here, or is purposefully trickling and segmenting projects so as to avoid analysis. BLM must take an integrated look, as IBLA Judge Heffernan found in Squaw Valley where BLM had also issued an umbrella FMUD with a host of projects but had conducted no integrated analysis. BLM has not taken the necessary "hard look" under NEPA.

BLM's FD at 24 states "Implementation" will occur over several years ... installation of the range projects will be dependent on availability of funds ... site-specific NEPA compliance will be documented [note that BLM does not commit to involving the public - just "documenting" as Elko has done repeatedly in the past and cut the public out], and "as locations are determined and following establishment of the need for the project". BLM cannot evaluate environmental effects of these convoluted schemes until it knows where its construction binges would occur! Also, FD at 10 "essential range improvement projects will be constructed as priorities, funding and manpower allow".

Thus, there is no certainty that BLM will ever address or cure the many Fundamentals of Rangeland Health Violations here – both the ones that BLM has acknowledged, as well as those in areas such as the springs, wet meadows, intermittent and perennial drainages networks across Owyhee and Big Springs.

Final Decisions and Grazing Permit Uncertainty

BLM's FD/ROD refers to "the three final decisions", yet the public has not been provided with three final decisions in standard format – BLM letter of May 31 2006 includes 3 run-on "proposed decisions" that fail to include basic information – like the name of the permit holder. The FD and ROD to which this BLM statement is Attached does not include 3 decisions. FD at 1.1 is entitled "Decision". It does not include all that comprises the 3 decisions, as it "modifies" the old MUDs. Nowhere are all the provisions of the old MUDs provided. This is alarming, as explained elsewhere in this appeal, FD BLM specifically bifurcated/abdicated/abandoned/got rid of large portions of the MUDs related to large-scale vegetation manipulation in SAC and Big Springs, through a settlement with BLM. Is BLM now sneaking this back in – without ANY environmental analysis, in the EIS process?

Further, the original old MUD decisions were issued to different permittees/lessees – most of the allotment area is grazed by an ever-shifting array of parties. When last we knew, Chournos a large ag operation receiving significant federal ag subsidies held the SAC permit, Doby George a mining company bought out Western Resource another

mining entity who bought out Agri-beef a corporate entity. Grazing is sub-leased to Ellison. Ownership of permits in Big Springs has never been clearly presented to the public. Who are these permits being issued to? What will each permit say, exactly? What permit transfers, leasing, sub-leasing, etc. has occurred? Where are the three permits? This is also a concern because, as WWP raised in comments, livestock weights have increased significantly over the years, and BLM bases its convoluted calculations on an "AUM" - yet if a new operator has heavier animals, big calves with cows, etc. - forage use and trampling impacts may change significantly.

It is a great dis-service to the public, and will only result in more confusion and litigation for BLM to tweak and insert complicated actions into the already complicated old MUD permits, as it has in FD at 11" this modifies pertinent portions of decision #2 found n pages 5 to 16 ..." of the old MUD. What is or is not "pertinent" here? Nearly all commentors on the EIS never saw, and do not have access to the old MUDs, the EIS failed to provide a full description of all the many complicated actions the old MUDs covered. How can anyone understand how these lands will be managed?

Throughout this process, it is clear that BLM never cared about the public understanding what was going on - at the same time that other agencies were posting documents or otherwise making them available electronically outside the BLM Washington DC Website that was shut down at the time of the DEIS, but Elko failed to do so. See numerous comment letters expressing concern about inability to access EIS. BLM also failed to mail documents (Proposed Decision) to all commentors on scoping or the FEIS. BLM cast aside analysis of dozens of issues raised in scoping (see even what BLM itself acknowledges here - see DEIS). BLM's Response to comments attempts to minimize, snipe at, and dismiss nearly all bothersome public comment and input.

FRH Uncertainty. As discussed elsewhere, BLM's FD does not ensure that lands across the allotments will make significant progress towards meeting the fundamentals of Rangeland Health (see FD at 8).

The EIS contains confusing errors and fails to include the correct information repeatedly referenced in the EIS process. For example, FEIS Appendix C is supposed to include Wells RMP/ROD Objectives for the SAC. Instead, it includes objectives for the Big Springs allotment (referencing Big Springs horses, the elk (found only in BS - at least at the time of the MUDs), as well as short-term objectives for pastures in the Owyhee allotment. The necessary information for the SAC is absent.

While making a big deal about grazing in an "interim" period being below total preference, BLM does not apply this uniformly. Instead, in the case of the SAC, BLM states (FD at 11) "in the West White Horse allotment Where the average actual use was higher than the Post-evaluation Carrying Capacity (active preference) established in the SAC FMUD, the authorized grazing level will be Post-Evaluation Carrying Capacity. Then, in the MUD Table this is footnoted with the incomprehensible 2 use areas will be used one out of 3 years, and numbers 325 and 325 and 465 - leaving a reader utterly

baffled about what is going on in this paperwork exercise. BLM never explains why it allowed these lands to be stocked above Carrying Capacity, nor does it provide a current examination of the impacts of doing so.

The absurdity of BLM's carrying capacity calculations is shown FD Table 4 at 11. Here, BLM relies on the same old, tired now nearly a decade old (at best) 1987-1999 use to determine stocking in 2007!

Uncertainty Surrounds How Any AUMs Will Be "Restored" – or Reduced if Restored and Exceeded. FD at 12 discusses AUMs to be restored when "short-term objectives" are met in one to four years", yet the EIS analyzed actions based on 3 to 4 year cycles. BLM never analyzes impacts of potentially allowing just one "bumper" rainfall production year to trigger full re-instatement of AUMs.

Nor does BLM analyze the likely scenario that is occurring in regards to shifting and imposing Egbert Big Springs livestock use onto the use that is already occurring in the Spruce allotment. Egbert could run 1/3 of the normal cattle numbers in Big Springs, meet standards, and have AUMS re-instated. Permittees can readily influence or alter use at the very limited Key Areas – by hauling water to new sites, by placing feeding tub lures in other sites, etc. Basing an increase on a single point in time use places lands at great risk to further damage and harm.

While BLM claims AUMs may be reduced, there is no clear or standard set of criteria for any of this, and it is uncertain what the Floor is – is it the AUMs that are not suspended? The public has not been allowed to view the grazing permits that accompany the Final Decision. How will AUMs be reduced if use levels are exceeded after AUMs restored? BLM complicates this hopelessly by referring back to its convoluted earlier decision that it never presented to the public throughout this entire process.

BLM FD at 12 predicates increases on use at Key Areas, but never reveals the location of key areas to the public, evaluates their location and "representativeness" or in any other way the validity of using the very few sites. There is no information presented that examines the relationship between the location or vegetation types at key Areas with habitat attributes for important and sensitive species.

In the SAC, there are not even sufficient Key Areas to represent all use areas, use measured by BLM especially in these allotments that are grazed over broad or multiple seasons of the year depends on the timeliness of BLM monitoring, and where BLM shifts and intensifies use, including into mountainous areas with exceedingly scarce water sources (Morris Basin, Morgan Basin), and in ways that may greatly increase competition with wild horses, mule deer, and sensitive species. So basing reinstating large numbers of AUMs largely on how much grass gets eaten in a particular year is fraught with uncertainty.

Plus, current science shows that the use levels being imposed by BLM are too high to meet the health requirements of native grasses and forbs, or the habitat requirements of native species like sage grouse. See Anderson 1991, Gregg 2004, Connelly et al. 2004.

BLM (FD at 12 SAC) continues to live in the long-ago past, saying that use at average actual use levels 'during the evaluation period' – which means 1999 and prior – based on Table 4, resulted in "small portions of allotments being grazed excessively". Nowhere in the EIS process has BLM mapped these "small areas", or shown the CURRENT areas of excessive use. Nowhere has BLM compared the "small" areas to the land areas that area actually grazable/producing forage in these allotments at present.

BLM tries to makes insignificant clarifications seem like Bold new measures that will somehow make conditions on these increasingly weed lands --- better. For example, FD at 14 states that permittees need to move their livestock and it is the permittee's responsibility do so.

BLM makes minor changes- restricting sheep use within on-quarter mile of 2 leks during lekking season in Boone Springs seem like a major concession.

While it is nice that BLM so generously would avoid grazing a few one half mile square (320 acre areas) "historic" lek areas in the immensity of the SAC, this provision does nothing to ensure adequate residual nesting cover remains in areas within several kilometers of leks – especially since BLM allowable se levels are so high and do not provide sufficient residual grass nesting cover here. keep sheep from flushing grouse already nesting (at distances of > one quarter mile from a lek). See Connelly et al.

This shows how very minor BLM's changes and "protections" are for these small outlier leks here. BLM does even commit to keep sheep out of nesting habitat

BLM allows 60% use on "previous year's growth on key herbaceous species" (i. e. on residual growth) in the SAC Boone Springs. This is woefully inadequate.

This is particularly disturbing, as BLM shifts ALL of the sheep use into one half the land area of the allotment in 2 years out of 3 (Use Area B gets all use in 2 years out of 3). Thus, sheep that normally would have grazed across Boone Springs differentially impact one area of Boone springs.

BLM never analyzes impacts of shifting or concentrating ALL use in "Use Areas" that may be alternated – especially during sensitive wintering or nesting periods. Example: Leppy Hills allotment –Alternating use periods from April 1 to April 30.

BLM was ordered by the federal court to clear up vast uncertainty. Instead, it has only muddied the waters further – and in the meantime our public wild lands, waters and wildlife suffer.

This EIS and the closed-minded biased and unscientific decisionmaking here violate NEPA, FLPMA, the TGA, the APA and BLM's own regulations.

Failure to Consult with USFWS

WWP commented that BLM needed to consult with USFWS over the bald eagle and habitat effects. The EIS provides no information.

Alternative Deficiencies Abound

BLM fails to collect and assess necessary information to understand impacts of the alternatives that are analyzed (described throughout Appeal). BLM fails to evaluate a suitable range of alternatives. BLM presents a biased, warped and irrational evaluation of the alternatives it seeks to not select.

BLM Fails to Analyze A Reasonable Range of Alternatives and Discards Viable Alternatives

FD at 3 and FEIS at 2.6 arbitrarily discards Alternatives. BLM arbitrarily cast aside analysis of the No Grazing Alternative, or any avoidance of grazing use anywhere in the allotments (exclosures are potentially grazed), so under the action grazing continues across every square foot of the allotments). BLM refused to examine any alternatives that significantly reduce AUMs below levels actually grazed over a period of time. BLM refused to examine any alternative that put in place measurable conservative standards of use to protect sensitive species habitats.

BLM's Wells RMP "Terrestrial Wildlife Habitat Objective requires BLM "To conserve and/or enhance wildlife habitat to the maximum extent possible". Wells ROD at 19. BLM's own special status/sensitive species policy requires BLM to manage habitats to avoid the need to list species. Under these circumstances, it is very reasonable to examine a range of alternative stocking rates and allowable use levels. Plus, the public provided BLM with a wealth of information on scientific values of the affected lands, and ecological threats posed by livestock grazing. BLM has no valid scientific or other reason for refusal to consider modern-day science-based management.

BLM failed to incorporate, as part of any alternative, a change in type of livestock in the Goshute Range, despite repeated agency and public comment and request.

BLM irrationally discards analysis of a reduced grazing level alternative, by claiming (FEIS 2.6.5, 2-46) "objectives that were not being met were largely due to distribution" - Yet BLM provides no systematic examination of how increasing "distribution" might degrade and destroy important sensitive species habitats. BLM (FEIS 2-47) claims it somehow will "carefully evaluate grazing use on a year by year basis", yet BLM in the FD admits it does not even have the time to look for weeds, and throughout the EIS process, BLM failed to collect or incorporate necessary new data and analysis needed to

understand habitat conditions, spring flows, etc. across the allotments. It is absurd for BLM to claim it will 'carefully evaluate on a year to year basis'.

Lack of Data Necessary to Analyze Alternatives

This Appeal provides abundant discussions of BLM's failure to obtain and analyze necessary data to understand impacts to springs and sensitive species habitats and populations. An example of how the lack of information affects an informed assessment of Alternatives can be found in EIS Alternative 3. BLM claims this to be an Alternative that would "Adjust Grazing in Key Sensitive Species Habitats". Yet, BLM has failed to conduct necessary baseline studies to even identify what special status species habitats occur where in all of the allotments! See Sensitive Species Deficiency discussion. These deficiencies include current and systematic surveys for species occurrence and habitats across the allotments, mapping or systematic assessment of habitat components in with detailed information soils, vegetation communities, native vs. exotic vegetation composition, roading and other disturbance, zones of depletion of necessary habitat components, etc. would enable reasoned determination of important and critical habitat components.

BLM does not even incorporate basic information on burrowing owls "sightings" obtained while mowing vast swaths of lands – often resulting in cheatgrass increase – across the Owyhee allotment. See Photos.

BLM does not even incorporate a single "sighting" or any concrete information whatsoever regarding the scientific information generated by the HWI site. Nor does BLM incorporate recent information from raptor surveys in the Goshute Mountains that find forest dependent species such as flammulated owl present here. The flammulated owl is a native raptor species known to inhabit northern and central Nevada Mountain Ranges, and it is a sensitive species.

BLM wrongly Discarded analysis of a reasonable range of alternatives (see FD at 3) – including restoration, or ANY alternative that would put in place grazing use significantly below the levels of use that occurred in the late-80s- 1990s – the levels that resulted in the current levels of degradation and failures to meet the FRH, LUP objectives, and undue degradation of vast areas across all of these allotments.

Nowhere is the public permitted to see a fleshed out analysis of an EIS alternative that significantly reduces the number of livestock actually grazed in the allotments. Nowhere does BLM take a "hard look" at effects of grazing nearly every acre of land in the allotments at extremely high levels of use, when compared with significant reductions in livestock numbers, avoidance of grazing in critical areas, or conservative levels of use. BLM does not even consider any alternative that is not based on BLM's "Dietz" sunshine pamphlet theory of livestock grazing impacts to vegetation. BLM has conducted a biased and constricted alternatives analysis, in violation of NEPA.

WWP also notes that BLM, in discarding any significant reduction in AUMs, misleads the public, in claiming that its selected alternative somehow will result in BLM making adjustments [AUMs] down. The “down” adjustment discussed in the Decisions would NOT take AUMs below the Interim Level. There is no provision to adjust AUMs below that level.

Alternatives Analysis is Plagued with Bias and Scientific Deficiency

BLM’s narrow and biased range of alternatives is further plagued with an extreme bias by BLM to use current science and assess adverse or harmful impacts of proposed actions and components of management schemes in the narrow range of alternatives.

For example, Owyhee: Alt. Analysis deficiencies in FD. FD at 7 states that Alt. 2 “would decrease the establishment and spread of non-native species”

BLM ignores scientific information that shows just the opposite. The FD would construct many new facilities in the Owyhee allotment – and facilities concentrate livestock use – resulting in new zones of weed infestation and spread – and new roading, or extensive soil disturbance and weed infestation during construction and/or subsequent maintenance. Plus they extend livestock trampling and grazing impacts. For example, the proposed new wells in Four Mile or Star Ridge Pasture would concentrate and shift intensive livestock use into areas of the allotment that currently receive less grazing pressure – with a certain increase in invasive species not only at the well and pipelines site but in the lands subject to increased grazing use. Soils in these areas are highly susceptible to cheatgrass and other invasive species increase in the wake of disturbance. See Photos of cheatgrass explosion in mowed areas of sagebrush uplands in Star Ridge pasture. See photos of bare soils, and weeds, in lands in vicinity of stock ponds in Star Ridge pasture. In failing to fully recognize the adverse effects of increasing disturbance in low elevation arid lands, BLM fails to take a “hard look” at alternatives.

As one more example, FEIS at 3-56 claims that not building spring enclosures would result in more weeds, yet BLM’s spring enclosures here are always accompanied by digging a pipeline to a trough, that becomes anew and extended areas of extreme livestock concentration and weed infestation and spread. BLM simply grasps at straws to irrationally downplay benefits of alternative actions. A logical person would conclude there will be more impacts – as new disturbance creating conditions ideal for weed infestation and spread will be inflicted over an unknown distance, and a new weed infestation zone created under BLM’s uncertain development schemes. **Nowhere** does BLM analyze the benefits of not digging into the heart of a spring and permanently altering soil surface layers resulting in surface expression of natural spring water, or the harmful impacts of flow reductions it would impose to an unspecified number of springs and seeps. See BLM’s single paragraph analysis at FEIS 3-58 of Alternative 4.

Such biased evaluation pervades the EIS. BLM is required to use the best available science in conducting analysis and informed decisionmaking under NEPA and to prevent undue degradation of the very important, rare and unique resources on these public lands.

Sadly, despite being presented with a wealth of information and scientific literature to incorporate its analysis, BLM exhibits the worst of the current administrations' pro-industry, anti-science, public-can-go-away mindset.

BLM Violates the Wells RMP

The Wells RMP requires that BLM shall "conserve or enhance wildlife habitat to the maximum extent possible" (Wells RMP ROD at 19). By BLM's own analysis and admission, Alt. 2 will have adverse impacts to the special status species that BLM designed to look at. And, as WWP stressed in comments on declines and concerns about many important and special status species that inhabit the sagebrush biome, BLM's schemes, use levels, stocking rates are certain to have significant harmful impacts.

BLM here is required to avoid adverse impacts to sensitive species habitats.

BLM does not adopt the one alternative that its own FD states Alt. 4 ... provides a strategy to address concerns about grazing impacts to use of habitat by the sensitive species, including potential for range improvements to spread non-native invasive weeds", instead settling for one in-line with livestock industry desires for industrialization of the landscape with livestock facilities to perpetuate high stocking rates.

Additionally, we stress that the BLM shuns any analysis of its effects of its actions on habitats and populations of many important special status species – including pygmy rabbit, loggerhead shrike and others that BLM completely ignored in its analysis.

BLM collected only the most readily available new information – only undertaking spring lek surveys. BLM failed to map and delineate important habitats and assess their condition for special status species, it can in no way assess the impacts, including the many harmful impacts, of proposed alternative actions on these species.

Nowhere does BLM identify in any concrete way or mapping all of the various habitats and their condition for these species, examine the current stats of the population - in the allotments as well as at a large scale, take into consideration in any way the surrounding public lands, etc.

Likewise, BLM can not assess the impacts of its grazing management schemes – including timing of use – on special status species – if it didn't even consider them in the EIS process.

BLM instead seeks to impose unexplained and undetailed series of developments that would newly pock and fragment habitats across much of the East Squaw Creek watershed and avoids any substantive assessment of any kind. Look at the appalling lack of even adequate mapping of the complex drainage network in East Squaw Creek! A viewer of the map and reader of the EIS has no way of knowing how many miles drainage network exist, their current conditions, nor any possible way of understanding impacts of a band-

aid series of developments or exclosures with all areas outside existing exclosures receiving intensified use.

For example, the construction of a whole series of band-aid exclosures in the East Big Springs area would impose an unknown amount of new fencing and associated spring development and fencing construction disturbance in largely unspecified locations across the drainage and springbrook network.

BLM cares so little about wildlife habitat that, in the case of Big Springs, even though it knows – as it has since the old evaluation, that at least 5 springs (Moor Summit, Beacon, Rocky Point, Pequop, and Pencil Lead) in Big Springs have had every drop of water piped out of them to livestock troughs or reservoirs. FEIS at 3-57 states: “**when all the water is collected and removed, or stored in reservoirs, the riparian value of the spring is virtually eliminated**”. Precisely! That is why BLM needed to collect the necessary detailed site-specific data on springs (developed and undeveloped at present) see WWP comments - so it could determine environmental effects. BLM did not do so. Moreover, BLM does not even, in this woefully uncertain decision, guarantee that it will undertake actions that restores surface flows at any of these project-destroyed springs.

BLM also proposes harmful mazes of new fencing (extent unknown) in Big Springs, including the ridgeline hazard fence to impede migrating mule deer and result in likely winter mortality, and sage grouse impacts year-round. See Photos of abundant sign of sage grouse use here.

Yet, FD at 10 states that “all aspects of the decision are in full compliance with the existing land use plans”.

Unfortunately, widely accepted current science, provided to BLM throughout this process in comments and documents, demonstrates that the BLM actions will cause serious adverse impacts to habitats and species, and will in many instances do the dead opposite of conserving or enhancing terrestrial wildlife habitat. Yet, BLM’s analyses repeatedly claim benefit and do not address adverse impacts.

Just What Is the Decision That BLM Is Issuing???

Elko FD at 16 states “all other decision points not affected by the above remain as outlined in the October 25, 2001 FMUD”.

It is impossible to understand WHAT activities BLM is or is not authorizing under the FD. For example, the 2001 FMUD contained highly controversial provisions for extensive vegetation manipulation and deforestation projects across the SAC lands. Is BLM here backdooring those points into this FD?

BLM never discusses the bifurcated Fire Plan and Fire Decisions in an agreement over those points of the FMUD that it reached with WWP and the Committee for the High Desert, where BLM separated the Fire Plan components from the MUD in the SAC.

It is impossible to understand just what actions BLM will take. BLM claims “all other decision points not affected by the above [a list of 7 or so provisions] remain as outlined in the Oct 25, 2001 FMUD.

Nowhere does BLM list projects being authorized – only verbal description here is “re-assess existing water developments to allow some flow to maintain the spring brook and associated riparian area”. First – there is no longer ANY flow of ANY kind at some springbrooks where projects have destroyed them such as Rock Springs.

BLM’s EIS Fails to Conduct Analysis Necessary to Address “Purpose and Need”

FD at 1 states “the purpose and need of the proposed action is to manage livestock grazing in the subject allotments to maintain and enhance productivity for all rangeland values, including habitat of the sensitive bird species”.

BLM has not shown that it is enhancing or maintaining productivity, as it has not even conducted basic surveys, inventories and studies of conditions, habitats and populations of sensitive species, or collected basic information on flow rates and impairment of springs and seeps across the allotments. BLM has not met its stated purpose and Need for the EIS. BLM purposefully discarded examination of alternatives that could have resulted in significant enhancement. The primary enhancement BLM has undertaken is financial enhancement for the permittees – by promising new projects and keeping AUMs at and above levels of use that have damaged these lands.

Uncertainty and Wild Horse Concerns

FD at 1 states “no changes to the wildlife and wild horse management decisions from each FMUD are made, so these decisions remain in effect”.

BLM fails to reveal and assess the ways in which its new Use Areas, authorizing of grazing in Morris Basin on, essentially an “when it is too dry to graze the weeds that didn’t grow on the sheep-destroyed flats below) changes in season of use, (such as ion the Sheep Complex – on wild horse herds.

WWP Protested (6/17/06) regarding wild horses: *We Protest the lack of necessary analysis related to Big Springs allotment HMAs and wild horse herds found buried in the back of the FEIS. What is the basis for these objectives, and how what is the basis for understanding the nature of the environment, and how “thriving” it is, in the HMAs – especially when examined in light of the livestock grazing actions of the FEIS?*

BLM is also shifting and increasing use in Morgan Basin, after much previous assertion that the areas were not usable by sheep! This, of course, will result in extreme competition with wild horses and wildfire that currently use this area. WWP is appalled at how BLM always tries to deny impacts when WWP observes sign of sheep use, BLM claimed sheep don’t use the area because there is too much snow. Now, under the FD,

BLM allows large-scale shifts and concentration of sheep use in Morgan Basin Use and other mountainous Use Areas.

BLM never responded to, or addressed WWP comments and protests about conflicts with horses – or the impacts of the management actions in its decisions on wild horses and the ecological balance in herd areas across the allotments.

BLM never provides information on wild horse use - especially important or key areas within the allotments for wild horses. Morris Basin contains native sagebrush vegetation, with some mountain shrubs and conifers at higher elevations – and cheatgrass is now already present in many areas in understories – especially lands with any sign of intense disturbance. Plus, significant disturbance from existing horse use already exists in sidehill areas from horses – if the hoofs of over two thousand sheep (450 AUMs) are added to the horse use, bare soil areas and disturbance will only increase – greatly increasing the chance of weed rapid cheatgrass spread into disturbed soils.

Plus, one of the three springs is completely dry already – the one originally slated for development by BLM. Morris Basin Spring, meanwhile – also “developed” – and showing signs of significant loss in flows (small dug pond below) has not been shown to be able to produce flows sufficient to sustain 2000 thirsty sheep for a month.

Nowhere does BLM assess the impacts of ANY authorization of sheep use in an area with such limited resources already greatly stressed –including in the northern part of Morris Basin near Tunnel Spring by a relatively recent fire.

By shifting large numbers of sheep AUMs from the weed flats that they have created onto the slopes of water limited Morris Basin already showing much use by wild horses, BLM will both displace wild horses to suboptimal habitat, and cause significant and unassessed deterioration of habitat conditions for important and special status species – as well as take forage from an area much used by horses.

Fite in repeated visits has observed bands of horses using the Morris Basin area, but no bands on the flats. The flats are exposed to a growing human population in the Wendover area, and horse use -especially if shifted into these depleted lands by the disturbance of 2000 sheep herders, dogs, whatever – may expose horses to human harassment and stress.

In the Owyhee allotment, BLM proposes to drill a series of new wells (and ultimately pipelines) in wild horse herd areas that would greatly shift and intensify cattle use in areas that may currently receive less cattle use, but that still receive horse use. This would serve to further shift and displace horses into new areas.

Plus, BLM has never provided any information that compares the relative condition of the lands where in the vicinity of proposed wells, pipelines and other water developments with the conditions at “average” areas on similar sites in the allotment.

This is necessary to understand the level and degree of degradation that would occur here.

BLM never provides in any one place a list of what it is or is not authorizing under the FMUD – maximizing uncertainty about what management actions and facilities are to occur/be put in place.

Rangeland Health Deficiencies – No Assurance of Compliance

Nevada Standards for Rangeland Health and Guidelines for Livestock Grazing Management have long been approved by the Secretary of the Interior. Subsequently, livestock management practices on public lands must be in conformance with the approved standards and guidelines.

Limited Rangeland Health Standards and Guideline Assessments/Determinations for the allotments were completed in 2000, and the few surveys they included were done even earlier. BLM routinely recognizes that “trend” studies are necessary every 5 years or so. BLM has been implementing many parts of its MUD decisions for several years now, yet the EIS never informs the reader of the effects of this implementation and its relation and frequent failure to attaining any rangeland health goals.

In the EIS, BLM ignored systematically collecting or analyzing new or updated information on the ecological conditions of these lands. There is no information on current compliance with, or significant progress towards attaining the FRH, or any lack of progress and continued downward spiraling of native components of the ecosystem on which sensitive species depend and that are critical to healthy watersheds, watershed processes and riparian including spring and seep areas.

BLM made no effort to examine the effects of its recent management activities on attainment or non-attainment of the FRH, including for sensitive species and their habitats and the health of fragile and exceedingly scarce springs, seeps and riparian areas across the allotment.

The only thing BLM has revealed is that it now is proposing some change in East Squaw Creek that still included grazing very large numbers of cattle and continued hot season use, along with intensified facility concentration of livestock on unfenced portions of the tributary drainage network, and further piping and unassessed flow reductions in springs. WWP notes that our site visits and field observations likely made it impossible for BLM to sweep the continued failures and woeful degradation in Squaw Creek here under the rug. Ecological conditions across many areas of the East Squaw Creek watershed have deteriorated further - yet BLM ignores any assessment or new information on the ecological reality that site visits to these lands readily reveal.

The FD provides no assurance that the highly uncertain agency actions here will ensure attainment of the FRH and significant progress.

FRH assessments were conducted in 2000, and are now woefully out of date. In many areas the environmental setting has changed dramatically since the FRH process was conducted. In the SAC, drought forced closure of allotment areas, and weeds now dominate - or threaten to dominate vast areas of lower and middle elevation salt desert shrub, black sagebrush, or Wyoming big sagebrush communities. In Big Springs, new subdivision of the large areas of checkerboarded land now is underway. In the Owyhee, large-scale wildfires have greatly altered habitat conditions and components across portions of the allotment and its surroundings – vast areas of lands immediately to the south and west. See Maps of Amazon, Wilson fires, last year's Esmeralda fire. This has altered the health and condition of the land in the allotment, as well as habitats for important and sensitive species and their populations including significant fragmentation and loss for many sagebrush-dependent species.

So not only is there a direct LOSS of habitat in the allotment – that will decades to recover if recoverable at all – as in the sagebrush mule deer winter ranges that have burned, or the sage grouse leks, nesting and wintering habitat areas that have burned, and where cheatgrass, especially under continued livestock trampling and grazing disturbance threatens to dominate, and where the outcome of any BLM post-fire rehab is uncertain at best. Rehab success is particularly uncertain at lower elevations that characterize much of the burned area.

Lands where sagebrush or salt desert shrubs have died off since FRH assessments of 2000 - that BLM may have claimed were meeting the Fundamentals of Rangeland Health in the old MUDs may no longer be meeting the FRH for important or special status species.

BLM claims “that allotments were assessed for compliance with applicable Standards for Rangeland”. Where is this data? Where are these assessments? An FRH assessment involves collection and analysis of a broad range of CURRENT scientific information on conditions across these lands. What in the world is BLM talking about here? Is it talking about the old, limited information associated with the old FMUDs and re-messaging that - without a systematic and thorough on-the-ground look at current on-the-ground conditions? Or did BLM conduct a closed door assessment process? If so, it provided the public no opportunity to review, comment on, or otherwise examine the validity of any possible NEW FRH assessments.

Further, when WWP provided BLM with many pages of information from the MUD processes themselves, BLM spurned it, claiming that data and information was NOT relevant to this EIS. Thus, BLM can not use its old information for claims of FRH assessments and compliance in this EIS.

BLM steadfastly refused to systematically assemble and analyze information needed to determine environmental effects to sensitive species habitats, populations and watersheds. BLM repeatedly refers to and massages and re-massages its limited old data. Yet, when WWP provides a detailed summary of the BLM's old data that is counter to the livestock industry spin BLM is choked by, BLM suddenly claims that its very own

information in the FMUD process has no relevancy or validity. BLM outrageously states that WWP can not use or cite this information in Response to WWP Comment letter of 1/22/06, RC at 24-3, because: “ The references to the EAs regarding non-native, invasive species are not relevant to the DEIS, as the DEIS examined the impacts of the alternatives on the establishment and spread ...”.

Even if one were to accept BLM’s outrageous claim that suddenly its very own info is not relevant, accurate past and **current** understanding of weeds and invasive species presence is necessary to inform development and evaluation of ANY alternative course of action and understand the condition of habitats for sensitive species. BLM simply wants to live in its own blindered livestock-industry-centered world, ignoring current biological and ecological science, and its own data that may run counter to BLM’s livestock industry industry bias.

BLM’s Decision Framework Allows FRH Violations to Continue Indefinitely

BLM endlessly claims that a slew of projects is essential, yet in its FD “essential range improvement projects will be constructed as funding and manpower allow”. Not only does this provide NO certainty that there will be compliance with the FRH, there is no certainty, even if one were to believe that BLM’s re-massage of its old, limited and deficient information and stacks of paper was adequate – that action will be taken.

This uncertainty is amplified by BLM’s admission that it does not even have the capacity to monitor for weeds! See FD at 8-9 (discussed below).

Mitigation and Monitoring Is Woefully Deficient

BLM has been supposed to be monitoring these lands all along. Its claims (FD at 8) that SOPs, terms and conditions (which have largely been present all along and that are woefully limited and inadequate), its usual oversight will somehow result in necessary changes occurring. This same eagle-eyed “monitoring” failed to prevent sheep from completely eliminating nearly all native species over vast areas of the SAC, and failed to detect the heaps of junk and scores of dilapidated unmaintained facilities, de-watered or dried up springs, and other problems that have long been present in these allotments.

BLM punts to permittees to look for weeds, and then does not even require that they do it (FD at 8-9). There is no assurance whatsoever that permittees: 1) Are competent to detect an increasingly wide range of weeds plaguing public lands – especially with base properties owned by mines or wealthy or other interests far removed from day to day operation of an allotment and leased to large operators or others; and 2) BLM doesn’t even make this “permittees can look for weeds if they want” a requirement/Term and Condition of the permit – so in essence it is no mitigation at all.

BLM claims “**this is because BLM lacks funding and staff to monitor the effectiveness of this [weed monitoring] requirement**” (FD at 8-9). So BLM admits it can not even monitor facilities and their impacts across the allotments. Thus, the public

has no assurance whatsoever that facilities and grazing will not cause undue degradation to the public lands –serving as epicenters of weed infestation and spread that will doom sensitive species habitats, result in large amounts of chemical herbicide use, and other serious environmental effects.

This BLM disclaimer “we don’t have the staff to look at the allotment weeds” also demonstrates that the public has no assurance of any kind that severe new damage will not occur undetected, to the lands waters and important habitats and wild places of these allotments under continued high stocking rates and grossly excessive use levels.

BLM’s EIS Avoids Comprehensive and Integrated Analysis, i. e. NEPA’s Hard Look Requirement

BLM’s EIS has done nothing to clear up uncertainty about grazing management actions and their impacts on special status species or unique or rare attributes of wild lands in the three allotments. Instead, it has:

- * Failed to collect and assess necessary site-specific data necessary to understand the impacts of livestock management actions and facilities of the flawed FMUDs on soils, vegetation, watersheds, waters, sensitive species habitats, sensitive species populations, etc.

- Purposefully segmented analysis of impacts of projects – giving a cursory glance to the “required” and “foreseeable” projects -plotting them on a general map - and setting up a scheme that to piecemeal NEPA analysis project-by project, thus thwarting any complete look or valid analysis of impacts, including cumulative impacts.

AUM Levels Are Predicated on Projects, Yet NO Site-Specific Analysis of Projects Occurred As part of EIS

BLM repeatedly states, as in FD at 18 in Big Springs, that “upon completion of essential range improvements ... the final grazing system will be implemented”. Yet, there is no certainty that projects will be completed – due to water rights issues, site-specific surveys on feasibility not being conducted, etc.

BLM Failed to Respond to Protests

BLM attempts to minimize the significant Protests raised by WWP and others. See FD at 10 describing four Protests received. Yet, the FD does not respond to the Protests raised by four Protestors.

BLM Shortchanges the Public

Not only does BLM fail to respond to Protests of its proposed Decisions, BLM never even provides the public with the information necessary to understand the management and new destruction of environmental resources it would impose on these 1.3 million acres of public wild lands.

A broad array of citizens from across the country commented in the EIS process. Nowhere did BLM coherently present and assess all of the components of its FMUD – which are critical to understanding the related and inter-connected effects of the actions BLM deigns to specifically list in the FD.

How, for example, could a commentor in Idaho who cares about flammulated owls or pinyon jays ever understand that the original BLM FMUDs for the Sheep Complex and Big Springs imposed large-scale “healthy forests-type” deforestation projects – and general killing of woody vegetation including even sagebrush – to try to increase grass for livestock consumption.

Elko BLM unlawfully imposed its own definition of “Interested Public” in this process, in violation of the regulations. While BLM mailed a copy of the FEIS to all commentors, it did not mail a copy of the Proposed Decision. Two concerned parties contacted WWP, and then Protested – but as the Comments in the FEIS show, there are several commentors who are not on BLM’s regular Interested Public List and who likely never received proposed decisions. It also is uncertain whether all Scoping commentors received all public documents here.

BLM Never Reveals the Current Conditions on the Lands that Have Resulted from Its Very Recent Management Actions

BLM’s EIS is predicated on the assumption that the world froze in 2001 in the SAC, and all the allotments after the MUDs were issued.

BLM plays only lip service to the major environmental changes that have occurred on these lands, and their effects on the ability of the land to produce sustainable livestock forage while providing for a broad array of other important uses here. Systematic examination of changed conditions must be considered as part of the EIS process. It is also essential to understand all direct, indirect and cumulative effects of proposed actions.

Cumulative Impacts

The decision violates APA and NEPA and BLM’s regulations. These regulations include requirements that BLM adequately reveal environmental impacts, including cumulative impacts of its actions, support many conclusions and statements with data and scientific evidence, and demonstrate how environmental damage will be mitigated.

BLM failed to view the degraded conditions and ecosystem processes on the allotments as part of a broader ecological picture, and evaluate the relative scarcity of the values at stake, such as intact shrub habitats for ferruginous hawk, burrowing owl, pygmy rabbit.

As described throughout this Appeal, and comments the EIS process, BLM has failed to conduct an objective, science-based analysis.

It has failed to systematically and adequately characterize the past and current effects of livestock grazing schemes, projects and other activities on sensitive species and their habitats. Thus, there is no way BLM can assess cumulative impacts of even more projects. For example, Map 2-5 shows “existing” projects – such as the Star Valley Line Camp and Star Valley Well – leading a reader to believe there exist operable facilities at those sites. Instead, it is a dilapidated junk site with grave depletion. There is no way, with such faulty or deficient analysis, that BLM could consider cumulative impacts of its EIS construction binge as it does base its EIS information on the on-the-ground reality of what really does or does not exist, and its “operability”. See Photos.

BLM failed to reveal and assess environmental and habitat conditions and concerns problems on other allotments and lands, including lands grazed by some of the same permittees/lessee (in the intertwined Owyhee ecosystem). BLM fails to examine sheep grazing in other federal, or Tribal lands that may be linked to grazing here, or the relation between ecological conditions on these lands and ecological conditions on the EIS allotments – such as potential weed transport (sheep as vectors of weed movement from infested lands into allotments here), rapid runoff from headwater streams, scouring and causing further loss of cattle-damage intermittent and perennial riparian areas and habitats on the Owyhee allotment, BLM “forage” projects and other deforestation/cattle forage/fuels projects causing loss of native habitats on Spruce allotment, with wildlife displaced in to Big Springs or Goshutes, or sensitive populations suffering significant new loss locally and regionally as a result.

BLM has failed to assess the cumulative impacts of widespread fire disturbance on these and neighboring lands, and the habitat loss, habitat fragmentation, degradation, weed invasion, and soil erosion that has resulted. See Knick et al. 2003, Dobkin and Sauder 2004, Connelly et al. 2004.

BLM has failed to assess the cumulative impacts of livestock projects, roads and other human-caused disturbance both on the lands of these and neighboring allotments, on wildlife habitats, cultural sites, waters, watersheds, aquatic habitats, fisheries, and recreational uses and enjoyment on these lands.

The additive or cumulative impacts of new livestock projects and facilities on top of the existing projects that scar these and neighboring lands have also never been considered by BLM. BLM fails to describe condition and impacts of existing livestock facilities on habitats and populations.

BLM should have fully considered cumulative effects in developing a range of suitable alternatives and analysis of environmental effects here, but failed to do so.

Grazing Use and Facilities and Habitat Concerns on Neighboring Allotments – Locally and Regionally

BLM has failed to consider watershed-level effects of its decision, and the degradation of neighboring allotments and private lands on wildlife species, aquatic species and special

status species and habitats. Some neighboring allotments contain important riparian and upland habitats critical to sensitive species that are degraded, or have been poorly studied. See Squaw Valley/Spanish Ranch Admin Record. Spanish Ranch allotment encompasses the Owyhee allotment headwaters. Uplands that provide critical habitat for mule deer, sage grouse, and other important wildlife species whose populations are shared between allotments are likewise degraded, and/or recently burned or otherwise altered, with unassessed cumulative impacts on sensitive species. Likewise, existing and new fence, water and other BLM or private land projects constructed in these lands may have fundamentally altered livestock (and likely wildlife) use and movement patterns.

Grazing Use and Facilities On Private Lands – Intermingled and Neighboring

BLM has also failed to consider the wide range of activities including shifted or intensified livestock use that are occurring on private lands in and neighboring the allotments, and their implications for special status species habitats and populations. Such activities include stream diversions or de-watering of the flows of entire streams. BLM fails to assess the impacts of on native biota and habitats and populations throughout the assessment area. For example, large numbers of cattle displaced by a series of fires, are currently on private lands associated with the Owyhee allotment (including that have BLM land fenced in with them) – see FEIS Map 3-9. Habitat degradation, disturbance, water quality, and other impacts here have not been addressed.

Grazing Use Shifted Into Other Allotments

Elko BLM now has sent the Interested Public a letter describing a proposal by Egbert permittee (Big Springs) to graze cattle on a “temporary” basis in the controversial Spruce allotment. BLM seeks to impose cattle in EXCESS of the stocking rate on this allotment onto the Spruce allotment where WWP is involved in litigation over broad-scale vegetation treatments and killing of pinyon juniper and shrubs.

Impacts of such shifted use, while BLM’s “interim” reductions - which aren’t really reductions at all - are in place, have never been assessed. The Spruce allotment contains important habitat for special status species (sagebrush and pinyon-juniper species), and the imposition of cattle displaced from the EIS allotments – or the placement of cattle in Spruce so as to reduce use in Big Springs sufficiently to “artificially” meet the standards required for re-instituting the AUMs – have not been assessed by BLM as a cumulative impact or connected action under the EIS.

Plus, BLM has also shifted the Ellison Owyhee permittee/lessee use into other BLM lands -deviating from normal use permitted periods. The whole array of temporary use authorizations, TNR, and shifted use has not been revealed.

Owyhee Fuel Breaks, Spruce Sagebrush Killing and Chaining, Burning, Cutting, Chopping/Mastication proposals

BLM has mowed large swaths over dozens of miles of the Owyhee allotment, paralleling an extensive road network. WWP's site visit revealed that these **disturbance** projects (removed shading sagebrush cover and disturbed site, resulting in a hotter, drier, more wind swept and desertified site) were resulting in a very obvious proliferation of cheatgrass, especially in certain deeper soil types, and annual mustard weeds in heavier clay soils. See Photos. BLM never provided information and assessment on these actions, especially critical since burrowing owl and potentially other sensitive species observations were made in association with this mowing.

BLM merely recites acreages, as it does with fires, with no analysis of impacts or assessments of adverse impacts such as cheatgrass proliferation and fragmentation.

The mowing imposed much broader zones of disturbance and habitat fragmentation in the allotment. Now under the FD, BLM adopts the old MUD, which includes open-ended and massive disturbance of sagebrush communities across the allotment in unknown and unrevealed locations. BLM has never considered the effects of this habitat fragmentation and weed expansion on top of the large-scale fragmentation that would result from facility proliferation and an unknown number of sagebrush killing projects in unknown location under the umbrella of the FEIS and FD.

2005 and 2006 Large Fires Represent Tremendous Habitat Loss for Sensitive and Important Species

We have reviewed piles of BLM fire-related documents in the past 2 years, following large-scale wildfires, particularly in the region of the Owyhee allotment.

See WWP 6/15/06 Protest at 5, discussing: "*recent large-scale changes ... the 50,000 acre Wilson Fire Complex in 2005 ... the giant Esmeralda fire ...*". Now, in 2006 nearly $\frac{3}{4}$ million acres burned in northern Nevada. BLM never analyzed the consequences of these very recent large-scale losses of habitat to important and special status species, important habitats, new fragmentation of habitats, changes in perennial vegetation, production, or "carrying capacity" for important and special status species.

WWP contacted BLM following 2006 fires urging analysis, and expressing concerns about the need to consider the consequences and cumulative impacts of these fires for soils, vegetation, habitats here.

BLM failed to do this, merely reciting acreages burned (FD at 10), Winters Fire 238,462 acres, Amazon Fire 108,563 acres, Silver Lake Fire 2500 acres. How much wintering habitat has the Owyhee sage grouse population now lost? How many lek areas are newly burned, and what might this mean for the local or regional population?

The remaining unburned native sagebrush communities of the Owyhee allotment, Big Springs and SAC now become even more greatly significant for sage grouse, pygmy rabbit, loggerhead shrike, mule deer, public use and enjoyment, wild horses, etc. Instead, for example, BLM relies in its analysis of sage grouse habitats on a short-sighted local

plan that was finalized before the 2005 and 2006 fires drastically altered the environmental setting. Plus, the scale of the fire losses of habitat alone necessitate that BLM examine alternatives that significantly reduce livestock conflicts, competition, etc. with sage grouse and other sensitive species habitats, and other important values, too – like wild horses.

All BLM does is stick to the old, stale MUDS that inflict management paradigms – such as the 50 or 60% use levels - that are promoting the invasion of weeds and thus leading to degradation of understories and cheatgrass invasion, further altering fire cycles, and causing cataclysmic habitat losses. BLM never assesses the condition and effects of older burned areas, and now the new fires.

It is astonishing that BLM never takes into account, or adopts any precautionary management action of any kind on the increasingly scarce remaining native vegetation communities of the allotments.

Under NEPA, BLM must examine the current setting and context and BLM has failed to do so. BLM pretends time stands still.

BLM has not even revealed all the new fencing, seeding, etc. that it is undertaking in the Owyhee and neighboring allotments (such as YP) in the aftermath of fires. Where are seedings and what is being seeded, and how long will it take until habitats recover for nesting use by sage grouse – 20 years? 30? Perhaps never if cheatgrass dominates.

Mining, Oil and Gas Exploration and Development

WWP Protested (6/17/06): *“The failure of BLM to provide information on known sites that may be, or are very foreseeable to be, impacted by mining exploration and development, oil and gas leasing, geothermal activity, land disposal, land trades, or other actions in the lands of these allotments. This is not “speculative”. BLM knows where in these lands such activities have been authorized, where processes may be underway for authorization, and could readily have examined the cumulative impacts in necessary detail to understand how habitats and population of important or special status species may be impinged on/affected, and then acted to take a “hard look” at the impacts of its decision in relation to these other activities. BLM could then act knowledgeably to minimize - through mitigation or avoidance – livestock conflicts under the EIS and Proposed decisions.*

There is an Oil and Gas and mining exploration boom underway across northern Nevada. BLM never revealed lands where exploration or development may be authorized or foreseeable, where exploration may have occurred and its impacts. Fite (November 2006) observed an armada of seismic exploration trucks blocking an access road to BLM lands in the SAC south of Wendover. BLM must provide some systematic and reasoned analysis of the location, extent and impacts of such activities.

Sagebrush Die-off and Other Shrub Loss

Large areas of sagebrush in the Owyhee allotment, and vast acreages of sagebrush and other shrubs such as shadscale have suffered recent die-off in the Great Basin and Interior Columbia Basin. BLM never provides information and analysis of the local or regional effects and extent of such die-off across the allotments. This is critical to understand, as these shrubs are the keystone habitat components required by sagebrush-dependent important and sensitive species.

BLM never examines the greatly increased IMPORTANCE of the remaining unburned and unaltered habitats in the allotments - for important and special status species - in the aftermath of large-scale fires as well as sagebrush die-off that has occurred.

This is unforgivable, given that BLM now has knowledge that several of the recent large fires occurred in lands where significant die-off had occurred (BLM Manger DeForest pers. comm. to Fite 2006). In fact, in conversations with BLM about this, WWP's Fite provided BLM with photos of gray dead sagebrush in the Owyhee allotment. It is critical for BLM, to understand the extent and severity of this additional habitat loss in order to properly assess the consequences of its decisions. For example, how much unburned, unmowed, live Wyoming big sagebrush sensitive species habitat now exists in the Owyhee allotment in 2006, and where is it located? How will BLM's essential or foreseeable projects affect it? How will livestock grazing schemes and use high levels and stocking rates alter the understory and simplify the shrub structure of remaining native communities?

In BLM lands such as Idaho's Jarbidge, where there has been extensive loss of Wyoming big sagebrush, livestock seek out remaining sagebrush, and differentially impact areas with shrubs that provide some protection from wind, shade, diversity, rubbing areas, etc.

OHV Use, Events and Other Recreational Events

BLM has authorized a significant number of OHV events across the lands of the SAC and Big Springs. BLM never reveals where the events occur - in relation to important and sensitive species habitats, critical periods of the year for nesting birds, etc. Nor does BLM assess the impacts such events may have increased significantly OHV and other use by luring people to the area.

BLM could have actually used this EIS process to collect the data on sensitive species that is necessary to manage habitats to avoid or minimize adverse impacts, and try to knowledgeably prevent further habitat impairment and loss, as required under its Land Use Plans, FLPMA, and BLM's special status species policy.

Predator Killing

A large-scale predator-killing project is being conducted in lands of the Big Springs and Spruce allotment to the south. Yet, BLM provides no information or analysis of the impact of this project on important or sensitive species - including disturbance during critical periods of year, mesopredator release, injury or killing of non-target species,

disturbance by very frequent APHIS intrusion, and other impacts to sage grouse, raptors and other sensitive species. Fite (2006) observed traps in late spring on the valley floor, and made inquiries, and discovered a large-scale “scorched earth” predator killing project was being carried out there.

In addition, APHIS Wildlife Services other predator killing activities are never revealed.

BLM Land Disposal and Private Land Development

BLM FD Map 2-2 shows the large amount of checkerboard private land in the Big Springs allotment. Realty signs have been up on some of these lands since the start of the EIS process, and new signs were present in WWP’s November 2006 visit. BLM fails to assess the very foreseeable impacts to sensitive species habitats that would result for development and sprawl in lands north and south of the interstate here. BLM never adequately surveyed, mapped or analyzed important and sensitive species habitats and populations so that it could even begin to assess these impacts.

BLM has conducted a series of segmented BACA land sales in the area near Wendover, and never analyzes these impacts, nor the development that may ensue increasing human pressures on the lands and habitats of the SAC.

Military Activities

Currently, airspace changes are underway over portions of Big Springs and perhaps SAC. The lands of these allotments already receive a very large number of military overflights including low level flights, use of flares that may ignite range fires and thus significantly increase fires, and other environmental disturbance. Military lands near Wendover are contiguous with the SAC. There is no examination of activities (including sheep grazing) on those lands, and their effects on habitats shared with sensitive species of the SAC.

BLM, unfortunately, seems to think that if it just recites a list of words “fire”, “grazing”, “OHV”, etc. and speaks in utmost generalities, it can step through NEPA hoops and never reveal any solid or systematically collected information or analysis of the environmental setting, past and present actions and foreseeable actions, and impacts to habitats and populations. See FEIS at 2-47 where BLM mentions everything occurring here, but with no attempt to understand, where, how much (scale, scope, intensity, degree of adverse impacts, etc.).

Impacts to Neighboring States, Populations of Important and Special Status Species

Mobile wildlife species such as sage grouse, mule deer, and many birds are not confined to the lines BLM draws on a map. For example, a raptor nesting in the South Fork Owyhee river side of the allotment does not solely forage over the uplands on the West side of the river canyon. BLM fails to provide a systematic and scientific analysis of the

impacts of recent fires in the YP allotment that borders the Owyhee allotment for dozens of miles to the east.

BLM treats the lands of these allotments and the wildlife populations including important and special status species with the anti-science world view of a 16 th century map maker. There is the “known world (WWP notes BLM knows very little as it re-massaged largely decades-old depauperate information) – then darkness and a void in all surrounding areas. This defies current ecological science, long-understood tenets of wildlife biology and conservation science, and common sense.

No Evidence or Data Provided for FD and EIS Economic Claims of “Balance”, No Data and Analysis Necessary to Support Claims of Equitable “Balance” of Multiple Uses

Under “Management Decisions” FD at 8 BLM claims that it is somehow carefully balanced uses under FLPMA and the MUSYA.

As is described throughout this Appeal, WWP and other comments and protests, essential baseline data and surveys on current ecological conditions, wildlife and other special status species occurrence, populations and habitats and use of these lands, wild horse ecological requirements and use of these lands, and springs, seeps, meadows and perennial and intermittent riparian areas is not provided and assessed.

BLM also has no basis to make any economic assertions or draw conclusions about the economic impacts to livestock interests, mining entities or other permittees or lessees here.

WWP Protested (6/17/06): We have Protested the lack of a valid economic analysis, and submit in addition to our previously expressed concerns, the Environmental Working Group list of subsidies to an apparent permittee or lessee. What is the link between public lands grazing on the Sheep Allotment Complex, and the wool subsidies and other subsidies of Chournos, Inc. Are these subsidies based on Active or Permitted AUMs? This is necessary to understand the economic setting. It is also necessary to conduct a valid analysis of the economic impacts of domestic sheep vs. cattle grazing in impacts in the Goshute Mountains, of potential ACEC designation, or other very important issues raised during scoping.

BLM provides no data or information, for example, on the economic factors related to Doby George, a mining company, holding the base property and leasing grazing in the Owyhee allotment – how does this factor into this? In addition, the party (Ellison) who is currently grazing on the Doby George lands is a very large ranching operation that grazes across several very large allotments –Spanish Ranch, Carico Lake. Nowhere is any information on the economic losses or benefits of grazing here – including costs to taxpayers in monitoring, administration, endless new facilities to try to mitigate the impacts of great and continuous overstocking on these lands.

Thus, BLM has no basis for making any economic claims about viability, economics of the livestock industry parties here, etc.

All BLM has done is re-shuffled its stack of stale, limited, and largely meaningless old papers.

BLM (FD at 8) claims its stale old FMUD-based Alternative is “expected to be effective in limiting or excluding grazing to protect key sensitive species habitats.

Yet BLM has failed to gather and assess the data needed to identify those habitats and the impacts of the various convoluted grazing schemes already nearly entirely in play, or of the endless facility proliferation while pre-existing facilities remain crumpled junk heaps littering public lands.

BLM apparently believes there is an “endless frontier” of virgin forage lands to deplete with facilities and new junk heaps across the allotments. Rather than examine the serious failures of its existing infrastructure, BLM proposes to impose the same inevitable failures on new areas.

All the while, BLM ignores the overwhelming body of current ecological science that demonstrates the serious plight of many important and special status species, the extensive very recent habitat losses (as in cheatgrass-fueled fires destroying sage grouse leks), and the IRREVERSIBILITY of the impacts of new or concentrated livestock disturbance on lower and middle elevation arid land communities.

Biased Decisionmaking Favors Livestock Industry

Tremendous bias and suppression of science has been interjected into the decisionmaking process due to political bias of current BLM management. This has resulted in the EIS process and Final Decisions overwhelmingly favoring the interests of the livestock permittees at the expense of all other public lands values.

BLM Over-Emphasizes Economic Impacts of Alternatives to Permittees, Yet Fails to Weigh the Economic Importance of Wildlife, Recreation, Hunting, Fishing, Watershed Health. We emphasize that the BLM’s mission is to protect the land. BLM has presented no economic analysis to support its claims of balancing resources, or its selection of alternative actions under the FD. BLM has failed to assess the economic harms caused to recreational and other uses by livestock and arrive at a fair and balanced economic picture. BLM has failed to provide an economic analysis of the even the construction costs associated with the plethora of projects, or analyze the alternative uses forgone and lost as a result of the continued high stocking, project binges, etc.

BLM has not characterized the ability of the land to sustain livestock grazing and other uses of these lands (such as wild horses or important and special status species habitats) if lands are stocked with livestock at such levels; The condition and operability/feasibility of any existing, proposed or foreseeable projects; The actual on-the-ground ecological - soil and vegetation - conditions of the lands across these allotments is simply not presented in the EIS or any other documents. Instead, BLM has conducted the EIS

process as a paperwork exercise. Example: springs and seeps. BLM was ordered by the Court to analyze the springs and seeps in the allotments in an EIS. WWP and others submitted extensive comments on the information that BLM needed to collect. Instead of actually examining current flow rates, current vs. predict/anticipated flow rates following development, management changes, etc. health, aquifer and watershed characteristics, and the full effects of all existing facilities on waters (junk heaps though they may be, or having sucked every drop into a pipeline) across the allotments – BLM simply lists its same old, tired projects and pretends that it can dig into springs with tiny amounts of flow and somehow “develop” waters –without ever assessing the aquifer characteristics, spring layer stratigraphy, flow rates, etc – all of which is necessary to understand if ANY water will be left at spring sources, if the surface expression of a spring may be killed entirely, or if the demands anticipated to be placed on any spring or development can be met – and/or met without inflicting undue degradation.

BLM steadfastly refused to systematically assemble and analyze information needed to determine environmental effects to sensitive species habitats, populations and watersheds. BLM repeatedly refers to and massages and re-massages its limited old data. Yet, when WWP provides a detailed summary of the BLM’s old data that is counter to the livestock industry spin BLM is choked by, BLM suddenly claims that its very own information in the FMUD process has no relevancy or validity. BLM outrageously states that WWP can not use or cite this information because: “ the references to the EAs regarding non-native, invasive species are not relevant to the DEIS, as the DEIS examined the impacts of the alternatives on the establishment and spread ...”. Plus, even if one were to accept BLM’s outrageous claim that suddenly its very own info is not relevant, accurate understanding of invasive species presence is necessary to inform development and evaluation of ANY alternative course of action. BLM simply wants to live in its own blindered livestock-industry-centered world, ignoring current biological and ecological science, and its own data that may run counter to the livestock industry spin BLM tries to place on conditions and grazing schemes here.

PETITION FOR STAY

Pursuant to 43 C.F.R. § 4.21 Appellants WWP, IWF and IBH hereby Petition for Stay of the challenged EIS ROD and decisions. Appellants hereby requests the Board of Land Appeals in the Office of Hearing and Appeals, Office of the Secretary of the Interior, to stay these contested decisions until this appeals is resolved.

Relative Harm to Parties- Harm to Appellant.

Appellant’s members, who actively recreate on these areas of public land of the United States, will be harmed if this Decision is permitted to proceed as proposed. The implementation of the EIS ROD and Decisions will result in a violation of federal laws and regulations as documented in the Statement of Reasons (incorporated herein by reference) and Appeal. It will result in the loss of the ability of Appellants and their members to experience the land in question with ongoing degradation of important public

resources and values. Further, if this flawed decision is implemented, the losses to the public will be significant, and long-term, and irreversible.

BLM is required to manage the public lands and use best available and sound science in management of grazing on public lands.

BLM was ordered by a federal district court in Nevada to alleviate the "vast uncertainty" over impacts of complicated and convoluted grazing Decisions on sensitive species habitats and populations on Sheep Allotment Complex (SAC), Big Springs and Owyhee allotments, encompassing 1.3 million acres.

BLM itself, in the SAC MASR, knew that it could not make viable management decisions "until current surveys ensue" (SAC MASR at 2). To this day, necessary surveys still have not been conducted for rare and declining native wildlife species and other important public land attributes across these allotments. Nevada Division of Wildlife repeatedly alerted BLM to concerns, gaping deficiencies, the need to conduct habitat and population studies using standard or readily available methodology, and was ignored by BLM.

BLM has wasted 3 years, and hundreds of thousands of tax payer dollars in re-massaging old and limited information.

BLM has woefully failed to conduct the on-the-ground site-specific species and habitat surveys, habitat composition assessments and other information necessary to even understand where sensitive species are currently still found across the allotments, to define and determine important habitat components and deficiencies or fragmentation across the allotments, examine historically occupied and now unoccupied habitats to determine ecological problems, and use standards scientific methodologies to inform decisionmaking here. The only allotment-specific information proved for raptors is dots indicating largely random and incidental "sightings" on a map. The EIS contains no new data on sensitive species or their habitats or populations, except for some sage grouse lek flights.

BLM then proceeds, with little to no new information in hand, to base its EIS analysis of environmental impacts of grazing schemes and project construction binges that would be imposed across 1.3 million acres, on obscure references and a pamphlet on "herbivory".

Such an approach defies current ecological and range science, and has wasted precious time in the face of an environmental crisis of invasive species proliferation and depletion of habitats across the allotments.

Cheatgrass, and other exotic annuals like halogeton thrive in sites disturbed by livestock grazing and trampling activity, displace many native annual forbs and grasses and outcompete seedlings of native species. Even in the old MUD process, BLM acknowledged that cheatgrass invasion is overtaking plant communities in the Sheep Allotment Complex, and that this is having significant and unnatural impacts, stating "

almost 50 percent of the fires occurred in the low sage/salt desert community ... the probable explanation for this is that they have been invaded by cheatgrass”, and noting that in such arid sites, “the native vegetation developed with little if any adaptation to fire”. NDOW observed a “rapid rate” of cheatgrass invasion on portions of the Complex. . During my visits to the Owyhee allotment, I observed extensive areas of cheatgrass, both in the understory of sagebrush plant communities as well as in burned areas. Cheatgrass invasion of the uplands here, along with lack of residual herbaceous vegetation, is considered a “major” concern by NDOW, and it occurs in areas impacted by heavy livestock grazing. Cattle and sheep grazing and trampling greatly facilitate the spread of cheatgrass into understory plant communities, and set the stage for catastrophic fires and irreversible ecological changes (Whisenant 1991, Billings 1994, Belsky and Gelbard 2000, Nevada Natural Resources Status Reports, Connelly et al. 2004, Dobkin and Sauder 2004).

These exceedingly arid lands are being overrun with invasive species - cheatgrass, halogeton, white top, alien mustards. Weeds thrive in disturbed soils and depleted vegetation communities, and livestock trampling, livestock-related roading and motorized activity such as water hauling, and fire. Fires are increasingly fueled by these weedy species, dooming native species habitats and converting them into annual grass monocultures devoid of native species (Whisenant 1991, Billings, 1994, Knick 2003, Connelly et al. 2004, Dobkin and Sauder 2004).

If new cheatgrass, halogeton, white top and other exotic species invasions, caused by continued or shifted excessive livestock use and disturbance including from the plethora of EIS projects, result in further declines or extirpations of native species, including sensitive species, from these public lands, restoration of populations will be extremely difficult and costly, if possible at all.

If the proposed grazing schemes and facility development are enacted, they will result in new and accelerated irreparable damage to the uplands and riparian areas that comprise critical habitat components for native species.

Native bunchgrasses will die from excessive use without specified rest during sensitive critical spring and early summer growing periods.

Sage grouse populations will continue to decline, as necessary nesting cover will be devoured by livestock to levels far below the 7 inch stubble height, and thus herbaceous cover will be too low for successful nesting. Exceedingly scarce flows of springbrooks will be further altered and reduced with BLM’s development schemes, continued hot season use, concentrated use, and other adverse actions. Extensive new damage to microbiotic crusts that protect soils from weeds will occur.

Undue degradation will occur as new livestock damage to uplands and riparian areas is expanded, or continues unameliorated, under stocking rates at or above levels of actual use that are known to have caused a broad array of violations of the FRH. New

degradation will occur as grazing use is shifted, altered or compressed into critical sensitive species habitats during biologically critical periods of the year.

Serious harmful disturbance from grazing schemes and activities will intrude on critical habitats. As Hawk Watch International (Smith and Hutchins 2006) stated (at 4): "for most raptor species, it is critical that direct disturbance to the nest be severely restricted until chicks have hatched". Burrowing owl nests are known to be collapsed by livestock trampling (Holmes et al. 2003, Red Willow Research 2004), another adverse effect that timing of grazing can have serious adverse disturbance or habitat alteration impacts to sensitive species.

There is no certainty to the grazing periods, Use Areas, or control of livestock over large areas of the allotments, no certain schedule to be followed, and no required measurable standards of use as Terms and Conditions of the grazing permit.

BLM will impair the many important values of these wild lands, and harm public uses including recreational values and especially values associated with native wildlife species such as birdwatching or photography or nature study.

BLM has failed to conduct systematic surveys and assessments necessary to understand the health of these public lands, relying on limited and uncertain FRH assessments from 2000, with no updated assessments. BLM has not employed current science necessary to understand the effects of its management action. The Final Decision does not ensure that significant progress will be made to cure the many FRH concerns and violations in the allotments. Practices that resulted in violations of the Rangeland Health standards, such as prolonged hot season grazing, high stocking at or above actual use that caused the violations and ecological problems in the first place, would be imposed in both the interim and longer terms on these lands.

Without necessary species and habitat surveys that rely on sound and best available science, these lands are faced with accelerating and undue degradation from harmful stocking rates, use periods, use areas, disturbing management practices such as water hauling into raptor nest sites, and a broad range of other environmental harms.

Sensitive species will disappear as their basic needs for food, cover and space suffer new disturbance and irreparable harm, as BLM allows stocking rates at or above levels shown to have harmed these lands. BLM has not conducted the necessary current ecological studies to show that use is supportable or sustainable.

BLM reached its Final Decision, perpetuating livestock numbers at or above levels that have caused serious ecological problems here based on new schemes of extensive project disturbance across these lands with a battery of essential and foreseeable projects under the EIS and FD umbrella.

BLM did not alleviate the uncertainty associated with the environmental impacts of these projects. A reader is not even told where many of them would be located or extended

into. Instead, BLM left this all to future, segmented, piecemealed and minimal NEPA analysis. Thus there is no way that a full assessment of impacts of this complicated EIS decision and amendment of MUDs can be said to have occurred.

BLM's decision includes a massive array of new livestock facility construction on these public lands. If the wells, digging into the hearts of wild lands springs and drainages and piping, numerous other pipelines, and unknown pattern and number of fence projects occur, irreparable soil erosion and loss of native vegetation with new weed invasions, and loss of native wildlife habitat will occur. Elements of these allotments that will be significantly harmed include native big sagebrush and salt desert shrub plant communities, WSAs and pinyon-juniper communities, and associated wildlife species that are dependent on these communities and their health.

This direct result of the issuance of a Stay on this Decision will be the prevention of direct harm to Appellants because of the violation of legal statutes of the United States on which the Appellants rely if the decisions are permitted to take effect.

Elko BLM's Response to comments and the EIS repeatedly casts aside, downplays and ignores current arid lands science brought forward by WWP and others. Yet, this is the current best available science, and is also the consensus of the international community. A 2006 United Nations Report "Livestock's Long Shadow, Environmental Issues and Options", underscores many of the serious ecological problems on these Elko allotments that BLM seeks to ignore or gloss over (United Nations Steinfeld et al. 2006). It describes livestock's role, not only in global warming, but also as an important driver of biodiversity loss and ecosystem changes due to: habitat change, climate change, invasive alien species, overexploitation and pollution. Habitat destruction, fragmentation, and degradation are considered the major category of threat to global biodiversity. Livestock are one of the major drivers of habitat change. The report is directly relevant to what BLM seeks to impose here on our public lands – more habitat fragmentation, intensified land use – all leading to native species losses. The livestock projects and grazing schemes do just as that, as they intensify and shift use into new areas by constructing even more projects for livestock across uplands, or in the case of the SAC, shift and intensify use into previously less used areas, including of WSAs. They extend new zones of intense depletion and chronic depletion, while failing to undertake measures necessary to recover lands already lost to invasive species and thus with no palatable, sustainable or reliable "forage" production. Most seriously, BLM fails to assess if the damaged lands that BLM now seeks to move livestock away from, and into previously less altered habitats for important and sensitive species, are recoverable – in the short, mid or long term. We also emphasize that the UN Report at 109 recognizes that: Rangeland degradation results from a mismatch between livestock density and the capacity of the pasture to support grazing **and trampling**". It occurs more frequently in the less resilient arid and semi-arid regions, characterized by relatively **erratic biomass production**". Some other effects paralleled in these allotments include: 'Biodiversity erosion creates a negative feedback: it reduces the system's resilience and thereby directly **reinforces desertification**'; "Livestock-related plant invasions", p. 199-200 describes "**a great historical convulsion**" in

western North America - i. e. livestock's role in facilitating alien weed invasions. The report also describes competition of livestock with wildlife for essential needs..

All of these effects of domestic livestock grazing are vividly seen in these allotments that are suffering greatly already from the chronic effects of livestock grazing. On top of this, BLM seeks to impose continued livestock use at or above the same levels that it documented to cause harm. Moreover, the current conditions across the allotments are simply not revealed - as BLM's analysis attempts to freeze time in 1998 (last weed inventory) 2000 (last limited FRH assessment completion) and the time of the MUDs.

In sum, all of the adverse environmental effects described in the UN Report are evident in these allotments. Throughout this process, and in other fora, WWP has provided BLM with hundreds of scientific citations, hard copies of many documents, and comments, and communicated with BLM about our observations made during site visits. See Appendix D, WWP letters for example.

BLM has failed to provide solid science-based analysis of the effects of grazing actions on the sensitive species habitats, springs and seeps and other resources that it was supposed to address in the EIS process.

NEPA requires that BLM use sound science to determine how best to manage and minimize or avoid adverse impacts on the public lands. BLM can also, as well, to determine where livestock use may not be appropriate or is not sustainable. FLPMA does not require that every acre of public lands be grazed, or subject to each and every multiple use that can be heaped on it.

Relative Harm to the Parties - Harm to BLM

The relative harm to the BLM of the issuance of a Stay as requested is unclear. The BLM has not indicated that there are no other possible actions that could be taken. In fact, this decision violates many of BLM's own stated policies, including its policy for management of sensitive species habitats. If a Stay were not granted, the BLM would violate its own policies and irreparably harm the affected lands. Therefore, it is not reasonable to suggest that the relative harm weighs in favor of the BLM.

If Appellants are granted a Stay, a battery of harmful facilities with unknown outcomes will be prevented from extending shifted and concentrated livestock use into areas that currently receive lesser impacts, and into critical natural WSA lands, important and sensitive species nesting and other habitats, critical mule deer wintering habitats, and that are currently important components of wild horse HMAs that have been receiving fewer harmful livestock impacts.

BLM has a broad array of interim measures it can readily put in place. It can exercise its management oversight, and take necessary measures that it has avoided in the past to ensure that permittees meet the upland standards, so these lands may be better protected in the interim than under the incredibly complicated and incomprehensible decisions.

BLM might even find time to visit the allotment and look for weeds. In the FD BLM has no time to look for weeds and won't make ranchers do so, and instead BLM relies on a 1998 weed inventory.

In fact, BLM is required under its regulations to take necessary action (such as instituting reduced stocking rates or more protective use standards or avoidance of degraded areas) to protect lands where violations of rangeland health standards are known to exist, and to make significant progress towards FRH attainment. Thus, BLM can not argue that the decision merely reverts to that of the past. BLM is required to take specific actions before the start of the next grazing year to address FRH violations. BLM could readily implement conservative use standards or stocking rates, in order to limit adverse impacts to sensitive species – while it undertakes the necessary environmental studies it has steadfastly refused to do – even under a federal court order.

In fact, BLM can require any of a number of interim protective actions from requirements for daily diligent herding to protective use standards as triggers for movement of livestock out of pastures or use areas. The situation on the ground can not continue under the status quo ante, as BLM is required to take action to address FRH violations.

Elko BLM is required to abide by the Elko RMP requirement that: “Activities that could adversely affect threatened, endangered or sensitive species habitat will **not** be permitted.” The Elko RMP also requires that “if adverse impacts are identified during project planning, the projects will be modified or possibly abandoned to avoid these impacts”.

Until BLM conducts the necessary on-the ground surveys and analyses to understand the environmental consequences to sensitive species and other important public land values of **all the actions (both “essential” and “foreseeable”)** under the EIS and FD umbrella, it makes no sense to plow forward only to abruptly hit a wall, and meanwhile BLM may have destroyed all surface flows at springs or in a drainage network because necessary studies had not been done.

Adoption of Alternative 2, even under BLM's limited range of alternatives, would cause MORE adverse impacts - especially irreversible construction and disturbance impacts – than alternative actions. Alt. 2 is NOT the environmentally preferred alternative.

Moreover, BLM's Wells RMP “Terrestrial Wildlife Habitat Objective requires BLM “To conserve and/or enhance wildlife habitat to the maximum extent possible”. Wells ROD at 19. Even BLM's woefully deficient EIS analysis shows this is not the case under the FD adopted here.

Appellant believes the drilling of new wells, digging into the heart of wild land springs and portions of the drainage network in Squaw Creek at springbrooks across the Big Springs and SAC allotments, and even more fences in sage grouse nesting and brood rearing habitat, punching new wells (where there is no assurance that a water right will

even be obtained) and other actions to accommodate an ever-changing array of permittees and lessees in these lands is not in the public interest.

In addition, if a Stay is not granted, BLM will be free to let the bulldozers rip and roar across these important public lands, and dig into nearly all springs across the allotments, building a plethora of new livestock facilities, and extending concentrated livestock use in to WSAs and important sensitive species habitats, including nesting territories, and causing irreparable harm to soils, vegetation, watersheds, wildlife habitats, cultural sites and recreational attributes of these important and nationally significant wild land areas.

BLM has refused to even consider impacts to a broad array of other important species whose habitat may be altered or destroyed under shifted or concentrated use of the EIS and FD— such as the pygmy rabbit. BLM thus has no way at all of understanding the effects on other sensitive species. These actions can not be allowed to proceed, piecemeal, until BLM considers the effects of its EIS on all sensitive species.

Digging into springs may disrupt water flows, or cause springs to dry up entirely as soil layers, especially clays, where water seeps out, may be punctured. Additionally, spring developments remove water from natural wetlands, causing the total areal extent of wetlands, wet meadows and springbrooks to be diminished. As BLM ignored extensive concerns raised by Appellant about spring conditions and projects in these exceedingly arid lands, and failed to balance the public benefits, overwhelmingly favoring desires of the livestock industry to the detriment of sage grouse that need natural springs and wet meadows areas for brood rearing, wild horses that become entangled in fences, and cultural sites found in association with scarce high desert springs.

Appellant's Likelihood of Success on the Merits.

Appellant has established that it will likely succeed on the merits of this case based upon BLM's:

- Failure to take a "hard look" at the environmental consequences of the decision and refusing to consider a broad body of current ecological science and even standard range science
- Failure to conduct the necessary inventory, survey and science-based assessment of endangered, threatened and "BLM sensitive" species and other native species within the project area;
- Failure to provide site-specific information on all native vegetation, soils, weeds infestation areas, current conditions and grazing impacts including facility impacts;
- Failure to provide meaningful monitoring and mitigation for harmful actions;
- Failure to ensure compliance with the FRH and to conduct a new FRH assessment;
- Failure to protect and ensure a thriving ecological balance in the wild horse herd areas

- Failure to accurately describe and assess impacts to cultural sites
- Engaging in biased and politically driven decisionmaking to the detriment of the public lands and sensitive species habitats;
- Failure to provide a current study examining carrying capacity, stocking rate, sustainability, productivity or other information needed to determine suitability of lands for grazing;
- Failure to ensure that rare sensitive species and their habitats and populations are protected from irreparable harm of their important values;
- Failure to assess direct, indirect and cumulative impacts of grazing management schemes and projects, including involving irreparable ground disturbance and soil and vegetation, or alteration of natural spring stratigraphy and flows, and thus further habitat alteration, reduction and loss while constructing a plethora of new projects, with the total extent never fully revealed.
- Failure to address cumulative impacts (grazing in neighboring allotments, private lands, fire impacts, mining, roading, OHV use, existing facilities, shifted use into other allotments, etc.)

We emphasize that BLM's Wells RMP "Terrestrial Wildlife Habitat Objective requires BLM "To conserve and/or enhance wildlife habitat to the maximum extent possible". Wells ROD at 19. The Elko RMP (at 40) requires that BLM not undertake "activities that could adversely affect ... threatened species". BLM's own special status/sensitive species policy requires BLM to manage habitats to avoid the need to list species. Throughout this and other processes as on the neighboring Spanish Ranch and Squaw Valley allotments, the public provided BLM with a wealth of information on scientific values of the affected lands, and ecological threats posed by livestock grazing. BLM has no valid scientific or other reason for refusal to consider modern-day science-based management to maintain, protect and enhance sensitive species habitats and vital resources on these public wild lands.

The Likelihood of Irreparable Harm.

The harm created by the implementation of BLM's Final Decision is irreparable in that it will permit new and purposeful degradation of public resources. Environmental loss such as cheatgrass and white top infestations overrunning sage grouse, or pygmy rabbit, or ferruginous hawk habitat is irreparable in wild lands like these. Soil erosion and loss of native vegetation and wildlife populations is irreparable in these exceedingly arid unresilient lands, including lands that harbor unique sites of international significance such as the raptor migration site.

Appellants will be deprived of the opportunity to enjoy thriving wildlife populations, healthy and thriving populations of special status species such as sage grouse, ferruginous hawk, pygmy rabbit, burrowing owl.

Instead, Appellants will be faced with additional acreages of flourishing exotic species invasions in zones of ongoing and massive new livestock and livestock facility disturbance, trampled and polluted and diminished surface waters, declining wildlife populations as their habitat becomes fragmented by increase weeds and disturbance, as well as continued harmful use levels at or well above actual use that has occurred, and which would be intensified and shifted into new areas with projects – without ever addressing the depletion and degradation – such as the weedlands of the SAC, the ‘common’ cheatgrass of the Owyhee, or the cheatgrass and fragmentation threatening critical sage grouse habitats in Big Springs.

These impacts, if permitted, will never be fully recoverable and therefore represent, through the loss of existing soils, native vegetation, wildlife habitat, and special status species, an irreparable action on the part of the BLM, which will harm the environment and the ability of Appellants to carry forward a legal contest of this action, once it is in place. The implementation of this Decision pending review by the Office of Hearings and Appeals on the merits of Appellants appeal is irreparable and irretrievable.

Public Interest Favors the Granting of the Stay.

The public interest clearly favors granting the Stay. The significant

The wild lands and sensitive species habitats of the Sheep Allotment Complex, Big Springs and Owyhee allotments, including resources such as wildlife populations that they share with other states will be degraded environmentally by the implementation of the EIS ROD and Final Decision that clearly violates the public interest. Recovering the health of these public domain lands and compliance with FLPMA, the APA, the Clean Water Act, and NEPA is in the best interest of the public. In addition, the public interest as expressed by Congress through NEPA will be violated because laws and regulations will be broken if a Stay is not granted pending resolution of this appeal at the Office of Hearings of Appeals.

If this EIS ROD and Decision are not stayed, a land management based on a pamphlet from the Sunshine Press will be imposed on 1.3 million acres of public lands.

Our public lands can not be managed on the basis of the “science” found in a livestock industry pamphlet from the Sunshine Press (Dietz 1987), which BLM employs as the basis for its entire EIS analysis of impacts of its grazing schemes and their effects on sensitive species and their habitats and populations. BLM has also based its EIS and grazing schemes Decision on Bush industry-promoted grazing regulations (see FD at 1-6) that have been enjoined by a federal district court in Idaho.

Appellant Western Watersheds Project believes the granting of a Stay in this matter clearly serves the interest of the health of ecosystems, native biota and humans on Idaho's public wild lands.

Sincerely,

Katie Fite
Biodiversity Director
Western Watersheds Project
PO Box 2863
Boise, ID 83701
208-429-1679

CERTIFICATE OF SERVICE

I, Katie Fite, Hereby certify that on the _____ day of _____, the foregoing document* will be served, via certified mail return receipt requested to:

I further certify that the foregoing document was sent, via e-mail or FAX, to BLM, Helen Hankins, Elko.

A copy will also be mailed to the Interested Public, as required.

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