Martin Basin Rangeland Project

Response to Comments on Draft Environmental Impact Statement (MB-DEIS)

INTRODUCTION TO RESPONSE TO COMMENTS

This document, Response to Comments on MB-DEIS, details the substantive comments that were submitted to the Forest Service in response to the publication of the Martin Basin Rangeland Project Draft Environmental Impact Statement

The Response to Comments on Martin Basin Draft Environmental Impact Statement (DEIS) is not included in the Martin Basin Final Environmental Impact Statement (FEIS) due to its large volume. The full text of submitted comments is located in the Project Record. For more information, contact:

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Santa Rosa Ranger District

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Note:
All references to section and chapter names, page locations, figure and table numbers, etc., contained in the comments reference the Draft Environmental Assessment Document, and may not be the same in the text of the Final Environmental Impact Statement.

STRUCTURE OF RESPONSE TO COMMENTS

Each letter received was assigned an identification number. Then the Martin Basin Interdisciplinary Team (IDT) reviewed each letter and assigned an identifier to each comment to be addressed. This system offered a method of tracking responses to each comment and each letter.

The relevant text of each comment is reproduced in this document, along with the Forest Service's response. Each comment includes its identification number, as well as submitter information. A more detailed list of submitters and their affiiliations is also included.

CROSS-REFERENCED GUIDE TO COMMENT SUBMISSIONS

LIST OF SUBMISSIONS ARRANGED BY LETTER IDENTIFICATION NUMBER:

Letter #: **1**
SUBMITTED BY: *B. SACHAU*
Location: Flora Park, NJ

Letter #: **2**
SUBMITTED BY: *MICHAEL J. SANDERSON*
NEVADA DIVISION OF WATER RESOURCES
Title: P.E.
Location: Carson City, NV

Letter #: **3**
SUBMITTED BY: *PATRICIA SANDERSON PORT*
UNITED STATES DEPARTMENT OF THE INTERIOR
Title: Regional Environmental Office
Department: Office of Environmental Policy and Compliance
Location: Oakland, CA

Letter #: **4**
SUBMITTED BY: *REBECCA LYNN PALMER*
NEVADA DEARTMENT OF CULTURAL AFFAIRS
Title: Historic Preservation Specialist
Department: State Historic Preservation Office (SHPO)
Location: Carson City, NV

Letter #: **5**
SUBMITTED BY: *DAN HEINZ*
Location: Reno, NV

Letter #: **6**
SUBMITTED BY: *ANTHONY "TONY" LESPERANCE*
HUMBOLDT COUNTY FARM BUREAU
Title: President
Location: Paradise Valley, NV

Letter #: **7**
SUBMITTED BY: *LISA B. HANF*
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION IX
Title: Manager
Dept.: Federal Activities Office / Cross Media Division
Location: San Francisco, CA

Letter #: **8**
SUBMITTED BY: *JOHN CASSINELLI*
Location: Paradise Valley, Nevada

Letter #: **9**
SUBMITTED BY: *KENNETH D. SANDERS*
UNIVERSITY OF IDAHO
Title: Professor
Department: Dept. of Range Resources / Twin Falls Office
Location: Twin Falls, ID

Letter #: **10**
SUBMITTED BY: *ROY LEACH*
NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES
Title: Western Region
Department: Division of Wildlife
Location: Reno, NV

Letter #: **11**
SUBMITTED BY: *E. SAMUEL STEGEMAN*
NEVADA DEPT OF CONSERVATION AND NATURAL RESOURCES
Title: P.E., Water Quality Standards
Department: Division of Environmental Protection / Bureau of Water Quality Planning
Location: Carson City, NV

Letter #: **12**
SUBMITTED BY: *JEAN & KEITH THOMAS*
7HL RANCH
Location: Paradise Valley, NV

Letter #: **13**
SUBMITTED BY: *DOUG BUSSELMAN*
NEVADA FARM BUREAU FEDERATION
Title: Executive Vice President
Location: Sparks, NV

Letter #: **14**
SUBMITTED BY: *MARTIN BASIN LIVESTOCK PERMITTEES*
ALTERNATIVE 4 AS PRESENTED BY RESOURCE CONCEPTS, INC. (RCI)

Letter #: **15**
SUBMITTED BY: *KATIE FITE*
WESTERN WATERSHED PROJECT
Title: Biodiversity Director
Location: Boise, ID

Letter #: **16**
SUBMITTED BY: *ROBERT D. WILLIAMS*
UNITED STATES DEPARTMENT OF INTERIOR
Title: Field Supervisor
Department: Fish and Wildlife Service
Location: Reno, NV

Letter #: **17**
SUBMITTED BY: *BRAD SCHULTZ*
UNIVERSITY OF NEVADA-RENO
Department: Cooperative Extension – Humboldt County Office
Location: Winnemucca, NV

Letter #: **18**
SUBMITTED BY: *RON CERRI*
REBEL CREEK RANCH
Location: Orovada, NV

Letter #: **19**
SUBMITTED BY: *LYMAN N. YOUNGBERG*
YOUNGBERG TRUST RANCHES
Department: Flat Creek Ranch
Location: Orovada, NV

Letter #: **20**
SUBMITTED BY: *ROSE STRICKLAND*
SIERRA CLUB
Title: Public Lands Committee
Department: Toiyabe Chapter, Nevada & Eastern California
Location: Reno, NV

Letter #: **21**
SUBMITTED BY: *HOWARD F. KALE, JR.*
Location: Scottsdale, AZ

Letter #: **22**
SUBMITTED BY: *DAN CASSINELLI*
HUMBOLDT COUNTY COMMISSION
Title: Chairman
Location: Winnemucca, NV

Letter #: **23**
SUBMITTED BY: *ROSE STRICKLAND*
SIERRA CLUB
Title: Public Lands Committee
Department: Toiyabe Chapter, Nevada & Eastern California
Location: Reno, NV

Letter #: **24**
SUBMITTED BY: *BOB BUCKINGHAM*
BAR X RANCH
Title: For Bob and Fred Buckingham
Location: Paradise Valley, NV

Letter #: **25**
SUBMITTED BY: *PATTI BAKKER*
PUBLIC RESOURCE ASSOCIATES
Title: Project Manager
Location: Reno, NV / San Francisco, CA

Letter #: **26**
SUBMITTED BY: *DUANE BOGGIO*
SPERRY RANCH
Location: Paradise Valley, NV

Letter #: **27**
SUBMITTED BY: *DON HENDERSON*
NEVADA DEPARTMENT OF AGRICULTURE
Title: Director
Location: Reno, NV

Letter #: **28**
SUBMITTED BY: *JOHN L. MCLAIN*
RESOURCE CONCEPTS, INC. (RCI)
Title: CRMC / CPESC
Location: Carson City, NV

Letter #: **29**
SUBMITTED BY: *B. SACHAU*
Location: Florham Park, NJ

Letter #: **30**
SUBMITTED BY: *DALE L. BARTOS*
USDA FOREST SERVICE
Title: Project Manager
Department: Rocky Mountain Research Station
Location: Logan, UT

LIST OF SUBMISSIONS ARRANGED BY SIGNER'S LAST NAME:

Submitted by: **Patti Bakker**
Public Resource Associates
LETTER #: *25*
Title: Project Manager
Location: Reno, NV / San Francisco, CA

Submitted by: **Dale L. Bartos**
USDA Forest Service
LETTER #: *30*
Title: Project Manager
Department: Rocky Mountain Research Station
Location: Logan, UT

Submitted by: **Duane Boggio**
Sperry Ranch
LETTER #: *26*
Location: Paradise Valley, NV

Submitted by: **Bob Buckingham**
Bar X Ranch
LETTER #: *24*
Title: For Bob and Fred Buckingham
Location: Paradise Valley, NV

Submitted by: **Doug Busselman**
Nevada Farm Bureau Federation
LETTER #: *13*
Title: Executive Vice President
Location: Sparks, NV

Submitted by: **Dan Cassinelli**
Humboldt County Commission
LETTER #: *22*
Title: Chairman
Location: Winnemucca, NV

Submitted by: **John Cassinelli**
LETTER #: *8*
Location: Paradise Valley, Nevada

Submitted by: **Ron Cerri**
Rebel Creek Ranch
LETTER #: *18*
Location: Orovada, NV

Submitted by: **Katie Fite**
Western Watershed Project
LETTER #: *15*
Title: Biodiversity Director
Location: Boise, ID

Submitted by: **Lisa B. Hanf**
United States Environmental Protection Agency - Region IX
LETTER #: *7*
Title: Manager
Dept.: Federal Activities Office / Cross Media Division
Location: San Francisco, CA

Submitted by: **Dan Heinz**
LETTER #: *5*
Location: Reno, NV

Submitted by: **Don Henderson**
Nevada Department of Agriculture
LETTER #: *27*
Title: Director
Location: Reno, NV

Submitted by: **Howard F. Kale, Jr.**
LETTER #: *21*
Location: Scottsdale, AZ

Submitted by: **Roy Leach**
Nevada Dept. of Conservation and Natural Resources
LETTER #: *10*
Title: Western Region
Department: Division of Wildlife
Location: Reno, NV

Submitted by: **Anthony "Tony" Lesperance**
Humboldt County Farm Bureau
LETTER #: *6*
Title: President
Location: Paradise Valley, NV

Submitted by: **John L. McLain**
Resource Concepts, Inc. (RCI)
LETTER #: *28*
Title: CRMC / CPESC
Location: Carson City, NV

Submitted by: **Rebecca Lynn Palmer**
Nevada Department of Cultural Affairs
LETTER #: *4*
Title: Historic Preservation Specialist
Department: State Historic Preservation Office (SHPO)
Location: Carson City, NV

Submitted by: **Martin Basin Livestock Permittees**
Alternative 4 as presented by resource concepts, Inc. (RCI)
LETTER #: *14*

Submitted by: **Patricia Sanderson Port**
United States Department of the Interior
LETTER #: *3*
Title: Regional Environmental Office
Department: Office of Environmental Policy and Compliance
Location: Oakland, CA

Submitted by: **B. Sachau**
LETTER #: *1 & 29*
Location: Flora Park, NJ

Submitted by: **Kenneth D. Sanders**
University of Idaho
LETTER #: *9*
Title: Professor
Department: Dept. of Range Resources / Twin Falls Office
Location: Twin Falls, ID

Submitted by: **Michael J. Sanderson**
Nevada Division of Water Resources
LETTER #: *2*
Title: P.E.
Location: Carson City, NV

Submitted by: **Brad Schultz**
University of Nevada-Reno
LETTER #: *17*
Department: Cooperative Extension – Humboldt County Office
Location: Winnemucca, NV

Submitted by: **E. Samuel Stegeman**
Nevada Dept of Conservation and Natural Resources
LETTER #: *11*
Title: P.E., Water Quality Standards
Department: Division of Environmental Protection / Bureau of Water Quality Planning
Location: Carson City, NV

Submitted by: **Rose Strickland**
Sierra Club
LETTER #: *20 & 23*
Title: Public Lands Committee
Department: Toiyabe Chapter, Nevada & Eastern California
Location: Reno, NV

Submitted by: **Jean & Keith Thomas**
7HL Ranch
LETTER #: *12*
Location: Paradise Valley, NV

Submitted by: **Robert D. Williams**
United States Department of Interior
LETTER #: *16*
Title: Field Supervisor
Department: Fish and Wildlife Service
Location: Reno, NV

Submitted by: **Lyman N. Youngberg**
Youngberg Trust Ranches
LETTER #: *19*
Department: Flat Creek Ranch
Location: Orovada, NV

A complete list of submission information including contact information is included in the Project Record.

RESPONSE TO COMMENTS

LETTER #: 1
BY: B. SACHAU

Comment #: 1-1
COMMENT TEXT:
I think grazing should be banned from these areas. It is quite clear and substantiated that grazing is environmentally destructive. . . .

USFS RESPONSE:
Grazing is a permissible use of National Forest System lands on the Humboldt-Toiyabe National Forest under current Laws and Policies. The No Grazing Alternative was included in the Draft Environmental Impact Statement and carried through the entire analysis process. The potential impacts of livestock grazing are disclosed in Chapter 4 of the Draft Environmental Impact Statement.

Comment #: 1-2
COMMENT TEXT:
This area should be preserved in its natural state with the natural vegetation for wildlife and birds and people. . . .

USFS RESPONSE:
This comment is already decided by current Laws and Policies. National Forest System Lands within the Project Area are managed for Multiple Uses which include but are not limited to wildlife, recreation, mining, and livestock grazing.

LETTER # 2
BY: MICHAEL J. SANDERSON, NEVADA DIVISION OF WATER RESOURCES

Comment #: 2-1
COMMENT TEXT:
The project may impact Division of Water Resources if livestock watering facilities are further developed or initiated. . . .
USFS RESPONSE:
The proposed action and alternatives do not include specific proposals to further develop water developments. This analysis does not preclude future water developments related to livestock management, however, they are not included in this analysis.

LETTER #: 3
BY: PATRICIA SANDERSON PORT, REGIONAL ENVIRONMENTAL OFFICE

Comment #: 3-1
COMMENT TEXT:
The DEIS describes effects of grazing livestock compared with use of ATVs (all-terrain vehicles) on distribution of noxious weeds. The report indicates that removal of grazing would reduce the

dispersal and occurrence of noxious weed infestations (for example, page 4-49, Chapter 4 Environmental Consequences, Noxious Weeds).

USFS RESPONSE:
The Draft EIS is correct, and under this alternative cattle would not contribute to the dispersal of noxious weeds.

Comment #: 3-2
COMMENT TEXT:
If removal of livestock, however, leads to opening the area to recreational use, including ATV, there could be additional ramifications for distribution of noxious weeds. While ATVs can be weed vectors and tend to compact soils, what is not acknowledged in the DEIS is that general ATV use demolishes soil structure at the site.

USFS RESPONSE:
The Draft EIS analyzes the effects of Livestock Grazing on various resources. The Proposed Action and Alternatives do not include any proposals or requirements to change the recreational or ATV use in the Project Area. Effects of recreation and ATV use are included as potential cumulative effects. This comment is outside the scope of this analysis.

Comment #: 3-3
COMMENT TEXT:
Observation of these weed distribution factors in the DEIS should contribute to the proactive adaptive management of the area and the possible necessity for additional management of recreation activities (Page 4-66), and to the educational program proposed to teach the public about the effects of ATV use on the distribution of weeds (for example, Page 4-48, Chapter 4 Environmental Consequences, Noxious Weeds).

USFS RESPONSE:
See Response to Letter #3, Comment #2 above. This comment is outside the scope of this analysis.

Comment #: 3-4
COMMENT TEXT:
The sentence could be rewritten as: "Susceptibility of the soil to wind erosion decreases as silt and clay content increase, if the soil is undisturbed.

USFS RESPONSE:
Thank you for your comment.

Comment #: 3-5
COMMENT TEXT:
We suggest that alternatives 2 and 3 include a prohibition of off-road travel on all lands in the Project Area except on designated roads and trails that are signed for use by off-road vehicles.

As cattle are removed from these project lands, Forest Service regulations on off-road-vehicle use should be updated. This will enhance the likelihood that restoration of riparian areas and rangelands is successful.

USFS RESPONSE:
See Response to Letter #3, Comment #2 above. This comment is outside the scope of this analysis.

Comment #: 3-6
COMMENT TEXT:
What is the basis for the statement: "However, the added recreation should not result in greater effects than is currently occurring from livestock." A reference for this statement should be provided. If off-road vehicles, including ATVs, use the streams for recreation, the impact could be quite significant.

USFS RESPONSE:
What this statement means is that the impacts from grazing are currently greater than the impacts from recreational use on the Santa Rosa Ranger District.

LETTER #: 4
BY: REBECCA LYNN PALMER, NEVADA STATE HISTORIC PRESERVATION OFFICE

Comment #: 4-1
COMMENT TEXT:
. . . This agreement document should be referenced in the draft EIS. [MOU 12/1995]

USFS RESPONSE:
Please refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview section in the FEIS. Information referencing the MOU between the HTNF and the Nevada SHPO has been added.

LETTER #: 5
BY: DAN HEINZ

Comment #: 5-1
COMMENT TEXT:
The utilization levels allowed in the EIS for the preferred alternative are excessive for Wyoming and Mountain big sagebrush sites. A preponderance of the literature shows that arid range lands cannot sustain 50% growing season use annually.

Research shows that use levels of this magnitude require at least 1 and often 2 full growing seasons of rest following use of 50% or more. I refer you to the annotated bibliography on utilization and residue levels gathered by the BLM for the Rangeland

I do not believe you will find a more complete literature review of the subject. It resulted from a lively debate between scientists opposed to changing the old 60% guideline and those who knew 60% was excessive. The BLM set maximum use for these sage

USFS RESPONSE:
As stated in the proposed action (page 4-45), upland communities rarely receive use of 65% over a landscape level. By reducing the allowable use of sagebrush to 50% this should have very little effect to upland mountain communities. Range allotments in the Project Area are currently on a rest rotation grazing system. Utilization levels for upland brush species that include snowberry, bitterbrush, and serviceberry would remain the same as current management of 35% use.

Comment #: 5-2
COMMENT TEXT:
In addition I would hope you would add a complete table of contents. It is really difficult to find where the nitty gritty resides in the draft. . . .

USFS RESPONSE:
Thank You for your comment, a Table of Contents will be added to the Final Environmental Impact Statement.

Comment #: 5-3
COMMENT TEXT:
. . . Map legends are also a bit inadequate. For instance what are the large blank areas? Are these closed to grazing?

USFS RESPONSE:
Thank You for your comment. We will try and improve our maps in the Final EIS. The blank areas on the maps are primarily allotments that were covered under previous environmental analysis. The Eight Mile Drainage is a closed allotment.

LETTER #: 6
BY: ANTHONY "TONY" LESPERANCE, HUMBOLDT COUNTY FARM BUREAU

Comment #: 6-1
COMMENT TEXT:
Perhaps a review of the actual facts might be timely. The latest livestock numbers indicate that on January 1, 2003, there were 66,000 cattle and calves in the county. Economist normally consider that about 75% of the January one number are actually cows, thus we can conclude that there are around 50,000 producing beef cows. The figures we are most familiar with indicate that each producing cow generates around $350 of direct input into the local economy annually, and those funds further generate at least another $462 of indirect dollars. Thus, one way or another, each cow generates around $812 annually. These are not figures pulled out of the sky, but they have resulted from numerous reports and studies, many conducted right here in Humboldt County. Consequently, the cattle industry in Humboldt County generates over forty and one half million dollars annually.

We note on page 4-58 the statement: "Since 1980 reduction in grazing on both BLM and Forest Service-managed lands have resulted in an annual loss to the livestock sector in northwest Nevada of $2,051,364. When multiplied across the other segments of the

We also note on page 4-58, under the "No Grazing" scenario that: "Eliminating all livestock grazing within the Project Area would result in an estimated additional loss in economic value of $611,226 annully to the livestock sector in Humboldt County." A

Consequently, there will not be a reduction of the 5,663 head by one third, but more likely by at least half if not more. For simplicity, lets assume that if the "No Grazing" scenario were to occur that the numbers would be reduced by half to around 2,

USFS RESPONSE:
Thank You for your comment and information. Our analysis in the Draft EIS used reliable data that was available to us, however, it may not have considered all factors and in as much detail as the information you provided. By including the information you provided above in this document it will become a part of this analysis and will be considered during the preparation of the Record of Decision.

Comment #: 6-2
COMMENT TEXT:
We are thankful that the Forest Service is not considering the "No Grazing" scenario at this time. . . .

USFS RESPONSE:
The No Grazing Alternative was one of three alternatives analyzed in the Draft EIS. The Forest Service is required to analyze a reasonable range of potential alternatives.

Comment #: 6-3
COMMENT TEXT:
We will remind you that the NEPA process rather clearly states that realistic economic impacts of any proposed action must be considered both on the local community as well as the larger community. We see no consideration of Paradise Valley, with the exciption that subdivision may become more prevalent.

Further, if subdivisions were to occur what impact would that have on the sociological standing of the long term ranching families? We see a complete misrepresentation of the facts as far as Humboldt County is concerned, and we see little mention of . . .

USFS RESPONSE:
Please see response to Letter #6, Comment #6-1.

LETTER #: 7
BY: LISA B. HANF, US ENVIRONMENTAL PROTECTION AGENCY - REGION IX

Comment #: 7-1
COMMENT TEXT:
. . . We are concerned that further resource declines will occur unless immediate rangeland management changes are made. Improving riparian and stream conditions is especially important because the Martin Basin area is a critical site for recovery of the federally listed threatened Lahontan cutthroat trout (p. 3-21).

USFS RESPONSE:
The allotments in question are currently managed under Amendment II of the Humboldt National Forest Land and Resource Management Plan. Under this Amendment management of riparian areas and habitats for Lahontan Cutthroat Trout are a major consideration. The Draft EIS analyzes a range of potential alternatives and the potential effects of each are disclosed in Chapter 4 of the document.

Comment #: 7-2
COMMENT TEXT:
EPA recommends a more aggressive implementation schedule, immediate consideration of reduced permitted animal numbers and seasons where ecosystem functions are known to be impaired, and a commitment to tiered environmental documentation for specific Allotment Management Plans.

USFS RESPONSE:
The implementation schedule under the proposed action is outlined based upon a reasonable estimate of future budget allocations. These estimates were developed to ensure that the Forest Service could reasonably ensure adequate funding to meet our commitments under this alternative. Adjustments in seasons and numbers can be made on a case by case basis based upon site specific information. No additional environmental analysis is planned for specific Allotment Management Plans when developed, provided that those plans are within the decision space provided for under the Final Environmental Impact Statement and Record of Decision for this Project. Any activities or proposals that fall outside of this decision space will require additional NEPA Documentation.

Comment #: 7-3
COMMENT TEXT:
Other concerns include continued water quality effects and impacts on downstream users. . . .

USFS RESPONSE:
The potential effects of the three alternatives are disclosed on pages 4-1 through 4-5 of the Draft EIS.

Comment #: 7-4
COMMENT TEXT:
...The DEIS also lacks specific information on the social and economic importance of the allotments; the effects of the drought, fire regime, flood risk, and mining activitiy; and efforts to address the impacts of these forces.

USFS RESPONSE:
See response to Letter #6, Comment #1. The potential cumulative effects of other activities are disclosed throughout Chapter 4 of the Draft EIS.

LETTER #: 8
BY: JOHN CASSINELLI

Comment #: 8-1
COMMENT TEXT:
. . . It is stated within the document that, of the three management options, proposed action is preferred by the Forest Service. This is blatantly obvious throughout the DEIS as in each section there is an attempt to point out a negative in the "current management, no action" response, even when that negative has no scientific backing. . .

USFS RESPONSE:
Under the NEPA Process the Forest Service develops a Proposed Action which is sent out for public comment. The other Alternatives are then developed based on issues and public comments and are analyzed in the Draft EIS. In Chapter 4 the potential effects of each alternative are displayed for various resources. These effects analysis are developed by Forest Service Professionals using a wide array of data, research, and other information. Sources of this data and information are included in the Project Record for this project.

Comment #: 8-2
COMMENT TEXT:
. . . Future managers who read this document in its current form would easily be under the assumption that the permittees are degrading the Project Area and that management changes are needed.

USFS RESPONSE:
The intent of this document is to analyze the potential effects of each alternative to allow the manager to make an informed decision. The Forest Service is not required to make a decision that has no effects on resources, however, we are required to disclose those potential effects. Future Managers will be most influenced by the Final Record of Decision and any requirements that are included within that document. Under the Proposed Action future management decisions related to grazing would be based upon the site specific assessments as outlined in this alternative that will then determine resource conditions. Additional changes would not be based upon Chapter 4 of this analysis.

Comment #: 8-3
COMMENT TEXT:
It is also stated within the DEIS that the no grazing alternative is the preferred "environmental alternative." According to whom? . . .

USFS RESPONSE:
This determination was made by the Interdisciplinary Team in Coordination with the District Ranger. This designation does not require the Forest Service to select this Alternative.

Comment #: 8-4
COMMENT TEXT:
...Fire alone has become one of the most destructive forces to the native flora and fauna within the Great Basin. Some of the many negative impacts of recent fires include significant loss of mule deer habitat (60-70% of winter range), increased exotic grasses such as cheatgrass, destruction of aquatic ecosystems such as Flat Creek, increased erosion, and decreased sage grouse habitat....

USFS RESPONSE:
You are correct; thank you for your comment.

Comment #: 8-5
COMMENT TEXT:
. . . How can the elimination of grazing, a very effective fire suppression tool, be preferred from an environmental standpoint? . . .

USFS RESPONSE:
We acknowledge that Livestock Grazing may have potential in some circumstances to reduce fine fuels and reduce the risk of fires. In identifying the Environmentally Preferred Alternative, the Forest Service considers the potential effects both positive and negative of all aspects of each alternative on a wide range of resources to make that determination. We do not consider just one aspect or potential benefit.

Comment #: 8-6
COMMENT TEXT:
. . . It is mentioned in the DEIS that if grazing is stopped, the owners of these ranches will be forced to subdivide these lands and allow them to be further developed. The DEIS DOES NOT however, recognize the biological significance of this to the degree that it should be recognized.

It also does not recognize that by significantly lowering utilization levels, time on the range will also be reduced resulting in lower AUM's. This too could support some of these same problems once ranchers have to reduce numbers and begin losing revenue

USFS RESPONSE:
It may be possible if the "No Grazing" alternative was selected that livestock operators would not have enough grazing land to support their operations and dividing land would be an alternative to sustain some financial stability. Dividing land could have some effect on the biological components, however a "No Grazing" alternative is analyzed for comparison across alternatives and is not part of the "Proposed Action" alternative.

On (page 2-4) of the Martin Basin Draft Environmental Impact Statement it states in paragraph 2 line 5 that "It is estimated that Animal Unit Months (AUMs) may be less than "Current Management/No Action." "The amount is unknown but would be based on monitoring following implementation of this alternative." The "Proposed Action" was developed to meet the purpose and need and that is to move existing resource conditions within the Project Area toward desired conditions (Page Ch. 1-3).

The Forest Service recognizes that AUM's may be less than the "Current Management/No Action" alternative, see (page 2-4).

Utilization levels in the "Proposed Action" may change depending on the level of functioning conditions, (page 2-5).

Comment #: 8-7
COMMENT TEXT:
. . . Riparian areas are important to all species of wildlife, especially fish. They also play an important role in grazing management and the overall use of an allotment. . . .

USFS RESPONSE:
Thank you for your comment.

Comment #: 8-8
COMMENT TEXT:
. . . The DEIS states that many of the riparian areas in the Project Area are not functioning or are in poor condition. Most of the blame for this is placed on grazing. Cattle congregate in riparian areas because of their need for water and because of the abundance of grass and shade. Yet there is data from numerous sources (Kearsley, University of Idaho; Montana State University) that have proven that cattle prefer watering at troughs rather than at streams or ponds and if given the choice will choose troughs over the latter.

Clawson (1993) documented an 85% decline in stream use and a 53% decrease in use of an undeveloped spring after installing a water trough. A study in Virginia found that an off-stream water trough dramatically reduced streambank erosion, nutrient loading…

It is my understanding that the Forrest Service's policy is to not provide any new troughs or supplies to fix old troughs. If non functioning troughs were fixed and some new trough developments were allowed, much of the pressure could be taken off of riparian areas.

If this is done then where will cattle water? Water is the limiting factor within the management area and by reducing utilization on streams and springs and not providing alternative water sources, you will shorten the grazing season and limit upland use.

USFS RESPONSE:
Thank You for your comments. The Forest Service agrees with your concerns regarding the importance of water developments, however, these comments are outside the scope of this analysis. This proposal and its alternative do not include the construction of new water developments or the maintenance of existing developments. Currently the Forest Service is limited in our ability to provide supplies or funding for water developments due to federal and state laws and regulations regarding water rights. The Forest Service would like to remind the commenter that many of the non-functioning water developments that are referred too, have been in this condition for many years even when Forest Service was able to provide support to repair these developments.

Comment #: 8-9

COMMENT TEXT:

Another area where riparian utilization limits the overall pasture use is in fields with water-gaps. Water-gaps can be effective because the majority of the stream is fenced off and cattle are only allowed to water in certain areas within the stream. While this practice keeps cattle off the majority of othe riparian area within a stream, it increases the use in those areas that remain open to cattle.

It is for this reason that utilization levels cannot be the same for riparian communities in a field where cattle have access to the entire stream and in a field where there are water-gaps. Because cattle are basically funnelled into water-gaps, these sma

This is an important issue that must be addressed by the DEIS because cattle will have to be removed much earlier if water-gap riparian standards are set the same as other riparian standards.

USFS RESPONSE:

Riparian utilization standards should never be used within appropriately designed water gaps. Utilization standards should be taken at key areas that represent riparian areas within that specific pasture or allotment as directed by Forest Policy that was established by the Forest Supervisor in 2004. Under the alternatives included within the DEIS, utilization standards would be established within key areas and should never be measured within water gaps.

Comment #: 8-10

COMMENT TEXT:

The DEIS states that aspen stands are being adversely affected by grazing and that under current management, smaller stands will be reduced or eliminated and larger stands may have a reduction in size and stand. Sampson (1919) stated that aspen reproduced well under moderate cattle grazing with grazing being considered moderate when 50 to 70% of the palatable, non-aspen forage was consumed.

Clary and Medin (1990) found that an aspen/willow plot with moderate to heavy herbaceous utilization by cattle and an ungrazed plot both had sufficient numbers of aspen saplings to sustain the stands after the present day mature trees senesced. Some browsing of aspen and willow increases the above ground production of these shrubs and tree species…

Julander (1937) found aspen can tolerate utilization levels of 65 to 70%. Once again there is sound data to show that if cattle continue to graze at the current rate we will not be having to list aspen as an endangered species.

USFS RESPONSE:

There are other health indicators to determine if aspen communities are meeting desired conditions as stated on (page Ch. 1-10) and also refer to (page B-11-12 and B-31-B33 for Aspen Group attributes and indicators of health).

The effects of the “Current Management/No Action” alternative for aspen communities can be found on (page 4-41). An aspen community overview can be reviewed on (page 3-51 to 3-53).

The “Proposed Action” alternative (page 4-42) sets limits on young aspen (seedlings/saplings) to 20%, and sets herbaceous vegetation limits from 0-45% depending on the level of functioning conditions of vegetation.

Kay 2001a, 2002,2003, Aspen Management Guidelines for BLM Lands in North-Central Nevada found that cattle grazing is primarily responsible for the decline of aspen on BLM lands in Nevada. He also found a strong correlation on aspen stand condition as it relates slope and proximity to water.

Walter R. Houston, May 1954 A Condition Guide for Aspen Ranges of Utah, Nevada, Southern Idaho, and Western Wyoming. Found that most aspen range has been greatly altered by years of overgrazing.

Walter F Mueggler Dec 1998 Aspen Community Types of the Intermountain Region; States that when compared to the well-formed stands in Utah, aspen growth in Nevada is marginal. It tends to occur in small to medium-size groves in specialized environments of high-elevation basins, swales, draws, and on the lee side of ridges where snow accumulates.

For aspen communities that fall within the *Populus tremuloides*/Tall Forb Community Type are believed to represent near-climax aspen communities or at least a grazing-altered community.

Comment #: 8-11

COMMENT TEXT:

. . . As for willows, Lamman (1994) found that plainleaf willow could sustain 58 to 70% utilization in a montain riparian community in Colorado and Aldous (1952) reported that willow clipped at 50% or 100% utilization during plant dormancy produced more above-ground biomass than did unclipped controls.

Willows are a very hardy plant whose main enemy are drought and flood events. This data supports that under current utilization, cattle will not have a long term effect on willow and aspen regenration.

USFS RESPONSE:

There are several factors that determine stream functionality, not just the amount of utilization each vegetative group receives.

The "Proposed Action" alternative will have variable utilization levels, depending on the functioning conditions of the stream, (see page 4-38, 39 and appendix B-4 Stream Group, Willows).

There are several streams within the Project Area that are currently not functioning or functioning at risk, see (page 3-49 to 3-51) for a stream group overview .

Comment #: 8-12

COMMENT TEXT:

Continuing with riparian areas, much of the stream data presented in the DEIS was collected by seasonally employed undergraduate students who have no professional working knowledge of what ungulate damage or bank vegetation stability levels are or should be. There are no criteria or guidelines provided in relation to any of the surveys conducted.

For example, the beginning of page 3-22 states that Siard Creek was surveyed and found to be below optimum condition. By what standards and in accordance to whom? Table 6-T of NDOW data shows an increase in canopy density and low ungulate damage on Siard . . .

USFS RESPONSE:

The data in question was collected by crews employed by the Nevada Department of Wildlife. The data was collected as part of GAWS stream surveys which is a well established survey protocol with several years of data for most of the streams on the Santa Rosa Ranger District. Considerable improvements in canopy density have occurred on Siard Creek, however you failed to also note that both vegetation bank stability and soil stability have declined since 1993 based on the data presented. The concerns are further supported by the PFC Assessments listed on page 3-3 that indicate Siard Creek is in nonfunctional condition.

Comment #: 8-13

COMMENT TEXT:

There is expressed concern about sediment levels within the streams in the Project Area. Too much sediment in a stream reduces survival of fry and decreases the availability of spawning gravels that trout need to deposit eggs. It is stated in the DEIS that fine sediment levels in excess of 30% were found in surveys conducted by the Forest in 2002, and substrates embedded with fine sup to 50% are common within the Project Area.

It is also stated that high sediment levels are due to loose soils exposed by livestock use and lack of regeneration. Buckhouse et al. (1981) compared season long continuous, deferred rotation, rest rotation, August-September, and September-October . . .

Hayes (1978) found that streambank instability tended to be related more to spring discharge than cattle grazing in the mountain meadows streams of central Idaho. Abt et al. (1994) and Clary et al. (1996) found that short stout herbaceous stems and leaves may entrap more sediment than taller vegetation….

This data supports the argument that cattle are not the primary cause of bare and loose soils and that the riparian grass, after being grazed, is more effective at trapping sediment. Meeuwig (1965) also

found that there were no differences in soil organic matter content between moderately grazed plots and plots excluded from grazing…

USFS RESPONSE:
If there were high bank-destabilizing stream flows, wouldn't they also be flushing out the excess sediment? While there are likely natural processes, such as drought and floods that are inputting sediment, livestock grazing may also be contributing to the sedimentation problem. As discussed in the EIS, many of the drainages in the Project Area are non-function or functional-at risk due to livestock grazing. Many of the streambanks also have a less than optimal ungulate damage rating. This livestock-caused disturbance reduces a riparian areas ability to catch sediment before it is washed into the channels by overland flow, and also makes streambanks more vulnerable to erosion.

Comment #: 8-14
COMMENT TEXT:
The only concrete data collected in the surveys presented in the DEIS is the fish population data and it would support the fact that the streams in the Project Area are functioning very well, especiallly under the current drought conditions.

Table 1 compares fish population data between the last two NDOW stream survey reports for various streams in the Project Area. You can see from this data that in almost all instances, fish populations are up.

This data is very significant when considering stocked fish numbers and precipitation amounts were similar between sample years. It is interesting that while the DEIS states that trout are an indicator species, it provides no population trend data for . . .

USFS RESPONSE:
We disagree. While fish populations in general tend to fluctuate in response to precipitation, length of drought, and other factors, the fish of primary concern in this document is Lahontan cutthroat trout. Surveys in the Project Area have roughly occurred once a decade (1980's, 1990's, 2000's), although in some instances have happened more often. In general, LCT numbers have declined, if not become locally extirpated, in comparison to overall numbers of game fish.

Concerning management indicator species, the status of these trout, as well as other species, is currently under review as part of a Forest Plan revision.

Comment #: 8-15
COMMENT TEXT:
The north fork of Cabin Creek is an area that is supposedly not functioning within the DEIS, yet when surveyed in 1997 (a drought year) it supported one of the highest concentrations of Rainbow Trout in the Project Area (509 fish per mile) and also supported a very good population of hybrids (66 fish per mile).

When surveyed in 1987, the Nevada Division of Wildlife only found 105 Rainbow trout per mile and in 1993 only 10 fish per mile were found! Because the north fork of Cabin Creek is a headwater tributary to Cabin Creek and eventually Martin Creek, these Fish population trends promote the fact that fish are successfully spawning….

The Main stem of Cabin Creek itself only had a population estimate of 904Rainbow trout in 1993 yet in 1998 the population had reached 1,449 Rainbows and 39 Brown trout were also found. No Brown trout were found in the 1993 survey. Siard Creek, another drainage that the DEIS claims is nonfunctional had no trout found in 1993 even though it had been stocked with trout just two weeks earlier.

In 2001, 108 trout were found in the drainage. Because trout are an indicator species, the fish population numbers collected by NDOW indicate lthat many of the drainages and riparian areas are functioning better than the Forrest Service suggests.

USFS RESPONSE:
From an ocular estimate, the upper end of the North Fork of Cabin Creek is in fair to good condition, and a former fish biologist, Kelly Amy, said that the threatened Lahonton trout were primarily utilizing the upper end of this drainage. We witnessed a Nevada Department of Wildlife employee stocking

the Cabin Creek drainages with trout. It would seem that with periodic stocking, fish numbers would fluctuate

Riparian ecoplots were located in the lower end of the North Fork Cabin Creek and Cabin Creek drainages, as these were areas identified as areas of concern by Santa Rosa District employees. The concerns on these two drainages were stream downcutting, lack of willow regeneration and poor species composition and growth of riparian species.

On the North Fork Cabin Creek, one riparian ecoplot was established about 400 feet upstream from the Windy Gap to Hinkey Summit road. At this location the stream was downcut about four feet. The meadow adjacent to the stream channel was sampled. The soil indicated that prior to incision, the soil had a fairly high water table and the meadow was likely wet in the root zone throughout the summer. At the time of sampling, the meadow had lost the water table to a point below the rooting zone leaving plants primarily dependent on surface precipitation. Analysis of this meadow was completed to assess the stability of the system to hold itself together should a flood event occur.

The results of the analysis for the North Fork Cabin Creek meadow are:

The amount of bare ground is 25%, which is too high for a meadow system, as compared to other plots completed in riparian meadows across the Forest. Meadow systems tend to have little bare ground due to the ability of these sites to produce abundant growth. Bare soil is exposed to erosion.

The average effective rooting depth was 14 centimeters, which is good for this type of meadow system. Roots to this depth will help hold surface topsoil in place.

The soil structure was subangular blocky in a portion of the upper horizon indicating some moderate-level compaction of topsoil has occurred.

Vegetative cover is 32% grasses and grass-likes, 61% forbs and seven percent shrubs (willow and sagebrush). Meadows in good condition have a much higher percent of grass and grass-likes than forbs. Fibrous-rooted grasses and grass-likes are adapted to hold soil in place during flooding, whereas tap-rooted forbs allow for a greater movement of soil.

The forbs, such as cinquefoil, dandelion and yellow pea, occurring in high amounts on this site are plants that survive well with disturbance, but lack ability to stabilize soil or provide forage value. Yellow pea can be poisonous to livestock.

This area has experienced downcutting of the stream channel which has altered this site from wet to mesic meadow and it appears to be moving toward dry meadow.

It is my guess that the high bare soil, the vegetative composition favoring undesirable forbs and the stream incision put this meadow into non-functioning and thus placed the North Fork Cabin Creek in non-functioning condition.

As for Cabin Creek, the riparian ecoplot in the mesic meadow had a high amount of bare soil (17%), indications of some moderate level compaction, a low percent cover of grasses and grasses (35%) and high percentage of forbs (65%) and a large cover of forbs adapted to survive disturbance, but lacking in soil protection or forage values. This site had cover of curly dock, yellow pea and larkspur, all of which can be poisonous to livestock.

Two willow sites were sampled on Cabin Creek. These two sites had a low cover of willow, one with 7% and one with 3% willow cover. Both sites had aquic soils (high water table for most of the summer), but the grasses and grass-like species were almost all moist system species, not wet system species. The ratio of forbs to shrubs and graminoids was high in both locations, which is fine for willow systems, however there was a high percentage of undesirable annuals and weedy species. The two sites had larkspur, wild iris, curly dock, yellow pea and tansy mustard, which can be poisonous to livestock. Rooting depth was moderate and bare soil was high, but these two factors are not as definitive on willow sites, as these sites vary in flood activity and amount of water at high levels in the soil.

Comment #: 8-16

COMMENT TEXT:

Water quality, is another area of concern within the DEIS Table 7-T in the DEIS shows that all the streams within the Project Area meet state standards for water quality. Johnson et al. (1978) and Gary et al. (1983) found that moderate grazing along a mountain meadow stream in central Colorado

did not result in significant changes in suspended solids, NO3-N, NH4-N, or orthophosphates in streamwater.

In a streamflow study on several watersheds in eastern Oregon, Tiedemann et al. (1989) found no relation between intensity of grazing and levels of measured chemical constituents including NO3-N, PO4, Ca, Mg, K, Na, and Ph. There is no data that definitively concludes that current grazing practices in the Project Area are substantially affecting water quality.

Excessive algae growth observed during the 2002 grazing season in Siard Creek and Martin Creek could be better attributed to high water temperatures from drought rather than to impacts from grazing.

USFS RESPONSE:
The text concerning excessive algae growth has been deleted from the document. We thank you for the referenced information.

Comment #: 8-17
COMMENT TEXT:
Appendix B-1 of the DEIS defines the matrices for the proposed action. Within these matrices are a couple of interesting points. It is stated in the first table that in order for a stream to be functioning as desired, the water temperature has to remain below or equal to 20 degrees Celsius.

We have been performing stream surveys in northern Nevada, southern Idaho, and eastern Oregon for over three years and it is not uncommon to find trout rearing streams in excess of 20 degrees when drought and hot weather are present.

These conditions are not desired for trout but are environmentally controlled and native trout species such as the Lahontan Cutthroat and the Desert Redband of the Owyhee drainage are accustomed to dealing with these higher temperatures in the summer months.

Because stream temperature is more of an environmentally controlled factor and less influenced by grazing, it is inot feasible that it be a key attribute in determing stream function unless it is a long term problem.

USFS RESPONSE:
Clarification. The matrix temperature of 20° C is mandated by State water quality standards, and the Forest Service follows State standards where such exist. The State standards do make allowances for elevated temperature in the case of drought and other naturally occurring conditions. The matrices are being edited for clarity and to better reflect State law.

Disagree. Studies have shown temperature to be indirectly affected by inappropriate grazing through the removal and/or degradation of streamside vegetation. Increased vegetative density/coverage and subsequent lessening of temperature has occurred where livestock use has been eliminated, substantially reduced from past excess, or otherwise modified (e.g., utilization limits, seasonal timing, dispersion of animals) to limit access/impact to streamside riparian.

Comment #: 8-18
COMMENT TEXT:
. . . Another problem within the matrices is the mention that seeded, non-native species are indicative of management problems within Mountain Big Sagebrush groups. Yet forage kochia, a non-native species, was planted on the Willow creek fire area with the permission of the Forest Service.

Does this mean that from now on all the area that has the non-native kochia does not meet desired function? This is another example of how important the wording of this document is and how future generations could interpret it.

USFS RESPONSE:
Your comment is well taken. The presence of non-native species can indicate management problems. Historically, these seeded areas were in essence range developments, however, there are adverse impacts to native vegetative communities associated with these decisions. In the case of the seeding of Forage Kochia on the Upper Willow Fire, a very difficult decision was made to allow the introduced species to be seeded at lower elevation. The area where Kochia was seeded does not meet desired function and would not have whether it was seeded with Kochia or not. The decision to plant Kochia was made in the hope that a plant species with some potentially positive attributes would

establish in the area and off-set the negative impacts of a monoculture of cheatgrass. The Forest Service will strongly consider your concerns and within the decision will try and address this issue while continuing to improve the condition of vegetative resources.

Comment #: 8-19

COMMENT TEXT:

Sage grouse are currently a hot topic as many "environmental" groups are attempting to use them as a tool to reduce or remove grazing from public lands.

The DEIS only further supports this by suggesting that cattle grazing degrades sage grouse habitat. Yet, at this time there is no sound scientific evidence to support these claims.

USFS RESPONSE:

Explanation for effects of the “Current Management/No Action” and “Proposed Action” alternatives to sage grouse habitat are stated on pages 4-19 and 4-20 and 4-25 and 4-26 respectively.

Comment #: 8-20

COMMENT TEXT:

A historic trend in the rise and fall of sage grouse populations mimics a historic rise and fall in the intensity of cattle grazing with sage grouse numbers reaching their peak when grazing was also at a high level.

Klott (1987) states that moderate grazing potentially benefits sage grouse. For the DEIS to state that livestock grazing may affect the quality of brood rearing habitat through a reduction of vegetation in riparian areas and wet meadows is absurd when it is well known that young sagegrouse need young and tender shoots of grass along with insects to be successful.

Both of these are promoted through grazing. By not grazing these areas, grasses could become dense and tough and not nearly as palatable for young birds.

USFS RESPONSE:

As stated in the DEIS on page 4-19, riparian meadows that are not moving toward Forest Plan vegetation management objectives within sage grouse habitat would continue in this trend. Past grazing practices and current utilization standards in streams and riparian meadows has resulted in a reduction of quantity and quality of forbs available for attracting insects for sage grouse hens and their broods, as well as a reduction in the amount of cover available to escape predators.

In addition, there are multiple factors to consider when estimating causes in sage grouse population trends and not based on one single factor. Several factors including drought, fire, over hunting and crested wheatgrass chainings can influence sage grouse population fluxes. There are positive and negative impacts to sage grouse habitat as a result of grazing, but there is little evidence linking grazing practices to sage grouse population levels. It is correct that new growth of some plants is promoted as a result of grazing and that this new growth is more palatable to young birds, however, grass height and cover also affect sage grouse nest site selection and success (Connelly, et al. 2000). As stated on page 4-19 of the DEIS indirect evidence suggests grazing by livestock that significantly reduces the herbaceous understory in brooding habitat would provide less cover for the protection of young chicks and thus may have negative impacts on sage grouse populations.

Comment #: 8-21

COMMENT TEXT:

. . . By not grazing these areas, grasses could become dense and tough and not nearly as palatable for young birds. This would also promote fire fuels and any range fire is far more detrimental to the future of this Management Indicator Species than current grazing practices will ever be.

USFS RESPONSE:

For Sage Grouse there is a delicate balance between livestock grazing at an appropriate level that does not result in adverse impacts to sage grouse and livestock grazing that adversely impacts sage grouse and their habitats. You are correct that no grazing over time would likely produce adverse effects by reducing the production of important forbs and lush vegetation that is used by sage grouse and their young. On the other side of the issue, livestock grazing at higher utilization standards will reduce the availability of hiding cover and in some situations may reduce the availability of important forbs used by sage grouse. The effects of the various alternatives are shown within the Wildlife

Section in Chapter 4 of the DEIS. The potential effects of Alternative 4 will be disclosed within Chapter 4 of the Final EIS.

Comment #: 8-22

COMMENT TEXT:

. . . The DEIS states that livestock may trample and open up the under story, which reduces food and shelter for the pygmy rabbit (Williams 1986) yet there is research being done by Washington Department of Wildlife Biologist Fred Dobler suggesting that by eating the grasses, the cows give sagebrush a competitive advantage.

Thick sagebrush provides both food and concealment for the rabbits. Data can be found to support both sides, yet you choose to include data in the DEIS that supports reduced livestock grazing.

USFS RESPONSE:

Although big sagebrush, such as *Artemisia tridentate,* is the primary food source for pygmy rabbits in the winter months, as described in the DEIS on page 3-45, grasses become an important part of their diet during the summer. As stated in the "Preferred Alternative" on page 4-30 a reduction in current grazing practices of maximum utilization standards of 65% to the "Preferred Alternative" of 45% maximum utilization would result in faster recovery of those understory habitats that are not in desired condition and therefore effects to pygmy rabbit habitat would be lower than under the "Current Management/No Action" alternative. Additionally, as stated on page 4-34, the "No Grazing" alternative would result in an increase in fine fuels and could result in a higher risk of wildfires and more continuous burns that could eliminate large areas of sagebrush which provides important pygmy rabbit habitats. This alternative would also result in increased use of private lands by operators trying to stay in business which would result in degraded habitats on private lands.

Comment #: 8-23

COMMENT TEXT:

The Northern Goshawk is considered a Forest Service Sensitive Species in the DEIS. Again it is suggested that current grazing affects foraging habitat of goshawks by reducing the amount of food and cover for species such as snowshoe hares and mountain cottontail.

Some research supports that while this cover is reduced, it creates a more balanced predator prey relationship by allowing such raptors as the goshawk to hunt more effectively.

Also, a June 1998 news release by the U.S. Fish and Wildlife Service found "no evidence that goshawk habitat is limiting the population, or that significant curtailment of the species' habitat or range is occurring."

Still, the DEIS would lead us to believe that under current grazing practices, the goshawk is suffering.

USFS RESPONSE:

The study performed by the U.S. Fish and Wildlife Service was conducted to determine whether the species should be listed or not. The purpose of the DEIS is to list potential effects to the goshawk in relation to each of the alternatives considered and does not state that the goshawk is suffering.

Potential effects to goshawk habitat for the "Current Management/No Action" alternative are listed on page 4-20 and 4-21 of the DEIS.

Potential effects to goshawk habitat for the "Proposed Action" alternative are listed on page 4-27.

Potential effects to goshawk habitat for the "No Grazing Alternative" are listed on page 4-32.

We have accepted Alternative 4 as stated in comment letter # 14 and the effects of this alternative will be referenced in the final EIS.

Comment #: 8-24

COMMENT TEXT:

There are many other species mentioned within the DEIS and it seems that with all of them, the document mentions some possiblity that grazing could adversely affect them.

Yet, as with the above examples, there is no scientific data to support it or there is substantial data to argue both sides.

The fact is, with the exception of the recent bighorn sheep die-off, wildlife continues to flourish in the Project Area with fire being the most critical threat, not grazing.

USFS RESPONSE:
On the Santa Rosa Ranger District, Livestock grazing is the most wide-spread use which results in a wide range of potential impacts, both positive and negative. The impacts from fire have affected less than 30% of the entire District and are considered within the cumulative effects section for each alternative. The potential effects of livestock grazing on various wildlife species are addressed in the DEIS, pages 4-19 through 4-35. You are correct in that with all issues there are arguments to both sides. Our specialists used the information that was available to them in an attempt to portray the potential effects of each alternative. As far as wildlife flourishing, the comment is not completely correct. Some wildlife species are doing well, while other species are struggling or there are concerns for a wide variety of reasons. These species include California bighorn sheep, mule deer, sage grouse, and other non-game species.

Comment #: 8-25
COMMENT TEXT:
One of the goals of the Forest Plan was to provide a trail system adequate for administrators, permittees and the public to use within the National Forest. Currently a decent trail system does exist in portions of the national Forest.

However, cattle play a very large and important role in keeping these trails open and event visible. A very good example of this is in the upper basin of Cabin Creek. There is an extensive trail system in this remote basin that if it were not for cattle, would cease to exist. As a permittee of Martin Basin, I would clean these trails on a bi-yearly basis.

If it weren't for the permittees cleaning these trails and the cattle keeing them marked and open, they would not be accessible to the many hunters and hikers who enjoy them in the summer and fall. Many of the trails that are currently used in the Project Area were created by cattle.

USFS RESPONSE:
There are some trails within the Project Area. The potential impacts, both positive and negative, of livestock grazing on these trails is disclosed on pages 4-65 through 4-66. There are no developed trails within the Cabin Creek Drainage or within the Martin Creek Allotment. Livestock operators are currently not authorized to clear undocumented trails within the Project Area.

LETTER #: 9
BY: KENNETH D. SANDERS, UNIVERSITY OF IDAHO

Comment #: 9-1
COMMENT TEXT:
. . . On page 1-3, Goal # 16, I think you may be setting yourself up for failure in assuming you can improve rangeland in less than satisfactory condition through changes in livestock grazing alone. . . .

USFS RESPONSE:
We thank you for your comment. Goal #16 is a general Goal that is included within the Humboldt National Forest Land and Resource Management Plan. Changes in Livestock grazing on rangelands in less than satisfactory condition can potentially improve the condition of those ranges. The DEIS does not claim that changes in grazing alone will improve all ranges in less than satisfactory condition, and we recognize that some of these areas may not see improvement or would not without other management changes or activities. The Forest Service can document several examples on the Santa Rosa Ranger District where changes in livestock grazing resulted in direct and noticeable improvement in the condition of rangelands and riparian areas. Examples of these include the Buffalo Allotment and the East Fork of the Quinn River Riparian Pasture on the Quinn River Allotment.

Comment #: 9-2

COMMENT TEXT:

I strongly recommend you not include annual monitoring standards or indicators, such as utilization, stubble height, or streambank trampling in the terms and conditions of the Allotment Management Plans or Forest Plans.

As you are probably aware, the soon to be released University of Idaho Stubble Height Study Report also makes this recommendation. Instead, we recommend an adaptive management approach with terms and conditions based on long-term trend monitoring, rather than annual indicators.

I recommend you use stubble height/utilization monitoring on riparian areas as suggested by Hall and Bryant (1995); I.e. as a tool to be used by the permittees as an indicator that they need to do more riding to keep cattle off riparian areas or they need to start thinking of moving them to another pasture.

USFS RESPONSE:

Utilization Standards are established under Amendment 2 of the Humboldt National Forest Land and Resource Management Plan. All alternatives are within these standards. Both alternative 1 and alternative 2 use a variety of utilization methods in which are designed for use by livestock operators and agency personnel as an annual standard to indicate a need to move to the next unit or pasture. Other monitoring methods including more long-term methods will be used to determine long term success in meeting goals and objectives. A more detailed monitoring plan will be included within the final Record of Decision.

Comment #: 9-3

COMMENT TEXT:

. . . Any stubble height/utilization standards should vary depending on not only local conditions (as in your tables and including weather), but also upon season, duration and frequency of use and the type of grazing system being used. . . .

USFS RESPONSE:

Utilization standards will vary depending on the functioning level of each vegetative community, see (appendix B). Livestock management, including season, duration and grazing system will be evaluated during the allotment management process and through annual operating instructions, not analyzed in the DEIS.

Comment #: 9-4

COMMENT TEXT:

. . . Stubble height as an annual indicator of grazing use in riparian areas should only be used where existing science suggests that it is an appropriate indicator and in combination with long-term monitoring of vegetation and channel parameters (University of Idaho Stubble Height Study Report).

USFS RESPONSE:

Stubble height is not currently used as an indicator of vegetation condition within the Project Area.

Comment #: 9-5

COMMENT TEXT:

For upland utilization standards, you cite Holechek et al (1999). I would question that it is a valid reference for making decisions that may affect the livelihood of the permittees. Holechek et al (1999) is not a peer reviewed article and is simply the authors' interpretation of selected publications.

I know many highly respected range scientists and range managers that have specialized in grazing management that would take excpetion to the Holecheck et al (1999) statement that "research convincingly shows 40-45% use is moderate on most rangelands and 30-35% is needed for improvement in rangeland vegetation.

The authors also did not include any studies on vegetation similar to what is in the Project Area. While most range scientists and managers agree with moderate use, the more common interpretation of moderate use is 40-60%, not 40-45%. Most scientists also agree that the degree of use plants can sustain over the long term varies…

A one-size-fits-all standard is not adaptive management. There is ample evidence that rest-rotation and deferred rotation grazing systems have greatly improved upland rangelands in the Intermountain area the past 50 years or so and Gus Hormay certainly did not advocate only 30-35%.

USFS RESPONSE:
Holochek was not cited for upland utilization standards, see (page 4-43, 4-44, 4-45, 4-46)

Where Holochek was cited (page 4-36), a peer reviewed journal article from (Clary and Webster, 1989, and Ratliff, 1987) was also cited indicating 35-45% percent use, which is considered light to moderate and would provide for vegetative health on excellent riparian areas and for meadows in poor condition, the same authors recommend 20-30% percent use. .

Please refer to appendices (pages B-3 thru B-42) for other vegetative health indicators and standards which are considered in the "Proposed Action" alternative.

All allotments are currently on a rest rotation grazing system and have improved over the past 50 years.

Comment #: 9-6
COMMENT TEXT:
Finally, I would like to comment on a couple of other items in the EIS. On page 4-68 it is stated that the enironmentally preferred alternative would be no grazing.

There is certainly ample evidence that plant communities that have reached a stable state, such as overly dense sagebrush, will not change.

There have also been many studies that have shown that biological diversity is greater in rangeland communities in mid-seral condition than in either low or high seral (Potential Natural Community).

Laycock (1994 and 2003) cites several examples of studies comparing grazed vs ungrazed communities that showed better ecological health and biological diversity in the grazed areas.

USFS RESPONSE:
Each of the alternatives analyzed have a variety of both positive and negative impacts if implemented. The interdisciplinary team and the District Ranger considered all the potential negative effects of each of the alternatives over the planning period of this document. It was determined that the no grazing alternative would have fewer negative impacts on the various resources that may be affected and would likely see the fastest improvement in the condition of many of those resources. We do recognize that this alternative may result in negative impacts on some resources in particular over the long term and there are risks associated with this alternative. By designating this alternative as the environmentally preferred alternative does not require the Forest Service to select this alternative.

Comment #: 9-7
COMMENT TEXT:
In addressing the economic impact of the various alternatives, the EIS states that if livestock grazing is reduced or eliminated on the Project Area, the permittees would have to find private land grazing or go out of business. I think it should be pointed out that there is very little or no private land grazing available in Nevada.

USFS RESPONSE:
We agree with your comment. We simply pointed out several of the options that livestock operators would have available to them under these circumstances. You are correct that private land grazing options in Nevada are limited, however, they are available and private land grazing options are not just limited to Nevada. Many of these options would be expensive and result in considerable adverse impacts on individual livestock operators.

LETTER #: 10
BY: ROY LEACH, NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES

Comment #: 10-1
COMMENT TEXT:
Amendment #2 of the Forest Plan established the terms and conditions for all livestock authorizations in this watershed.

These resource limitations should have been implemented in the annual grazing plans or allotment management plans for each allotment.

The document does not exhibit the current allotment management plans or completion dates.

Any livestock authorization should present specific terms and conditions to the operator and describe the necessary monitoring by the Service to assure compliance and meaningful progress towards meeting the Forest Plan Goals.

USFS RESPONSE:
Thank You for your comment. The Allotment Management Plans for these Allotments are old and very out of date. The Forest Service has been doing our best with the funding available to implement the terms and conditions contained in amendment 2. This has been done through the Allotment permits and Annual Operating Instructions. Once a Record of Decision is issued on this project, Allotment Management Plans would be developed for each allotment to implement the decision.

Comment #: 10-2
COMMENT TEXT:
The Management Standards for Vegetative Groups should have been applied in the present Allotment Management Plan or authorizations for the eight permit owners.

Since allowable use levels of the Forest Plan were in place at the time of the amendment, rangeland-monitoring data would have been required to sustain past livestock use of the watershed.

Standards portrayed in nTable 1-T and table 2-T re-established measures of the amendment and Alternatives phasing them into authorizations over the next six years appear delayed from the present framework of the Forest Plan.

USFS RESPONSE:
The allotments in question have been managed under the standards and guidelines established under Amendment 2 of the Humboldt National Forest Land and Resource Management Plan. The intent of the proposed action was to further refine the requirements under amendment 2 to ensure that management changes are implemented in areas where concerns were identified. Implementation of the Proposed Action if selected would have to be phased in over several years due to funding and personnel limitations. During this time these allotments would be managed within the limitations and standards established under Amendment 2. The monitoring data for various resources that was used for these alternatives has been included within the Project Record for this analysis.

Comment #: 10-3
COMMENT TEXT:
The criteria for monitoring data and to determine any conclusion that a pasture has "Crossed Below a Threshold" should be described in this document.

USFS RESPONSE:
As a minimum, we need vegetative cover by species, rooting depths (meadows), ground cover and a quick check of top soil (30 cm augur hole for meadows), as well as looking for terraces, rills, pedestals and headcuts where required by matrices to determine site condition. The matrices are fairly clear on range of values for monitoring criteria to determine functioning level and have been included in the appendices of both the Draft EIS as well as the Final EIS.

Comment #: 10-4
COMMENT TEXT:
Rangeland improvement projects are meaningful actions to meet Forest Standards; however, these are dependent upon funding and other NEPA processes.

Standards should require interim measures or more restrictive management practices until projects are completed.

USFS RESPONSE:
Under these alternatives no rangeland improvement projects are being proposed. The proposed action would create a riparian pasture and a riparian exclosure. To implement these actions may require some changes in fencing which will require some additional site specific surveys. Any fencing would be approved under future analysis.

Comment #: 10-5
COMMENT TEXT:
Our agencies have mutually agreed to the "Nevada Rangeland Monitoring Handbook" to secure proper use pattern mapping data and trend studies.

It would appear from the Forest Plan Standards that use pattern mapping data of allowable use levels might be appropriate for immediate or annual adjustments.

USFS RESPONSE:
The Forest Service was a partner in the cooperative effort in developing the 1984 Nevada Rangeland Monitoring Handbook. However, the Forest Service does not have to comply with every part of the document; rather it is used as one of many tools in rangeland monitoring.

Vegetative use mapping and distribution is not included in the analysis of alternatives of the Martin Basin EIS, rather it may be determined through allotment management planning and annually through annual operating instructions.

Current direction from the Forest Supervisor is the use of Key Areas for monitoring. This letter is in the Project Record.

Comment #: 10-6
COMMENT TEXT:
. . . We appreciate the inclusion of sage grouse habitat.

It would be appropriate to assess each risk factor in relationship to the Western Association of Fish and Wildlife Sage Grouse Guidelines. . . .

USFS RESPONSE:
We are including a copy of the risk factors from the Western Association of Fish and Wildlife Sage Grouse Guidelines in our Project Record and where appropriate will be considering and incorporating them in our final decision.

Comment #: 10-7
COMMENT TEXT:
. . . Standards should include the desired Functioning Condition for each stream and Alternatives must consider proper livestock management practices or Guidelines to meet these standards.

USFS RESPONSE:
Standards, guidelines, mitigation measures and other details for each alternative are included within Chapter 1 and 2 of the DEIS.

LETTER #: 11
BY: E. SAMUEL STEGEMAN, NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES

Comment #: 11-1

COMMENT TEXT:

. . . Beginning with Table 7-T on page 3-9, it is confusing that water quality standards are presented which are not applicable to most of the reaches listed in the table. For example Cabin, Canyon, Road, Siard, Three Mile and Upper Willow Creeks are not "Class" or "Designated" waters as defined by the Nevada Administrative Code (NAC) and they have no numeric standards except for radioactive compounds.

All surface waters not specifically identified by name in regulation are subject to the narrative standards listed in NAC 445A.121. In order to present a clear and accurate picture of the streams mentioned above, they should be placed in a separate table and compared to the narrative standards.

USFS RESPONSE:

It is agreed that standards listed in Table 7-T do not apply to all the surface waters listed on in the table. The standards will be removed from the Table 7-T, and the data will be compared to the applicable standard in the text. We agree that Canyon Creek, Three Mile Creek, and Upper Willow Creek do not have numerical standards, but disagree concerning the other surface waters listed. Under the "Tributary Rule" in NAC 445A.145, surface waters that are not "Class" or Designated" have numerical standards if they flow into a surface water with numerical standards. For example, Cabin Creek is not a "Class" or "Designated" water, but Class A standards apply because it flows into Martin Creek a Class A water.

Comment #: 11-2

COMMENT TEXT:

Martin Creek and the South Fork Quinn River are Class A waters and have specific numeric standards listed in NAC 445A.124. Turbidity and nitrate are not parameters listed in the Class A water quality standards. Even though they are footnoted in the table, I believe this is misleading to the reader and one could assume that turbidity and nitrate standards are applicable for Martin Creek and the South Fork Quinn River.

USFS RESPONSE:

See response to letter #11, comment #1.

Comment #: 11-3

COMMENT TEXT:

On page 3-10 it states, "Both Cabin Creek samples had a fecal coliform concentration of>2005 per 100 mL, which exceeds all of Nevada's water quality standards for beneficial uses." The fecal coliform standards in the NAC are established to protect human health for full contact with water (e.g. swimming). I'm not sure these streams could support a swimming beneficial use. They would most likely support a "partial contact use" such as fishing for which the bacteria standard is less stringent. It should be noted that the bacteria standard is being updated to remove fecal coliform as the indicator and replace it with *Escherichia coli (E.coli).* The U.S. Environmental Protection Agency has recommended this change and updates to the NAC are ongoing.

USFS RESPONSE:

The text has been changed to indicate that the Cabin Creek samples exceed the standards for class A waters. Since the table listing standards for specific beneficial uses has been eliminated from the current NAC, the comment concerning the appropriate beneficial use is not applicable. It is true that E. coli will replace fecal coliform as a better indicator for pathogens, but NDEP has not yet established standards that we can use for comparison. Until this happens we will use the standards for fecal coliform that are made valid under the current NAC. As the commenter has pointed out in his letter (letter #11, comment #6), the USFS does not have the authority to establish water quality standards. That is the responsibility of the State.

Comment #: 11-4

COMMENT TEXT:

There is no mention of drought in the "Water Quantity" section of Chapter 3. I bring this up because the NAC specifically allows for water quality standards to be exceeded during abnormally high or low flow conditions (NAC 445A.121.8). The DEIS does not indicate what the climate/rainfall conditions or

trends have been between the study periods. According to the National Weather Service, the drought in the West will persist and water supplies will remain the same or worsen due to below normal snow accumulations this past winter. During our 2002 303(d) imparied waters listing, a few streams showed exceedances of their respective standards due to abnormally low flow, but were not listed as impaired.

For our 2004 listing, more waters will be removed from the impaired list for low flow reasons.

USFS RESPONSE:
Drought is mentioned in the second paragraph of the "Water Quality" section of Chapter 3. It states, "…the Project Area is currently under drought conditions with less rainfall than normal for the past five (5) years." However, a statement concerning the implications of NAC 445A.121.8 on the application of water quality standards will be added to the document.

Comment #: 11-5
COMMENT TEXT:
Additionally in both the "Water Quantity" and "Water Quality" sections, the discussion on the soils types and their relationship to livestock grazing suggest that the observations on sediment load were just a direct cause by livestock influence. The climatic conditions present over the past decade would also have a significant effect on the sediment load when additional runoff is again introduced to the streambeds. Nevada water standards recognize this kind of influence and water quality readings taken during extremes of high or low flows can be disregarded when assessing the waterbody.

USFS RESPONSE:
While the effects of drought are currently discussed in the draft document, additional text will be added to elaborate on the above concerns. It should be noted that the water quality data were not collected during extreme low flows.

Comment #: 11-6
COMMENT TEXT:
Lastly, only the State Environmental Commission has the authority to establish water quality standards as stated in Nevada Revised Statute 445A.520. The Nevada Division of Environmental Protection is responsible for monitoring and listing waters that do not meet standards through the 303(d) list.

The listing methodology and 303(d) list may be found on our web site at http://ndep.nv.gov/bwqp/303dlist.htm.

USFS RESPONSE:
We thank you for providing this information.

LETTER #: 12
BY: JEAN & KEITH THOMAS, 7HL RANCH

Comment#: 12-1
COMMENT TEXT:
. . . We have followed your plan in every way.

We have rested fields and rotated our cattle every year since your plan was presented to us.

Until now, everything has worked well.

Now, according to your Environmental Impact Statement, your plan has not worked well.

USFS RESPONSE:
This draft environmental impact statement analyzes the potential effects of three potential alternatives for the future management of livestock grazing within the Project Area. The potential effects of these alternatives on the various resources on the District are displayed in Chapter 4 of the document.

Comment #: 12-2
COMMENT TEXT:
According to the new Environmental Impact Statement, riparian areas are overgrazed and are in serious condition. . . .

USFS RESPONSE:
This comment is not correct. The analysis in this document indicated that there is a range of conditions of riparian areas within the Project Area. Some of the riparian areas were determined to be functioning as desired while others were determined to be non-functional. The majority of the streams fell into the category of Functioning at Risk which indicated that there are concerns, however, there is good potential for improvement. The analysis within Chapter 4 of the DEIS displays the potential impacts of each alternative.

Comment #: 12-3
COMMENT TEXT:
. . . We feel if our allotment is undergrazed it would endanger the perennial grasses on our range.

USFS RESPONSE:
Thank You for your comment.

Comment #: 12-4
COMMENT TEXT:
In closing, we are wondering why you are considering a twenty percent cut to our permit when the recent studies made by the Forest Service are showing that the management plans have worked very well. . . .

USFS RESPONSE:
The Proposed Action in the DEIS does not propose a twenty percent cut in your permit. This alternative would reduce the utilization standard on a few streams from 65% to 45% and upland utilization would be reduced from 65% to 50%. This alternative would also reduce standards on specific vegetative communities that are not functioning as desired. Standards on each allotment would be based on the condition of resources.

Comment #: 12-5
COMMENT TEXT:
. . . We are sure you realize this cut will be detrimental to our small business, our employees and to the value of our property. . . .

USFS RESPONSE:
We recognize the potential negative effects of these alternatives on your operations and the ramifications of these impacts. We will consider these impacts while developing the Record of Decision for the EIS. Only the No Grazing Alternative would result in reductions or closures of allotments. The Proposed Action would reduce some utilization standards, which could in turn affect allotments, however there are no specific reductions in numbers or seasons and actually has an adaptive management approach which would provide other options for management. The No Action Alternative would continue grazing under current management standards.

LETTER #: 13
BY: DOUG BUSSELMAN, NEVADA FARM BUREAU FEDERATION

Comment #: 13-1
COMMENT TEXT:
Having reviewed the DEIS of the Martin Basin Rangeland Project, we wish to express major concern and reservations with respect to the "Proposed Action" alternative (Alternative #2) as well as the "No Grazing" alternative (Alternative #3). We do not believe that either of these alternatives demonstrate the ability to accomplish solutions to documented resource needs.

USFS RESPONSE:

Thank You for your comment. We have analyzed a range of potential alternatives that are displayed in Chapter 2 of the DEIS. These alternatives each have the potential to accomplish the purpose and need for this project as described on page 1-3 of the DEIS.

Comment #: 13-2

COMMENT TEXT:

Overall we are disappointed in the lack of specific information provided in the DEIS as well as the misrepresentations portrayed through the use of general innuendoes regarding livestock grazing activities. We are also greatly concerned about proposed corrective actions, based on faulty assumptions dealing with the unsubstantiated "problems".

USFS RESPONSE:

The Forest Service utilized available information and research to disclose the potential effects of each of the Alternatives identified on resources within the Project Area. Additional data and documentation is included within the Project Record for this project.

Comment #: 13-3

COMMENT TEXT:

We are also deeply concerned over the narrow perspective and lack of balance with regard to multiple use impacts on resource conditions. Although we understand that this document is aimed at only grazing-related alternatives, we also maintain that it is inappropriate for a multiple use resource agency to take actions which don't bring into consideration the range of impacts and interaction that result from all multiple uses in a broad context. The single-mindedness of blaming livestock grazing for the scope of problems alleged in this DEIS portray the U.S. Forest Service as only being interested in "managing" by reducing the utilization levels of grazing. Are we to also believe that upon accomplishment of such reduction all resource problems – whether real or imagined - will be corrected?

USFS RESPONSE:

Livestock Grazing is the most wide-spread use on the Santa Rosa Ranger District and has the potential to affect resources in the area. The analysis in this document is intended to disclose the potential effects of livestock grazing. The Forest Service acknowledges that other activities may also have effects on resources and those effects are summarized within the cumulative effects sections in Chapter 4 of the DEIS. As identified in the DEIS we believe that changes in livestock grazing through various methods would increase the rate of recovery of some resources and or result in the improvement of others. We acknowledge, however, that these changes would not result in improvements in all situations. The intent of the Proposed Action is also to provide increased flexibility and an adaptive management approach to management of individual allotments. This includes the ability to adjust numbers, seasons, rotations and other details to improve management with the ultimate objective of improving resource conditions.

Comment #: 13-4

COMMENT TEXT:

On page 3-7, information is presented regarding a water-sampling program carried out in the Project Area during the 2002 grazing season. It is noted, "None of the laboratory sample or field measurement results exceeded Nevada water quality standards."

Based on our research, the statement "None of the laboratory sample or field measurement results exceeded Nevada water quality standards." Is not correct.

Part of the problem is that the U.S. Forest Service is not in a position to dictate water quality levels for water bodies in the state of Nevada. The designated authority for water quality standards is the Nevada Division of Environmental Protection.

USFS RESPONSE:

This comment is confusing. The Forest Service acknowledges that the limited water quality monitoring that has been done by the Forest Service have not exceeded Nevada Water Quality Standards. Two Fecal Coliform samples taken by the Nevada Division of Environmental Protection on Cabin Creek in 2002 exceeded state standards, however, the sample size was insufficient to determine if a problem exists. See pages 3-9 and 3-10 of the DEIS. Forest Service personnel coordinated with NDEP personnel during water quality monitoring. You are correct in that NDEP sets

state standards for water quality, however, the Forest Service is responsible for disclosure of the potential effects of livestock grazing on water quality. The Forest Service also is responsible to coordinate with NDEP for the monitoring of water quality as it relates to livestock grazing and other activities within the Project Area.

Comment #: 13-5

COMMENT TEXT:

From what we understand, Martin Creek and the South Fork Quinn River, have specific numeric standards under Nevada's authority to set such standards. Other waters in the area have no designated standards and it is inappropriate for the U.S. Forest Service to take it upon itself to establish water standards.

The same perspective related to the "Matrix" system as outlined in Appendix B-1 on page B-3. We maintain that the Forest Service's attempt to create water quality standards for waters that are not covered by the Nevada Division of Environmental Protection system should be discontinued.

USFS RESPONSE:

According to the NAC 445A.124, Martin Creek, North Fork of the Little Humboldt River, and the Quinn River are defined as class A water. In addition, according to NAC 445A.145, waters without specified numerical standards (i.e, not a class or designated water) that flow into these waters must comply with class A water standards. Surface waters that dry up before reaching a water body with numerical standards, however, do not have numerical standards and must comply with the narrative standards in NAC 445A.121. Based on this, most of the surface waters in the Project Area actually do have numerical standards. Nevertheless, text will be added to the document to clarify the application of numerical standards as well as to educate the reader.

Comment #: 13-6

COMMENT TEXT:

The table of Water Quality (7-T) found on page 3-9, suggested that various areas involved in the testing program experienced "Heavy" grazing use.

Given the relationship that no actual water quality problems were found despite classification of "Heavy grazing use", under existing management levels, the proposed change from current operation is unfounded. Proposed changes in livestock grazing levels, using water quality as the excuse for justifying such changes, is not demonstrated by a need that requires correction.

USFS RESPONSE:

Under the proposed action, if representative streams are within the water quality attributes identified then no adjustments would be made as a result of water quality problems. As grazing intensity and utilization increases, the potential for water quality problems also increase. Of particular concern is the potential for increased sedimentation.

Comment #: 13-7

COMMENT TEXT:

Sage Grouse

We are also deeply concerned about the "coverage" given in this DEIS for the Wildlife section, and specifically Sage Grouse.

The U.S. Forest Service was supposed to be an active participant in the local planning group for the Sage Grouse Conservation planning effort. Nothing in this document suggest any background/involvement.

Again, we are disappointed with the lack of specific information provided in the DEIS as well as the misrepresentations portrayed through the use of general innuendoes regarding Sage Grouse and livestock grazing activities.

The statement on page 4-19 demonstrated the shortcoming we are concerned with: "It is not known if these effects are contributing to decreased chick survival, but the potential for effects is greater than under the 'Proposed Action'." The "effects" referred to are related to brood rearing habitat.

USFS RESPONSE:
The Forest Service was an active participant in the North-Central Sage Grouse planning group. This analysis used a wide range of research and data to develop the potential effects of each of these alternatives. There is often not a lot of site specific data on many species to disclose specific effects at every site. Forest Service professionals utilize research and professional judgment to determine the potential effects of each alternative. The potential effect identified above from page 4-19 of the DEIS are based upon the professional judgment that as vegetation utilization increases, there is the potential that the availability or health of important grasses and/or forbs may be reduced resulting in impacts on chick survival. Additionally, increased utilization may result in less vegetation to provide hiding cover for sage grouse.

Comment #: 13-8
COMMENT TEXT:
Rebel Creek Riparian Pasture

The Proposed alternative highlights the intention for the possible construction of a half-mile fence for the purpose of creating a riparian pasture in the lower portion of Rebel Creek. Further it is noted that livestock grazing would not be authorized in this area during the planning period. We do not believe a case is made in the DEIS for this action to be taken. There is nothing to indicate a valid reason for livestock grazing to not be authorized. Also, given the demonstrated inability of the U.S. Forest Service in this area to complete timely upgrades for "planning periods", we are concerned that the "planning period" has an unforeseen timetable that might not end.

In no way, shape or form should livestock grazing not be authorized under these terms. If there is resource evidence to substantiate this action, it should be provided in the DEIS document.

USFS RESPONSE:
Within the Proposed Action it was determined that livestock grazing would not be authorized on the lower three miles of Rebel Creek. This area is a steep gradient canyon where there are concerns for the grazing of cattle. The upper reaches of the watershed would be authorized for grazing under the proposed action. Currently no grazing is authorized in the area. Although this alternative would not authorize grazing in the lower stretches of Rebel Creek, it does not preclude the authorization of grazing in the future if it was determined that there was a need. Future authorization of grazing in the area would require additional NEPA documentation.

Comment #: 13-9
COMMENT TEXT:
Decline in Moist To dry meadows

We have a problem in reconciling the statement on Page 3-47 and the reference to the extent that wet meadows have "probably" vanished in four short years (the 'turn of the century' occurring in 2000). This bias reflects the generalization demonstrated throughout the DEIS and the under lying consideration that "less grazing" is intuitively a better thing.

USFS RESPONSE:
Thank You for your comment. The statement on Page 3-47 should have referred to changes that have occurred since the early 1900's.

Comment #: 13-10
COMMENT TEXT:
Decline in Moist to Dry Meadows

It is troubling that the DEIS lacks the substantiated documentation which identifies the specifics of actual areas that are functioning in less than desired condition. The foundation of the proposed alternative is inappropriately a general anti-livestock philosophy, which is aimed at biasing a reader to accept a logical decreasing of livestock use without questioning the lack of field-collected data to back the contention.

USFS RESPONSE:
Some data and studies exist in the area to indicate that there are a range of conditions related to resources in the area. There is insufficient data available to determine the current condition of resources within all units and allotments. The intent of the Proposed Action is to establish a process

whereas the conditions within each allotment can be determined and based on those conditions, changes can be made in management to facilitate improvements as needed. This alternative also allows for adaptive management to help improve management and make adjustments to meet site specific needs.

Comment #: 13-11

COMMENT TEXT:

Decline in Moist To Dry Meadows

Chapter 3, Page 3-1 describes climatic conditions by saying, "…the Project Area is currently under drought conditions with less rainfall than normal for the past five (5) years." Despite this recognition, little to no connection is related to the possible impact such a drought could have, including – "the decline in the moist to dry meadows".

USFS RESPONSE:

On the meadow plots we have analyzed to this point, the drought has had little impact on changing the size or species composition of meadow complexes. What I am seeing is plants that have reduced vigor and growth and an alteration of physiological processes, such as changes in leaf size, reduction in number and size of flowering shoots, and a change in the amount or size of flowers and a shorter, more rapid growth period with an early dormancy or plants that move in and out of dormancy with changes in moisture. We have also seen a reduction in root mass as plants feed on reserves, but root mass seems to exceed the plant material above ground, as though the plant is willing to gamble on photosynthesis and reproduction to maintain a decent root mass for hopefully better days to come. Should drought continue for a longer timeframe, we will likely see a reduction in meadow size and vegetative composition.

What we have seen with forage plants responding to drought is that they have little left over for grazing animals to take, especially during periods of rapid growth or during flowering. These plants may also offer more or less nutrition per pound of forage depending on the need of the plant to concentrate these nutrients in roots or shoots/leaves during different life phases and at the same time this may make the plants may be more or less attractive to grazing animals. The high temperatures and lack of water tend to concentrate animals on meadows where the forage is more palatable, often resulting in recurring heavy grazing use and associated soil compaction and removal of decomposing organic matter on an already stressed system. This causes a greater need for plants to take from root reserves, and to reduce reproduction. Plants with rhizomes and deep tap-roots or annuals/short-lived plants are more capable of withstanding multiple stress events such as this, and thus can dominate a meadow changing it to a less moist habitat.

Comment #: 13-12

COMMENT TEXT:

Reference Areas & Vegatative Groups

Elements in the DEIS, related to Reference Areas, need to follow the Forest Supervisor's recent guidance for establishment of reference areas. This should include actions, which tie reference areas to places on the landscape, representing management objectives that you seek to accomplish.

USFS RESPONSE:

Thank You for your comment.

Comment #: 13-13

COMMENT TEXT:

Reference areas & vegatative groups

We are told that this proposal resembles the "Rapid Rangeland Health Assessment" process, but lacks the essential connection of soils classifications to have any validity. We are also told that the application being offered in the DEIS is outside the context of what the "Rapid Rangeland Health Assessment" was intended to be used for.

Given the serious questions regarding this highly suspect approach, we would strong discourage going forward in the manner outlined. Substantial improvements are needed, with significant amounts of background information/details being provided to enhance understanding/alleviate concerns over misapplication of concepts that are even questionable when used as intended.

USFS RESPONSE:
The "Rapid Rangeland Health Assessment" is a great tool for analyzing soil condition as it is based on the knowledge of many range scientists and scientific literature. However, the criteria used in this assessment tool are qualitative and subjective. These criteria are meant to produce discussion and general knowledge among the interested participants. In the current realm of natural resource management, we can not make decisions based on professional judgment using subjective criteria and expect these decisions to hold up under appeal or litigation. The public expects a higher level of analysis and monitoring.

We decided we needed a method that contained some measurable criteria, based on known data from scientific sources, and would provide a range of values for measuring function on a variety of attributes supporting an ecological system. This method needed to be measurable with a moderate to high level of accuracy to allow for informed decision-making, but not require extensive timeframes for data collection and analysis. What we developed with the matrices is an assessment tool that can be adapted for long-term monitoring and utilizes current, standard, monitoring methods. It is based on soil survey where available.

Soil survey is an inventory tool. The purpose of inventory is to get an accurate measure of what is there at the time sampling occurred and/or could be there under optimum conditions. It is what we have used to determine current or base resource conditions. The rapid assessment tool developed for this analysis will be used to gauge how close a site is to the range of functioning condition as determined by previous inventories of a specific site and sites that are similar. The rapid assessment tool has been left open to be adaptive to accommodate unique local conditions or changed conditions (i.e. prolonged drought) as needed.

Comment #: 13-14
COMMENT TEXT:
Matrix Approach - Appendix

The "Functionality" elements, as provided for various groups appear to be arbitrary "wouldn't it be nice" types of descriptions. Please provide the specific background information, which document the details pertaining to pertinent elements that are described.

USFS RESPONSE:
The functionality elements are similar to those identified under the Properly Function Condition Assement Process. The primary difference is that the conditions outlined in the Matices are established based on elements that are measurable items and can be better documented as compared to the Properly Functioning Condition Assessment Process.

Comment #: 13-15
COMMENT TEXT:
Proposal For action

We are aware of a proposal, under development, which would meet and exceed the Proposed Alternative (Alternative #2). We would strongly recommend consideration of including another alternative in the mix of the three being considered.

As part of this Alternative Consideration, we maintain that a higher degree of allotment-by-allotment planning is needed, with the establishment of site specific objectives. Such an approach would greatly enhance the effectiveness of resource management, dealing with meaningful action in comparison with the general (often times inappropriate) perspectives provided by the current DEIS.

In the event that you choose not to include another proposal, beyond the three being considered, it is our contention that there is not enough documented basis for making a change from the "Current Management/No Action" (Alternative #1). Nothing in the DEIS suggest that evidence exist to warrant making a change beyond the "Current Management/No Action" alternative.

USFS RESPONSE:
We have accepted the Fourth Alternative and will include it within the Final Environmental Impact Statement (FEIS). Once the FEIS is completed it will be sent out for a 45 day comment period before a Record of Decision will be released.

LETTER #: 14
BY: MARTIN BASIN LIVESTOCK PERMITTEES

Comment #: 14-15
COMMENT TEXT:
Accepted as alternative 4

USFS RESPONSE:
Alternative 4 has been accepted as an alternative and will be analyzed within the Final Environmental Impact Statement.

LETTER #: 15
BY: KATIE FITE, WESTERN WATERSHEDS PROJECT

Comment #: 15-1
COMMENT TEXT:
We are very concerned that the Forest has not considered the full and damaging array of livestock grazing impacts to these significant wild land areas in the 8 allotments spanning 191,000 acres that are covered by the EIS

USFS RESPONSE:
The potential effects of the alternatives are included within Chapter 4 of the Draft Environmental Impact Statement, pages 4-1 through 4-68. Additional documentation has also been included within the Project Record.

Comment #: 15-2
COMMENT TEXT:
A specific set of management actions must be established, with specific steps to be taken if these are not met laid in detail. The Forest needs to establish specific actions to be taken if standards are not met – i.e. reductions in season of use, livestock numbers, or other specific actions.

USFS RESPONSE:
Part 2 General Terms and Conditions and Part 3 of the Grazing Term Permit determine the necessary compliance regulations that must be adhered to as part of the permit.

Permit action and compliance will not be addressed through the Environmental Impact Statement and is out of the scope of this analysis.

Comment #: 15-3
COMMENT TEXT:
We requested that the Forest provide actions that minimize spread and infestation of weeds as part of all EIS alternatives. Methods involve closing areas that are vulnerable to weed infestation and spread to livestock use, closing weed-infested areas to livestock use and movement until weeds are eradicated, quarantining livestock for several days before entering Forest lands, and other measures.

USFS RESPONSE:
The potential effects of livestock grazing on the spread or establishment of noxious weeds is disclosed in Chapter 4 of the DEIS on pages 4-46 through 4-50. The Santa Rosa Ranger District has a very active noxious weed program that is working hard to reduce weed infestations and prevent new infestations.

Comment #: 15-4
COMMENT TEXT:
We requested that the Forest conduct a risk assessment that assesses the susceptibility of all lands to weed invasions, and then provide specific action for minimizing weed invasion and spread. The DEIS has failed to do this.

USFS RESPONSE:
On Pages 4-46 through 4-50 in the DEIS the Forest Service has identified general types of areas where there is a greater risk for weed infestations as it related to livestock grazing. The District is

actively mapping weed infestations and is actively treating those areas. The Forest noxious weed program currently has general guidelines for all activities which are intended to reduce the spread of noxious weeds. See response to comment #3 from Letter 15 above.

Comment #: 15-5

COMMENT TEXT:

As part of this EIS, a specific study of zones of disturbance (livestock, livestock and fire) within the Martin Basin Area must be conducted, susceptibility assessed, and measures identified to limit infestation and spread, as well as to restore lands that are infested. We believe that the Forest must incorporate actions as part of all alternatives, as well as develop a range of "Minimize Weed Spread/Restore Wild Lands Alternatives". And request that this be done.

USFS RESPONSE:

See response to comment #4 from Letter #15 above.

Comment #: 15-6

COMMENT TEXT:

The DEIS has failed to assess the role of livestock in altering fire cycles, increasing woody vegetation, and creating hazardous fuel situations, and the role of livestock grazing in destruction of herbaceous understories that opens plant communities up to weed invasion and/or increases in woody species.

USFS RESPONSE:

Please see (page 4-44) for the direct and indirect effects of livestock grazing on increasing woody vegetation)

Comment #: 15-7

COMMENT TEXT:

We had requested ask that the Forest conduct a grazing suitability analysis, a capability analysis, a productivity study, and a stocking rate study for all lands in the EIS area. Factors to be considered in a suitability or capability determination are: steepness of slope/erosion hazards/conflicts with water quality, conflicts with native wildlife or T&E species, distance from natural water, risk of weed infestation with grazing of the affected lands, conflicts with recreational uses of the affected land, conflicts with pygmy rabbit, sage grouse or other special status species habitats, etc. The EIS fails to reveal if any previous study of this type conducted, and nothing has been presented as part of the DEIS.

USFS RESPONSE:

Capability and suitability analysis are Forest Plan processes and were completed during the Humboldt National Forest Land and Resources Management Plan. This analysis from the Forest Plan has been reviewed and summarized in the Project Record. Additional documentation and mapping were completed to further refine suitability and capability within the Project Record. This information has been included in the Project Record and will be considered during the Decision Making process. The effects of the alternatives on the other resources identified above have been disclosed in the Draft Environmental Impact Statement within Chapter 4.

Comment #: 15-8

COMMENT TEXT:

Were any of the current cattle allotments/permits formerly sheep permits? If so, were sheep AUMs converted across the board to cattle AUMs? As part of this process, the Forest must assess the need for AUM reductions that reflect the realitites of grazing cattle in steep arid landscapes with fragile soils – i.e. that lands stocked with livestock based on conversion of sheep AUMs to cattle AUMs may be tremendously over-stocked.

USFS RESPONSE:

Many of these allotments were once sheep, cattle, and horse allotments. On (Page Ch.1-2, paragraph 3) the Santa Rosa Range prior to 1911 had approximately 16,000 head of cattle, 1,500 horses, and 150,000 sheep. Much of the Project Area was converted to cattle allotments in the 1950's or before and since the conversion many significant reductions in numbers have occurred. A clear conversion factor would not be valid today due to the amount of reductions taken in the past.

Comment #: 15-9

COMMENT TEXT:

While the Forest spends a lot of time in the EIS describing past grazing in broad terms, the details (such as AUM conversions, range project development over time, etc.) necessary to understand and assess the current situation in the Project Area are woefully lacking. For example, there is not even a map that shows range developments (fences, wells, pipelines, troughs), salting sites, water haul sites, vegetation treatments (including post-fire seedings that may have employed exotic species), and roading that has developed in association with these projects.

USFS RESPONSE:

Maps showing Range Developments and other allotment specific details have been included within the Project Record and are available to the Decision Maker for the development of the Record of Decision. Fire seedings and roads are outside the scope of this analysis.

Comment #: 15-10

COMMENT TEXT:

We are very concerned that your scoping notice, a recent project notice, and not the EIS indicates that the Forest plans much use of prescribed fire/mechanical manipulation in these fragile wild lands. The very LAST thing that any sagebrush plant communities here need is more fire and fragmentation. The forest must honestly assess the conditions of existing fire areas – both wild and prescribed.

USFS RESPONSE:

Prescribed Fires are outside the scope of this analysis. A NEPA analysis was completed for the Buttermilk Prescribed Burn Project. A decision memo has been signed for this project and the commenter has been provided with the documentation on this project. Prescribed fire activities are limited in scope on the District and are a cumulative effect to livestock grazing. The cumulative effects resulting from prescribed fire may include changes in vegetation structure and composition, short term impacts on water quality due to limited increases in nutrients or sedimentation in streams following the burns. Other impacts may include short term displacement or changes in habitats for various wildlife species such as sage grouse, mule deer, pygmy rabbits and other non-game species.

Comment #: 15-11

COMMENT TEXT:

Nowhere does the Forest develop a specific set of criteria for the resumption (if ever) of livestock grazing post-“treatment”. Plus, there is not study of the effect of ongoing livestock grazing on weed, soil erosion, and other problems in existing burns.

USFS RESPONSE:

The Humboldt National Forest Land and Resource Management Plan requires a minimum of two years of rest within prescribed fire or other burn areas. This issue is therefore already decided by the Forest Plan. The potential effects of livestock grazing on weeds, soils and other resources are disclosed in Chapter 4 of the DEIS. Existing burns received a minimum of 2 years of rest from livestock grazing to ensure adequate vegetative recovery. In the Upper Willow Burn Area numerous areas have received 3 years of rest and the lower portion of Willow Creek will receive a fourth year of rest based on recovery.

Comment #: 15-12

COMMENT TEXT:

The Forest must first complete the necessary analysis of all environmental components - and that includes on-the-ground baseline surveys for native biota in THIS EIS process before undertaking any new vegetation alteration projects here.

USFS RESPONSE:

This proposal and the alternative do not propose any new vegetation alteration projects. We are assuming that the commenter is referring to the Buttermilk Prescribed Burn Project which is outside the scope of this analysis. This comment is therefore outside the scope of this analysis.

Comment #: 15-13

COMMENT TEXT:

The primary goal of any vegetation management here should be maintaining and truly restoring native plant communities, with emphasis on “treatment” of burned or weed-infested lands, and

lessening/removal of sources of disturbance on remaining better condition lands that are not yet infested

USFS RESPONSE:
This comment is also referring to the Buttermilk Prescribed Burn Project and is outside the scope of this analysis.

Comment #: 15-14
COMMENT TEXT:
You have failed to identify the lands in poor, good, fair or excellent ecological condition, or with significant weed problems

USFS RESPONSE:
Information regarding the condition of select riparian areas and streams is shown in Chapter 3 of the Draft EIS on pages 3-3 through 3-11 and 3-21 through 3-30. Additional Information has been included within the Project Record. Information regarding noxious weeds in the Project Area is disclosed on pages 3-56 and 3-57. A map showing all known noxious weed infestations on the District is included within the Project Record.

Comment #: 15-15
COMMENT TEXT:
The DEIS fails to provide a scientific framework for undertaking these necessary actions, or for understanding the ecological outcome of any vegetation manipulation/"treatments".

USFS RESPONSE:
Given the details of this comment, it appears that it is again referring to the Buttermilk Prescribed Burn Project. This comment is therefore outside the scope of this analysis.

Comment #: 15-16
COMMENT TEXT:
The Forest has failed to assess the health of current vegetation and the ecological condition of all lands here, and identify specific measures that will be taken to keep good or better condition lands in that shape, and to improve degraded lands. The DEIS does not contain current information on the ecological condition of the upland communities here that cover nearly all of the land area

USFS RESPONSE:
With limited personnel, the Forest has focused on monitoring the ecological condition of the riparian areas with knowledge we are missing the majority of the uplands. However, if we can effectively analyze and respond to the needs of the riparian areas through changes in livestock management, we will be also providing some relief to uplands. This is not a complete solution, and we hope to change that with this analysis.

The District has already begun to establish some monitoring of uplands utilizing protocol outlined in the Rapid Assessment matrices, as well as other methodologies. In the analysis we also used the soil survey data, which while dated, provides ecological site descriptions of the potential natural condition for all of the uplands. Since the DEIS was released, the Forest has received a vegetation map that will provide us with the ability to access acreage of recent burns, cover ranges of shrub and tree species and some ideas of where to focus our monitoring efforts.

Comment #: 15-17
COMMENT TEXT:
The Forest does provide some information from current studies on riparian areas, but has largely ignored collecting or presenting any real data on uplands, including the condition of habitats for MIS species and populations, and other current condition.

USFS RESPONSE:
The potential effects of each of the alternatives on MIS species and their habitats are disclosed in Chapter 4, pages 4-19; 4-20; 4-26; 4-27; 4-30; and 4-31. The potential effects on upland vegetation communities are disclosed in Chapter 4, pages 4-41 through 4-46.

Comment #: 15-18

COMMENT TEXT:

We ask that you conduct baseline inventories for a broad range of native wildlife – lizards, bats, animals, birds – as part of this process. This is necessary to understand the impacts of your various alternatives.

USFS RESPONSE:

A list of the species we considered when discussing the proposed alternatives can be found in chapter 3 of the DEIS on pages 3-30 through 3-45. Further, proposed effects to the species analyzed for each of the alternatives discussed in chapter 2 can be found on pages 4-19 through 4-34 in chapter 4 of the DEIS. The Forest does monitor Management Indicator Species population trends because these species are intended to represent certain habitat characteristics and are used to monitor wildlife habitat conditions. Current information and data on habitat conditions and location as well as population numbers of MIS species are discussed on pages 3-30 through 3-37 of the DEIS.

Comment #: 15-19

COMMENT TEXT:

The Forest has failed to identify critical or important habitats for native wildlife species here, especially in upland vegetation communities. Please describe the role of native vegetation communities in providing habitat for declining species or species of concern.

USFS RESPONSE:

A list of the species we considered when discussing the proposed alternatives can be found in chapter 3 of the DEIS on pages 3-30 through 3-45. Further, potential effects to wildlife habitat for the species analyzed for each of the alternatives discussed in chapter 2 can be found on pages 4-19 through 4-34 in chapter 4 of the DEIS. Additional information about wildlife habitat occurring on the district or the Forest can be found in the Project Record.

Comment #: 15-20

COMMENT TEXT:

Please supplement the DEIS and describe how you will achieve a functioning metapopulation of Quinn-Black Rock Lahontan cutthroat trout here

USFS RESPONSE:

The Draft EIS analyzes the potential effects of three alternatives regarding the approval of livestock grazing within the Project Area. The current condition of Lahontan Cutthroat trout (LCT) populations and habitats are disclosed in Chapter 3 of the Draft EIS, pages 3-18 through 3-30. The potential effects of the alternatives on LCT populations and habitats is disclosed in Chapter 4, pages 4-14 through 4-19.

Comment #: 15-21

COMMENT TEXT:

How will you reconnect disconnected/fragmented habitats?

USFS RESPONSE:

This comment is outside the scope of this analysis. See response to Letter #15 Comment #20 above for the potential effects on fisheries.

Comment #: 15-22

COMMENT TEXT:

What is the estimated current LCT population here, by age class?

USFS RESPONSE:

Fisheries population information has been included in Chapters 3 & 4 of the Draft EIS and additional information is also included in the Project Record.

Comment #: 15-23

COMMENT TEXT:

What is the current condition of all watersheds (INCLUDES UPLAND COMPONENTS) of LCT watersheds?

USFS RESPONSE:
See Responses to Letter 15, comments 14, 16, and 17.

Comment #: 15-24
COMMENT TEXT:
What are population recovery goals? What progress has been made towards meeting them? What actions are necessary to provide habitat and thus population connectivity?

USFS RESPONSE:
Necessary actions and population recovery goals for Lahontan cutthroat trout can be reviewed in the Recovery Plan. The U.S. Fish and Wildlife Service can be contacted for the most recent update concerning basin-wide and specific Distant Population Segment actions which have occurred concerning progress towards LCT recovery.

Comment #: 15-25
COMMENT TEXT:
What are the combined effects, as well as cumulative and synergistic effects, of grazing, roads, irrigation diversions, fire, etc. on all LCT streams and watersheds here?

USFS RESPONSE:
The potential cumulative effects of these activities on fisheries has been disclosed in Chapter 4 of the EIS.

Comment #: 15-26
COMMENT TEXT:
A primary aim of your analysis must be addressing the integrity of the whole watershed, and developing management actions that result in significant and rapid watershed improvement. The DEIS fails to provide necessary watershed-level analysis, and to provide any estimations of flow, changes in flow over time, relations between upland watershed condition and soil erosion, water quality parameters, etc.

USFS RESPONSE:
The purpose and need for this project are located in Chapter 1, page 1-3 of the Draft EIS. The potential effects on the various resources and attributes identified in the comment are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-27
COMMENT TEXT:
Please provide as much data as possible on past stream flows, past fish and other aquatic species presence and abundance, as well as collect current data.

USFS RESPONSE:
References, stream survey reports, and other data are available as part of the Project Record.

Comment #: 15-28
COMMENT TEXT:
Attributes of the health of upland and riparian soils must be assessed. The include the presence of microbiotic crusts in uplands, ground cover and litter, estimates of topsoil loss, etc. Soil compaction, erosion, gullying and other impacts caused by livestock must be fully assessed, and an outcome of the assessment must be quantifiable trampling and soil compaction standards for all riparian and upland sites.

USFS RESPONSE:
Information regarding soils within the Project Area is disclosed within Chapter 3, pages 3-11 through 3-18. The potential effects of the alternatives within the Draft EIS on Soils are disclosed in Chapter 4, pages 4-5 through 4-14. Specific soil attributes are also included within the Matrices which would be used to determine condition of various communities under the Proposed Action.

Comment #: 15-29

COMMENT TEXT:

The EIS fails to collect and analyze data necessary to understand the consequences of the actions it proposes on these species. For example, no baseline surveys have been conducted for pygmy rabbit and other declining species in the Martin Basin Project area.

USFS RESPONSE:

Pygmy rabbits have been detected within the Project Area in predominately Basin and Mountain Big Sage communities during several site visits. All available information on the species considered when discussing the proposed alternatives can be found in chapter 3 of the DEIS on pages 3-30 through 3-45. Information on the effects of the proposed alternatives to pygmy rabbits and all other species considered can be found in chapter 4 of the DEIS on pages 4-19 through 4-34.

Comment #: 15-30

COMMENT TEXT:

The Forest's scoping notice categorized lands broadly as riparian and rangelands. We believe "rangeland' is a value-laden term, and implies that these lands are best suited as "range" for alien livestock. We ask that you take a far broader view here, and discuss upland vegetation, or sagebrush-steppe, etc., not rangeland.

USFS RESPONSE:

Thank You for your comment.

Comment #: 15-31

COMMENT TEXT:

You must conduct a comprehensive economic analysis that fully takes into account all the ecological costs of livestock grazing – diminished water flow, less native wildlife for birdwatchers, hunters, photographers, etc., to enjoy. Plus, you must fully account for the operating costs of your office and any livestock projects in keeping highly subsidized public lands grazing enterprises afloat on the affected lands.

USFS RESPONSE:

See Letter #6, Comment #1 and the associated response. The economic impacts of these alternatives were also displayed in Chapter 4, pages 4-56 through 4-59. The potential effects of the alternatives on the other values you identified above have also been analyzed within Chapter 4 of the Draft EIS. The economics related to these values are not easily identifiable. The alternatives described in the document do not preclude anyone from participating in the activities you have described in your comment. We acknowledge that some Forest Visitors experiences may be less desirable due to their dislike for livestock grazing, however they are still permitted to participate in those activities. We also received comments that indicated that other visitor's experiences were enhanced by cattle and created a more "old west setting". The operating costs of our office as it relates to livestock grazing are outside the scope of this analysis.

Comment #: 15-32

COMMENT TEXT:

Roading. As part of this analysis, you must fully assess the impacts of roads, trails, livestock trails, livestock developments on impairing upland and riparian health, and habitat for native wildlife

USFS RESPONSE:

The cumulative effects of roads, trails, livestock developments and other activities are disclosed in Chapter 4, pages 4-2 through 4-5, 4-9 through 4-12, 4-14, 4-16 through 4-19, 4-24, 4-25, 4-30, 4-35, 4-37, 4-38, 4-40 through 4-49, 4-52, 4-55 through 4-58, 4-61 through 4-66.

Comment #: 15-33

COMMENT TEXT:

Specific numeric standards must be established for upland utilization. In no instance should upland utilization be allowed to exceed 25-30%, and no grazing during critical growing periods should be allowed under any circumstances. In areas in poor or fair condition, or where soils are eroding, weeds invading, etc. should have levels reduced below this.

USFS RESPONSE:
Thank you for your comment. Upland Utilization standards are established for both Alternatives 1 and 2 and are shown on pages 2-5 and Appendix A. Details regarding the three alternatives in the Draft EIS are disclosed in Chapter 2 and within appendix A and B.

Comment #: 15-34
COMMENT TEXT:
The Forest's 50% upland utilization (still to be allowed in some areas) is extremely high, and scientifically indefensible and out-dated. …There is no scientific evidence presented to back up the high proposed levels of allowable use.

USFS RESPONSE:
The "Proposed Action" Alternative significantly reduces the allowable utilization from 65% to 50% of herbaceous vegetation and maintains 35% utilization for upland mountain brush species. See (page 4-45), direct and indirect effects. Upland communities rarely receive use of 65% and are expected to improve under the "Proposed Action" alternative.

Comment #: 15-35
COMMENT TEXT:
Specific measurable standards for utilization and trampling must be developed and applied to all riparian communities, including meadows and springs and seeps.

USFS RESPONSE:
Utilization standards have been developed and reduced from the "Current Management/No Action" alternative and can be located within the "Proposed Action" alternative on (pages 4-36 thru 4-46). Appendix B, Matrices for Alternative 2: Proposed Action starting on (page B-1) describes the standards and conditions for all vegetative communities.

Trampling is just one tool to use in assessing stream bank condition, another is stream bank stability, presence of hummocks, presence of headcutting, presence of pedestalling, and rill formation which is described in Appendix B starting on (page B-1).

Comment #: 15-36
COMMENT TEXT:
There must also be significant penalties for failure to meet any grazing standards – automatic 25% reductions in stocking use for failures.

USFS RESPONSE:
Part 2 General Terms and Conditions and Part 3 of the Grazing Term Permit determine the necessary compliance regulations that must be adhered to as part of the permit.

Permit action and compliance will not be addressed through the Environmental Impact Statement and is outside the scope of this analysis.

Comment #: 15-37
COMMENT TEXT:
As grazing permit buyout is likely to become a reality during the life of the EIS, you should accommodate this in this planning process, and authorize permanent retirement of AUMs/closure to grazing of any lands where permit retirement buyouts may occur as part of this EIS process.

USFS RESPONSE:
Grazing permit buyouts is a legislative issue that is outside the decision space for this analysis. If Legislation is proposed and approved in the future, then any decision made under this analysis would be adjusted to meet the intent of that legislation. Potential buyouts is outside the scope of this analysis.

Comment #: 15-38
COMMENT TEXT:
We fully support NO development of springs and seeps. You are on the right track here. Range projects like these destroy wild lands springs, disrupt site stratigraphy, and may cause water flows to diminish or dry up entirely.

USFS RESPONSE:
This analysis does not propose any new water developments, however, it also does not preclude future proposals for the development of water for livestock allotments. Any future water developments would have NEPA analysis and be approved under future decisions.

Comment #: 15-39
COMMENT TEXT:
Please explain why the Forest is not addressing the entire Santa Rosa Ranger District in this EIS. Is it necessary to provide information on the current conditions of lands in other parts of the Ranger District as part of a cumulative effects analysis.

USFS RESPONSE:
The allotments that have not been covered by this analysis were approved under previous NEPA decisions. These allotments include the Quinn River Allotment, Wild Bill Allotment, North Fork Allotment, Lamance Allotment and the Paradise Allotment. The potential cumulative impacts of grazing on the other allotments have been considered during this analysis. The potential effects of grazing on resources within these allotments are similar to those disclosed for Alternative 1 in the Draft EIS.

Comment #: 15-40
COMMENT TEXT:
We fully support closing the entire Rebel Creek allotment. If it is "vacant" it needs to be closed as part of this EIS process. You must fully explain why you would ever want to open an area that is not being grazed.

USFS RESPONSE:
Under Alternative 1, Grazing would be authorized within the entire Rebel Creek Allotment. Under Alternative 2, Grazing would be authorized within portions of the Rebel Creek Allotment. Under Alternative 3, Grazing would not be authorized within the Rebel Creek Allotment.

Comment #: 15-41
COMMENT TEXT:
We do not support the creation of "riparian pastures" with fences. Fences are hazards to native wildlife like sage grouse. They serve as perches for nest predators, and songbird brood parasites. See Braun 1998, Connelly et al. 2000. Roads are also conduits for weed spread (Gelbard and Belnap 2003). Permittees have horses. As an alternative to fencing, require employment of 2 herders to effectively keep cattle moved.

USFS RESPONSE:
Any future proposals to construct fences associated with allotments will include analysis and consideration of the potential effects of fences. These proposals would be approved under future decision memos. Roads are not being proposed under this analysis. The cumulative impacts of fences and roads on various resources has been included within Chapter 4 of the Draft EIS.

Comment #: 15-42
COMMENT TEXT:
The Forest has provided no assessment of the current fences and other structures and livestock actions on its lands, so it has no basis for understanding the impacts of even more barbed wire.

USFS RESPONSE:
A map of fences and water developments has been included within the Project Record. The cumulative impacts of fences has been disclosed within Chapter 4 of the Draft EIS.

Comment #: 15-43
COMMENT TEXT:
As part of this EIS process, you must fully tabulate all the existing fences, spring-gutting/"development" projects, and other livestock facilities and their condition, plus map salting locations. Plus, you must assess their impacts on the health (soils, weeds, native vegetation, habitats) of surrounding lands.

USFS RESPONSE:
This EIS will not address improvements such as fences, spring developments, or salt mapping locations. Improvements are part of the permit process, allotment management planning and compliance is achieved through annual operating instructions. Any future project involving fences and/or water developments will be approved under an appropriate NEPA analysis. Improvements are outside of the scope of this analysis.

Comment #: 15-44
COMMENT TEXT:
You must identify projects that are causing ecological problems, remove them and act to restore sites that have been damaged, close associated roads, etc.

USFS RESPONSE:
Removing developments and roads is outside the scope of this analysis. The cumulative impacts of these developments has been included within Chapter 4 of the Draft EIS.

Comment #: 15-45
COMMENT TEXT:
Rest-rotation grazing system. As part of any rest-grazing system, you must significantly cut livestock numbers in lands that are "grazed"/rotated. A huge flaw in rest rotation is that in order to rest lands, the grazed lands in a system are periodically inundated with large numbers of livestock, to the detriment of native species, especially migratory birds, sage grouse, pygmy rabbits, etc. If the Forest rests an area, we ask that you ensure that areas being grazed do not face increased numbers of livestock displace from the rested site.

USFS RESPONSE:
Thank you for your comment. The details of the three alternatives have been included in Chapter 2 of the Draft EIS. The potential impacts of these alternatives have been included in Chapter 4 of the Draft EIS.

Comment #: 15-46
COMMENT TEXT:
No grazing should occur during nesting periods for birds and birthing period for native mammals. Livestock attract predators, carry disease, physically disturb nests, drastically alter habitat, trample nests, devour nesting cover exposing nests to predators, etc.

USFS RESPONSE:
Neo-tropical Migratory Bird inventories have been conducted within the Project Area. A list of birds that are known to occur on the Santa Rosa Ranger District and their nest substrate has been included in the Project Record. Because no long term monitoring has been done on the district, local population trends are unknown. The District developed an All Bird Monitoring Plan in 2002 and will be conducting repeatable bird surveys in various habitats throughout the district. Grazing under the "Current Management/No Action" alternative could affect nesting habitat for some bird species, such as the sage grouse, see page 4-19, due to localized and concentrated use by livestock which could reduce under story grass cover impacting the quality and quantity of nesting habitat for following years. Under the "Proposed Action" alternative, the effects to species like the sage grouse would be similar to, but slightly less than those described in the "Current Management/No Action" alternative. A potential downward trend in populations of ground nesting birds would be the result of numerous factors, but this trend would be due primarily to the impacts from wildfires and extensive drought. Additionally, as described under the "No Grazing" alternative on page 4-34, eliminating grazing would result in an increase in fine fuels and could result in a higher risk of wildfires that could impact important habitats for many birds as well as result in increase use of private lands in turn degrading important habitat for many bird species.

Information on the proposed effects to wildlife habitat for the species analyzed for each of the alternatives can be found on pages 4-19 through 4-34 in chapter 4 of the DEIS.

Comment #: 15-47
COMMENT TEXT:
A broad range of alternatives must be developed. Alternatives must include significant reductions in livestock numbers, reliance on nonstructural methods of livestock control/dispersion.

USFS RESPONSE:
Three Alternatives representing a wide range of options were analyzed in the Draft EIS. An additional Alternative has been accepted and will be included in the Final EIS. A public comment period will be provided on the Final EIS.

Comment #: 15-48
COMMENT TEXT:
Alternatives and alternative components to address vegetation health/restoration must include passive restoration techniques – such as cessations or reductions in livestock use, or closure of roads.

USFS RESPONSE:
See Response to Letter #15 Comment #47.

Comment #: 15-49
COMMENT TEXT:
All reseeding efforts here should involve only native species, and must include native shrubs like sagebrush. What species were seeded in the West Side/Granite Peak area?

USFS RESPONSE:
This project and its alternatives do not involve reseeding activities. Species included in the seed mix for the Upper Willow Fire Area included Great Basin Wildrye, Bluebunch Wheatgrass, streambank wheatgrass, yarrow, Wyoming big sagebrush, Basin big sagebrush and Forage Kochia.

Comment #: 15-50
COMMENT TEXT:
As part of this process, you must develop standards to rest burned allotments for a minimum of 5 years post-fire – to enable native species, or seeded native species, to recover/establish.

USFS RESPONSE:
The Humboldt National Forest Land and Resource Management provides for a minimum of 2 years of rest following burns.

Comment #: 15-51
COMMENT TEXT:
The Forest has failed to correct its inaccurate scoping notice, and is constructing its EIS on myths of the livestock industry, and not science. Sagebrush has not increased in density “to the detriment of herbaceous vegetation”.

Your statement represents a fundamental misunderstanding of ecological principles in western arid lands. It is livestock, not sagebrush, that are causing woody vegetation problems.

USFS RESPONSE:
Scientific literature exists that finds both for the decrease in herbaceous vegetation with an increase in sagebrush cover and for no change in herbaceous vegetation with an increase in sagebrush cover. Local conditions and management are likely at play to create both findings.

Existing analysis and research suggest that sagebrush cover has increased in many areas due to fire suppression limiting the size of natural fires. Inappropriate livestock grazing plays a role in the increase of sagebrush by removing competing herbaceous understory vegetation, often to the point where inadequate herbaceous vegetation exists to allow for recovery after fire.

Research from Central Nevada has found that periods of drought result in an increase of woody vegetation and a responding increase in fire intervals. Recent drought has played a role in the Santa Rosa’s and other areas on the National Forest by reducing the yearly production and reproductive potential of herbaceous vegetation. Competition for water favors sagebrush, which has both surface and deep roots, whereas most herbaceous vegetation has roots only in topsoil. Sagebrush and other upland woody species are able to utilize moisture and nutrients for a much longer season than herbaceous plants, which die back each year.

It was not the intent of the scoping document to imply that an increase in sagebrush results in a corresponding decrease in herbaceous vegetation. The intent was to highlight that there are sites where sagebrush cover exceeds the level desired for the maintenance of sagebrush ecosystems and

is creating habitats that have potential for the occurrence of high intensity fires, and do not have the herbaceous understory to allow for site recovery.

Comment #: 15-52

COMMENT TEXT:

We strongly oppose the use of prescribed fire in sagebrush wild lands here. You must prepare detailed analysis of sagebrush loss at a regional level – and include surrounding and nearby Winnemucca, Elko and Battle Mountain BLM Lands in this assessment.

USFS RESPONSE:

This proposal does not involve the use of prescribed fire or other vegetation treatments. This comment is therefore outside the scope of this analysis.

Comment #: 15-53

COMMENT TEXT:

You point to heavy flooding as a reason for cottonwood decline. Regrettably, you fail to discuss the role of livestock in stripping and de-stabilizing watersheds, retarding site recovery, and setting the stage for flood damage. Please also explain why cottonwood seedlings are not recovering on these sites – the primary cause of lack of cottonwood recruitment is often livestock consuming young trees.

USFS RESPONSE:

The decline of cottonwood can be attributed to many factors besides flooding. Flooding and mudslides in the Santa Rosa's in the early 1980"s caused severe downcutting and removal of trees from cottonwood sites. In some canyons, the areas with marginal cottonwood stands did not recover and in some the loss of the stream channel structure and root reserves prohibited the re-establishment of cottonwoods. However, in many areas, cottonwoods came back healthier than before these floods. Flooding may have been mentioned as a reason for cottonwood decline, as the floods in the early 1980's were dramatic and the results are still visible.

Livestock grazing on young cottonwoods does limit regeneration. Other factors are lack of disturbance. Like aspen, cottonwood is a species that has hormonal triggers that encourage sprouting when disturbance such as fire or flood removes trees. If suckers are removed on a continuous basis, it is possible to deplete root reserves or introduce disease that will result in the loss of the cottonwood stand.

Another factor affecting cottonwood regeneration is recreation and roads. Cottonwoods tend to be located on the stream channels at low elevations along the Forest boundary where the canyons open up and the slopes are fairly level. These are ideal locations for camping and roads. Almost every one of these sites that is accessible has a road and many have one or more well-used campsites.

Yet another factor affecting cottonwood regeneration is the general lack of male trees to pollinate female trees and produce viable seed. In many locations the existing root stock is compromised or diseased and it is time for the trees to repopulation sexually rather than through root sprouts. Male trees are naturally less abundant than female trees and in sites with a reduced number of trees there may be no males at all or males so closely related that production of viable seed is rare or not possible.

On many cottonwood sites the lack of suckers can not be adequately determined due to multiple factors affecting the site. To avoid a lengthy and cumbersome analysis, we have restricted this DEIS to livestock related decisions, but many of the issues are more complex than can be addressed by single use analysis. Through changes in livestock management with this analysis and decision, we want to alleviate adverse livestock impacts to cottonwood sites.

Comment #: 15-54

COMMENT TEXT:

It is odd that you the Forest focuses on "heritage resources" such as old miner cabins, yet fails to discuss in any detail at all the Native American cultural heritage of this region. You must fully describe and assess the harmful impacts of livestock grazing, fire, vegetation manipulation and other disturbances on cultural resources and values.

USFS RESPONSE:
Please refer to Chapter 3 Affected Environment, Heritage Resources, Prehistoric Overview for a description of the Native American cultural heritage of this region. Currently the HTNF has a Rangeland Memorandum of Understanding (MOU) with the Nevada State Historic Preservation Office to address rangeland management issues as they pertain to cultural resources. Implementation of the tasks identified in the MOU fulfills this agency's requirements under Section 106 of the National Historic Preservation Act.

Comment #: 15-55
COMMENT TEXT:
We are very concerned about the bacterial contamination of streams by livestock grazed in Martin Basin. As part of the data collected here, you must collect water samples throughout periods of livestock use and analyze them for coliform pollution in all pastures in all grazed allotments.

USFS RESPONSE:
Fecal coliform bacteria is one of the parameters measured in the proposed matrix monitoring protocol (see the "Stream Group" matrix).

Comment #: 15-56
COMMENT TEXT:
We ask that you prepare high quality maps that identify special status species occurrence, weed infestations, existing livestock projects, all roads, etc.

USFS RESPONSE:
Maps showing wildlife habitats, weeds, livestock developments, and roads have been included in the Project Record.

Comment #: 15-57
COMMENT TEXT:
You must fully assess all the harmful impacts of cattle grazing on soils, native vegetation, weed invasion, wildlife, recreational experiences, solitude and other important elements of the Santa Rosa Wilderness and surrounding lands.

USFS RESPONSE:
Chapter 4 of the Draft EIS disclosed the effects of the three alternatives on all of the resources and elements identified above. This analysis was disclosed on pages 4-1 through 4-68 of the DEIS.

Comment #: 15-58
COMMENT TEXT:
We have camped at Lye Creek campground, and been disgusted at the levels of livestock use around the area. The stench and noise, as well as disease organisms harbored and spread by livestock are negative impacts that must be assessed here, on the Wilderness, and all the affected lands.

USFS RESPONSE:
The potential effects of the three alternatives are disclosed in Chapter 4 of the Draft EIS, on pages 4-65 through 4-66.

Comment #: 15-59
COMMENT TEXT:
We are also extremely concerned about the role of livestock in proliferation and spread of weeds, as previously describe, and the resultant threat to native biota and associated recreational enjoyment. See Belsky and Gelbard 2000.

USFS RESPONSE:
See response to Letter #15, Comments 3 and 4.

Comment #: 15-60
COMMENT TEXT:
We ask that you use a full range of current ecological science to develop any "desired conditions". The conditions, as stated, are heavily biased towards favoring human-imposed disturbances on wild land systems. Please describe in detail, including with supporting science, the determination process for "desired future condition".

USFS RESPONSE:
We are assuming that this comment is directed toward the basis of our determination of what constitutes "desired condition" and not on the use of the words "desired condition and desired future condition." In case this assumption is not correct included below are two paragraphs from BLM Technical Reference 1730-1, *Measuring and Monitoring Plant Populations,* which describes the relationship between desired condition and management objectives. Also below is a portion of a paragraph from Ecological Applications Vol. 9, No. 4 pgs. 1179-1188, *Overview of the Use of Natural Variability Concepts in Managing Ecological Systems,* which describes the link between the range of variability and desired condition. This paper has a good discussion of quantifying ecosystem attributes, using historical and current ecosystems as references and our barriers and challenges in managing dynamic ecosystems. It also alludes to the issue of managing systems that have crossed ecological thresholds and may no longer be capable of meeting the natural range of variability.

Since this DEIS, the word "desired" has been removed from the matrices and matrix descriptions due to concerns that desire is an emotionally charged word with more than one possible interpretation.

From BLM Technical Reference 1730-1:

"...Inherent in defining monitoring as part of the adaptive management cycle are two key concepts. The first is that monitoring is driven by objectives. What is measured, how well it is measured, and how often it is measured are design features that are defined by how an objective is articulated. The objective describes the desired condition. Management is designed to meet the objective. Monitoring is designed to determine if the objective is met. Objectives form the foundation of the entire monitoring project…"

"…Management objectives can be written to describe either desirable or undesirable conditions and trends. You would frame your objective in desirable terms if you believe improvement of the plant population or habitat is necessary and you have implemented management you believe will result in improvement. These objectives are sometimes referred to as "desired condition objectives" because they describe the target condition or trend of the resources (e.g., increase to 2000 individuals, decrease cover of a noxious weed by 40%)."

From Ecological Applications Vol. 9, No. 4

Natural variability is also useful as a reference for setting general management goals. Comparing current conditions, desired future conditions (an expression of ecosystem conditions preferred by stakeholders and managers), and natural variability clarifies management direction (Fig. 1). Maintaining situations where current and desired conditions are within natural variability, or restoring current conditions to that state, are just two of the many possible situations managers face. Desired future conditions may or may not be equivalent to either natural variability or current conditions. When they are not (Fig. 1; rows 3, 4, and 5), desired conditions may need to be reevaluated. The actions needed to move current conditions to desired conditions, and the external subsidies required to maintain those desired conditions, need to be evaluated for their ecological and socioeconomic acceptability.

The desired condition descriptions were written based on a multitude of scientific literature and Humboldt-Toiyabe National Forest studies outlined in the Draft document "*Resource Implementation Protocol for Rapid Assessment Matrices"* available in the Project Record.

The National Forests were established in response to the Organic Act of 1897 to prevent the abuse of watersheds and forests from over harvesting by lumber companies and livestock owners that occurred during the late 1800's and early 1900's. In our area this use was primarily itinerant bands of sheep that removed 100% of the forage and left bare slopes prone to erosion and degradation of the watershed. The goal of the Organic Act was to continue using these lands for economic gain, but regulate the uses such that these lands would continue being productive into the future.

The Multiple Use-Sustained Yield Act of 1960 expanded the list of uses on National Forest lands to include non-commodity uses such as recreation, wilderness and wildlife and recognized the the Forest Service did not need to press for maximum commodity production, but rather strive for the best combination of diverse uses. The 1970's and 1980's brought about a focus on properly analyzing and planning the uses of National Forests.

As employees of this agency we were hired knowing that the agency is in charge of managing lands to allow for various human uses, whether they are commodity or non-commodity. This does not mean that some use activity needs to occur on every acre, but it also does not allow for the complete elimination of all possible impacts. With the descriptions in the matrices we have attempted to describe a range of natural variability that can and should be sustained while allowing for grazing and other uses to continue.

Comment #: 15-61

COMMENT TEXT:

Livestock grazing is seriously impacting the health of aspen and ALL vegetation communities here! Removal of herbivory, particularly in the case of the Santa Rosa Mountain – livestock herbivory - is key to aspen sprouting/regeneration, and saving ancient aspen clones.

USFS RESPONSE:

The "Proposed Alternative" reduces the amount of browsing by livestock from 35% to 20% of current year's growth for aspen adjacent to riparian areas and also limits the use of herbaceous understory from 0-45% depending on condition. These standards should allow for sufficient regeneration to maintain stands at a desired functioning level. (see page 4-42, and page B-11 Aspen Group).

Comment #: 15-62

COMMENT TEXT:

We asked that you include new information on the imperilment of various sagebrush –obligate species, and their habitat requirements, and use these in evaluation of all impacts, and this has not occurred.

USFS RESPONSE:

All available information on the species considered when discussing the proposed alternatives can be found in chapter 3 of the DEIS on pages 3-30 through 3-45. Information on the effects of the proposed alternatives to sage grouse, pygmy rabbits and all other sage brush obligate species can be found in chapter 4 of the DEIS on pages 4-19 through 4-34.

Comment #: 15-63

COMMENT TEXT:

Both wild and prescribed fire results in long-term habitat loss and fragmentation of sagebrush-steppe species habitats, including pygmy rabbit habitats.

USFS RESPONSE:

Wildfires and prescribe burns are outside the scope of this analysis. The alternatives considered in this analysis do not propose any prescribed burns or activities associated with wildfires.

Comment #: 15-64

COMMENT TEXT:

Post-fire grazing with minimal periods of rest leads to further declines in native vegetation, as remaining native grasses formerly protected by woody shrub structure, are now exposed to herbivory by livestock.

USFS RESPONSE:

See response to Letter #15, Comments 50 and 63.

Comment #: 15-65

COMMENT TEXT:

Federal wild land fire management policy threatens big sagebrush habitats. The Forest must not allow this to lead them to destroy fragile sagebrush lands.

USFS RESPONSE:

See response to Letter #15, comment 63.

Comment #: 15-66

COMMENT TEXT:

It is now understood that most populations of sage grouse require large wild land areas of intact sagebrush in annual movements. They require 9" of herbaceous cover and dense sagebrush canopy cover for successful nesting. Your actions here must be in compliance with this science.

USFS RESPONSE:
See response to Letter #15, comment 63.

Comment #: 15-67
COMMENT TEXT:
The Forest should use this EIS opportunity to designate new RNAs for special status plants or other important communities.

USFS RESPONSE:
RNA's are outside the scope of this analysis.

Comment #: 15-68
COMMENT TEXT:
We urge you, in the Final EIS, to permanently close the vacant allotments to livestock grazing, and use them as long-term reference areas to gauge livestock impacts in this mountain range.

USFS RESPONSE:
Thank You for your comments, we will consider your concerns while developing the Record of Decision.

Comment #: 15-69
COMMENT TEXT:
Plus, we ask that you develop a series of Alternatives with specific reductions in stocking rates.

USFS RESPONSE:
Thank You for your comment, the Draft EIS analyzed 3 alternatives including the no grazing alternatives. The Final EIS will include a fourth alternative. A public comment period will be provided on the Final EIS.

Comment #: 15-70
COMMENT TEXT:
The Forest's list of Significant Issues overlooks the surge in mining exploration that is occurring in these lands.

USFS RESPONSE:
Mineral Exploration is not an appropriate significant issue as it relates to this analysis. Mineral Exploration is an activity that results in cumulative impacts on the various resources in the Project Area. These cumulative effects are disclosed within Chapter 4 of the Draft EIS.

Comment #: 15-71
COMMENT TEXT:
While you have a list of Significant Issues, you do not specify the conflicts between livestock grazing and many of these issues –for example –recreation. You must assess how livestock interfere and conflict with (noise, stench, depauperate wildlife communities, disease, etc.) with recreational activities on public lands.

USFS RESPONSE:
The potential effects on all of the significant issues identified are disclosed in Chapter 4, pages 4-1 through 4-66 of the Draft EIS.

Comment #: 15-72
COMMENT TEXT:
The Forest fails to address the role of livestock grazing in altering fire cycles and watershed-level impacts (especially under the high upland utilization level, and excessive riparian use levels,

USFS RESPONSE:
Livestock grazing has the potential to affect and alter fire cycles within the Project Area. Livestock grazing can reduce fine fuels and may result in fewer fires. Grazing may also result in an increase in the density of shrub species which may also alter fire cycles. The primary factor in the Project Area which affects fire cycles is the presence of cheat grass. The impacts of livestock grazing under the various alternative on resources within watersheds are disclosed within Chapter 4 of the Draft EIS.

Comment #: 15-73

COMMENT TEXT:

Policies to allow livestock grazing to resume far too soon following fire) currently in place.

USFS RESPONSE:

Under the Humboldt National Forest Land and Resource Management Plan burned areas are to be rested for a minimum of two years following fire. The plan allows for additional rest if the conditions warrant. These determinations need to be made based on site specific conditions.

Comment #: 15-74

COMMENT TEXT:

As we review Forest Plan Direction and Goals (1-3 to 1-4), it becomes apparent the Plan requires strong steps be taken to significantly improve conditions on these lands We are very concerned that the Proposed Action fails to take necessary strong actions, and has no teeth.

USFS RESPONSE:

Thank You for your comments, however, we disagree with your opinion. The potential effects of all three alternatives are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-75

COMMENT TEXT:

1-4. The Forest can not be satisfied with merely maintaining the current habitat of T&E species. The Forest must act to protect and enhance T&E habitats. All riparian areas in watersheds that contain LCT streams should be managed as Category 1 streams, not just the stream sections that are currently occupied. Please explain if this is the case, or if some tributaries have lower protection – and thus are allowed to suffer greater livestock grazing damage. Are all tributaries in these watersheds managed as Category I streams and uplands?

USFS RESPONSE:

Forest Plan Amendment #2 limits what can be classified as Category 1 streams. Category 1, as it relates to fish, is defined as "Highest fishery habitat" which includes the criteria of "Supports a threatened or endangered fish species." We can only classify Category 1 where there is physical documentation (i.e., stream surveys, creel census) of the fish, in this case, LCT.

Uplands are not part of categorization, only riparian zone.

Comment #: 15-76

COMMENT TEXT:

We are very concerned that the Forest has not collected data required to measure progress towards achieving Forest Plan goals. For example, a goal is to improve range conditions to 80% satisfactory. The EIS contains no assessment of acreage in the Santa Rosas that are in this condition. This information must collected and assessed as part of the EIS process, or it will never occur.

USFS RESPONSE:

There has been monitoring completed over the last few years on the Santa Rosa Ranger District primarily within aspen and riparian community types that help assess the condition of these vegetative communities in the specific areas where the monitoring occurred. The extrapolation to numbers of acres these plots represent has not been completed, nor is it necessary for this analysis. Monitoring has also been completed following fire events.

The analysis does disclose the effects of livestock grazing at the various levels identified in each alternative, and how that should affect the ability to improve rangelands to a satisfactory or functioning condition. This analysis also outlines a monitoring plan which includes timelines for continuing to collect data that can be used to determine the existing condition and assess the trend or direction the condition of that community is heading. The use of this data will help determine if changes in livestock management are necessary to ensure progress towards the Forest Plan goals.

Comment #: 15-77

COMMENT TEXT:

We are very concerned that the Forest relies on "maintain water quality and soil productivity".

USFS RESPONSE:
Thank You for your comment. This comment is based upon Management Area Prescriptions that were set under the Humboldt National Forest Land and Resource Management Plan and were listed on Page 1-5 of the Draft EIS. This analysis conforms to the Prescriptions as established in the Forest Plan.

Comment #: 15-78
COMMENT TEXT:
It is very disappointing to see the Forest Service committing only to "maintaining" habitat for wildlife and fish, and not enhancing it (1-5).

USFS RESPONSE:
This comment is based upon Management Area Prescriptions that were set under the Humboldt National Forest Land and Resource Management Plan and were listed on Page 1-5 of the Draft EIS. This analysis conforms to the Prescriptions as established in the Forest Plan.

Comment #: 15-79
COMMENT TEXT:
You have not presented baseline data to determine population and habitat trends in MIS species, either. What data have you collected on ALL Forest MIS species here? What are minimum viable populations for non-aquatic MIS species?

USFS RESPONSE:
MIS identified in the Forest Plan include sage grouse, mule deer, northern goshawk, Lahontan and Bonneville cutthroat trout and other trout species. MIS are intended to represent certain habitat characteristics and are used to monitor wildlife habitat condition. All of the MIS occur within the Project Area except the Bonneville Cutthroat Trout, which only occur in the very eastern part of the Forest.

The affected environment for fisheries MIS species for each of the proposed alternatives analyzed in the DEIS are discussed in chapter 3 on pages 3-18 and 3-19. Analysis of the affected environment for wildlife MIS species is discussed on pages 3-30 through 3-37.

No active goshawk nests have been identified on the Santa Rosa Ranger District since the Forest population was established. The Forest Plan estimates that the District could support three to four pairs of nesting goshawks. Since the Forest Plan was established additional nests have been identified, although, of the few known goshawk nest locations it appears that the nests have been vacant for several years. Minimum and maximum population levels for goshawk as described in the Forest Plan can be found on page 3-39 of the DEIS.

All of the Santa Rosa Ranger District is considered summer and fall range for mule deer based on existing vegetation characteristics. The Project Area is within the Nevada Department of Wildlife's Management Area 5. The current mule deer population for management area 5 and the minimum and maximum viable population levels for mule deer as described in the Forest Plan are on page 3-37 of the DEIS.

The Forest Plan identifies the sage grouse as an indicator for the condition and trend of sagebrush/grassland and riparian community types and requires project impacts to sage grouse and sagebrush habitats to be evaluated in partnership with Nevada Department of Wildlife. The minimum and maximum viable population levels for sage grouse as described in the Forest Plan are on page 3-30 of the DEIS. Information on lek locations and counts is available in the Project Record.

Comment #: 15-80
COMMENT TEXT:
Likewise, the Forest only commits to maintaining soil productivity, instead of improving or enhancing this critical elements of ecosystem health.

USFS RESPONSE:
This comment is based upon Management Area Prescriptions that were set under the Humboldt National Forest Land and Resource Management Plan and were listed on Page 1-5 of the Draft EIS. This analysis conforms to the Prescriptions as established in the Forest Plan.

Comment #: 15-81

COMMENT TEXT:

Range improvements. The Forest must consider the effect of range projects on soils, vegetation, watersheds, weed invasion, etc. The plan does not consider removal or elimination of projects that may be harming watershed. This should be an essential component of management here, and be part of the basis for a series of restoration alternatives.

USFS RESPONSE:

The potential effects of range developments were considered as a cumulative effect in Chapter 4 of the Draft EIS. The No Grazing Alternative would involve the removal of all un-needed range developments once grazing was phased out. These details are spelled out in Chapter 2, on page 2-10.

Comment #: 15-82

COMMENT TEXT:

Amendment #2 includes collection of macropore data (no more than 10% reduction), cover of key species is to be 90%or greater of estimated potential, and fish production near potential. The Forest must reveal the values for each of these parameters at "potential", and then provide current site-specific data collected on Martin Basin streams that shows that these conditions are being met. Where is this information?

USFS RESPONSE:

Appendix A-2 (p. A-6) describes the Forest Plan Amendment #2 as it relates to desired resource conditions and defines each riparian category.

Comment #: 15-83

COMMENT TEXT:

1-5,6. You describe the Management Area prescriptions under Alt. 2. Please provide data for all riparian areas (Categories 1, 2, 3, 4, 5) on potential key herbaceous and woody species, composition, soil productivity, macropore space, streambank stability, and fish production.

USFS RESPONSE:

This comment is based upon Amendment #2 of the Humboldt National Forest Land and Resource Management Plan and were listed on Page 1-5 and 1-6 of the Draft EIS. This analysis conforms to the Prescriptions as established in the Forest Plan. The potential effects of grazing under those conditions are outlined for Alternative 1 (No Action Alternative) and are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-84

COMMENT TEXT:

This EIS should eliminate the application of the standards for riparian areas 3, 4, 5 – as they allow way too much damage to be done by livestock to scarce riparian streams.

USFS RESPONSE:

These standards were established under Amendment #2 to the Humboldt National Forest Land and Resource Management Plan and are included in Alternative 1 (No Action Alternative) of the Draft EIS. Alternative 2 would reduce the maximum utilization standards within category 3, 4, and 5 riparian areas.

Comment #: 15-85

COMMENT TEXT:

1-6 proposes the construction of new fences of unknown configuration. Fences are almost always followed by extensive new water developments in uplands and other range facilities. There is no discussion of these and other associated impacts.

USFS RESPONSE:

Alternative 2 provides for the creation of a riparian pasture and a large riparian exclosure. Although changes in fences will likely be required, the exact configuration is currently not known and therefore those fences will be approved under a future decision once appropriate information is available. The changes in fencing may actually result in a net reduction in miles of fence. No water developments

are planned under this document and there are no water developments planned for the near future. This analysis does not preclude the approval of future water developments.

Comment #: 15-86

COMMENT TEXT:

The EIS lacks current data on how many miles of fences, spring projects, troughs, etc. currently exist here, their repair, effectiveness, and analysis of cumulative impacts.

USFS RESPONSE:

The cumulative effects of these developments have been included in Chapter 4 of the Draft EIS. Maps showing developments have been included within the Project Record for this project.

Comment #: 15-87

COMMENT TEXT:

We strongly object to the Forest combining (and thus it appears authorizing grazing in) vacant allotments. Why are the Bradshaw and the Buttermilk allotments vacant? Much of the land area of these vacant allotments is highly unsuitable for livestock grazing.

USFS RESPONSE:

Thank You for your comment. The vacant allotments are the Bradshaw and Rebel Creek Allotments. We will consider your concerns while developing the Record of Decision.

Comment #: 15-88

COMMENT TEXT:

The Forest must conduct a current study of the suitability of grazing these lands and other studies.

USFS RESPONSE:

See Response to Letter 15, comment #7.

Comment #: 15-89

COMMENT TEXT:

Please provide a detailed map that shows the portions of all allotments where grazing is currently authorized, and those areas where it is not.

USFS RESPONSE:

Grazing is currently authorized in the Indian Allotment, West Side Flat Creek Allotment, Martin Creek Allotment, Buttermilk Allotment, Granite Peak Allotment and the Buffalo Allotment. Rebel Creek and Bradshaw Allotments are currently vacant.

Comment #: 15-90

COMMENT TEXT:

Please also describe the history of trespass, violations of Forest Plan standards and all related information in and surrounding the Basin.

USFS RESPONSE:

Trespass and permit compliance issues are outside the scope of this analysis.

Comment #: 15-91

COMMENT TEXT:

We are very concerned that the Forest has limited its consideration of “Issues” related to Wildlife to only the most charismatic of species, and is ignoring a wide range of other species that are important to biodiversity, and whose populations are undergoing long-term regional declines (Saab and Rich 1997, Paige and Ritter 1999, Wisdom et.al. 2000).

USFS RESPONSE:

A considerable list of significant issues was identified on pages 1-8 through 1-11. The potential impacts of the three alternatives on these issues have been included in Chapter 4 of the Draft EIS. The potential effects of each of the three alternatives on a wide range of wildlife species has been disclosed in Chapter 4 of the Draft EIS on pages 4-19 through 4-35.

Comment #: 15-92

COMMENT TEXT:

The Forest fails to discuss the importance of intermittent streams, and does not provide protection necessary to ensure that these areas are healthy, functioning and providing good or excellent habitat for aquatic species. It does not apply standards that ensure necessary vegetative cover and protection from grazing and trampling so that intermittent drainages can trap sediments, reduce runoff of livestock waste.

USFS RESPONSE:

The "Proposed Action" alternative does not separate or categorize intermittent streams differently from any other stream type. Standards for all stream types will be based on the level of functionality, see (page 2-4 and Appendix B)

The "Current Management/No Action" alternative does categorize intermittent streams in separate categories, see (page A-3 thru A-8 and also discussed on page 2-1).

Comment #: 15-93

COMMENT TEXT:

The "Proposed Action"(2-4 to 2-8) lacks much necessary substance, and fails to include strong measures necessary to restore damaged lands, such as removal of livestock facilities that may be damaging lands or harming MIS species habitats. The Proposed Action primarily describes what the Forest is supposed to already be doing – like AMPs, and monitoring. One of its primary actions is extending grazing use from damaged and depleted allotments to others, and a fencing project.

USFS RESPONSE:

Thank You for your comment, the Draft EIS analyzed 3 alternatives including the Proposed Action and the no grazing alternative. The Final EIS will include a fourth alternative. A public comment period will be provided on the Final EIS. Also see the response to Letter #15, comment #81.

Comment #: 15-94

COMMENT TEXT:

The Forest's fixation on vegetation communities here fails to provide for any assessment of the complex interspersion and interdigitation of plant communities across the landscape.

USFS RESPONSE:

Thank You for your comment. We recognize that vegetation communities are very diverse and complex across the Project Area. Maps showing vegetation types has been included in Map 12-M of the Draft EIS and within the Project Record. The various vegetation communities were also analyzed under each of the alternatives in the Draft EIS.

Comment #: 15-95

COMMENT TEXT:

2-5. Table 1-T. We recommend that a 25% or lower utilization standard should be applied across-the-board, and also should be used to prevent communities from dropping below "Desired" Functioning Condition. By allowing grossly excessive 50% utilization on Wyoming big sagebrush herbaceous understory species, the Forest will ensure that more communities become degraded, and drop below thresholds.

USFS RESPONSE:

Table 1-T (page2-5) indicates that the "Proposed Action" alternative for Wyoming Sagebrush has different levels from 30-50% utilization depending on functioning condition. This is a significant reduction from 65% use on herbaceous vegetation from the "Current Management/No Action" alternative.

In most of our upland communities, it is rare that 65% utilization is met, see (page 4-45) direct and indirect effects.

Comment #: 15-96

COMMENT TEXT:

2-6. How will you determine a "reference area". As nearly all lands have been grazed, will this provide a valid benchmark? Do you really mean something more akin to the Key Area concept? If so, one site per pasture is not sufficient.

USFS RESPONSE:
The definition of a reference area is disclosed on page E-13 of the Draft EIS. Reference Areas will be identified by a Forest Service Interdisciplinary Team and Approved by the District Ranger. The number of reference areas per pasture or allotment will be determined on a site by site basis.

Comment #: 15-97
COMMENT TEXT:
2-7. In order to assess the appropriateness of the mitigation measures, the Forest must conduct inventories for rare plants as part of this EIS process, not wait until later. There is no way to understand cumulative effects if surveys are delayed.

USFS RESPONSE:
Some surveys have been preformed for sensitive plants. Previous surveys have been performed for Osgood Mountain milkvetch (Page 3-60), but only on a limited basis for obscure scorpion plant (Page 3-61). For the analysis, the best available information was used to analyze and disclose direct, indirect, and cumulative effects to potential habitat (Page 4-50 to 4-56). Since surveys are incomplete, potential habitat was assumed to be occupied for the effects analysis.

Comment #: 15-98
COMMENT TEXT:
Why are most of the mitigation measures focused on rare plants, and why do they not also include many more measures for wildlife, recreation, cultural, fisheries and other mitigation measures?

USFS RESPONSE:
Interdisciplinary Team Members identified required mitigation measures. The final EIS and Record of Decision may have additional or more refined mitigation measures as needed. The need for many mitigation measures has been averted through project design.

Comment #: 15-99
COMMENT TEXT:
3-5. Table 6-T. The Forest relies on old, stale data – it is 2004, yet you have presented as the most recent data one year 2001 survey, and all the rest is from 2000, or even 1998.

USFS RESPONSE:
The Forest Service has used the best available survey data to analyze the effects of these alternatives on fisheries species and habitats as displayed in Table 6-T. Additional, multi-year survey data has been included within the Project Record.

Comment #: 15-100
COMMENT TEXT:
Please provide additional information needed to understand the "ungulate bank damage" presented – including the date when the study as performed, the dates of when livestock grazing occurred at that site, if trespass occurred, etc.

USFS RESPONSE:
The Ungulate Damage Rating is a subjective measurement within the General Aquatic Wildlife Survey Method (GAWS) that is used by the Nevada Department of Wildlife. The surveys were completed during the summer months of the years identified in Table 6-T. The intent of this survey is to provide a general measurement of the amount of bank damage occurring from ungulate grazing and trampling.

Comment #: 15-101
COMMENT TEXT:
We are very concerned that no data on spring, seep and most wet meadow areas have been presented. What is the ecological condition of springs and seeps throughout the Project Area? How many remain undeveloped? How many of the developed sites have been harmed by this activity? How can damaged sites be restored? What are current water flows at springs and seeps?

USFS RESPONSE:
The potential effects of these alternatives on springs, seeps and meadows have been disclosed in Chapter 4 of the Draft EIS pages 4-36 through 4-40. Maps of Range Developments have been included in the Project Record.

Comment #: 15-102

COMMENT TEXT:

2-6 lists currently and previously occupied LCT streams. Given that so many streams (13) are no longer occupied by LCT, it is essential that the Forest act to restore fish and other aquatic biota to these streams. This will not be possible under the Proposed Action. We ask that you develop an Alternative that will enable you to restore populations to many of these streams.

USFS RESPONSE:

Thank You for your comments. None of the three alternatives precludes the reestablishment of LCT within any of the historical habitats identified. The Forest is actively working with DPS Teams to conserve and restore LCT populations and habitats. the Draft EIS analyzed 3 alternatives including the Proposed Action and the no grazing alternative. The Final EIS will include a fourth alternative. A public comment period will be provided on the Final EIS.

Comment #: 15-103

COMMENT TEXT:

The EIS fails to describe the synergistic and cumulative effects of grazing and mining (old, proposed, reasonably foreseeable) on streams, water quality and watershed processes.

USFS RESPONSE:

Cumulative effects have been disclosed in Chapter 4 of the Draft EIS on pages 4-2 through 4-5; 4-9 through 4-12 and 4-37 through 4-40.

Comment #: 15-104

COMMENT TEXT:

Water quality data indicates that there are serious problems with fecal coliform contamination of waters. Why did the Forest, having collected two samples on Cabin Creek, not collect the necessary number to show definite violations of wq standards?

USFS RESPONSE:

The document states that the fecal coliform samples were collected by the Nevada Division of Environmental Protection; the USFS did not sample for fecal coliform. Do to the short analytical hold time for fecal coliform analysis; it was not practical for the USFS to collect a large number of samples for laboratory analysis. A protocol for "field" analysis of fecal coliform samples has recently been developed for us with the rapid assessment matrix.

Comment #: 15-105

COMMENT TEXT:

Why was no turbidity data taken during periods of higher flow?

USFS RESPONSE:

During periods of higher flow, it is natural for most surface waters to have a temporary increase (often very elevated) in turbidity as the material in the streambed is suspended. Turbidity values should, however, decrease once the higher flows subside. Turbidity values during periods of base flow would be a better indicator of persistent problems. In addition, State law allows for water quality standards to be exceeded when caused by a natural event, such as high flows (see NAC 445A.120).

Comment #: 15-106

COMMENT TEXT:

Was the North Fork Humboldt sample collected during a time when cattle were present? Was it collected inside an exclosure?

USFS RESPONSE:

As stated in the document, the North Fork Humboldt sample was collected by NDEP during the 2002 grazing season. It is our understanding that it was not collected inside an exclosure.

Comment #: 15-107

COMMENT TEXT:

We strongly object to your postponing establishing management standards until 2010 or later these should be established NOW, as part of the EIS process, and not postponed until later This is not a huge land area, and this should be done as part of the EIS process. There is great uncertainty in postponing it – as you admit - any future action is tied to funding.

Actions in this EIS must be immediately incorporated into Annual Operating Plans and grazing permits.

USFS RESPONSE:
Establishment of management standards under the Proposed Action would not be postponed until 2010. Standards would initially be set for each area as if it was functioning as desired. The Matrices would then be implemented according to the schedule identified in the Proposed Action and adjustments would be made to the management standards for that specific area to reflect the condition of the resources in that area. The Forest Service believes that these standards will at a minimum, maintain the current condition of these resources until the attributes within the matrices can be measured and implemented.

Comment #: 15-108
COMMENT TEXT:
The "Mitigation" includes grazing to reduce cheatgrass. This is not "mitigation". You have failed to scientifically assess the harmful impacts of grazing to levels extreme enough to control cheatgrass – and the effects on soils, watersheds runoff, weeds, microbiotic crusts, etc.

USFS RESPONSE:
There is no mitigation to specifically use grazing to reduce cheatgrass. The mitigation measure addressing deferring livestock grazing in sage grouse nesting areas is exempted in areas dominated by cheatgrass to allow for potential options to use livestock to address cheatgrass issues.

Comment #: 15-109
COMMENT TEXT:
We strongly support deferment of livestock grazing in sage grouse nesting areas. You must also require upland utilization standards of 25% or less that would provide adequate residual cover for sage grouse nesting requirements.

USFS RESPONSE:
As explained on pages 4-19 and 4-20 of the DEIS under the "Current Management/No Action" alternative the impact to sage grouse nesting habitat in the uplands would be localized as most upland utilization standards are generally not reached. Information on the effects of the "Proposed Action" alternative to sage grouse nesting habitat can be found on page 4-26 of the DEIS. Information on the effects of the "No Grazing" alternative to sage grouse nesting habitat can be found on pages 4-30 and 4-31.

Comment #: 15-110
COMMENT TEXT:
Please define what you mean by "livestock concentrating activities". Does this include salt and mineral placement? These activities can significantly degrade uplands –as they cause intense concentration of livestock.

USFS RESPONSE:
Livestock concentrating activities may include but are not limited to salting, water developments or water gaps in fences.

Comment #: 15-111
COMMENT TEXT:
Large livestock-free reference areas, a detailed monitoring protocol with methods, time frames, etc. should be established as part of this process, not delayed.

USFS RESPONSE:
Thank You for your comment. Alternatives 1 would not include large reference areas. Under Alternative 2, the Rebel Creek Exclosure could be used as a reference area. Under Alternative 3 the entire Project Area would serve as a huge reference area. The Record of Decision will include a detailed monitoring plan.

Comment #: 15-112
COMMENT TEXT:
The Forest has failed to conduct the surveys necessary to determine locations of sensitive plant populations and other factors it describes as mitigation or that would be monitored. This must be

done as part of the EIS process, so that an adequate assessment of additive, synergistic and cumulative impacts of livestock grazing on these environmental factors.

USFS RESPONSE:
Some surveys have been preformed for sensitive plants. Previous surveys have been performed for Osgood Mountain milkvetch (Page 3-60), but only on a limited basis for obscure scorpion plant. For the analysis, the best available information was used to analyze and disclose direct, indirect, and cumulative effects to potential habitat (Page 4-50 to 4-56). Since surveys are incomplete, potential habitat was assumed to be occupied for the effects analysis.

Comment #: 15-113
COMMENT TEXT:
2-1 states that allowable utilization levels would remain the same. Again, the Forest has presented no current analysis or science supporting this.

USFS RESPONSE:
The potential effects of Alternative 1 on resources within the Project Area are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-114
COMMENT TEXT:
2-12. The Forest unfairly, and without any science-based rationale, discarded analysis of the "Restoration" Alternative, or any Alt. that reduces stocking rates. Instead, the Forest appears to be planning on using vacant allotments to accommodate livestock that have depleted the other 6 allotments –thus extending use and shifting damage. A series of reductions in stocking rates must be part of a series of Alternatives analyzed as part the EIS.

USFS RESPONSE:
Alternative 3 (No Action Alternative) was analyzed and includes the removal of livestock grazing within the Project Area, and therefore, your comment that the Forest did not consider an alternative that reduces stocking rates is incorrect. Alternative 3 significantly reduces stocking rates. Alternative 2 would not specifically reduce stocking rates, however, utilization standards would be reduced. The potential effects of these alternatives has been disclosed within Chapter 4 of the Draft EIS.

Comment #: 15-115
COMMENT TEXT:
2-13. The "Comparison Table" fails to scientifically determine implementation effects. For example, there is no evidence that fecal coliform, nutrients, water temperature – would decrease in all degraded areas.

USFS RESPONSE:
The Comparison Table is only a summary of the potential effects that are described in additional detail within Chapter 4 of the Draft EIS.

Comment #: 15-116
COMMENT TEXT:
Many springs, stream segments, etc. are to continue to be grazed under this plan, and their condition has been completely ignored.

USFS RESPONSE:
Utilization Standards for Springs, Streams and meadows are shown for Alternative 2 on page 2-5 of the Draft EIS. Information regarding desired conditions and standards for Springs, Streams and Meadows under Alternative 1 were shown in Appendix A of the Draft EIS. Information regarding Springs, Streams, and Meadows within the Project Area is found within Chapter 3 of the Draft EIS. The potential impacts of the three alternatives are outlined in Chapter 4 of the Draft EIS. These areas are also addressed within the Matrices for Alternative 2 and are shown in Appendices B-1 and B-2 of the Draft EIS.

Comment #: 15-117
COMMENT TEXT:
As riparian pasture fences are constructed, we can expect even greater degradation of upland springs, seeps and wet meadows.

USFS RESPONSE:
See response to Letter #15, comment #116.

Comment #: 15-118
COMMENT TEXT:
Plus, grazing is to be extended/shifted into portions of vacant allotments with certain harm to riparian systems.

USFS RESPONSE:
Both Alternatives 1 and 2 would approve livestock grazing within all or portions of the Rebel Creek and Bradshaw Allotments. The effects of these alternatives on Riparian areas is disclosed in Chapter 4 of the Draft EIS on pages 4-1 through 4-5;

Comment #: 15-119
COMMENT TEXT:
The Forest has failed to collect any current information on the condition of soils over nearly all lands – for example, there is no little if any current data on upland soils provided – despite abundant scientific knowledge of harmful impacts of livestock grazing and trampling activity to soils- compaction, depletion of soil cover, loss of microbiotic crusts, de-stabilization of soils and increased vulnerability to both wind and water erosion, etc.

USFS RESPONSE:
Information regarding soil resources within the Project Area is described within Chapter 3 on pages 3-11 through 3-18 of the Draft EIS. The potential impacts of the various alternatives on soil resources were included in Chapter 4 of the Draft EIS on pages 4-5 through 4-14.

Comment #: 15-120
COMMENT TEXT:
3-13. Conditions are degraded and the Forest admits that there have been and are adverse effects on soil resources. Then why is the Forest continuing such high allowable levels of use, i.e. grazing intensity?

USFS RESPONSE:
The Draft EIS analyzed three alternatives involving no grazing, current grazing, and the proposed action. An additional alternative has also been included and analyzed within the Final EIS. A sufficient range of alternatives has been analyzed and the potential effects of the alternatives on soils has been included within Chapter 4 of the Environmental Impact Statement.

Comment #: 15-121
COMMENT TEXT:
Also, please describe how past grazing was “inappropriate” while current grazing is not.

USFS RESPONSE:
Historical grazing practices often involved unrestricted grazing with large numbers of livestock over extended seasons with little or no consideration as to the impacts on various resources. Current Grazing practices involve specific management practices with standards, approved livestock numbers and seasons. Grazing management is implemented while consideration is given to improve and protect various resources on the National Forests.

Comment #: 15-122
COMMENT TEXT:
Please provide evidence supporting your claim that increased native ungulates significantly impacted riparian and other conditions here.

USFS RESPONSE:
A review of the Draft EIS indicates that there was no claim as indicated in you comment above. On page 3-13 there is an excerpt from a citation in Robertson, 1971 that indicated that increasing game herds may have been a contributing factor to unmanaged and nomadic grazing practices that in turn affected early rangeland conditions on the Santa Rosa Ranger District.

Comment #: 15-123

COMMENT TEXT:

Map 6-m, 3-15 shows soil monitoring locations in only some watersheds, and a large part of the Project Area has no soil monitoring locations at all. This includes the entire western side of the Santa Rosa Range. Your data focuses almost entirely on flat meadow areas. What are the conditions of soils in steep uplands, in areas where you now propose to denude sagebrush vegetation through burning, and the soils that are associated with all the plant communities that you describe elsewhere in this document?

USFS RESPONSE:

Prescribed Fire activities are outside the scope of this analysis. The monitoring locations are part of a longer term monitoring program that was in existence prior to this analysis. Please see the response to Letter #15, Comment #119.

Comment #: 15-124

COMMENT TEXT:

"Mountain brush"- Why do you not describe this community as mountain shrub? "Brush" has a negative connotation, due to the long-time fixation of the livestock industry in removing "brush".

USFS RESPONSE:

Thank you for your comment.

Comment #: 15-125

COMMENT TEXT:

There are extensive areas of mountain mahogany that can not be lumped in with "brush". Fire kills mahogany, and many mahogany trees are very old. Mahogany must be treated as a distinct community type. Likewise, why is there no low sagebrush community? Why no cheatgrass-understory dominated community? Why no post-fire exotic-seeded communities?

USFS RESPONSE:

Thank you for your comment, however, the vegetation map used for this analysis was suitable for this environmental analysis. This project does not involve the use of fire and therefore your concerns related to fire and mahogany are outside the scope of this analysis.

Comment #: 15-126

COMMENT TEXT:

We are very concerned that your classification does not capture the complexity of the plant communities present here, and that you are using this simplistic community categorization to set the stage for large-scale fire manipulation projects here.

USFS RESPONSE:

This project does not involve any fire projects or the use of fire as a tool and therefore this comment is outside the scope of this analysis.

Comment #: 15-127

COMMENT TEXT:

3-17. What has been the recent (past 20 years) grazing situation (stocking rate, season, trespass, etc.) on all sites with impaired characteristics, such as impaired soils?

USFS RESPONSE:

The current management condition is represented by Alternative 1, the no action alternative, which is described in Chapter 2, Pages 2-1 through 2-3. Additional information is also included within appendix A-1 and A-2.

Comment #: 15-128

COMMENT TEXT:

3-17. Describes erosion, sediment transport and rainfall runoff increasing as vegetation and ground cover decrease. You provide a sedimentation rate from riparian areas that fall below a threshold.

USFS RESPONSE:

Sediment rate is not one of the attributes used in the Matrices to determine whether or not a site is functioning or not. Page 3-17 does not make a determination that anything has fallen below a threshold and only displays the assessment of the current conditions.

Comment #: 15-129

COMMENT TEXT:

Please describe the relation between livestock grazing and trampling damage to/loss of microbiotic crusts, herbaceous cover, and erosion rates?

USFS RESPONSE:

Soil crusts are common to harsh sites and tend to develop where there is inadequate moisture or temperature to meet the physiological needs of larger plants. Due to the relatively favorable climate on most of the National Forest lands in Nevada, soil crusts are uncommon. However, where found the organisms common to soil crusts (lichens, mosses, liverworts, fungi and cyanobacteria) contribute to ecosystem biodiversity and play a significant role in providing soil cover, nitrogen fixation, soil fertility and infiltration. Trampling by animals is known to reduce both the cover and diversity of soil crusts opening the soil surface to wind and water erosion and also allowing for soil compaction and decreased infiltration. (Hupy 2004)

The loss of vegetative and litter cover caused by grazing at high stock densities allows direct impact of raindrops on soils. Increased bulk density resulting from machinery traffic or trampling of moist soils reduces water infiltration into the soil. The combination of these effects increases surface flow and sediment loss. (Russell et.al. 2001)

References:

Hupy, Joseph P. 2004. Influence of vegetation cover and crust type on wind-blown sediment in a semi-arid climate, Journal of Arid Environments Vol. 58 (2004) p.166-178.

Russell, J. R., K. Betterridge, D. A. Costall and A. D. Macay. 2001. Cattle treading effects on sediment loss and water infiltration, Journal of Range Management Vol. 54, No 2 (Mar. 2001): p. 184-190.

Comment #: 15-130

COMMENT TEXT:

How much would erosion increase in all sites (riparian and upland) with fire? The Forest must understand the current condition before it proposes imposing massive new disturbance.

USFS RESPONSE:

This project does not involve any fire projects or the use of fire as a tool and therefore this comment is outside the scope of this analysis.

Comment #: 15-131

COMMENT TEXT:

3-24 describes significant problems with mine runoff/tailings pollution. What harmful materials have been documented here? What is being done to control these? What are the cumulative impacts of this on top of livestock grazing disturbance, new mining exploration, and other activities?

USFS RESPONSE:

The cumulative effects of the Buckskin mine are disclosed on page 4-3 of the Draft EIS. The Forest Service is actively looking at options to address the acid mine drainage problem. These activities to address this issue are not a part of this proposal and are outside the scope of this analysis.

Comment #: 15-132

COMMENT TEXT:

Please describe in detail the current situation surrounding the Buckskin mine.

USFS RESPONSE:

See response to letter #15, Comment #131.

Comment #: 15-133

COMMENT TEXT:

3-125. How many acres have cheatgrass, bulbous bluegrass, and other shallow-rooted exotic species present? How did fire increase their presence? How large an area did the fire burn?

USFS RESPONSE:
The Upper Willow Fire burned approximately 42,000 acres on Forest Service, BLM and Private Lands. The fire increased the extent and dominance of Cheatgrass in the area, primarily below 6,000 feet in elevation.

Comment #: 15-134
COMMENT TEXT:
Please present the fire history for the past 30 years for the Project Area and its surroundings.

USFS RESPONSE:
Over the last 30 years numerous large fires have affected portions of the Project Area. The Upper Willow Fire Burned approximately 42,000 acres across administrative boundaries. During the mid 1990's the Quinn River Fire burned approximately 50,000 acres of Forest Service, BLM and Private lands both within and outside the Project Area. Several fires have occurred over the past 30 years within the entire Canyon Creek and Eight Mile Creek Drainages. Smaller fires have also occurred within Tom Basin and Solid Silver on the Granite Peak Allotment and fires have also occurred on BLM lands adjacent to the Buffalo and Rebel Creek Allotments. Numerous other small fires have occurred throughout the District over the past 30 years. The District has approximately 3 fires per year on average.

Comment #: 15-135
COMMENT TEXT:
3-31. The Forest can not use sage grouse as a surrogate for pygmy rabbit habitat characteristics. Pygmy rabbits require dense sagebrush, or sagebrush-bitterbrush shrub cover, and a complex structurally diverse canopy of big sagebrush We are attaching a copy of the pygmy rabbit petition and accompanying bibliography, both to elucidate the specific pygmy rabbit habitat requirements as well as to provide a basis for our comments on the impacts of livestock grazing to all facets of the sagebrush-steppe environment. We ask that you apply the information on sagebrush-steppe and impacts caused by livestock grazing to this EIS.

USFS RESPONSE:
Even though we disclose information on sage grouse habitat as an indicator for other sage dependent species such as the pygmy rabbit, this doesn't mean we did not consider effects of each of the alternatives to pygmy rabbit habitat. We considered potential effects which we see as important in influencing pygmy rabbit habitat conditions for each of the proposed alternatives on pages 4-24, 4-30 and 434 of the DEIS.

Comment #: 15-136
COMMENT TEXT:
3-33 describes leks concentrated in the north half. Are these leks on BLM or Forest lands? Are there leks on BLM or private lands in the south? If not, were there historic leks and has the habitat changed? Does Map 8-M define sage grouse habitat as lands in proximity to leks? How have you determined what is summer, fall, winter habitat? We frequently see sage grouse in high elevation sagebrush areas –how are those of the Santa Rosa different from other places? Do sage grouse really not occupy all of the lands you show as NOT being sage grouse habitat on the map?

USFS RESPONSE:
The leks described on the north half are on a mixture of BLM and USFS lands. In the south there are fewer leks, but they occur on BLM, USFS and private lands. Habitat associated with leks has changed over many years for many different reasons. There were likely historical leks, however historical monitoring of leks is not as good as we would prefer. Current monitoring of leks has improved significantly. Leks were considered in the development of Map 8-M, however, it also includes sagebrush community coverage as well. The map identifies the most prominent habitat, but that does not mean sage grouse are not found in areas outside the map. The map was meant to show high concentrations of habitat, but limited occurrences or sage grouse may occur outside the area described in the map.

Effects of each of the alternatives on sage grouse species, whether within or out of the mapped area, are described on pages 4-19, 4-20, 4-26, 4-30 and 4-31.

Comment #: 15-137

COMMENT TEXT:

As part of this EIS process, you must conduct surveys for Forest Service sensitive species, including northern goshawk, spotted bat, Townsend's big-eared bat, flammulated owl, great gray owl, peregrine falcon, three-toed woodpecker, Columbia spotted frog, as well as other important wildlife species.

USFS RESPONSE:

Some limited survey information for northern goshawk is available and new nest sites have been identified. None of the newly identified nests have been found to be active. A map of these new nest sites is included in the Project Record. Historical surveys for Columbia spotted frog have been conducted on the Santa Rosa Ranger District and results of these surveys can be found within the Project Record. Potential effects of the "Current Management/No Action" alternative to sensitive species can be found on pages 4-20, 4-21 and 4-22 of the DEIS. Potential effects of the "Proposed Action" alternative for sensitive species are described on pages 4-27 and 4-28 of the DEIS. Potential effects of the "No Grazing" alternative for sensitive species can be found on pages 4-32 and 4-33 of the DEIS. Forest sensitive species will be analyzed in the biological evaluation, located in the Project Record, for the final decision.

Comment #: 15-138

COMMENT TEXT:

3-41. We are unaware of any spotted frog observations on the "49" (shouldn't this be 45) Ranch on the South Fork Owyhee River??? In fact, we believe the Columbia spotted frog has not been found there in recent surveys.

USFS RESPONSE:

Agree. The location should be "45 Ranch"; and the date of the historic Columbia spotted frog sighting was in the 1930's. The text has been altered to reflect this correction. The closest known historic record on the 45 Ranch in the 1930's on the South Fork Owyhee River in southern Idaho, which is over 65 miles to the northwest of the District (Tait, pers. comm.).

Comment #: 15-139

COMMENT TEXT:

3-43. We understand that there has been a large-scale die-off of bighorn sheep in the Santa Rosa Range, and that it was caused by domestic sheep being where they were not supposed to be. Please describe exactly what happened here, and what enforcement actions have been taken against the permittee who herded domestic sheep into bighorn habitats, and how this will be prevented under the current grazing schemes. Please also describe the behavioral interactions/displacement between domestic cattle and bighorn sheep. How will this be affected under each alternative? How will opening the vacant allotments result in more bighorn-livestock interactions?

USFS RESPONSE:

There was a large die-off of Bighorn Sheep on the Santa Rosa Ranger District. The Forest Service does not have any information regarding the cause of the death of the sheep. There was a report that several domestic sheep were observed with Bighorn sheep on the Forest. There are not permitted sheep operations on or adjacent to the Santa Rosa Ranger District. The sheep likely escaped from private lands and there is no indication that they were herded or placed on the Forest. The ownership of the sheep was never established. Sheep are not permitted on the Santa Rosa Ranger District. There is little or no interaction between bighorn sheep and cattle on the Santa Rosa Ranger District and no indications that there are conflicts between bighorn sheep and cattle.

Comment #: 15-140

COMMENT TEXT:

Page 3-48 describes "historical" grazing. However ONGOING grazing is still causing these impacts, and site desiccation, gullying, erosion, etc. are progressing in many areas and they are continuing to lose their ability to support riparian vegetation. As part of this process, the Forest should identify the extent of riparian area loss, as well as the areas where such loss is continuing.

USFS RESPONSE:

The potential effects of each of the alternatives on seeps, springs and meadows is described on pages 4-36, 4-39, and 4-40. The effects of each alternative on soil resources, streams and other resources are also described in Chapter 4 of the Draft EIS.

Comment #: 15-141

COMMENT TEXT:

Hinkey Creek photos. How recently had fires burned the aspen communities shown in photo 18?

USFS RESPONSE:

There is no indication that fire has burned the aspen within the photos within the last 100 years.

Comment #: 15-142

COMMENT TEXT:

The aspen stand in photo 3-53 shows signs of ONGOING livestock destruction of young aspen – none are visible.

USFS RESPONSE:

The condition of the stand of aspen in photo 21-P on page 3-53 has likely been impacted by historical grazing practices and may be impacted by current grazing, however, the site is also being affected by other factors that are influencing the health of the stand. This site has a very high water table which is likely affecting the stands ability to regenerate. Stands immediately adjacent to this stand have similar grazing pressures and they have aspen regeneration present. Personal knowledge of the site has confirmed that the absence of regeneration is not due to grazing of the young plants. Young sprouts are not present on this site to be grazed.

Comment #: 15-143

COMMENT TEXT:

DEIS at 3-54 admits that conversion of native vegetation to cheatgrass is progressively moving up in elevation. How does this affect Forest plans to burn higher elevation sagebrush types?

USFS RESPONSE:

This project does not involve any fire projects or the use of fire as a tool and therefore this comment is outside the scope of this analysis.

Comment #: 15-144

COMMENT TEXT:

Page 3-56 discusses “overgrazing”. How do you define “overgrazing”? How do activities such as salting, livestock trailing, overstocking, exceedance of use standards, etc. affect weed infestation and spread?

USFS RESPONSE:

On page 3-56, overgrazing is not discussed it is rather referred to as a possible disturbance, just as fire is a disturbance which can reduce vegetation at which time invasive species act quickly to establish. There are many instances on the district that invasive species, primarily Scotch thistle has invaded sites that were previously burned from wild land fires. Invasive species are very advantageous and can establish themselves in a wide range of vegetative communities.

Refer to (page E-11) for the definition of overgrazing.

Refer to (page 4-46 thru 4-50), effects of each of the alternative for how weed infestations are spread.

Refer to Appendix B (page B-1) for each vegetative community matrix and the functioning level depending on the occurrence of noxious weeds for the “Proposed Action” alternative.

Comment #: 15-145

COMMENT TEXT:

3-63 “Rest rotation was implemented in late 60s and early 70s – yet many of these lands are still in undesirable condition. Please describe the harms associated with rest rotation grazing.

USFS RESPONSE:

Since the 1960’s and early 1970’s most of the lands on the Santa Rosa Ranger District have improved in condition under rest rotation grazing systems. A number of these areas have improved significantly. Rest Rotation is just one of many tools that can be used when managing livestock

grazing. Each of these tools can have both positive and negative aspects. The negative aspects of rest rotational system is very site specific and depends upon season, number of units, numbers of livestock, objectives, other characteristics of the Allotment, and the success by the permittee at implementing the system and meeting objectives.

Comment #: 15-146

COMMENT TEXT:

3-63. Why is the Martin Basin allotment stocked at such a high AUM rate, compared to other allotments? Please explain the basis for all stocking rates shown here, and re-assess these.

USFS RESPONSE:

Permitted numbers under the No Action Alternative are what has been previously been grazed. The Martin Basin Allotment is a large, relatively flat allotment that lends itself better to the grazing of cattle as compared to portions of other allotments. Under the Proposed Action the allotments will be operated under an adaptive management approach with the intent to meet the primary resource objectives and improve the resource conditions on the Allotments. Under this alternative, numbers, seasons, rotations and other management options may be adjusted to meet site specific objectives or to improve the conditions of the various resources on the District. Under this alternative, numbers of livestock could be adjusted annually in response to resource or other conditions.

Comment #: 15-147

COMMENT TEXT:

The "Vacant" allotments must remain vacant as reference areas, and to provide some degree of habitat where upland vegetation is not allowed to be grazed to the extreme level of 60% utilization.

USFS RESPONSE:

Thank you for your comment. Under the No Grazing Alternative the vacant allotments would not be grazed.

Comment #: 15-148

COMMENT TEXT:

From the AUM level shown here, there is only a tiny economic impact associated with livestock grazing on these lands. How do those values compare to the recreational values? How much does it cost the Forest Service to administer these gazing permits?

USFS RESPONSE:

See response to Letter #15, Comment #31.

Comment #: 15-149

COMMENT TEXT:

3-26. Is the Andorno Creek diversion screened? How does it affect habitat or mortality of LCT.

USFS RESPONSE:

Diversions are outside the scope of this analysis.

Comment #: 15-150

COMMENT TEXT:

2-16. Please provide a detailed explanation and analysis of the necessity to provide additional, or the same, habitat for those species that "thrive in grazed areas".

USFS RESPONSE:

The Forest Service is not aware of what this comment is referring too and therefore we are not able to respond to the concerns. The potential impacts of the alternatives on various wildlife and fish species are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-151

COMMENT TEXT:

3-67 describes only 1% of the area having cultural inventories conducted. Why are you not conducting more studies as part of this process?

USFS RESPONSE:

Please refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview for information concerning tasks identified in the Rangeland MOU and how the forest is meeting its requirements in addressing livestock impacts on cultural resources. During the summer of 2004 approximately 600 acres within the Santa Rosa District were surveyed for cultural resources. An additional 600 acres is proposed to be surveyed during the spring/summer of 2005.

Comment #: 15-152

COMMENT TEXT:

3-68. Please do not use the term "brush".

USFS RESPONSE:

Thank You for your comments.

Comment #: 15-153

COMMENT TEXT:

3-77 –3-78 identifies the existence of roadless areas in the DEIS lands, but no maps are provided. Please provide maps of these, and re-evaluate them for consideration.

USFS RESPONSE:

A map of Inventoried roadless areas on the Santa Rosa Ranger District has been included in the Project Record for this project. Re-evaluation of roadless areas is outside the scope of this analysis.

Comment #: 15-154

COMMENT TEXT:

While the DEIS describes Wilderness, it fails to evaluate the impacts of livestock grazing on wilderness characteristics – naturalness, primitive recreation solitude, other factors. Please provide data monitoring livestock impacts to Wilderness areas. How has livestock grazing changed here since Wilderness designation?

USFS RESPONSE:

Livestock grazing within portions of the Santa Rosa – Paradise Peak Wilderness area is authorized under the 1989 Nevada Wilderness Act which created this wilderness area. Livestock grazing may impact naturalness, primitive recreational solitude and other wilderness qualities in the Project Area. Livestock grazing can disturb vegetation, create areas of bare ground or result in other noticeable impacts that may affect wilderness visitors experiences in the area. Data specific to livestock impacts to wilderness characteristics is not available and is not actively collected. Livestock changes within the wilderness portions of the Project Area have not changed due to creation of this wilderness area. Vegetation and stream conditions within much of the wilderness portions of the Project Area have improved significantly since the creation of the wilderness area. These changes are however due to other changes in grazing that occurred since the creation of the wilderness area.

Comment #: 15-155

COMMENT TEXT:

In order to understand the attributes of the lands shown I Maps M-15, 16, please provide a map of roads, roadless areas, etc. All roadless areas should have the most protective Visual Quality Objectives.

USFS RESPONSE:

A Map showing roads and roadless areas has been included in the Project Record for this project. The setting of visual quality objectives within roadless areas is a Forest Plan decision and is outside the scope of this analysis.

Comment #: 15-156

COMMENT TEXT:

We are very concerned that the Forest has categorized far too many lands in the "partial retention" category that should be placed in the Retention or Preservation classes.

USFS RESPONSE:

The setting of visual quality objectives is a Forest Plan decision and is outside the scope of this analysis.

Comment #: 15-157

COMMENT TEXT:

Why is there no map of roading associated with this DEIS? As part of this process, the Forest should identify roads that are primarily driven to salt sites, livestock projects, etc. and close those that may be causing resource damage/problems such as weed invasion, erosion, visual scarring.

USFS RESPONSE:

This proposal and the alternatives in the Draft EIS do not involve the construction of roads and are not making decisions regarding travel management planning. This comment is therefore outside the scope of this analysis.

Comment #: 15-158

COMMENT TEXT:

4-1. Please add in reduced flows, desiccation, desertification caused by livestock grazing, which in turn exacerbates temperature, bacteria and other wq problems.

USFS RESPONSE:

The potential effects of livestock grazing on surface water flows and the related water quality problems are thoroughly discussed in the document. Since there is currently no conclusive evidence of livestock caused desiccation or desertification in the Project Area, it is not discussed.

Comment #: 15-159

COMMENT TEXT:

We are very concerned that as part of the impacts here you have not addressed the shifting of use that will result from permanently authorizing livestock grazing in the 2 vacant allotments.

USFS RESPONSE:

The proposed action and the No Action Alternatives would authorize livestock grazing as a legal use of public lands within the allotments identified in the Draft EIS including the vacant allotments. The No Grazing Alternative would not authorize any livestock grazing within any of the allotments once the existing permits expire. The effects of these alternatives are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-160

COMMENT TEXT:

You have also failed to assess the impacts of roading/disturbance from mining exploration activities.

USFS RESPONSE:

Road building and minerals exploration are not a part of any of the alternatives identified in the Draft EIS. The effects of road building and minerals exploration are cumulative effects and have been disclosed in various sections within Chapter 4 of the Draft EIS.

Comment #: 15-161

COMMENT TEXT:

4-3. The Forest has failed to describe any actions that it is taking to limit/fix the acid mine pollution – and this EIS process provides an opportunity to do so.

USFS RESPONSE:

See the response to Letter #15, Comment #131. This comment is outside the scope of this analysis.

Comment #: 15-162

COMMENT TEXT:

The cumulative effects analysis is flawed, as you failed to consider the degradation of water quality from shifting use to the riparian areas (INCLUDING unassessed springs and seeps) in the vacant allotments. Any improvement in one area will likely be canceled out in the others.

USFS RESPONSE:

See response to Letter #15, Comment #159.

Comment #: 15-163

COMMENT TEXT:

4-5. You have failed to limit roading/road use by ranchers that contribute to soil problems.

USFS RESPONSE:
See Response to Letter #15, Comment #157.

Comment #: 15-164
COMMENT TEXT:
Please correct 4-5 to say "grazing" - not only "improperly managed grazing", which you have not defined. Livestock, grazed at almost any levels, have significant impacts to microbiotic crusts, soils, etc.

USFS RESPONSE:
Thank You for your comment.

Comment #: 15-165
COMMENT TEXT:
4-9. It is impossible to understand the cumulative effects analysis for soils.

USFS RESPONSE:
The cumulative effects of the three alternatives in the Draft EIS are disclosed on pages 4-9 through 4-14.

Comment #: 15-166
COMMENT TEXT:
While you claim "considerable areas are roadless", you do not manage them as roadless areas – instead, as the visual category map shows, it appears that only the wilderness area is spared intrusions from projects. Is that the case?

USFS RESPONSE:
The alternatives included in this analysis do not involve the construction or maintenance of any roads, the designation or management of roadless areas, or travel management planning and therefore, this comment is outside the scope of this analysis.

Comment #: 15-167
COMMENT TEXT:
Please correct 4-10 – as there are active mine exploration proposals underway now.

USFS RESPONSE:
Thank you for your comment, you are correct. Since the preparation of this analysis there is one proposal for minerals exploration near Buckskin Mountain that was recently approved.

Comment #: 15-168
COMMENT TEXT:
4-15. We are very concerned that you mix in native species with exotic weeds (hemlock) with native species as indicators of soil compaction.

USFS RESPONSE:
Some native species, although they are native, can still be an indicator of potential problems including but not limited to soil compaction.

Comment #: 15-169
COMMENT TEXT:
4-18. While the proposed action allows for reductions in allowable utilization if streams are not meeting objectives, there is no similar proposal to reduce grazing if uplands are not meeting objectives. Why not?

USFS RESPONSE:
Your comments are not correct for the Proposed Action. On page 2-5, Table 1-T outlines utilization standards for various vegetation communities for different conditions. Upland community types that are outlined here include Aspen, Wyoming Big Sagebrush, Mountain Big Sagebrush, and Mountain Brush community types.

Comment #: 15-170

COMMENT TEXT:

We are extremely concerned about the impacts of your proposal to graze Dutch John and Road Creek, and believe, as you have admitted in the consequences here, it will be very harmful to aquatic species. We are also extremely concerned about the impacts of shifting use to uplands here and in the Rebel Creek allotment. You have not assessed watershed-level impacts of the proposed action.

USFS RESPONSE:

As addressed in the response to Letter #15, Comment #159, the effects on various resources of both the Proposed Action and the No Action Alternatives have been disclosed in Chapter 4 of the Draft EIS. This includes permitting of livestock grazing within the two allotments which are currently vacant.

Comment #: 15-171

COMMENT TEXT:

4-19. You have failed to assess the potential impacts to sage grouse here.

USFS RESPONSE:

The potential effects of each of the alternatives on sage grouse are displayed on pages 4-19 through 4-20; 4-25 through 4-26; and 4-30 through 4-31.

Comment #: 15-172

COMMENT TEXT:

Also, as you have failed to assess ecological conditions and take action to provide protections for all springs, seeps and wet meadows, and thus cannot assume that you understand impacts.

USFS RESPONSE:

There are currently 32 riparian ecology plots on the Santa Rosa District located along streams, in meadows and at springs and seeps. The data from these plots, which indicate an overall low to moderate ecological condition, is one of the factors driving the need to evaluate current management. We know that many of the riparian sites are in need of rest and recovery. What we are lacking is solid data to show whether or not these areas are improving, declining or remaining static with current management. Through continued monitoring, management adjustments and permittee awareness, our goal is to improve the condition of the riparian sites.

Comment #: 15-173

COMMENT TEXT:

4-24. Are there bighorn sheep occupying (or is there potential habitat in) the vacant allotments that you now propose to open up to livestock grazing?

USFS RESPONSE:

Occupied Bighorn sheep habitats exist within the Rebel Creek Allotment which is currently vacant. No potential habitats exist within the Bradshaw Allotment.

Comment #: 15-174

COMMENT TEXT:

You have failed to assess the impacts of displacement/behavioral interference/disruption of native wildlife that will be caused by grazing livestock in these allotments. Please evaluate all impacts, including displacement of wildlife into less favorable habitats, removal of nesting cover causing exposure of nests to predation, physical damage to overhead shrub cover, etc.

USFS RESPONSE:

The Forest Service recognizes that grazing can result in limited displacement, behavioral interference and disruption of some native wildlife species. During the analysis of the proposed alternatives no significant issues were determined. Potential effects of these alternatives to various species are listed on pages 4-19 through 4-34 of the DEIS.

Comment #: 15-175

COMMENT TEXT:

4-25-27. We can find no discussion of the current population, or the health and viability of populations, of Forest Service sensitive and MIS species here. What data has been collected, and what does it show?

USFS RESPONSE:

See Letter #15, Comment #79. The effects of the "Current Management/No Action" alternative to MIS and Forest Sensitive species are described in chapter 4 of the DEIS on pages 4-19 through 4-22.

The effects of the "Proposed Action" alternative to MIS and Forest Sensitive species are described in chapter 4 of the DEIS on pages 4-25 through 4-28.

The effects of the "No Grazing" alternative to MIS and Forest Sensitive species are described in chapter 4 of the DEIS on pages 4-30 through 4-33.

There will be a biological evaluation produced for the final decision. Maps and information regarding northern goshawk, pygmy rabbits, mule deer, Columbia spotted frogs and sage grouse are included within the Project Record.

Comment #: 15-176

COMMENT TEXT:

4-26. Which springs and seeps are not in desired condition? Please identify these as part of this process.

USFS RESPONSE:

Information regarding seeps and springs is disclosed on pages 3-47 and 3-48. The potential effects of these alternatives on seeps and springs are disclosed on pages 4-36, 4-37, 4-39, and 4-40.

Comment #: 15-177

COMMENT TEXT:

4-27. These bat species forage over large areas of uplands – so you cannot assume that riparian utilization standards will adequately protect the production of insect prey in the expanses of uplands that are subject to high levels of utilization.

USFS RESPONSE:

Bats forage over a wide range of habitats and there are many potential standards of management for activities occurring in these habitats which can have varied effects. Primary foraging habitats for bats are over riparian areas. As stated in the DEIS on pages 4-21 and 4-27, livestock grazing may affect potential foraging habitat for these species in riparian areas as utilization levels increase. Although, under the "Proposed Action" alternative as described on page 4-27, utilization standards would be reduced to a maximum of 45% in riparian areas and 50% in uplands. By reducing the current utilization standards the condition of these habitats would be maintained or improved. Additionally, the impact to upland foraging habitat would be localized as most upland utilization standards are generally not reached as cattle rarely use these habitats. Upland habitats are subject to utilization standards listed in chapter 2 of the DEIS on pages 2-5 and 2-18. Past and historical management on allotments has indicated that generally utilization in uplands is rarely met and is considered relatively light in those areas.

Comment #: 15-178

COMMENT TEXT:

As previously discussed, allowing 50% utilization will shove more communities across thresholds from which they can not recover.

USFS RESPONSE:

There have been significant reductions in utilization standards for most of the vegetative communities and will be adjusted in relation to health and condition. Refer to (page 2-5) for those standards under the "Proposed Action" alternative.

Also refer to Appendix B (page B-1) for a range of vegetative community matrices under the "Proposed Action" alternative.

Comment #: 15-179

COMMENT TEXT:

4-31. Since the Forest has chosen to claim that the "no grazing" alternative might result in ranchers subdividing private lands and that this would impact mule deer and other habitats, the Forest must provide data and analysis to back its assertions. The Forest must fully assess: the ratio of private land to public land; determine how much mule deer and other MIS, sensitive species and other important wildlife species habitat occurs on private vs. public land; study and quantify the benefits of not grazing public lands for mule deer and other MIS and sensitive species.

USFS RESPONSE:

Much of the lower elevations and valley bottoms in Paradise Valley and along the western Front of the Santa Rosa Mountain Range are private lands and ranches. A great deal of these lands provide important habitats for various wildlife species including sage grouse, mule deer, waterfowl and a variety of other species. There are numerous areas around the west where it has been documented that farms and ranches have been subdivided resulting in the loss of important wildlife habitats including some rural areas. Some examples include the Wasatch Front in Utah; Cedar City, Utah; Spring Creek, Nevada, Carson City, Nevada and there are many more examples.

Comment #: 15-180

COMMENT TEXT:

Is 4-31 claiming that "No Grazing" will increase fire? If so, please provide a detailed study of the interaction between livestock grazing and weed spread; the impacts of livestock grazing at levels necessary to "control" fire; the levels to which lands must be grazed to "control" fire, etc.

USFS RESPONSE:

The document only indicates that it is possible that without livestock grazing there will be more fine fuels which may result in an increase in the risk for wildfires. This risk is of greatest concern in areas dominated by cheatgrass. We acknowledge that by grazing to reduce the fine fuels and in turn reduce the risk of wildfires, there may be other adverse effects upon other resources in the area. The determinations regarding these actions and the trade-offs must be made on a site by site basis.

Comment #: 15-181

COMMENT TEXT:

4-36. We are very concerned that the Forest has not assessed the harmful impacts of "rotation" in rest rotation systems. While some lands are being rested, other lands are being grazed with double/more cattle, with resultant harmful impacts.

USFS RESPONSE:

See Response to Letter #15, Comment #145.

Comment #: 15-182

COMMENT TEXT:

4-37. Please provide the scientific evidence on which the "fact sheet" bases its claim that grazing has little adverse impact on cottonwoods and willows, and is needed to "stimulate" growth".

USFS RESPONSE:

Your comment does not accurately represent what the analysis in the Draft EIS Disclosed. What the document says is that under light to moderate grazing there is little adverse affect upon willow and cottonwood species and in some cases may stimulate growth. This information has been cited and has been included within the Project Record for this analysis.

Comment #: 15-183

COMMENT TEXT:

You have failed to adequately assess the cumulative impacts of grazing 10,087 AUMs on ever-more depleted lands (converted to cheatgrass with wildly varying fluctuations in productivity, native vegetation weakened and killed over time by livestock, etc.).

USFS RESPONSE:

The direct, Indirect, and cumulative effects of each of the alternatives on the various resources on the Santa Rosa Ranger District are disclosed in Chapter 4 of the Draft EIS.

Comment #: 15-184

COMMENT TEXT:

4-38. As part of this EIS process, you must assess removal of livestock water projects if they are negatively impacting springs and seeps, and catalogue impacts to springs having projects that have altered flows.

USFS RESPONSE:

Most Water developments would be removed under the No Grazing Alternative. Removal of water developments are not part of the proposed actions for the remaining alternatives and are therefore outside the scope of the analysis.

Comment #: 15-185

COMMENT TEXT:

4-38. You refer to flooding eliminating complete stands of cottonwoods. Did any of this occur in the allotments that you now propose to open to livestock disturbance? What was the condition of the watershed?

USFS RESPONSE:

Flooding during the early 1980's resulted in impacts to many riparian resources throughout the District In the Draft EIS when we state that the floods removed stands of cottonwoods we mean that the trees themselves were washed away. Most of the cottonwood communities still remain and have since resprouted from the roots. Recovery of these stands varies across the district depending upon topography, soils, water resources and grazing intensity.

Comment #: 15-186

COMMENT TEXT:

We strongly support the lower allowable utilization levels for streams that are not in functioning condition. This should apply throughout the watershed.

USFS RESPONSE:

Thank You for your Comment.

Comment #: 15-187

COMMENT TEXT:

4-39. If Rebel Creek has not been grazed (a vacant allotment), why are you predicting it to improve under grazing that will be authorized with this EIS?

USFS RESPONSE:

Under Alternative 2 Rebel Creek would continue to improve in condition at a faster pace than under Alternative 1 the No Action Alternative. Although Rebel Creek has been vacant, under Alternative 1 grazing would be authorized within this allotment.

Comment #: 15-188

COMMENT TEXT:

Under Alternative 2, you are not adequately protecting seeps, springs and wet meadows. Why are these given less protection than streams?

USFS RESPONSE:

Your comment is incorrect. Under Alternative 2, springs and seeps would have the same utilization standards as other riparian areas.

Comment #: 15-189

COMMENT TEXT:

4-40. We believe the Forest has not adequately considered the effects of grazing in causing cheatgrass, weeds and continuous fine fuel and that there is no basis for claiming that fires would increase with No Grazing.

USFS RESPONSE:

See the response to Letter #15, Comment #180.

Comment #: 15-190

COMMENT TEXT:

We have serious concerns about allowing the cutting of dead aspen, due to the importance of nesting cavities to sapsuckers, woodpeckers, house wrens, and other bird species.

USFS RESPONSE:

This proposal does not involve the cutting of any trees and is outside the scope of this analysis.

Comment #: 15-191

COMMENT TEXT:

4-42. In aspen stands that are not healthy, grazing should be removed until aspen have reached heights (nine feet or >) above which livestock damage will be minimal.

USFS RESPONSE:

Thank you for your comment. Under the No Grazing Alternative livestock would be removed. Under the Proposed Action, when Communities have crossed a threshold, removing grazing until it recovers is one of many management actions that can be Taken.

Comment #: 15-192

COMMENT TEXT:

4-43. Current stocking rates are causing unhealthy, non-regenerating aspen stands, cheatgrass proliferation and many other ecological problems. Thus, not only must utilization be significantly lowered, but AUMs must be concomitantly reduced. Upland standards must also serve as triggers for removal of livestock from pastures.

USFS RESPONSE:

Upland Utilization Standards have been established. The Draft EIS analyzes three alternatives that range from current management to the more restrictive Proposed Action, to the No Grazing Alternative. This includes a good range of alternatives, each of which is carried through the entire analysis.

Comment #: 15-193

COMMENT TEXT:

4-44. While livestock grazing at times may increase the density of sagebrush it also affects the structural characteristics, and simplifies structural complexity. See pygmy rabbit petition. Your discussion here is woefully inadequate.

USFS RESPONSE:

Thank You for your comment. Our specialists disclosed the potential effects on the page you reference.

Comment #: 15-194

COMMENT TEXT:

4-44. The description of “brush” returning after 2 to 5 years is not supported by an abundance of current science on the ecological effects of cheatgrass invasion and its post-fire effects. These impacts are not limited to BLM lands, but also includes Forest lands

USFS RESPONSE:

The reference in the document to 2-5 years relates to higher elevations where cheatgrass is generally limited. Two to five years is within the accepted range for higher elevations, however it can vary widely dependent upon precipitation levels, soils, seed source and many other factors. Higher elevation shrub species does not just include sagebrush, but also includes other species such as snowberry and serviceberry which typically responds within less than one years time.

Comment #: 15-195

COMMENT TEXT:

4-49. The discussion of cumulative effects again repeats an unsubstantiated claim that removal of grazing would increase grass, and so fires would increase.

USFS RESPONSE:

See the Response to Letter #15, Comment #180.

Comment #: 15-196

COMMENT TEXT:

4-51. What is the basis for the belief that mountain big sagebrush communities would receive "less" grazing?

USFS RESPONSE:

The statement in the Draft EIS is getting to the fact that many of our uplands never reach their utilization standards because the utilization standards in riparian areas are generally reached first and therefore there is less use in the uplands.

Comment #: 15-197

COMMENT TEXT:

Doesn't Osgood Mountain milkvetch occur in low sagebrush communities? This is a plant community type that the Forest has left out of its Community descriptions, planned reference areas, etc. Thus, the EIS proposed action does little to protect this species.

USFS RESPONSE:

Osgood Mountain milkvetch occurs with low and mountain sagebrush. Low sagebrush vegetation is addressed on page 3-55. A matrix was later developed to be used in low and black sagebrush habitat groups.

Comment #: 15-198

COMMENT TEXT:

4-57. Please provide evidence that the "annual value" of AUMs is $1,222,452. You are using an old study by a livestock industry consultant (RCI), and not economist independent of the livestock industry or land grant colleges. Please have a non-biased party conduct a current economic study here.

USFS RESPONSE:

We are using the best available information available to us. Additional information has been provided during comments on the value of livestock grazing and that information is also being accepted and considered during the analysis. If you are aware of values that you feel are more appropriate I would encourage you to submit them and they will be considered prior to a decision being made.

Comment #: 15-199

COMMENT TEXT:

In Appendix A-1, it appears that the Forest has placed tributary streams in LCT watersheds in lower value riparian area classifications/Categories. Is that the case? If so, this should be changed, as all streams in a watershed should be protected in order to ensure healthy aquatic habitats. Does this information accurately reflect the settlement agreement reached between Western Watersheds Project and the Committee or the High Desert, and the Forest, over stream Categories? Under that Settlement, the Forest agreed to classify springs and seeps, also. The EIS does not accurately categorize springs and seeps in accordance with the Settlement Agreement. Please provide a comprehensive Table of all springs and seeps, too.

USFS RESPONSE:

The stream categorization criteria for fisheries, is based on occupation not historic, or potential habitat. So if LCT are not present in that stream or tributary the riparian area is categorized based on some other value (rec, wildlife, etc.). In terms of the Settlement Agreement with Western Watersheds Project, the Forest intends to classify springs and seeps on the Santa Rosa District.

Comment #: 15-200

COMMENT TEXT:

All LCT streams should have more protective allowable herbaceous vegetation standards. Plus, in degraded riparian areas with species like Kentucky bluegrass, allowing even 35% utilization will not provide sufficient residual cover for trapping sediment runoff, etc. What stubble height will remain if there is 35% utilization on Kentucky bluegrass?

USFS RESPONSE:

Three alternatives were presented in the Draft EIS. Under the no action alternative utilization on LCT Streams is up to 45%, while under the proposed action the utilization could range anywhere from 0%

to 45% depending upon the condition of the stream or riparian area. Under the no grazing alternative there would be no utilization as the existing permits expire. The potential effects of these alternatives on streams and riparian resources are disclosed in chapter 4 of the Draft EIS. The residual stubble height following grazing of bluegrass at 35% utilization is very site specific and cannot be answered in general terms as you have asked. The remaining stubble height on any one site may depend upon factors such as soils, gradient, precipitation, climate, stream condition, aspect and others.

Comment #: 15-201

COMMENT TEXT:

We also believe it is necessary to place specific annual measurable bank trampling standards on ALL riparian areas - in order to ensure compliance with Forest Plan and Amendment 2 soil compaction and macropore space values.

USFS RESPONSE:

Utilization standards have been developed and reduced from the "Current Management/No Action" alternative and can be located within the "Proposed Action" alternative on (pages 4-36 thru 4-46). Appendix B, Matrices for Alternative 2: Proposed Action starting on (page B-1) describes the standards and condition for all vegetative communities.

Trampling is just one tool to use in assessing stream bank condition, another is stream bank stability, presence of hummocks, presence of headcutting, presence of pedestalling, rill formation, root depth, soil structure and soil saturation, which is described in Appendix B starting on (page B-1 thru B-17).

Comment #: 15-202

COMMENT TEXT:

Appendix B-1. A separate "Group" should be established for springs and seeps, low sagebrush (including low sagebrush- interspersed islands of big sagebrush), mountain mahogany and other plant communities that are missing.

USFS RESPONSE:

Thank you for your comment

Comment #: 15-203

COMMENT TEXT:

We are concerned that the Forest is lumping exotic weedy species in with "increaser"-type native species in its "forbs/species indicative of management problems". Please differentiate between these plant types. We suggest that you separate the two – as exotics often exhibit much more aggressive and weedy tendencies than native species that occupy livestock-disturbed sites. This should also be done (the separation) in the various attribute Tables (such as "mountain brush") at B-17.

USFS RESPONSE:

These species were lumped only as indicators that there may be resource problems. The presence of native plant species may indicate resource problems under certain conditions. As an example, sagebrush encroachment into a meadow or riparian area could indicate that there may be resource problems. This may be occurring due to the drying of the meadow, loss of the water table or other problems. The fact that sagebrush may be an indicator does not mean that sagebrush is a bad plant.

Comment #: 15-204

COMMENT TEXT:

Placing cheatgrass in the same group as six-week fescue makes absolutely no sense, as the ecosystem-level implications of cheatgrass are much more dire than those associated with six-week fescue (see B-16, for example). As another example, in the Cottonwood Group, native Wood's rose is considered indicative of management problems. Woods rose has always occurred at the margin of riparian areas, and an explanation of its occurrence in native systems must be included.

USFS RESPONSE:

See the response to Letter #15, Comment #203.

Comment #: 15-205

COMMENT TEXT:

There needs to be at least another category: "exotic species represent more than 5% vegetative cover", as well as a separate category under C, as in CA (exotics) and CB (non-exotics)???

USFS RESPONSE:
Thank You for your comment.

Comment #: 15-206
COMMENT TEXT:
The Forest must clearly specify (provide maps) and narrative all areas where exotics such as intermediate wheatgrass or crested wheatgrass have been seeded in the past. As part of this process, the removal of these exotics should be a high priority, to be followed by restoration with native species.

USFS RESPONSE:
These actions are not part of the Proposal and are outside the scope of this analysis.

Comment #: 15-207
COMMENT TEXT:
B-17 and throughout this section. Fire frequency here is a broad average – and a frequency of 30-100 years does not mean that every site has burned within that time frame. "Idealized "fire frequencies" should not be used as a basis for justifying prescribed fire, as livestock grazing has fundamentally altered fire regimes and the "naturalness" of post-fire recovery processes.

USFS RESPONSE:
Prescribed Fire is not part of this proposal and is therefore outside the scope of this analysis.

Comment #: 15-208
COMMENT TEXT:
C-7 neglects to mention livestock hoofprints made when soils are moist serving as sites for cheatgrass and other exotic species germination and spread. In the discussion of trampling, please also include the important role of microbiotic crusts in excluding exotic species invasions.

USFS RESPONSE:
Thank You for your comment.

Comment #: 15-209
COMMENT TEXT:
Please provide us with a hard copy of the flow chart described on page C-9.

USFS RESPONSE:
As indicated in the Draft EIS on C-9 the Flow Chart has been included in the Project Record for this analysis.

Comment #: 15-210
COMMENT TEXT:
Map 12-M. What shrubs are associated with "Montane Grassland"? Is this really a low sagebrush community? Is it a fire-caused "grassland"? If so, have exotics been seeded by the Forest? As part of this EIS process, the Forest must prohibit the seeding of exotics in post-fire environments. Why is there no Vegetation Group in the Appendices that corresponds to "Montane Grassland"?

USFS RESPONSE:
On Map 12-M, the Montane Grasslands are primarily recently burned areas such as the Upper Willow Burn Area. Shrubs that may be associated with these areas include various sagebrush species, serviceberry, snowberry and other shrub species. Post-fire seeding activities are outside the scope of this analysis. No vegetation groups were established for Montane Grasslands because these are actually various sagebrush or Mountain Brush Communities that have been set back to an earlier successional stage by fire. Most of these areas will again be sagebrush or mountain brush communities when given enough time to reestablish.

Comment #: 15-211
COMMENT TEXT:
E-13. The definition of "restoration: here does not correspond to that used by most ecologists, but instead seems to be commodity-biased, as it uses the term "desired".

USFS RESPONSE:
Thank You for your comment, however, we do not agree.

Comment #: 15-212
COMMENT TEXT:
Wet Meadow Group- B-23. Please specify if this also applies to springs and seeps.

USFS RESPONSE:
Springs and Seeps would be included within either the Wet Meadow or the Dry to Moist Meadow Group.

Comment #: 15-213
COMMENT TEXT:
B-24. Why are you lumping Kentucky bluegrass with native species? Some of the native species you have listed as "undesirable", just like Wood's rose are basic components of native riparian areas – at the margins of riparian sites/in more mesic habitats.

USFS RESPONSE:
In the riparian matrices, Kentucky bluegrass is a species that is always in the group labeled "Species Indicative of Management Problems." There has been research from the Sierra's describing a native Kentucky bluegrass that interbreeds with and is indistinguishable from the introduced Kentucky bluegrass. However, this plant whether native or introduced in our area tends to grow well with soil disturbance and soil compaction and is highly tolerant of grazing. It survives by reducing root and leaf production, thereby becoming somewhat unavailable to grazing animals. It tends to indicate drying of a riparian site, as it fills a niche usually occupied by more mesic species. It is rarely found in areas that have had little or no disturbance.

Wild rose, while native also survives well under disturbance and with heavily compacted soils. It is a pioneer plant on disturbed riparian sites, and may for a few years dominate a site, but under situations that allow for adequate recovery it will be replaced by more mesic species.

Comment #: 15-214
COMMENT TEXT:
We are very concerned that it is not possible to neatly pigeonhole many plant communities and community interfaces into the specific Vegetation Group slots that you have described here.

USFS RESPONSE:
Thank You for your comments. Our specialist have done the best they can to appropriately described and organize each of the vegetative groups within the Matrices, while still maintaining these groups within a manageable number that is appropriate.

Comment #: 15-215
COMMENT TEXT:
We appreciate the time the Forest has spent on developing the vegetation groups. However, we fear that the systems that may be set up to evaluate these may be so complicated, and the Forest so perennially under-staffed, that measurements necessary to determine "Condition" are rarely, if ever, conducted. This has been the case with the Macropore data in the past.

USFS RESPONSE:
Thank you for your concerns, we have put a great deal of thought into ensuring that we feel that we can carry out the actions and requirements as established under the proposed action.

LETTER #: 16
BY: ROBERT D. WILLIAMS, US DEPT. OF INTERIOR

Comment #: 16-1
COMMENT TEXT:
The draft EIS states that until each allotment is categorized, the vegetative groups would be managed under the standards listed for functioning desired. This level of grazing would allow up to 45 percent utilization for herbaceous vegetation and up to 35 percent utilization for woody vegetation. We feel

there is enough information provided in the draft EIS from past monitoring efforts to indicate many streams and their associated riparian areas don't meet the criteria set in the matrices for functions as desired. In the Martin Basin area, the draft EIS reports that the North Fork Little Humboldt River, Martin, North Fork Cabin, and Siard creeks all have high levels of fine sediment and embeddedness. In additions, Martin Creek has heavy ungulate damage, North Fork Cabin Creek continues on a downward trend, and Siard Creek was determined to be non-functional. All of these streams have been grazed at 45 percent utilization since 1992.

Data presented in Tables 13-T, 15-T, and 19-T in the draft EIS indicate high width of depth rations, low canopy density, low bank vegetation stability, low bank soil density, and high ungulate damage ratings for the majority of the drainages surveyed, including Indian Creek, South Fork Indian Creek, Three Mile Creek which are all occupied by LCT. All of these streams have been grazed at 45 percent utilization since 1992.

Soil data provided in Table 10-T indicates that most meadow types don't meet the criteria set in the matrices for functions as desired. The table documents data for Twenty different sites in wet, moist, and dry meadow types. Looking at rooting depth and the percentage of bare ground, which are both priority attributes for the meadow groups, only four meet both criteria for functions as desired while twelve have one or both of the attributes categorized as crossing below a threshold. All of these sites have been grazed at or above 45 percent utilization since 1992.

We recommend that utilization levels be set at a maximum of 30 percent for herbaceous vegetation, 20 percent for woody vegetation, and there should be no more than 10 percent bank trampling on all LCT occupied streams. Additionally, all streams identified as priority recovery streams by the interagency Northwest and Humboldt DPS teams should also have these utilization levels in place. Lower utilization levels should be implemented where data supports such a reduction. Repatriation of LCT into these streams should not be precluded or delayed due to inadequate habitat conditions.

USFS RESPONSE:
Thank You For your comments. Under the proposed action, LCT Streams will be the Priority for determining condition and therefore your concerns would be alleviated in this case. As far as the condition of all streams and utilization levels, we have varying levels of information. In many cases we feel that we do not have sufficient information to make an adjustment at this time without running the matrices. We do feel though that allowing utilization up to 45% within streams would not result in a downward trend in condition for nearly all streams. We feel that in the case where problems exist this would just result in slower recovery. Under current management the Forest Service can adjust utilization or management to address problems where it is warranted to take such action. An example of this includes additional rest following the Upper Willow Fire for a pasture on Lower Willow Creek (3 years of rest so far). Another example is the reduction of utilization standards on the Indian Allotment due to problems with the rest of pastures, utilization, and trespass livestock.

Comment #: 16-2
COMMENT TEXT:
The values of the parameters being measured in the matrices seem to be adequate for the effectiveness monitoring. For monitoring to be effective, however, parameters need to be measurable, repeatable and should include some quality control (Attachment A). The temporal scale for the stream water quality monitory is unclear. At what temporal scale will temperature, dissolved oxygen, and nitrogen be measured? These parameters fluctuate on a seasonal and even daily time scale and are affected by other variables. The feasibility of implementing this monitoring program with a sample size large enough to detect any meaningful differences and on a time scale for effective adaptive management to occur seems doubtful. Perhaps fewer parameters should be measured at more locations and at more frequent intervals (5 years maximum). In addition, we feel Indian Creek, rather than Three-Mile Creek, is a better candidate for the yearly effectiveness monitoring because the entire drainage is on National Forest lands and it is occupied by LCT.

USFS RESPONSE:
Thank You for your Comments, we will review the parameters in the Draft EIS and may make adjustments for the Final EIS. Based upon your comments we will changes the annual monitoring to Indian Creek as suggested.

Comment #: 16-3

COMMENT TEXT:

The Service is in support of the additional mitigation measures stated on page 2-7 of the draft EIS. The Western States Sage and Columbian Sharp-tailed Grouse Technical Committee, under direction of the Western Association of Fish and Wildlife Agencies, has developed and published guidelines to manage and protect sage grouse and their habitats in the Wildlife Society Bulletin (Connelly el al. 2000). We ask that you consider incorporating these guidelines (available at http://ndow.org/wild/sg) into the proposed project. Rest from hot season grazing at least one out of three years is a positive step towards improving stream and riparian habitat. Clary and Kruse (2004; Attachment B) indicate that summer season grazing could be the most detrimental grazing strategy to use in riparian areas because of the accompanying dry uplands and high temperatures concentrate livestock in the riparian area causing damage to streambanks and woody vegetation. Livestock concentrating activities, such as salting and water developments, should also be avoided near streams, riparian zones, and other sensitive areas in addition to areas with rare plant species as described in the draft EIS.

USFS RESPONSE:

Thank You for your comments.

Comment #: 16-4

COMMENT TEXT:

Drought is a common occurrence in the Great Basin and management of public lands should adapt to current weather conditions. The draft EIS should implement a drought management plan for all grazing allotments where numbers, Animal Unit Months, and season of use are reduced to appropriate levels. These reductions should be based on climate data collected by National Oceanic and Atmospheric Administration (NOAA) climate stations provided by the Western Regional Climate Center – Desert Research Institute, the Drought Monitor, and Snotel data.

USFS RESPONSE:

Drought and management of livestock during Drought cycles are something that is considered annually during Annual Operating Meetings and plans. Climate data, although a good source to consider when planning for drought, is not reliable by itself at a site specific level to adjust management actions. There are many factors to consider such as topography and aspect of an allotment, timing of precipitation, condition of vegetation and numerous other factors.

Comment #: 16-5

COMMENT TEXT:

The Service believes there is sufficient information available which suggest past utilization levels have been too high and that reductions should be implemented immediately upon final approval of this draft EIS. We also recommend lower utilization levels in occupied and priority LCT habitat. Please consider our recommendations on monitoring and including a drought management plan in your final decision.

USFS RESPONSE:

Thank You for your comments. Please see responses to Comments 1 & 4, Letter #16 above.

LETTER #: 17
BY: BRAD SCHULTZ, UNIVERSITY OF NEVADA-RENO

Comment #: 17-1

COMMENT TEXT:

It is inappropriate for prepares of this EIS to be cited in the text as personal communication. They are essentially being used to support their own uncontested conclusions. It's similar to an IRS tax auditor auditing their own tax return. Independent support would lend much stronger credibility.

USFS RESPONSE:

Thank You for your comment, however, it is appropriate to reference personal communications with Forest Service Specialists within the document. Additional supporting information regarding the effects analysis in this document has been provided and copies of these documents are included within the Project Record.

Comment #: 17-2

COMMENT TEXT:

There is very selective use of literature throughout the document. Most is from rangeland systems outside the Great Basin and probably not applicable to the specific conditions of the planning area. Much of the literature cited is from observational studies that often are not replicated and/or are uncontrolled or nonrandomized.

USFS RESPONSE:

We disagree with your comment. There are 15 pages of references included within the Draft EIS. These references, although they do include observational studies, represent a wide range of material from throughout the country including from within Nevada and the Great Basin.

Comment #: 17-3

COMMENT TEXT:

The EIS is full of supposition and speculation and very little site specific data. A substantial amount of literature about rangelands has been cited, but most is from rangeland systems outside both Nevada and the Great Basin. There is little or no justification about how these studies fit the biological/ecological parameters in the Project Area. Also, much of the literature cited presents data/knowledge from observational/descriptive studies, case studies, or literature reviews of such studies. The results are presented in the EIS concrete values that indicate whether sites function as desired, do not function. Or have crossed thresholds. Many of these values will not hold up under rigorous scientific scrutiny. The authors need to clearly differentiate scientific knowledge obtained from controlled manipulative studies that determine cause and effect relationships, and subjective values based observation (often unreplicated) or opinion.

USFS RESPONSE:

The Rapid Assessment Matrices were created based on scientific research with a heavy emphasis on NRCS Ecological Site Descriptions for Nevada, existing Forest scientifically supported scorecards for riparian, aspen and sagebrush sites, as well as much data taken from Great Basin research. The developmental basis for the matrices are that they be scientifically based, quantifiable, allow for a range of natural variability and be adaptable as new information or unique situations are presented.

We realize that local area research is not going to keep pace with the questions we have as land managers. We are going to need to depend on research from outside our area or from historic or current field studies of similar sites. The one way we can move toward greater knowledge of the range of values for these sites is to collect quantifiable data over time, and with the matrices that is what we are proposing to complete. To that end, the matrices have been proposed as guidelines, but are by no means set in ink, but subject to some interpretation based on unique local situations.

The matrices have been sent out to several scientists in draft form and have already and have held up to their scrutiny with some changes made as per their advice. As within in community of similarly educated individuals there will always be academic discussion of the viability of any idea or proposal. We do not view this as a threat, but as a chance to discuss and learn from each other and hopefully create a better product in the end.

Comment #: 17-4

COMMENT TEXT:

Can and may are used so often the document reads as has or will. There is never any discussion about the parameters under which can and may are likely to occur and if those parameters are present in the planning area, or the scale of their presence.

USFS RESPONSE:

“Can” and “may” are appropriate terms to use when describing what a specialist believes the potential effects of an action may have. Our specialists are using those terms because there is no guarantee that those effects will in fact occur if the action is implemented.

Comment #: 17-5

COMMENT TEXT:

The intent of management (and this EIS) is (or at least should be) to analyze what the effects of well managed livestock grazing are (or are predicted to be) in the planning area. The results from these types of studies are largely excluded from the analysis presented by the documents authors.

USFS RESPONSE:
The statement "well managed livestock grazing" is a value laden term that can be interpreted very widely depending upon the reader. The intent of this analysis and EIS is to disclose the potential effects of a range of alternatives for the management of livestock grazing in the Project Area so that the decision maker can make an informed decision regarding the future management of this activity within the Project Area.

Comment #: 17-6
COMMENT TEXT:
Chapter 4 is not an "analysis" but rather a rehash of Chapter 3. It is inadequate for a document that is suppose to be analytical.

USFS RESPONSE:
Thank You for your comment.

Comment #: 17-7
COMMENT TEXT:
There is a complete lack of livestock grazing information. No data (i.e., use maps) about utilization the last 5 years to determine if problems are point specific or general. No information about seasons of use, duration of use, frequency of defoliation, or numbers in the document. This includes historic and current data.

USFS RESPONSE:
Your comment is partly correct. The Allotment map was included on the inside front cover of the Draft EIS. Historic numbers were discussed in the Background section on page 1-2. Current numbers are shown on page 2-1. The description in the Draft EIS did not describe the current management in enough detail as it should have. This information was included in the Project Record. Additional information will be included in the Final EIS.

Comment #: 17-8
COMMENT TEXT:
Page 1-3. The purpose and need suggest the entire area is degraded, but there are no data to support this perception. Also, there is little data to support the contention that some riparian areas and meadows are continuing to decline. The verb "continuing" implies trend data (multiple samples across time) are available. Little or no trend data are presented in the document.

USFS RESPONSE:
There is information and data available to support the claim that areas may be degraded or not at the desired conditions. Some of this data includes the PFC Assessments that were run, the long-term fisheries survey information, score card data and personal observations made by specialists regarding condition of resources. Some of this information was included within the Draft EIS while additional information and data is located in the Project Record for this analysis. We acknowledge that there are additional information needs and that information regarding some resources and vegetation communities are lacking.

Comment #: 17-9
COMMENT TEXT:
There are many qualitative, hence subjective, terms used. They are meaningless from an analytical and monitoring perspective unless clearly defined.

USFS RESPONSE:
Thank You for your comment.

Comment #: 17-10
COMMENT TEXT:
Wildlife

Some of the desired conditions are unreasonable and/or inappropriate. For example, the statement "current habitat of threatened and endangered species would be maintained, and no conflicts with other uses would be allowed". It is impossible to prevent conflicts from arising. The statement is a management and biological impossibility. The biological world is always in conflict.

USFS RESPONSE:
The Desired Conditions and the specific example you identified in your comments are found on page 1-4 of the Draft EIS. These were cited from the Humboldt National Forest Land and Resource Management and cannot be changed through this analysis. If you feel these are not appropriate you may participate in the upcoming Forest Planning process and ask that these changes be made when the Forest Plan is updated over the next several years.

Comment #: 17-11
COMMENT TEXT:
Wildlife

What would the big game winter range capacity be expected in increase to?

USFS RESPONSE:
This comment references a discussion identified in the desired conditions as described in the Humboldt National Forest Land and Resource Plan. This discussion is not specific to this project or the proposed alternatives discussed and is a general objective defined in the Forest Plan. This is not included as the analysis for the "Proposed Action" or for any of the alternatives described in chapter 2 of the DEIS.

Comment #: 17-13
COMMENT TEXT:
Wildlife

What would summer ranges be improved to. The term, improved to, as used has no meaning. The USFS should clarify how much is necessary, where, and why, and how that fits with data they possess (or at least allude to) about the degradation of summer range. There is not data.

USFS RESPONSE:
This comment references a general description of desired conditions as described in the Humboldt National Forest Resource Plan. This information was taken directly from the Forest Plan and was not intended to be used as the analysis for the "Proposed Action" or any of the alternatives discussed in the DEIS.

Comment #: 17-14
COMMENT TEXT:
Fisheries

Where is the discussion about each streams potential fish production. There are no data presented to determine what the potential is. Also, potential must be defined. Potential cannot be defined by what occurs during a wet period, but maintenance of the population during a dry period, assuming the stream maintains flow during drought periods or dry years.

USFS RESPONSE:
This comment references a general description of desired conditions as described in the Humboldt National Forest Resource Plan. This information was taken directly from the Forest Plan and was not intended to be used as the analysis for the "Proposed Action" or any of the alternatives discussed in the DEIS.

Comment #: 17-15
COMMENT TEXT:
Fisheries

Minimum Viable populations. I see not information in the document about these having been determined, let alone the input parameters to determine MVP's.

USFS RESPONSE:
Minimum Viable Populations were established in the Humboldt National Forest Land and Resource Management Plan. The Forest Plan has been included in the Project Record by Reference. This project does not establish minimum viable populations for any species.

Comment #: 17-16
COMMENT TEXT:
Range

This should be relevant to the Santa Rosa Ranger District. One can only assume the values presented are applicable to the SRRD. If so, it is a statement that things should be improving under existing management. If not, this document needs to provide data that clearly demonstrates the expected improvements are not occurring. These data are lacking.

USFS RESPONSE:
This information was cited directly from the Humboldt National Forest Land and Resource Management Plan and is shown on page 1-4.

Comment #: 17-17
COMMENT TEXT:
Soil and Water

There are many meaningless terms since they are not provided within any context. These include: enhance soil and water resources; increasing water yield and soil productivity; water quality would improve at a moderate level; improve at a high lever; improve at a moderate rate.

USFS RESPONSE:
These terms are not meaningless they are simply qualitative.

Comment #: 17-18
COMMENT TEXT:
Soils and Water

Since no data are presented for soil erosion how does one know if it is a problem (and the scale of the problem; point, watershed, planning area, etc.) and if reductions actually occur under different management.

USFS RESPONSE:
Erosion rates are estimated for a variety of livestock-affected range conditions, using the soil erosion model WEPP. The WEPP results are presented in the Soil Quality section of Chapter 3 (see Estimated Current Soil Conditions). The reader can get an idea of the scale of the erosion problem in the Measured Current Soil Conditions section, which shows a map of field monitoring sites and lists the number of sites in poor condition based on soil properties. Information on areas that are suseptable to natural erosion is presented in the section on Project Area Soil conditions and Appendix C. Areas that have a naturally high potential for erosion are likely more suseptable to livestock-caused erosion. In addition, the reader can also visit the Water Quality section, which discusses prevalence of livestock-caused sediment runoff into Project Area streams.

Comment #: 17-19
COMMENT TEXT:
Management area prescriptions wildlife and fish

Management indicator species can only be used as an index of habitat conditions if one or more of the habitat conditions are a limiting factor. If habitat (quantity or quality) is not a limiting factor then using MIS as a monitoring measurement will not work.

USFS RESPONSE:
Management Indicator Species were established through the Humboldt National Forest Land and Resource Management Plan. If you do not agree with the species chosen or which habitats they represent you may present your concerns during the upcoming Forest Planning process.

Comment #: 17-20
COMMENT TEXT:
Category 1 riparian areas:

“estimated potential” is a very vague term that implies a potential for very large error. It needs to be clearly defined.

USFS RESPONSE:
These terms were cited directly from Amendment 2 of the Humboldt National Forest Land and Resource Management Plan. Information regarding these terms and their meanings has been included in Amendment 2 to the Forest Plan.

Comment #: 17-21
COMMENT TEXT:
Category 1 riparian areas:

"No more than 10% reduction in macro-pore space from estimated potential." Measurement for this soil attribute is not collected and because pore space is too small to be visually estimated, let alone a 10% reduction for pore space, this attribute becomes an inappropriate monitoring or assessment criteria.

USFS RESPONSE:
The discussion that this comment addresses is taken directly from Amendment 2 of the Humboldt National Forest Land and Resource Management Plan and is just being displayed within Chapter 1. This proposal does not propose to amend the Forest Plan and therefor this concern is best raised during Forest Planning.

Comment #: 17-22
COMMENT TEXT:
Category 1 riparian areas:

The concept of "fish production…near potential" needs to be clarified. See previous comments.

USFS RESPONSE:
See Response to Letter #17, Comment #20.

Comment #: 17-23
COMMENT TEXT:
Proposed Action

There is poor documentation of the existing rangeland conditions in this document, including how far they are from the desired condition. This creates the possibility of a moving target that can never be met.

USFS RESPONSE:
There is insufficient information regarding condition of many of the rangelands at this time, therefore the intent of the Proposed Action was to establish a process by which their condition would be determined. Once the condition of the various vegetation groups is determined then appropriate management actions can be taken and appropriate standards applied to address those conditions.

Comment #: 17-24
COMMENT TEXT:
Proposed Action

If no assessment has been completed and there are insufficient data in the document to conduct an adequate environmental analysis of the proposed and alternative actions how does one know that existing rangeland resource conditions are less than desired conditions. It begs the questions, are point scale problems being presented as planning unit problems/issues? If so, the image created by language in the text (i.e., the planning area is in horrible shape and getting worst) is incorrect and misguided.

USFS RESPONSE:
Sufficient information and data is available to disclose the potential effects of the various alternatives. There is sufficient information and professional knowledge of the area to know that there are problems and that many of our vegetative communities are not functioning at there desired conditions. Examples of some of the information that is currently available include the Fisheries GAWS surveys, PFC Assessments, Scorecards and our own specialist's knowledge of the area. Some of the problems may be point scale problems, while others are likely a problem at a larger scale. The effects disclosure in the Draft EIS only discloses the potential effects of the various alternatives. Over the past 100 years there has been significant improvement in the condition of the

various resources and vegetative communities within the Project Area. This can be documented by comparing the numerous historical photos of the area showing the early impacts from livestock grazing. Today many of these areas are continuing to improve, while we have other areas which are now static and some locations which show signs of further degradation under the current management situation.

Comment #: 17-25
COMMENT TEXT:
Proposed action

Range Developments are evaluated under a site-specific NEPA analysis, not approved.

USFS RESPONSE:
Thank You for your comment.

Comment #: 17-26
COMMENT TEXT:
Proposed Action

Mandating rest-rotation for all allotments may eliminate future flexibility. I suggest the action is to use grazing systems/management to meet allotment specific vegetation management objectives (that have yet to be determined).

USFS RESPONSE:
Thank You for Your Comment. You are correct, mandating a specific management system does not meet the intent of an adaptive management approach to this project. This oversight will be corrected in the final EIS.

Comment #: 17-27
COMMENT TEXT:
Soil Quality

Has and may are overused terms that are meaningless unless put in the context of when effects are likely. Literature can be found that shows livestock have positive, negative, and neutral effects on soil quality, depending on how grazing occurs, not if it occurs. The implication of the first sentence is all effects are negative, particularly in light of the rest of this section.

USFS RESPONSE:
See response to Letter #17, Comment #4.

Comment #: 17-28
COMMENT TEXT:
Soil Quality

The phrase “excessive livestock grazing” needs to be defined, otherwise it is subject to individual interpretation. Individual interpretation is not the intent of a NEPA document.

USFS RESPONSE:
This term as used in context would be defined as grazing at an intensity or in a manner where insufficient vegetation is remaining on site to protect the resources or where resources are being affected in a way resulting in objectives not being met.

Comment #: 17-29
COMMENT TEXT:
Soil Quality

There are no data in the EIS for the indicated measurement indicators.

USFS RESPONSE:
These indicators are general in term and are to be used to display what the speciailist feels are the basic differences between the various alternative for that resource. These indicators in the Draft EIS on page 2-13 through 2-20 may or may not have data or measurements associated with them.

Comment #: 17-30
COMMENT TEXT:
Water Quality

Any land use has the potential to affect any environmental attribute. The important and relevant question is the specific parameters under which these effects occur. These are not identified in this document.

There are no data in this document that suggest this is the situation with respect to water quality, or any other environmental attribute.

USFS RESPONSE:
You are correct in saying that any land use may have an affect on environmental attributes or resources. The responsibility of the Forest Service is to disclose what we believe the potential effects may be, given the information we have available and then to make a decision on this project when considering those potential impacts.

Comment #: 17-31
COMMENT TEXT:
Water Quality

Why the emphasis on native fisheries when most streams are occupied by introduced species of trout? It is either a trout related issue or not.

USFS RESPONSE:
Thank You for your comment, however, you are not correct. This issue is not just a trout issue as you have indicated. T&E Species such as Lahontan Cutthroat Trout are a considerable concern as it related to livestock management and impacts on that species are of much higher concern as compared to the potential impact on rainbow trout. This issue is decided by laws and regulation.

Comment #: 17-32
COMMENT TEXT:
Water quality

What does excessive mean?

USFS RESPONSE:
See response to Letter #17, Comment #28.

Comment #: 17-33
COMMENT TEXT:
Fisheries

It would be beneficial to clearly identify what the FS believes proper and improper grazing is in the planning area.

USFS RESPONSE:
Proper grazing is a very difficult term to address because it may vary based on the resource being considered, the perspective of the person making the call and other factors. The intent of this EIS is to analyze the potential effects of various alternative grazing management programs each of which may be “proper” depending upon the resource being considered and the perspective of the person making that call.

Comment #: 17-34
COMMENT TEXT:
A population census should be part of the data collected.

USFS RESPONSE:
Fisheries

Fisheries population information has been included on page 3-24 of the Draft EIS. Additional population data has been included in the Project Record for this anlalysis.

Comment #: 17-35
COMMENT TEXT:
Wildlife

The word "may" continues to be overused and conveys an inaccurate picture. This is inappropriate, unbalanced, and unscientific. Yes, livestock may trample nests, but trampling has never been shown to have an adverse effect on any population of sage grouse, anywhere. Biologists manage populations, not individuals. The effects on individuals are meaningless, unless they confer an unwanted effect on the population.

USFS RESPONSE:
See Response to Letter #17, Comment #20. Additionally, your comments are not correct. Under NEPA we are required to disclose the effects whether it is on individuals, the populations, or their habitats. On page 4-26 the document discloses that livestock grazing has the potential to damage or destroy nests. Also on this page it is disclosed that although individuals and habitats may be affected, it would not affect the viability of the species. This statement is also disclosed in the No Action Alternative.

Comment #: 17-36
COMMENT TEXT:
Wildlife

There is no data from the Santa Rosa's to support the statement that nesting generally occurs within two miles of leks. This statement is for data extrapolated from other studies, in other states, but suggests it is from locally derived data.

USFS RESPONSE:
The Forest Service used the best available data to make determinations and disclose potential effects on wildlife species. This information is supported by research. You are correct that no specific data for the Santa Rosa's is available regarding nesting distance from Leks, however, additional information on page 3-33 of the Draft EIS both Connelly and Autenrieth are cited as determining that most females nest within 4 miles of a Lek while some birds may nest more than 12 miles away.

Comment #: 17-37
COMMENT TEXT:
If this is a section on wildlife, why are sage grouse the only species discussed? By definition, the word wildlife is inclusive all wild species, not exclusive.

USFS RESPONSE:
Wildlife

You are not correct. Northern Goshawk, mule deer and goshawk are also addressed. Additionally, in Chapter 3 of the Draft EIS under the Wildlife section, 17 individual and groups of species are discussed.

Comment #: 17-38
COMMENT TEXT:
Wildlife

What are the attributes to be measured? There is not a single attribute listed.

USFS RESPONSE:
Various attributes within these tables will be updated and included within the Final EIS.

Comment #: 17-39
COMMENT TEXT:
Riparian

The health indicators are all symptoms of problems associated with impairment to hydrologic processes and functions. In essence, by the time they appear the problem is likely to be so bad it cannot be easily fixed. I would suggest alternative measurements related to hydrologic process. For example, a measurement of floodplain degradation, bank storage capacity, incision, etc.

USFS RESPONSE:
Thank you for your comment.

Comment #: 17-40
COMMENT TEXT:
Aspen

Size or maturity classes are a more appropriate measurement than age classes. Age often has no relationship with size of plants. Age is a difficult and time consuming variable to measure, and it often is a destructive measurement.

USFS RESPONSE:
Thank you for your comment, however, age classes of aspen can be estimated in a very short time frame and without destructive techniques. For its use in this context this would not require an exact measurement and can be estimated.

Comment #: 17-41
COMMENT TEXT:
Aspen

Aspen are susceptible to many diseases. Disease is an attribute that should be quantified.

USFS RESPONSE:
Thank You for your comment.

Comment #: 17-42
COMMENT TEXT:
Upland vegetation

The text puts an emphasis on the structure of upland plant communities (term is used twice). Yet, there is not a single measurement related to structure. Among the types of information that may be useful are patch size and shape, relationships among patches (physical arrangement), maturity class structure, canopy size and shape, seed production, recruitment.

USFS RESPONSE:
Three measurement indicators were listed for this section on page 1-10 of the Draft EIS, including vegetative composition which relates to some of your suggestions in your comment.

Comment #: 17-43
COMMENT TEXT:
Noxious weeds

There are many causes for ground disturbance beyond the 3 mentioned. These include, ephemeral flooding/runoff, rodents (very widespread and always overlooked), mining activities, road construction and maintenance, landslides, wildlife trailing, frost-heaving, and probably others. Disturbance is a mis-understood term that needs to be defined and put in a spatial/temporal context. For example, fire is not a disturbance in a system that evolved with fire, unless the fire is substantially larger, more intense, or more complete than the system evolved with. Removal of fire can be a disturbance, when it is taken from a system in which it evolved.

USFS RESPONSE:
Thank you for your comment. The information you provided may be accurate and is interesting, however, it is not germain to the section of the document in which you are commenting on. This section of the document (page 1-10) has measurement indicators that may be influenced by the proposed action or one of the alternatives. The examples you provided above are either natural events or involve other activities that are not a part of this project and are therefore outside the scope of this analysis.

Comment #: 17-44
COMMENT TEXT:
Social and economic consequences

There is no data presented that reductions in livestock numbers on the Forest can be off-set by private land leasing. It is a theoretical statement unsupported by any data.

USFS RESPONSE:
Your comment is not correct. Livestock operators can at any time choose to not graze on the Forest and can instead lease private grazing lands. If numbers of livestock were reduced on the Forest for whatever reason, the permittee could choose to lease private range for the remaining cows. There is a potential domino effect in this scenario, which is that other operators may be displaced from the private lands and it could result in high private land leases due to increased demands. This section only raised this issue to demonstrate that this is an option even though there may be impacts on others.

Comment #: 17-45
COMMENT TEXT:
Heritage resources

It would be appropriate to clarify that any land use (recreation, utility corridors, and habitat manipulation for wildlife) can adversely affect cultural resources.

USFS RESPONSE:
Your comment is correct, however, this analysis addresses livestock grazing and therefore this is outside the scope of this analysis. Cumulative effects on heritage resources are addressed in Chapter 4 of the Draft EIS.

Comment #: 17-46
COMMENT TEXT:
Dispersed recreation and trails

What is an elevated evidence of cattle? For some its one, for others there is no such concept.

USFS RESPONSE:
Thank You for your comment, however the intent and context of this section on page 1-11 should be fairly clear. As livestock use increases in intensity then the recreational experience for many of our recreational users generally decreases in quality.

Comment #: 17-47
COMMENT TEXT:
Page 2 - 4

Authors need to clarify what is meant by “maximum allowable utilization levels”

USFS RESPONSE:
This is clarified for the proposed action as written on the top of page 2-6 of the Draft EIS.

Comment #: 17-48
COMMENT TEXT:
Forage utilization was never intended to be a management objective. It is a management tool used to obtain specific objectives.

The focus on only utilization levels and not the full spectrum of herbivory is likely to have unintended consequences and not meet management objectives.

USFS RESPONSE:
The Draft EIS does not say that forage utilization is a management objective. Utilization is a standard or a tool used to help meet objectives. Our objectives in a very simple form can be summed up as resources and vegetative communities in a functioning as desired condition. Desired conditions are displayed in Appendix B of the Draft EIS.

Comment #: 17-49
COMMENT TEXT:
Chapter 2

Objective:
AMP’s will be developed for all allotments using an adaptive management strategy. Permitted numbers and seasons would be modified as necessary to meet standards.

Comments/Suggestions:
The document does not demonstrate that the criteria identified in the matrices (appendix B) are appropriate for classifying an area into the three functional categories identified. Changing many of the attributes described in the matrices will require changes in season utilization levels. The matrices are not useful for developing management objectives. Management objectives must be based on site potential that incorporates information from the published soil survey ecological site descriptions, and existing conditions.

USFS RESPONSE:
The primary purpose of the Matrices is to determine condition and not to set Management objectives. Objectives can be developed on a site specific basis within the AMP's to address problems that may be identified during the implementation of the Matrices or to move vegetative communities closer to desired conditions..

Comment #: 17-50
COMMENT TEXT:
Chapter 2

Objective:
Monitoring would identify current functioning level and appropriate allowable utilization levels.

Comments/Suggestions:
Monitoring does not determine a current functioning level. "functional" determinations are provided by assessments, and assessment tools/ protocols are not monitoring instruments. Assessment is used to determine initial goals and objectives. Monitoring tracks change across time to determine if specific objectives or goals are being approached or met. The results of monitoring are used to change management actions to help achieve the intended objectives. The language in the text indicates a lack of understanding about differences between assessment and monitoring. This indicates the wrong tool is likely to be used in the wrong settings.

USFS RESPONSE:
We are not completely sure where this comment and statement came from or if this is just a misunderstanding. The Matrices are a form of an assessment and when they are done on the selected vegetative communities a condition rating would be developed. Utilization standards and management options would then be determined and implemented. Monitoring would be done on selected parameters to determine if our actions are moving an area closer to the desired conditions.

Comment #: 17-51
COMMENT TEXT:
Chapter 2

Objective:
Management standards and matrices in Appendix B.

Comments/Suggestions:
Many of the parameters in the matrices are questionable, particularly since there is no literature cited to identify the research from which the specific values are derived.

Appendix B-1 lumps all streams together. This approach was used 20+ years ago but is no longer valid. There is substantial research available that demonstrates different types of streams respond differently to the same land use.

Appendix B-2 (and others). According to the matrix if one noxious weed is found in an area it does not meet desired function. That may be an undesired situation, but hardly one that is non-functional. Also, it is unrealistic in today's global economy.

B-9: For bareground does the measurement include the overstory or just the understory. Cottonwood stands on active floodplains often have little or no herbaceous understory. The sample sizes discussed in this document will never allow for an accurate determination of cover. How will you know if you truly have 1.5% cover or2.5% cover? The difference results in a completely different functional classification.

B-13 and others. Sagebrush cover at less than 10% does not mean a site is not functional, and <5% for 10 years does not mean it has crossed a threshold. If the site has enough perennial grasses and

forbs to exclude undesired invasive plants and noxious weeds, and permits the return of sagebrush it is functioning. It may not have reached a management objective, but it is functioning as expected according to current knowledge of plant succession pathways for sagebrush community types.

Many of the written narratives (Appendix B-2) are based on descriptive studies that cannot deduce cause and effect; therefore, have very little utility for defining what is functional and what is not. Their results, with respect to function, are largely the result of their respective authors. These can provide values that are testable hypotheses, but should not be considered as true and tested quantitative values about what represent a functional or non-functional level of an ecological parameter. Also, some of these citations could not be found in the literature cited.

USFS RESPONSE:
The literature cites for the matrices is located in the parent document Draft Protocol for the Rapid Assessment Matrices, which is in the Project Record.

All natural systems, whether tied to a stream or not, do not respond the same way to the same use. That is why we have developed a range of values and attributes to assess the site condition with the caveat that these are guidelines and if an ecosystem is so unique that it falls outside these guidelines, then it needs to be addressed and explained and managed appropriately, or if the guidelines are found to be too narrow in scope to account for a full range of function, then they can be changed to adapt to new information.

Noxious weeds: Every ecosystem functions. Even a system that has converted to cheatgrass is functioning, but most people would not consider it a healthy ecosystem.

Noxious weed by definition: "…means any species of plant which is, or is likely to be, detrimental or destructive and difficult to control or eradicate. (NRS 555.005 3) Usually we do not see just one noxious weed in an area, since by their nature noxious weeds reproduce and expand their acreage at an accelerated rate. This Forest wants to prevent the spread of noxious weeds and control or eradicate noxious weeds where found on National Forest lands.

The Forest Service in this Region has a zero tolerance for noxious weeds, as is indicated in FSM2081.2 i(1) "Annual Operating Instructions for every grazing allotment should include noxious weed prevention monitoring and reporting direction, and provisions for annual inspection of areas where livestock concentrate, which results in overuse and/or soil scarification. If noxious weeds become established, they should be inventoried and scheduled for treatment.

State law is very clear on the concern for and eradication of noxious weeds. According to NRS 555.150 -Eradication of noxious weeds by owner or occupant of land. Every railroad, canal, ditch or water company, and every person owning, controlling or occupying lands in this state, and every county, incorporated city or district having the supervision and control over streets, alleys, lanes, rights-of-way, or other lands, shall cut, destroy or eradicate all weeds declared and designated as noxious as provided in NRS 555.130, before such weeds propagate and spread, and whenever required by the State Quarantine Officer."

All direction we receive indicates that noxious weeds are undesirable and need to be located and eradicated. If under the law some noxious weeds are going to be tolerated, maybe these particular weeds should be removed from the noxious weed list.

As for the comment on with a global economy we should expect noxious weeds, the same could be said for imported products such as cocaine and BSE infected beef. Just because these items make it into the country legally or illegally does not make them desirable or indicative of a healthy, functioning trade system.

The bare ground measurement is taken as follows:

Bare Ground: For this assessment protocol bare soil and erosion pavement are considered separately. The amount of bare ground can be extracted from ground cover measurements using a point method.

Points of a monitoring frame, a point monitoring frame or a laser light pointer can be used to measure hits of vegetation, rock (gravel or rock greater than 2 centimeters diameter), litter, bare soil, pavement (gravels 4 to 20 millimeters diameter) and cryptograms (moss, lichens, fungi). The point should be small (5 millimeters or less) to avoid hitting more that one ground cover type.

For rapid assessment take measurements at least 100 points and for statistical accuracy 200 points are needed. Once a person's eye is calibrated, bare ground can be estimated. However, the person estimating needs to periodically run samples to check their estimates. See Appendix D, Range Analysis Handbook 44.4 – Ground Cover Sample Measurement (USDA 2003). See also Appendix C, Interpreting Indicators of Rangeland Health pg. 21 (Pellant and others 2000).

Cottonwood stands that have riparian ecology plots generally have a high ground cover. On the National Forest these sites are prone to high water about once in ten years, and if there is good cover prior to high water, they generally recover rapidly. Cottonwood stands and steep, narrow drainages are not monitored, because they are not often grazed by livestock due to the steep. unstable slopes. If special circumstances occur there is a paragraph in the matrix protocol as follows:

Addressing Special Circumstances - Events that have nothing to do with the land use being assessed are going to happen in key areas. Sites that have been altered by fire, flood or other unplanned events should be documented, and recovery monitored or key area moved until the site recovers. All factors affecting the health of the land that are outside the monitoring goals should always be acknowledged in written notes, so that management can be adapted to deal with them.

How will we know if cover is 1.5 or 2.5? If measurements indicate that an attribute is that close, we have been leaning on the side of the higher function. This type of results would indicate that there is not a significant enough difference to lean toward a lower condition.

Sagebrush cover less than 10% indicates that the site may be converting from a sagebrush type to another state and sagebrush cover less than 5% for 10 years indicates that the site has converted to an alternate state and not likely to return to a sagebrush state without significant economic or time input. Therefore the site is past the threshold for returning to a functional sagebrush ecosystem. It still may function, but not as a sagebrush system. If the management objective after treatment is a functioning sagebrush ecosystem and what we have after 10 years is a functioning herbaceous ecosystem, then we have not met the objective.

There is not enough research out there to supply the answers to all our questions and make the determination we need for complete accuracy. As land managers, we must take existing research and data available to us and make informed decisions, and we must be able to adapt as new information develops. We have a responsibility to the public to manage the National Forests to utilizing the best data accessible, and with this we realize that there will always be those who argue that we can not move forward until we know everything there is to know about these ecosystems. However, we can not afford to sit still in place and hope that things will turn out fine, especially when we know enough to know that things are not fine. The values listed in the matrices are guidelines, not necessarily true and intensely tested quantitative figures. They are meant to be adaptable if new information become available.

Comment #: 17-52

COMMENT TEXT:

Chapter 2

Objective:
Standards include maximum utilization levels… Utilization levels are based on whether or not the vegetative group functions as desired, does not meet desired function, or has crossed below a threshold.

Comments/Suggestions:
Note previous issues with matrices. Above comments should not be inferred as inclusive of all deficiencies with the matrices, but as representative examples. The authors of the EIS need to develop the matrices based on replicated and controlled experimental research studies that can definitively identify cause and effect. If these are unavailable then values used to define functional level should be based on observational studies that have been replicated. The latter approach has less reliability than the former, but substantially better than using a single observational study, or the opinion of a single individual.

USFS RESPONSE:

Point well taken, but the Forest Service land managers are not in the research business, and we do not have enough researchers to spend the time needed to accomplish this level of detail on a local basis across every District on the National Forest. It would be more cost effective to reduce or

eliminate uses such as grazing, than to prove that these uses can or can not occur within a functioning ecosystem. The matrices were developed using the best science we could find at the time, and thus far we haven't discovered a quantitative analysis that would fulfill this same role.

We are under time restraints to analyze grazing as a viable use on the National Forest, and we live in a world where we need to provide some assurance to the public that we are managing these lands in a sustainable manner for a variety of uses. We believe that telling the public that we are going to establish studies on these lands and then in about ten years analyze whether or not they are improving is not going to survive scrutiny. We need to provide an outline of our objectives for the ecosystems we affect when we permit ground disturbing activities on the National Forest, now, not at some undetermined future point, when or if we get the studies installed and repeated to the level needed.

Comment #: 17-53

COMMENT TEXT:
Chapter 2

Objective:
Reference areas will be sampled for selected attributes listed in the applicable matrix. The reference areas would be those areas most likely to show change with a change in livestock grazing.

Comments/Suggestions:
Reference areas should not be those most likely to change. The area most likely to change, and which will change, is the area immediately adjacent to a water source. This area may or may not be representative of the management objectives. Reference areas should be representative of the resource management objectives, and representative of the management actions designed to achieve those objectives. They are areas that are expected to change with changes in management, but are not necessarily those most likely to change.

Reference areas need to be verified as to their appropriateness with use pattern mapping and date from vegetation mapping (ecological sites) and soil surveys. Site selection requires an understanding of scale (space and time) and requires that objectives be scales to location to monitoring techniques.

There should always be more than one reference area per management unit. The hallmark for acquiring scientific information is replication, control, and manipulative treatment, with replication being most important. Data from only one site drastically increases the risk of bias determining the result, or unknown or uncontrollable factors influencing the results. These effects should be avoided.

USFS RESPONSE:
Reference areas discussion will be updated in the final EIS to address your concerns. The number of reference areas will be determine on a case by case basis dependent upon site specific conditions and issues.

Comment #: 17-54

COMMENT TEXT:
Chapter 2

Objective:
Create a riparian pasture on Rebel Creek.

Comments/Suggestions:
A riparian pasture by definition is one that is segregated from adjacent uplands so the riparian area can be grazed different than the uplands, to meet the needs of the riparian area. Eliminating livestock grazing changes it from a pasture to an exclosure. That may be appropriate, but there is not data provided to support the decision.

USFS RESPONSE:
This action will in fact create a large exclosure where grazing will not be authorized under this proposal. The lower portions of Rebel Creek are in a deeply incised canyon. Cattle tend to concentrate in the riparian areas due to the steep nature of the area resulting in adverse impacts on the riparian areas. It was determined to address this problem this large exclosure would be created and no grazing would be authorized in the lower Three miles of Rebel Creek.

Comment #: 17-55
COMMENT TEXT:
Chapter 2

Objective:
Maintenance of structural developments would be outlined in individual term grazing permits.

Comments/Suggestions:
The key to successful long-term grazing management is water. Water must be available and adequately distributed across the management unit. This objective is very vague about the development and maintenance of water developments. If they cannot occur no management plan will meet its objectives and be successful. The Forest Service must clearly address this issue.

USFS RESPONSE:
Water developments are not a part of this project and are therefore outside of the scope of this analysis.

Comment #: 17-56
COMMENT TEXT:
Chapter 2

Objective:
Defer grazing in sage grouse nesting areas prior to June 1 each year,

Comments/Suggestions:
For a document that has a stated goal of being flexible, this statement ends a tremendous amount of flexibility. Hard dates are inappropriate. The author's do not present any data from the Santa Rosa's that an earlier turn-out date has any adverse effects on sage grouse. There is no data in existence from any location that trampling has every adversely affected a sage grouse population.

The FS should have as an objective that it will follow the local sage grouse plan developed by the North Central Nevada Sage Grouse Planning Group. The District Ranger for the Santa Rosa's participated in the development of this plan; therefore, there is no reason it should be adopted.

USFS RESPONSE:
Thank you for your comment. You are correct and this mitigation measure will be modified to indicate that no grazing will occur prior to June 1 if strong evidence is presented from the area indicating that livestock grazing prior to this date is having a considerable adverse effect upon nesting sage grouse populations.

Comment #: 17-57
COMMENT TEXT:
Chapter 2

Objective:
No grazing in riparian areas from mid-July through August, one year in three.

Comments/Suggestions:
This is an issue that should be addressed in each allotment management plan, and be based on the specific management objectives for each management unit. As stated it create inflexibility, when flexibility is critical to long-term management success.

USFS RESPONSE:
Thank You for your comment, however we feel that this mitigation is important and it is very appropriate that units should receive rest from hot season grazing during one out of every three years.

Comment #: 17-58
COMMENT TEXT:
Chapter 2

Objective:
No livestock concentrating activities in potential habitat for Osgood Mountain milkvetch and obscured scorpion plants, and know locations of Hyssop.

Comments/Suggestions:
There are 47,250 acres of potential habitat for obscured scorpion plant in the planning area. As written, water developments and/or salt could not be located in these potential habitat areas. Both activities are critical to developing successful grazing management programs. This objective eliminates a tremendous amount of management flexibility. A similar situation exists for Osgood Mountain milkvetch, but the affected acreage is much smaller. It may be very appropriate to prohibit livestock concentrating activities in and immediately adjacent to populations of sensitive species (depending on species needs) but there is not justification to prevent activities in "potential habitat", particularly when habitat requirements are so poorly understood that large landscape level areas become potential habitat.

USFS RESPONSE:
Surveys for these species are ongoing and the potential habitats on the District are continuing to be refined and are more accurate. These activities may be approved on a site by site basis if surveys are completed or if it is determined that the species in not present in the area in question.

Comment #: 17-59
COMMENT TEXT:
Page 2-6

The text indicates that only one sampling area per vegetative group is necessary, although more are possible (but probably not likely). There is no indication of the size of these reference sites must or should be. In essence, landscape level decisions will be made on information from one sample point; that essentially is point data. Sample size will be inadequate, even with stratification. The hallmarks of science are replication, randomization and experimental control. Not one of these three attributes is used in the sampling protocol.

USFS RESPONSE:
The number of reference areas per Pasture or Allotment will be determined on a case by case basis. More than one area per pasture may be chosen if the circumstances warrant that determination. The reference areas will not consist of a single point, and the size of the areas will also be determined on a case by case basis depending upon local conditions and circumstances.

Comment #: 17-60
COMMENT TEXT:
Page 2-7

Additional Mitigation Requirements

The first bullet states livestock grazing in nesting areas will be deferred to June 1 each year. On page 1-9 the authors state "sage grouse typically complete nesting around the first of June." On page 4-19 the authors state, "There is also the potential for nests to be damaged or destroyed by livestock trampling." If nesting is largely done by June 1, and turnout does not occur until June 1 at the earliest, this potential for nest trampling seems minutely small. As stated earlier no study has ever shown trampling to have an adverse effect on a sage grouse population. The statements of the authors are incompatible with one-author, with the conclusion on page 4-19 not being supported by previous statements in the text.

USFS RESPONSE:
See the response to Letter #17, Comment #56. This should resolve the concerns raised in this comment.

Comment #: 17-61
COMMENT TEXT:
Page 2-8

A 10 year monitoring schedule is too long. Many significant changes could occur in that time frame.

USFS RESPONSE:
The matrices will be run at least every ten years. They may be run more frequently if there is information that indicates that conditions have changed either for the better or for the worst. We are unable to commit to a shorter time frame for all areas due to potential budget constraints to implement this requirement.

Comment #: 17-62
COMMENT TEXT:
Page 2-10

If this alternative is implemented there needs to be a monitoring program to determine if the supposedly degraded resources responded as stated in this plan, and at the anticipated rates; or were there unintended consequences.

USFS RESPONSE:
Thank You for your comment, a monitoring plan will be included with the final Record of Decision.

Comment #: 17-63
COMMENT TEXT:
Table 3-T

Page 2-13: What data supports the conclusion that any of these attributes will increase or decrease under any of the proposed actions, let alone that the rate of change is likely to be different? These conclusions are based on speculation and supposition. There are no site specific data to justify these conclusions and poor development of the literature, since much of what is cited in the text comes from very different ecological systems.

USFS RESPONSE:
The table that the comment is addressing is meant only to be a summary comparison table and the detailed analysis is included within Chapter 4 of the Draft EIS. This table will be updated within the Final EIS.

Comment #: 17-64
COMMENT TEXT:
Page 2-14: LCT, proposed action: The phrase increases in populations is unclear. As written it suggests an increase in the number of populations (not size of existing populations), which would mean LCT in streams they are not now located in, or possibly in reaches of streams in which they are not now located (this definition of population would be questionable). Since the presence of introduced species of trout is the most significant limiting factor to LCT, how does the proposed action (authorize grazing with potential changes in utilization and season of use) increase populations of LCT? For a substantial increase in the number of LCT populations to occur other trout would have to be eliminated. That is not part of the proposed action.

USFS RESPONSE:
See response to letter #17, Comment #63.

Comment #: 17-65
COMMENT TEXT:
Page 2-15: There is no data that nesting cover is inadequate. Jim Jeffress, retired NDOW biologist, stated repeatedly that nesting cover is adequate.

USFS RESPONSE:
See response to letter #17, Comment #63. On Page 2-15 the Draft EIS does not say that nesting cover is inadequate. It only says that under the no action alternative there would be less cover to hide nests as compared to other alternatives.

Comment #: 17-66
COMMENT TEXT:
Page 2-7

Sage grouse leks; There is no data presented that supports the conclusion that there may be reduced vegetation around leks due to grazing (alternatives 1 and 2), let alone this potential lower level of cover has an adverse effect on the sage grouse population. There is no data to support the conclusion that no grazing would provide sufficient hiding cover adjacent to leks. The only possible conclusion is that no grazing would facilitate full expression of existing plant community (for plant height and cover). This may or may not be adequate (or optimum) for sage grouse. The authors are drawing conclusions that are not supported by data.

USFS RESPONSE:
This section in the document was intended to show a summary of the proposed effects to each alternative. These effects are based on the assumption that grazing at greater intervals would leave less vegetation remaining on the site. However, with no grazing, vegetation would not be removed and one would expect vegetation to be taller under this alternative and therefore would provide more hiding cover for sage grouse. It makes sense that under higher utilization standards there will be less vegetation left on the site each year resulting in less hiding cover for sage grouse.

Comment #: 17-67
COMMENT TEXT:
Page 2-7

Sage grouse populations: There are no data to support the conclusions for any of the alternatives. Lek counts were substantially higher for 2004 than 2001 without any change in grazing (i.e., alternative 1). It is not clear why populations would increase for alternative 3, particularly since use would likely decline at seeps, springs, and meadows: the critical summer habitat for grouse. The taller, decadent vegetation on these areas in mid to late summer would restrict use by grouse when forbs are becoming dormant in upland sagebrush sites. One could easily argue populations may decline. All 3 conclusions appear to be speculation and supposition.

USFS RESPONSE:
Population differences between 2004 and 2001 are likely reflective of a cyclic process and not likely indicative of any changes in management. The summary concludes that as utilization increases near seeps and springs that vegetation height and hiding cover near sites may decrease. Under the "No Grazing" alternative it was assumed as conditions of seeps and springs improve so would sage grouse habitat. However, in the long term without grazing, there would be an increase in decadent vegetation and a resultant loss of forbs.

Comment #: 17-68
COMMENT TEXT:
Page 2-16

On page 3-38-39, the text states that the few known goshawk nest locations have all had abandoned nests, that in 1990 there were no known nests, and the estimated potential number of nesting pairs in the Santa Rosa District is 3-4 pairs. This begs the questions what exactly is the biological significance of a "slight potential for increases"? This appears to be a non-issue.

USFS RESPONSE:
This concern will be addressed in the Final EIS.

Comment #: 17-69
COMMENT TEXT:
Page 2-18

Trend: What data support the conclusion that the rate of expansion of noxious weeds would be slower as grazing restrictions increase. Dispersal mechanisms are many and quite varied. Cheatgrass occurs in some volcanic craters in southeast Oregon that have never been grazed and are many miles from the nearest area that is grazed. The spread of noxious weeds is much more than a livestock grazing issue and there are no data that grazing on the forest increases their rate of spread.

USFS RESPONSE:
Refer to the "No Grazing" alternative (page 4-49) direct and indirect effects for noxious weeds. It is true that dispersal methods do vary and this too is analyzed under cumulative effects page (4-49).

If the No Grazing alternative was selected this would eliminate 5,663 head and 25 horses that primarily come from private land in the Paradise Valley area, which is highly infested with many different species of noxious and invasive weeds.

Also, if livestock were completely eliminated or the amount of time and utilization was reduced then there would be a reduction in soil disturbance which then could eliminate the potential for new infestations. Also, it is common on surrounding land which border the Project Area to see livestock grazing on invasive plants such as knapweed. It appears this plant may also be bailed and fed to

cattle. Many invasive plant seeds remain viable even after consumption and can be transported onto the National Forest by excretion from the animal.

Also for scotch thistle, one of the requirements for seed germination is an increase in light intensity or brightness. When cattle graze an area and open the grass canopy, this allows more light to reach the soil, thus germination occurs.

Comment #: 17-70

COMMENT TEXT:
Page 2-20

Archaeology: This is largely generic speculation and supposition.

USFS RESPONSE:
Studies have shown that cultural resources can be adversely impacted by heavy livestock use. Refer to the following references for additional information: Mayben & Moskowitz (1996), Osborn et al (1987) and United States Army, Corps of Engineers (1988). The HTNF has entered into a Memorandum of Understanding with the Nevada SHPO to address livestock management issues as they pertain to cultural resources. Refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview for a discussion of what the MOU entails. Recent (2004) cultural resource studies in the Santa Rosa District have shown that sites have been impacted through soil compaction, disturbance of surface sediments, trailing, stream bank degradation and artifact breakage.

Comment #: 17-71

COMMENT TEXT:
Page 3-4 & Table 6T

The authors need to explain canopy density. They present it as a percentage, but density measures number per unit area. Why should a stream have 100% cover of vegetation? A landscape should have a suite of successional stages of vegetation. If this is present then there will never be 100% cover on a stream. Complete canopy cover will remove large amounts of water through evapotranspiration. This may not be desired on small streams that typically have low summer flows. This one size fits all criteria is not likely to be successful or appropriate.

USFS RESPONSE:
This is information obtained during GAWS Stream surveys and is therefore being displayed in this table. Canopy cover is a measurement that is used under this survey method. This document did not choose or set the measurement standards under this protocol.

Comment #: 17-72

COMMENT TEXT:
Two data points do not define trend, particularly if measurements occurred at different times of the years or when flow rates were different due to annual variations in weather. Unless these parameters are provided reasonable interpretations of the data in table 6T cannot occur when comparing between two years.

USFS RESPONSE:
Thank you for your comments, however, the information contained in Table 6-T is a summary of a large volume of survey data that has been included in the Project Record. This information is not based upon two data points which should have been evident from the table. The surveys involved many transects on many different streams over multiple years.

Comment #: 17-73

COMMENT TEXT:
The data in Table 6-T cannot be interpreted because it is unknown whether they are means (average of multiple samples) or a single measurement. If they are single measurements they are invalid data for any comparison. Biologists compare means derived from a sample of a population, not individual data points. If they are means, the sample size should be provided, along with confidence intervals and any other descriptive statistics (median, range, standard deviation, etc.) that could be calculated. Reliability of the data increases as sample size increase. A mean from two or three samples is as pointless as a value from a single sample.

USFS RESPONSE:
Pages 3-3 and 3-4 state that values are averages and implies that more than one sample was taken. Number of stations (with five transects per station; and 50 feet between transects) varied according to length of stream. Values used in the document were transcribed from Nevada Department of Wildlife stream survey reports. For the purposes of this document and the final decision, support statistics (i.e., sample size, range, standard deviation, etc.) are unnecessary; and insufficient points exist for rigourous, multi-year analyses beyond the general observation of trend.

Stream survey reports and other data are available as part of the Project Record.

Comment #: 17-74
COMMENT TEXT:
It would be very beneficial to have appendices that describe the methodology for measurements such as canopy density, vegetation bank stability, and ungulate damage rating. Also, have an appendix that describes the methodology/process for sample site selection. These is insufficient information in the EIS for the reader to evaluate any methodology.

USFS RESPONSE:
Canopy density, vegetation bank stability and ungulate damage rating are all measurements used during the Fisheries GAWS Surveys in the area. These surveys are conducted by the Nevada Department of Wildlife under their approved survey protocals. Survey sites for the GAWS surveys are long-term established sites that were established by the Nevada Department of Wildlife. Continued use of these sites allows managers the ability to monitor potential changes over time. The Nevada Department of Wildlife has the complete records of these surveys, while the Forest Service has copies of most of these surveys within our central files.

Comment #: 17-75
COMMENT TEXT:
The data do not show a downward trend for Siard Creek. Canopy density has improved dramatically. Bank vegetation stability is down form 70.7 to 67.9, which is a small amount.

USFS RESPONSE:
Refer to (page 3-22) for surveys indicating a downward trend in Siard Creek. Bank vegetation, soil stability show declines in addition to a Proper Functioning Condition rating of “non functional”.

Comment #: 17-76
COMMENT TEXT:
It seems very peculiar that Indian Creek and the S. Fork of Indian Creek have the exact same values for ungulate damage rating in both survey years. Particularly if more than one data point were collected and averages obtained. This is almost a biological impossibility.

USFS RESPONSE:
The data for the ungulate damage table is correct. The outcome of similarity is a coinsidence. In 2000, the NDOW survey for Indian Creek sampled 14 habitat stations; and the SF Indian Creek sampled 10 stations. The surveys, although collecting different numbers, did calculate a summary of 33.4% for ungulate damage.

Comment #: 17-77
COMMENT TEXT:
For the S. Fork of Indian Creek it is unclear how 91% of the stream bank can be covered with vigorous vegetation (i.e., above minimal level to define optimum), yet 33.4% of the bank is considered damaged from ungulate use. This seems not only contradictory but incompatible. For ungulate damage rating, this makes the reported decline from 4.4 to 33.4 very suspect, as well as the conclusion of downward trend.

USFS RESPONSE:
We will review the information and update it if a mistake has been made, however, As we stressed above, this is information which was collected during GAWS Surveys and is being summarized in this document.

Comment #: 17-78
COMMENT TEXT:
Water quality

How do you know the stated algal growth was excessive? There are no direct or indirect data presented.

USFS RESPONSE:
The statement concerning excessive algae growth will be deleted from the document.

Comment #: 17-79
COMMENT TEXT:
Water quality

Table 7-T: Authors need to define levels of grazing. Qualitative terms have different meanings to different people. Recent (Three mile creek) is a meaningless term. Also, as stated "grazing use" implies all animals, not just livestock. For the purpose of clarity the NV Water Quality Standards should have < or > symbols.

USFS RESPONSE:
Levels of grazing and water quality standards will be removed from the Table 7-T. The applicable water quality standards will be discussed in the text of the document.

Comment #: 17-80
COMMENT TEXT:
Water Quality

The authors should clearly note that moderate and heavy levels of grazing do not appear to result in adverse water quality in those streams for which data exists.

USFS RESPONSE:
No longer applicable, see response to letter #17, comment #79.

Comment #: 17-81
COMMENT TEXT:
Water quality

This is an accurate and correct statement. The question becomes, why is it applied only to fecal coliform and not the remainder of very limited data throughout the EIS? This situation suggests that FS has very different standards for different environmental attributes, for what qualifies as sufficient data to conduct an analysis. If so, these different standards with respect to sample size need to be explained and justified. If not, they have the appearance of being arbitrary.

USFS RESPONSE:
The quantity of data needed to draw a conclusion depends on the parameter being measured. Most protocols for bacteria sampling suggest multiple samples.

The statement in the Draft EIS was made to ensure that although Fecal Coliform numbers were extremely high in Cabin Creek, it was based upon limited samples and cannot be used to document a violation of state water standards due to the lack of a minimum number of samples as required by state rules and regulations.

Comment #: 17-82
COMMENT TEXT:
Water Quality

Turbidity and sediment: There is another very possible interpretation for the stated high sediment levels. Sediment from both ungrazed and grazed landscapes is added to streams every year during the spring runoff. Sediment is also removed from the gravel bottom during periods of high flow. Periodic high flows for prolonged periods are necessary to remove the bulk of sediment from channel bottoms. During drier periods (last 3-5 years) spring runoff still occurs but often for shorter periods and with lower peak flows (total and duration). Sediment is still added to the system, but flows are likely insufficient to remove all deposition from the previous year from the channel bottom. Over several years sediment builds in the gravels and will remain until a "flushing event" removes it. This

possibility must be considered and if rejected, done so because appropriate data exist to support other conclusions.

USFS RESPONSE:
It is possible that the current drought is causing reduced stream flows and, thus, reducing the ability of Project Area streams to remove excess sediment that has naturally accumulated. While this is likely, livestock grazing may also be contributing to the sedimentation problem. As discussed in the EIS, many of the drainages in the Project Area are non-function or functional-at risk. Many of the streambanks also have a less than optimal ungulate damage rating. This livestock-caused disturbance reduces a riparian areas ability to catch sediment before it is washed into the channels by overland flow, and also makes streambanks more vulnerable to erosion.

Text has been added to the EIS addressing the potential effects of drought on sediment accumulation.

Comment #: 17-83
COMMENT TEXT:
Water Quality

Table 8T: There is no information about sample size and how sample sites were selected. Site location is critical for interpretation of the data. The situation immediately upstream of the sample location can exert substantial influence on the data.

USFS RESPONSE:
To keep this document at a manageable size, Table 8T is only a summary of the data. Raw data as well as detailed information about sample size, location (including maps and photographs), and methodology are available to interested persons in the Project Record located in the Santa Rosa Ranger District office.

Comment #: 17-84
COMMENT TEXT:
Page 3-13, paragraph 7: If data do not exist about compaction levels then is should be so stated. Also, it would be beneficial to describe the management conditions which would be expected to result in high and moderate compaction, and the ecological response of the vegetation and soils. None of this type of information is presented in this section or in Chapter 4, pages 4-5 to 4-14.

USFS RESPONSE:
Page 3-12, paragraph 7 is a discussion about potential soil compaction depending on the type of soil, vegetation, drainage, ect.

Indicators of livestock-caused compaction include rooting depth, soil saturation, and soil structure. Eco-plot field data for these indicators are proved in Table 10-T.

Comment #: 17-85
COMMENT TEXT:
Water Quality

Paragraph 8 and onto page 3-13: It needs to be clear that potential for high erosion rates exist without livestock grazing. The question is: how does each of the alternatives affect these inherent natural erosion potentials? That analysis is not conducted in this EIS because the site specific information about livestock grazing is not presented. There is not even basic information about where areas of high erosion potential are located, and if these locations are grazed. For areas that do not overlap grazing is not an issue. How much of the planning area falls under this condition? For areas where high erosion potential exists and grazing occurs, what is the potential for grazing to exacerbate the situation? This requires an analysis that includes season of use, levels of utilization, composition and structure of vegetation and how this interacts with the period erosion is likely to occur. The data needed to conduct this level of analysis are not included in the EIS.

USFS RESPONSE:
A map of soil types and a related table showing detailed data about potential erosion rates are provided in the Appendix C. The total acreages suseptable to wind and water erosion are provided in the text of Chapter 3 and Table 9-T in Appendix C. WEPP computer model erosion rates, based on actual livestock caused vegetation and soil conditions observed in field plots, are used to estimate the

potential effects of grazing on soil quality. Season of use and levels of utilization are not needed in the WEPP computer model.

Comment #: 17-86
COMMENT TEXT:
Water Quality

Page 3-13; Human influences, second paragraph: You need to cite your sources, and specifically provide data relevant to the Santa Rosa Ranger District.

USFS RESPONSE:
A citation for Reid (1993) was added to the text. Field data documenting a impaired soil quality is already provided later in the Soil Quality section.

Comment #: 17-87
COMMENT TEXT:
Water quality

Paragraph 3: None of the indicators identified are typically measured and none appear to have been collected on the ecological study plots. This would suggest their use here is inappropriate.

USFS RESPONSE:
Thank you for your comment, however, we disagree and feel that the indicators discussed in this paragraph are used appropriately in this context.

Comment #: 17-88
COMMENT TEXT:
Water Quality

Table 10-T: Information on methodology (site selection, number of samples, sampling methods, analytical methods and statistics) would be appropriate and would help interpret the results. This is particularly so for the rooting depth data. It is hard to believe that locations with only 1% bare ground have plants with roots that extend no more than 6-9 cm deep. Manning et al. 1989 looked at 4 community types (wet to dry meadow) and found rhizomes, large roots, and fine roots to depths of 30-40 cm (last interval sampled, not deepest roots). Locations with very little bare ground generally have vigorous plants. It would seem they have much deeper roots than reported in this table. An expansion of methodology is warranted.

USFS RESPONSE:
The root depths are not the total depth of the roots, but what we are referring to as the effective rooting depth or the depth of roots that are holding the surface of the soil in place, which we have defined as:

Root depth: This is the highest depth to which fine and very fine (less than 2 millimeters in diameter) roots are many (more than 5 roots per square centimeter) (Schoeneberger and others 2002). This attribute is measured by digging a hole with an augur or shovel and counting roots within a square centimeter on the vertical surface of the upper soil horizons.

Record the depth at which many roots grades to common or few (less than 5 fine or very fine roots per square centimeter) roots. Take at least 10 measurements (one per hole) and average to get a mean depth. The fine and very fine roots function by holding the soil surface together, thereby protecting it from erosion. See Appendix C, Field Book for Describing and Sampling Soils: 2-56 and 2-57 for descriptions of roots (Schoeneberger and others 2002).

Comment #: 17-89
COMMENT TEXT:
water quality

The document would benefit substantially if there was discussion about how the matrices were developed, specifically the values used to determine functional, does not meet desired function, and crosses below threshold. There is no ecological justification/support for these values anywhere in the EIS. The reader cannot determine if they are valid values or were arbitrarily selected.

USFS RESPONSE:
Attached are the notes outlined to initiate the creation of the matrices:

Assumptions for creating matrices:

There is a need to have a desired function description as a goal to work toward in NEPA.

Criteria used to determine levels of function as compared to desired need to be measurable.

The assessment methodology needs to be fairly quick to complete.

We will begin with the Modoc example and tailor it to our Forest.

The assessment matrices will supply a general status for an ecologic site. Determination of actions needed, such as grazing standards, will be developed by a group of management specialists.

Assessments will encompass soil erosion/compaction, vegetative composition, habitat suitability, hydrologic function, noxious weeds and indicators of change for key habitat groups.

Key habitat groups for assessment include: wet meadows, dry to moist meadows, aspen, cottonwood, Wyoming big sagebrush, mountain big sagebrush, mountain brush, black sagebrush, pinyon-juniper, tall forb and white sage.

The matrices will be used for short-term assessment, not long term monitoring, however, the assessment tools used may be appropriate for monitoring.

The assessments will be science-based, utilizing research and long-term monitoring data.

The Humboldt-Toiyabe matrices were developed using matrices developed by the Modoc National Forest for their range rescission analysis as a template. The Modoc used methodology based on seral states and proper functioning condition. This Forest felt that since the Proper Functioning Condition protocol specifically states that it should not be used as a decision-making tool due to the subjective nature of the attributes, we should make our matrices as quantitative as allowed with available information and research. We also wanted to steer away from a dependence on seral states and use a more updated approach of states and transitions and natural range of variability.

We have existing, data supported scorecards or ratings for riparian (aspen, cottonwood, willow, meadow), sagebrush and aspen sites that supply levels of function, condition, seral states or altered regimes. The wording has always been a problem and will continue to be in the study of ecosystems, but the hierarchical rating scheme in these data sets remains fairly uniform regardless of word usage.

For the types which we did not have existing research level analysis, we relied heavily upon the NRCS ecological site descriptions and descriptions developed by other research or rating efforts. These documents provided information on ratings or levels of function within the ecological types. Since the Forest is large and spread across the state, many of the attributes needed to be averaged to get a general view of the various ecosystems occurring within a group. The resulting attributes were compared with existing studies on the Forest to determine if the values were comparable with known collected data. Once completed the draft matrices were reviewed internally by selected field specialists and then externally by a group of scientists. They have not been published in a final form and received a review by the scientific community at large, as the Forest would like to add some additional groups and wanted at least one field season to identify possible issues with the field protocol.

The terms “Functions as desired, Does not meet desired function and Crosses below a threshold” have since been changed to “Functional, Functioning at risk and Functioning below threshold.” These changes were made because it was thought that the original usage of “desired” was too emotionally charged and that we needed to acknowledge that function continues even if the ecological state is altered.

Comment #: 17-90
COMMENT TEXT:
Why is there no information/data about upland plant communities? This should be included.

USFS RESPONSE:
Information and data which is currently available regarding upland plant communities has been included in Chapter 3 and in the Project Record. The Matrices outline a process to collect information regarding upland communities to determine the condition of those communities.

Comment #: 17-91
COMMENT TEXT:
Page 3-18: Fisheries, last paragraph: All of these data should be provided in this EIS. The full sets of data are needed to conduct any analysis of livestock effects on fisheries.

USFS RESPONSE:
Too much data exists to be included as part of this EIS document.

Referenced documents and data can be found as part of the Project Record.

Comment #: 17-92
COMMENT TEXT:
Dry periods may restrict fish populations to refugia, but it is inappropriate to state that recent drought has reduced LCT from their historical range.

USFS RESPONSE:
On page 3-18, drought is listed as one of several factors (including fire, habitat loss, alteration of stream channels and morphology, degradation of water quality, and hybridization or competition with non-native fish species) which has contributed to reduction of LCT from their historic range in the Project Area.

Drought in particular has been implicated in Nevada Department of Wildlife 1990's stream survey reports. Following an extended drought, these survey reports noted a marked decrease of trout in general, and LCT particularly (including possible extirpations), and concluded the lack of water to have been the most probable cause of the declines.

Comment #: 17-93
COMMENT TEXT:
Fisheries

The introduction of trout species that out compete or inter-breed with LCT is a much larger influence on LCT populations than drought, grazing, or fire.

USFS RESPONSE:
Thank you for your comment.

Comment #: 17-94
COMMENT TEXT:
Fisheries

Table 11-T: Sample size and other summary stats (e.g., some measure of dispersion of data) should be included. They are necessary to properly interpret mean values.

USFS RESPONSE:
Numbers used in the document were transcribed from Nevada Department of Wildlife stream survey reports. For the purposes of this document and the final decision, support statistics (i.e., sample size, range, standard deviation, etc.) are unnecessary; and insufficient points exist for rigourous, multi-year analyses beyond the general observation of trend.

Stream survey reports and other data are available as part of the Project Record.

Comment #: 17-95
COMMENT TEXT:
Water quality

The authors appear to be using damage and use as interchangeable words. They are not interchangeable and such use creates inaccurate conclusions.

USFS RESPONSE:
Please see response to letter #17, Comment #71.

Comment #: 17-96
COMMENT TEXT:
Fisheries

It is unrealistic to have 100% canopy coverage as optimum. This is impossible to achieve except at very small spatial scales.

USFS RESPONSE:
Agree. Canopy density at 100% over large spatial scales may be unrealistic. The document on page 3-4 did recognize this fact, referring to the number as an ideal. Clarification has been made in the text that the number assigned to canopy density is a goal, with greater amounts of canopy preferable over lesser.

Comment #: 17-97
COMMENT TEXT:
Fisheries

Table 12-T should include historical data. Previous text (page 3-18) states it exists. Then an analysis could be conducted looking at relationships between climatic data and fish populations. Stream flow data could be included if it is available.

USFS RESPONSE:
Historical data is available in the Project Record.

Available fish population and streamflow data (where present) is insufficient to perform the level of requested analyses.

Comment #: 17-98
COMMENT TEXT:
Wildlife

Page 3-30: Wildlife: This section rambles between State of Nevada, and entire forest, and the Santa Rosa Ranger District. The primary focus should be on the Santa Rosa Ranger District and to a degree how it fits in the Forest Plan. The intent of the section is unclear because it wanders between administrative units.

USFS RESPONSE:
This species crosses administrative boundaries and has state-wide and national significance. The intent of this section is to set the stage for the existing situation regarding this species not only at a local level but also at a state and national level.

Comment #: 17-99
COMMENT TEXT:
Wildlife

Map 8-M is not dominant sage grouse habitats, but areas used most frequently.

USFS RESPONSE:
Thank you for your comment, however, we disagree.

Comment #: 17-100
COMMENT TEXT:
Page 3-34, Map 9-M. Need better delineation of Project Area from area not part of the project.

USFS RESPONSE:
Thank you for your comment.

Comment #: 17-101
COMMENT TEXT:
Wildlife

Page 3-35: It would be appropriate to identify those forbs that grouse use that typically increase with livestock grazing, and the community types in which they typically occur.

USFS RESPONSE:
Forb type preference by sage grouse are listed on page 3-35 of the DEIS. Examples of forbs that sage grouse are expected to use in the Project Area that also increase under heavy grazing include the common dandelion and common yarrow.

Comment #: 17-102
COMMENT TEXT:
Wildlife

In Chapter 3, the Affected Environment, I would expect to see specific data about sage grouse (population size, trends, changes, etc) and/or the habitat/landscapes they use. There is none presented.

USFS RESPONSE:
Information regarding population and maps of sage grouse leks are included in the Project Record and the DEIS. General habitat characteristics and requirements are found in chapter 3 of the DEIS on pages 30 – 35.

Comment #: 17-103
COMMENT TEXT:
Wildlife

Page 3-36; Mule Deer: It would seem appropriate to have spatial information for seasonal use areas, migration corridors, critical brush fields for foraging, etc. This could be used in a GIS analysis with livestock data (which also should be included in the document) to address the 3 alternatives. This approach is not found in the EIS.

USFS RESPONSE:
Habitats used by mule deer on the Santa Rosa Ranger District are described on page 3-36 of the DEIS. Mapping of these types of habitats is difficult because mule deer habitat patterns change and are affected by climate, snowfall and other environmental factors. No critical mule deer range was identified in the Project Area. Potential effects of the "Current Management/No Action" alternative to mule deer are described on page 4-20 of the DEIS. In addition, analysis for the effects to the "Proposed Action" alternative and the "No Grazing" alternative is described on pages 4-26 and 4-31 respectively.

Comment #: 17-104
COMMENT TEXT:
The intent of photographs 9P through 11P is unclear. All ecologists know vegetation changes across time. The FS needs to clarify the intent of these pictures and link them to an analysis: the intent of an EIS.

USFS RESPONSE:
The intent of these photos were to show changes across time at this location.

Comment #: 17-105
COMMENT TEXT:
Page 3-47, "Manning and Padget suggest…": Manning and Padget is not original research about the effects of grazing but rather a community classification effort. For this analysis to be analytical the authors need to obtain original research about the importance of post-grazing re-growth for maintenance of the site. The end of the opening sentence states, "… replenish spring growth." To replenish means to restock or re-supply. If the intent is to mean restock or re-supply spring growth from the current growing season, the question becomes why? The past is done. Management's concern is the current and future. If a specific amount of residual matter is necessary to maintain site integrity for the following year then that should be stated. This may occur through re-growth if water is available, or by managing grazing to remove stock before a minimum threshold is reached. Re-growth may or may not be necessary, but the EIS implies it should be mandatory.

USFS RESPONSE:
It may or may not be necessary to allow wet meadow community types to re-grow, assuming there have been enough residual plant material remaining upon the time livestock leave the unit. Utilization

levels are developed in order to provide for plant health. If plants are over utilized, this may have an effect on plant vigor and root growth the following season.

The EIS does not imply re-growth is mandatory, but is does have utilization levels for specific vegetative communities (see Appendix B)

Comment #: 17-106

COMMENT TEXT:

Page 3-48, Dry – to Moist Meadow Community: Authors need data to support contention that these meadows have been impacted by grazing more than any other vegetation community. Unsubstantiated statements such as this need justification and support, otherwise it becomes one person's subjective observation vs. another person. No one will win.

USFS RESPONSE:

This statement was made by Forest Service Professionals who are familiar with the Project Area and have reviewed the information available regarding these types of habitats. It is appropriate for Professional resource managers to draw conclusions such as this after reviewing the area and information available. This conclusion is further supported when you consider that the areas in question are where cattle tend to concentrate more than any other locations. These were also the areas that were historically considered sacrifice areas due to the heavy concentrations of livestock use.

Comment #: 17-107

COMMENT TEXT:

Page 3-49, Cabin Creek: "livestock grazing in Cabin Creek has increased soil compaction…." This statement suggests that current livestock grazing is the issue. There has been no compaction or soil water data collected (or at least presented for analysis) to support this statement.

USFS RESPONSE:

Attached below is the response to Letter #8, Comment 15, which also asks about riparian studies in the Cabin Creek area.

Riparian ecoplots were located in the lower end of the North Fork Cabin Creek and Cabin Creek drainages, as these were areas identified as areas of concern by Santa Rosa District employees. The concerns on these two drainages were stream downcutting, lack of willow regeneration and poor species composition and growth of riparian species.

On the North Fork Cabin Creek, one riparian ecoplot was established about 400 feet upstream from the Windy Gap to Hinkey Summit road. At this location the stream was downcut about four feet. The meadow adjacent to the stream channel was sampled. The soil indicated that prior to incision, the soil had a fairly high water table and the meadow was likely wet in the root zone throughout the summer. At the time of sampling, the meadow had lost the water table to a point below the rooting zone leaving plants primarily dependent on surface precipitation. Analysis of this meadow was completed to assess the stability of the system to hold itself together should a flood event occur.

The results of the analysis for the North Fork Cabin Creek meadow are:

The amount of bare ground is 25%, which is too high for a meadow system, as compared to other plots completed in riparian meadows across the Forest. Meadow systems tend to have little bare ground due to the ability of these sites to produce abundant growth. Bare soil is exposed to erosion.

The average effective rooting depth was 14 centimeters, which is good for this type of meadow system. Roots to this depth will help hold surface topsoil in place.

The soil structure was subangular blocky in a portion of the upper horizon indicating some moderate-level compaction of topsoil has occurred.

Vegetative cover is 32% grasses and grass-likes, 61% forbs and seven percent shrubs (willow and sagebrush). Meadows in good condition have a much higher percent of grass and grass-likes than forbs. Fibrous-rooted grasses and grass-likes are adapted to hold soil in place during flooding, whereas tap-rooted forbs allow for a greater movement of soil.

The forbs, such as cinquefoil, dandelion and yellow pea, occurring in high amounts on this site are plants that survive well with disturbance, but lack ability to stabilize soil or provide forage value. Yellow pea can be poisonous to livestock.

This area has experienced downcutting of the stream channel which has altered this site from wet to mesic meadow and it appears to be moving toward dry meadow.

It is my guess that the high bare soil, the vegetative composition favoring undesirable forbs and the stream incision put this meadow into non-functioning and thus placed the North Fork Cabin Creek in non-functioning condition.

As for Cabin Creek, the riparian ecoplot in the mesic meadow had a high amount of bare soil (17%), indications of some moderate level compaction, a low percent cover of grasses and grasses (35%) and high percentage of forbs (65%) and a large cover of forbs adapted to survive disturbance, but lacking in soil protection or forage values. This site had cover of curly dock, yellow pea and larkspur, all of which can be poisonous to livestock.

Two willow sites were sampled on Cabin Creek. These two sites had a low cover of willow, one with 7% and one with 3% willow cover. Both sites had aquic soils (high water table for most of the summer), but the grasses and grass-like species were almost all moist system species, not wet system species. The ratio of forbs to shrubs and graminoids was high in both locations, which is fine for willow systems, however there was a high percentage of undesirable annuals and weedy species. The two sites had larkspur, wild iris, curly dock, yellow pea and tansy mustard, which can be poisonous to livestock. Rooting depth was moderate and bare soil was high, but these two factors are not as definitive on willow sites, as these sites vary in flood activity and amount of water at high levels in the soil.

Comment #: 17-109

COMMENT TEXT:

Page 3-50, Martin Creek: It would be better to provide data about the proportion of the stream reach that has bare ground and bank trampling. Prevalent is an ambiguous word that cannot be included in an analysis. The photograph shows degradation at one point, but how representative is it of the entire reach on the Forest. Multiple random samples would be necessary to provide an unbiased data set for an adequate analysis.

USFS RESPONSE:

There is more than one section of Martin Creek that has significant bare ground and stream bank trampling. The word prevalent in this context of “Bare ground and stream bank trampling is prevalent also along the stream”, indicates that the conditions occur in more than one area. It is also impossible to display every photograph of every stream reach in this DEIS.

Refer to (page 3-5) GAWS data for streams and condition ratings for a more thorough data analysis.

Comment #: 17-110

COMMENT TEXT:

Page 3-51 and 3-52: Small aspen stands are management issue that can easily be corrected by wooden pole fences. The question that has not been asked and is appropriate is: what percentage of the aspen stands are classified as small, and what percentage of these have management issues related to the herbaceous understory and aspen regeneration. That data is lacking, hence any analysis of this management issue is absent.

USFS RESPONSE:

Fencing every little problem aspen stand is a band-aid approach to addressing management issues. Pole fences are not a part of this proposal and are outside the scope of this analysis. The proposed action would implement the matrices on representative aspen stands to determine the condition of those stands. If the problems within a specific allotment or pasture are limited in size and scope and most stands are healthy then the matrices should reflect that.

Comment #: 17-111
COMMENT TEXT:
Water Quality

The photos on page 3-52 contradict the impression given on page 1-10. Aspen appears to have increased substantially since 1966. This would suggest that current livestock use is not having an adverse effect on the aspen community at the scale of the planning unit, but point problems probably occur. Point problems require point solutions.

USFS RESPONSE:
In the one location identified on page 3-52 you are correct, however this may or may not be the case throughout the Project Area. The condition ratings which will be obtained through the matrices will be a better method to make this determination of condition.

Comment #: 17-112
COMMENT TEXT:
Page 3-54. Wyoming big sagebrush is not the most drought tolerant form of sagebrush. Of the woody sagebrush species that would be bud sagebrush. Black sagebrush probably is more drought tolerant than Wyoming sagebrush. Wyoming sage generally is more drought tolerant than the other big sagebrush species.

USFS RESPONSE:
Thank you for your comment.

Comment #: 17-113
COMMENT TEXT:
Water Quality

Page 3-67 and subsequent pages: Prehistoric Resources: The information provided is interesting but how does it help with an analysis of the effects of past and proposed livestock grazing on cultural resources. Are all the sites identified in areas grazed with livestock. If not, what proportion may be affected by livestock grazing? Have any of the sites been entirely lost due to grazing? Specifically, how have these sites and their information (or potential information) been affected by livestock grazing? What specific types of resources have been found? The information value of an encampment used across long periods of time is much different than a site where an arrowhead was found. There is no information provided here that can be used to conduct an analysis of how livestock grazing affects cultural resources.

USFS RESPONSE:
The description of Prehistoric Resources in the Existing Condition chapter sets the stage for the analysis to be presented in the Environmental Consequences chapter. Grazing in the Santa Rosa Mountain Range has been active since the 1800s. Typically cultural resources are found in resource rich areas on gentle slopes in proximity to water. These are also places where livestock tend to congregate. We have no way to determine if a site has been entirely lost due to grazing since there would be no remaining evidence of the site. Sites can provide a wealth of information to an archaeologist through artifact placement, features and other scientific analyses, such as obsidian hydration and sourcing. Livestock grazing has the potential to displace artifacts either vertically or horizontally from their original placement and break artifacts to the point that scientific analysis cannot be conducted on the item. Refer to Chapter 3 under Heritage Resources for a description of the site types that have been found to date on the district. The National Park Service has developed a set of criteria to evaluate the significance of cultural resource sites. These criteria are applied to all sites found during any cultural resource study conducted on the forest. Currently the HTNF has a Rangeland Memorandum of Understanding (MOU) with the Nevada State Historic Preservation Office to address rangeland management issues as they pertain to cultural resources. The tasks identified in the MOU will be used to analyze the impacts that livestock management has on cultural resource sites.

Comment #: 17-114

COMMENT TEXT:

The most obvious missing data/information is that for livestock grazing. No livestock data are presented in Chapter 3, yet that is the land use being analyzed in this EIS. How do you analyze a land use on other resources when there is no information about the proposed land use?

USFS RESPONSE:

That information is presented in Chapter 2 of the Draft EIS for the No Action Alternative since that is what is being analyzed here. Additional information has also been included in Appendix A of the document and within the Project Record.

Comment #: 17-115

COMMENT TEXT:

Chapter 4, Environmental Consequences. This Chapter lacks anything close to an analysis of any of the alternative actions. It is essentially a rehash of chapter 3 without any data.

USFS RESPONSE:

Thank you for your comments; however, we disagree.

Comment #: 17-116

COMMENT TEXT:

Water Quality

Water Quality: The bottom line is has livestock grazing impaired water quality for any designated use, and has it had an adverse effect on the population of any species? State water quality standards have been met There are several mechanisms that may be responsible for sedimentation and insufficient data are available to determine which mechanisms are primarily responsible. There is no data linking any water quality parameter to any population changes for any organism.

USFS RESPONSE:

See response to letter #17, comment #119.

Comment #: 17-117

COMMENT TEXT:

Water Quality

Page 4-2, Direct and Indirect Effects: Please explain the following statement, “Under this alternative, the water quality conditions would at least remain unchanged, possibly recovering at their current rate, or, more likely, degrade further.” This appears to read that if existing management continues water quality probably will remain the same (i.e., meet state standards), may continue to improve, but most likely will continue to degrade (despite currently meeting state standards). There is a statement in this sentence that conditions are improving, yet language in chapter 3 and other locations would suggest otherwise. All the bases are covered but the team seems awfully confused by the situation. The phrase “degrade further” implies that water quality is already degraded. If state standards are met, how is water quality already degraded. Substantial clarification is necessary.

USFS RESPONSE:

The analysis for water quality in Chapter 3 indicates that despite meeting state numerical water quality standards, stream conditions have degraded in some areas due to a total or partial loss of stream function and/or undesirable levels of sediment. Other areas of the Project Area, however, are slowly recovering from past heavy grazing levels. State and Federal laws for water quality are not limited to just numerical standards; there are also narrative anti-degradation standards applicable to all surface waters.

Comment #: 17-118

COMMENT TEXT:

Water quality

Cumulative Effects: None are presented. This is largely supposition and speculation based on research results from other areas. How is the water quality issue from mining a cumulative effect related to grazing.

USFS RESPONSE:

Cumulative effects are disclosed throughout chapter 4 for a variety of resources. Much of the information used is directly tied to the Santa Rosa Ranger District. Sites such as the Buckskin and National mines have a serious impact upon water quality in those drainages. These effects by definition are cumulative to any effects on water quality that may result from livestock grazing which is the primary activity being assessed here. The Forest Service is required to disclose these cumulative effects.

Comment #: 17-119

COMMENT TEXT:
Water Quality

Page 4-4, Alternative 3. If water quality standards are already being met how would no grazing have the most beneficial effects? What data are there to support any of these statements about speculated improvements? This is classic speculation and supposition.

USFS RESPONSE:
While water quality is generally within State numerical standards, State and Federal laws have narrative anti-degradation standards. The data analysis in Chapter 3 shows that the Project Area streams have been degraded by livestock-caused sedimentation and streambank disturbance. Many of the drainages are also non-function or functional-at risk due to livestock grazing and, therefore, these waters are clearly at risk of degrading to a point where they don't meet State numerical standards.

Comment #: 17-120

COMMENT TEXT:
Soil Quality

There is no analysis provided in this section. There are long "shopping lists" about what can happen in heavily grazed situations but no specific analysis about what is happening, and what the effects are (or may be for A2 and A3) in the planning area. These "shopping lists" are not an analysis. This section does not meet the intent of NEPA.

USFS RESPONSE:
The potential effects on soils from the three alternatives in the Draft EIS are disclosed in Chapter 4 of the Draft EIS. These effects are based upon literature, soil surveys, professional judgment and other information.

Comment #: 17-121

COMMENT TEXT:
Soil quality

Page 4-5 Trampling. Please note that all grazing by any animal at any level causes trampling. The question is, is the amount of trampling resulting in permanent injury? That is what should be analyzed in this section, and which is not.

USFS RESPONSE:
This section in the draft EIS is a cause and effect relationships discussion related to soil indicators as disclosed on page 4-5, and is intended to disclose general impacts resulting from livestock grazing. More specific effects discussions by alternatives are disclosed on pages 4-8 through 4-14 of the Draft EIS.

Comment #: 17-122

COMMENT TEXT:
Soil Quality

Page 4-12, middle of page. The response of plant vigor and root biomass is more than just changing utilization levels. It involves season of use, frequency of defoliation, and intensity of defoliations. Root biomass does not always decline, but it almost always is redistributed. The authors have not used the full breadth of literature available to evaluate the situation in the Santa Rosa Ranger District.

USFS RESPONSE:
We agree that range science involves more than just utilization levels. The sentence "Root biomass does not always decline, but is almost always redistributed." does not make sense. My experience is

that if root mass is redistributed it is put into creating more shoots and leaves to take advantage of photosynthesis while the sun is shining and it is warm. If the plant is stressed enough to make it unable to compete with more aggressive plants or plants with low forage value, then the less desirable plants are able to expand their root mass and it is therefore redistributed. He lists no cites to describe to what he is referring.

Comment #: 17-123

COMMENT TEXT:

Page 4-15: What data is there to support the contention that hemlock and the other species are indicative of soil compaction. Also, what is meant by "seen along"? A measure of abundance is necessary to provide an ecological interpretation of their presence. These species can occur in ungrazed situations, as well as overgrazed situations. One or two plants mean these species were seen, but does not indicate a management or ecological problem. Regular presence in sample plots would indicate and issue to be very concerned about. There is no accurate measurement of the situation, thus the statement, "seen along" is meaningless.

USFS RESPONSE:

This statement was a documented observation made during a stream survey. Typically these species do occur in disturbed areas (wild rose, hemlock, curly dock, spikerush, stinging nettle) and can be stated so without scientific data to support the observation.

Comment #: 17-124

COMMENT TEXT:

Sediment and Substrate Embeddedness. This attribute cannot be properly evaluated without long-term baseline data for variation in these streams, and its relationship with climate and runoff. It is likely many streams in the Santa Rosa planning unit more than optimum levels of sediment most years, because adequate flushing flows are uncommon. Additional data are sorely needed.

USFS RESPONSE:

Agree. More data is needed, but such research is outside the scope of this document and would require too much time to conduct prior to a final decision. However, the data which is present does show, in general, that sediment levels may be elevated. Additional data will continue to be gathered in future years.

Comment #: 17-125

COMMENT TEXT:

Wildlife

Page 4-19, Wildlife, Sage grouse: There is no data presented to support the following statement, "Past grazing practices and current utilization standards, particularly in springs and meadows has resulted in a reduction of the quantity of quality of forbs available for attracting insects for sage grouse hens and their broods, and a reduction in the amount of cover available to successfully escape from predators". The North-central Nevada Sage Grouse Planning Group's qualitative risk assessment did not identify forbs as being deficient, let alone livestock grazing adversely affecting the abundance of forbs. The lack of herbaceous cover was not identified as a current risk of moderate or high level. The Forest Service participated in these risk assessments and did not object to the final determinations. The contrary conclusion is this EIS requires explanation.

USFS RESPONSE:

This section was very specific related to past practices and only to springs and seeps within the Project Area. This section did not indicate that this was a concern in all habitats in the Project Area. This concern relates primarily to areas like springs and seeps where cattle tend to concentrate and may impact the availability of forbs in the area. It is very likely that forbs are adequate within adjacent uplands. As far as the participation during the North Central Sage grouse Planning effort, the Forest Service did participate during this effort and did raise concerns regarding the potential effect of livestock grazing on habitats. Our agency, however, did not have the final decision on these calls and this is a collaborative and local effort where we are only one participant.

Comment #: 17-126

COMMENT TEXT:

Page 4-20, Mule Deer: What are the limiting factors for deer, which are most and least important, and how are these affected by livestock grazing (current and proposed) in the planning unit. That analysis has not been conducted and is necessary in this section.

USFS RESPONSE:

Analysis or the potential effects of the "Current Management/No Action" alternative on mule deer are described on page 4-20 of the DEIS.

Comment #: 17-127

COMMENT TEXT:

If species are not present, and there is no evidence that past or current livestock grazing prevents their presence, then the clear conclusion is livestock grazing is not an adverse impact.

USFS RESPONSE:

Wildlife species which are not present in the Project Area and for which there is no potential habitat were not carried through this analysis. In the event that species are not present but potential habitat is then the potential impacts of each alternative on those habitats are disclosed.

Comment #: 17-128

COMMENT TEXT:

California Big horn sheep: What is the conclusion about competition from livestock with big horn sheep? Again, all the bases are covered but the team seems confused. Given existing livestock numbers, does competition with sheep only occur (or most likely to occur) when sheep numbers reach/exceed a specific level, because density dependent dispersal will force more sheep into areas typically used by livestock. What is the calculated population at which this occurs? At what population size do density dependent factors begin to self-regulate the sheep population? How many sheep are desired and how does that population size interact with livestock grazing? These are the analytical questions that should be asked and answered in this section.

USFS RESPONSE:

The effects of the "Current Management/ No Action" alternative on California big horn sheep are described on pages 4-34 and 4-24 of the DEIS. Although there is no data available specific to the Project Area it was determined that minimal to no competition would likely occur between cattle and California big horn sheep due to different habitat use.

Comment #: 17-129

COMMENT TEXT:

Vegetation

Page 4-36, Vegetation: It is inappropriate to cite Holechek et al. 1999 in the section about riparian communities. Every study he reviewed was from an upland setting. The conclusions are not transferable to riparian situations, which have entirely different environmental parameters.

USFS RESPONSE:

Refer to (page 4-36) for the reference from (Clary and Webster, 1989, and Ratliff, 1987) for utilization standards relating to riparian areas.

Comment #: 17-130

COMMENT TEXT:

Range developments

Page 4-38, Range Developments: The best method to move livestock from streams, seeps, and springs is through off-site water development. Limiting future water developments is self-defeating management action, and one that provides no flexibility. Flexibility is the key to successful management in a heterogeneous, fluctuating environment. This statement contradicts the Forest Services mission of good management and stewardship.

USFS RESPONSE:
Future water developments are not a part of the proposed action or the alternatives and are therefore outside the scope of this analysis. This analysis and the subsequent decision does not preclude future water developments, however, those developments would require site specific NEPA Analysis.

Comment #: 17-131
COMMENT TEXT:
Page 4-51, Obscured scorpion plant: How can direct and indirect effects occur to a species that is not known to occur in the planning areas.

USFS RESPONSE:
Obscured scorpion plant is a R4 Forest Service Sensitive Species that may occur in the Santa Rosa Ranger District and must be analyzed in the EIS. Because surveys are incomplete for obscure scorpion plant on the Santa Rosa Ranger District, we have assumed that potential habitat is occupied for this effects analysis using the best available information.

Based on limited surveys in the Project Area there are no known locations of the species, however, there is considerable potential habitats and the species may occur within the Project Area and has not yet been located. The effects disclosed in chapter 4 of the Draft EIS are potential effects.

LETTER #: 18
BY: RON CERRI, REBEL CREEK RANCH

Comment #: 18-1
COMMENT TEXT:
The Martin Basin DEIS states that the streams in the Rebel Creek Allotment are properly functioning and there is no mention that livestock grazing is impairing any of the other functions. Therefore, I question why the Forest Service is proposing this action?

Therefore, I believe the riparian issue has already been addressed, and I see no need to change what has been fixed and is working. The main reason for this exchange is because if the fences were put on the property lines instead of on the ridges as they presently are, maintenance would be extremely difficult because snow would destroy the fences every year. For these reasons, I am asking that the Forest Service reconsider their proposal for making the lower three miles of Rebel Creek a Riparian pasture.

USFS RESPONSE:
The only stream in the Rebel Creek and Buffalo Allotments where PFC was completed is Falls Canyon Creek. No PFC Assessment was completed on Rebel Creek, however, the Draft EIS does state that Falls Canyon Creek is representative of streams within these Allotments. One of the primary reasons for the condition of the streams in the Buffalo Allotment is because the allotment is stocked at a very appropriate level for the conditions. The Rebel Creek Allotment has been vacant for many years and has received limited to no grazing during that time period. The proposed action establishes a riparian pasture in Rebel Creek, however, it does not close the area. If at a later date it is determined that a fence is needed, the location of the fence would be based upon site specific conditions. The No Action Alternative does not include the Rebel Creek Pasture.

Comment #: 18-2
COMMENT TEXT:
Trails

Because of this point, I would like to request that Rebel Creek Canyon be taken off Forest Service maps as an access point to the trail.

USFS RESPONSE:
Recreational trails and associated maps are not a part of this proposal and are therefore outside the scope of this analysis.

Comment #: 18-3

COMMENT TEXT:

I believe the boundary lines in the maps in the DEIS need to be examined. The maps 12-M and 17-M, for example, appear to show private property owned by Rebel Creek Ranch included in the Martin Basin DEIS boundary.

USFS RESPONSE:

Thank You for your comment. The Rebel Creek Ranch Property should not be included within the Project Area, this was an oversight on our part. Maps 1-M and 2-M accurately show your property as being private and are shown as white.

Comment #: 18-4

COMMENT TEXT:

The Forest Service Proposed Action concerns me because some of the data is questionable. The changes proposed will not, in my opinion, achieve the objectives the Forest Service believes they will.

USFS RESPONSE:

Thank you for your comment.

Comment #: 18-5

COMMENT TEXT:

I can foresee that the preferred action will lead to further reductions in livestock grazing. I am a third generation Humboldt County rancher, and at fifty years old, the one correlation I have observed is that there has been, through the years, a steady decrease in allowed grazing by both the BLM and Forest Service that has lead to a steady increase in range fires leading to property damage.

USFS RESPONSE:

The proposed action would reduce utilization standards on uplands and in some riparian areas. Standards may also be reduced in other areas if it is determined that the conditions of those areas are not functioning as desired. This change would be made to increase the rate of recovery in those areas. The proposed action does, however, allow for adaptive management whereas changes may be made in grazing management to improve management effectiveness and also improve the condition of the resources. Although grazing management may be an influencing factor in wildfires on the landscape, there are many other factors that influence the steady increase in wildfires such as climate change, vegetation changes, drought, increased human caused fires, and over 100 years of fire suppression. The conclusions you draw are not as straight forward as they may appear and involve other factors that could potentially affect resources.

Comment #: 18-6

COMMENT TEXT:

Therefore, I urge the Forest Service to consider Alternative 4, the proposal that was submitted by the affected permittees. This proposal not only provides for the improvement and sustainability of the resources but also affords economic stability to the livestock producers.

USFS RESPONSE:

The Forest Service has accepted Alternative 4 and will analyze it within the Final EIS.

LETTER #: 19
BY: LYMAN N. YOUNGBERG, YOUNGBERG TRUST RANCHES

Comment #: 19-1

COMMENT TEXT:

During the last four years, a significant drought condition has been present and prior to this in the years 1989 through 1992 drought was also a major influence contributing to dry conditions in meadow areas. Livestock did not contribute to the drought however could exacerbate conditions when dry. As a renewable resource, it is as the name implies and will renew with water or biannual rest (rest rotation).

USFS RESPONSE:
Your comments are correct regarding drought, however, livestock grazing in these conditions can have additional adverse impacts on various resources including, but not limited to riparian habitats, streams, wildlife habitats, soils, aspen and more.

Comment #: 19-2
COMMENT TEXT:
I feel that this statement is subjective in nature rather than objective. Most cottonwood trees occur in lower elevations on private and BLM land and smaller, younger trees are evident. The very existence of the younger trees indicates that previous livestock impact was not significant. After all in the early 1900's by your own data there was around 37,000 AU's prior to the forest being established. This was cut to about 30,000 AU"s in 1912 and at present is cut to a little over 10,000 AU"s which represents a 79% cut from pre USFS and a 66% or 2/3 rds reduction from post USFS. If livestock had a substantial impact on cottonwoods there would be none left at this point.

USFS RESPONSE:
We do not agree with your conclusion that if livestock grazing had a substantive effect on cottonwoods there would be none left. We believe that historical grazing practices had a significant effect upon cottonwood communities on the Santa Rosa Ranger District. Current grazing does continue to have an impact due to browsing and trampling of young trees, however, that impact is considerably reduced from historical levels.

Comment #: 19-3
COMMENT TEXT:
Fires and flooding I do feel pose a major impact to all of the riparian concerns

USFS RESPONSE:
Thank you for your comment, we agree.

Comment #: 19-4
COMMENT TEXT:
I feel this is very much under rated statement and further in the report is downgraded to a cultural life style. In fact the livestock industry provides in excess of 45% of all agricultural income state wide and amounts to (2001 figures Nevada Agriculture Statistics) over $192,000,000.00. Of this approximately 15% is derived from Humboldt County and approximately 30% of this results from livestock run on the Santa Rosa Ranger District. This is a significant amount of revenue to Federal, State, County and the city of Winnemucca. For every AU that is removed from a permittees allotment there is a decrease in annual income as well as a decrease in the value of the base ranch property by present market values ranging from $2,000.00 to $2,500.00 per AU.

USFS RESPONSE:
Thank you for your comment, your information and concerns will be considered when developing the Record of Decision for this project.

Comment #: 19-5
COMMENT TEXT:
Desired Conditions is a subjective term which may be interpreted by different individuals in different ways.

USFS RESPONSE:
Thank you for your comment. For this project, desired conditions were used from the Humboldt National Forest Land and Resource Management Plan. Desired conditions were also developed for various vegetative communities and input was received from a wide range of resource professionals.

Comment #: 19-6
COMMENT TEXT:
An increase in utilization should be included in some circumstances to mitigate the potential for disastrous fires.

USFS RESPONSE:
Upper utilization standards have been established by the Humboldt National Forest Land and Resource Management Plan, Amendment 2.

Comment #: 19-7

COMMENT TEXT:

Functioning level of some meadows and streams granted are in some cases below " desired "levels however to reduce time of use and or numbers on the entire allotment is a over simplified and draconian measure when simply fencing problem areas out would solve the problem.

USFS RESPONSE:

Under the Proposed Action, where conditions are not at desired levels, utilization levels for that pasture would be reduced. Numbers and seasons would not be reduced under this proposal, however it may result in that outcome. Livestock operators could also increase riding and herding activities to reduce utilization levels in specific locations or adjust salting locations to change livestock patterns. Pasture rotations could be adjusted to reduce the amount of time spent in specific pastures or other management options may be available to minimize the potential impacts from this change. These are options available under a more adaptive management approach which is included in the Proposed Action.

Comment #: 19-8

COMMENT TEXT:

Forest Plan Direction

Goal # 6: Trail systems. I feel this is impractical and unnecessary as developing trails would not only be further human encroachment and damage to the landscape but would be totally useless in the winter months when snowed up.

Cattle have been making their own trails for years and in more natural and logical locations keeping many willow infested creeks available to hunters and fishermen as well as providing ranch people access to their livestock.

Goal # 9 Provide a pleasing landscape. What you see is what it is! This appears to me to be somewhat superfluous in nature.

Goal# 10, 13, 14, 15. All these philosophical goals are fine however they are so broad in nature as to render them meaningless on an objective basis and should not be used as criteria for reductions in livestock use or time.

Goals # 16, 17, I agree with stated goals.

Goal # 18 . I agree, with the exception as mentioned above that reducing livestock numbers and or time of use is not the answer when generally 90% or better of the allotments are not riparian or stream areas. Development of upland water troughs and fence out sensitive areas is a more logical approach.

USFS RESPONSE:

These are all goals established under the Humboldt National Forest Land and Resource Management Plan.

Comment #: 19-9

COMMENT TEXT:

I feel that the issues and definitions listed are academically correct but lack an unbiased explanation.

Consequently the statement "Livestock grazing has the potential to affect the composition, structure and health of aspen stands "while theoretically correct is not totally objective nor true.

USFS RESPONSE:

Thank you for your comment. As you stated, these issues are theoretically correct, and we believe may also be true for portions of the Project Area.

Comment #: 19-10

COMMENT TEXT:

Heritage Resources

Comment: Again Potential is not a matter of fact! How in the world is the Forest Service going to protect cultural sites when they don't even know where they all are located? What is the intrinsic value of these "sites"? A chipping ground or a grinding stone do not denote a cultural site but a

temporary camp of which there are thousands. Also, what structures are exposed to cattle rubbing and chipping off gingerbread or masonry? This appears to be needless trivia included as a filler or to satisfy some other redundant gov. regulation.

USFS RESPONSE:
Please refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview. Currently the HTNF has a Rangeland Memorandum of Understanding (MOU) with the Nevada State Historic Preservation Office to address rangeland management issues as they pertain to cultural resources. Implementation of the tasks identified in the MOU fulfills this agency's requirements under Section 106 of the National Historic Preservation Act. When sites are found they are evaluated for their significance to be listed on the National Register of Historic Places. The National Park Service has developed a set of criteria to use to evaluate cultural resources. Sites found within the district are evaluated according to these criteria thus affording a greater weight to unique sites that will indeed provide archaeological information important to the history of an area as opposed to those sites that are typical and provide redundant information. The section of the DEIS referring to cattle impacting cabins has been deleted.

Comment #: 19-11
COMMENT TEXT:
Dispersed Recreation and Trails

Comment: Again, Livestock has the potential…….

This is not a national park here, cattle have been here since the inception and have a lawful right to be here. The presence of cattle may offend some visitors but on the whole most people that come to the Santa Rosas are aware of this fact and still enjoy the out door experience. Cattle do keep trails open in many canyons providing access through otherwise willow choked creeks.

USFS RESPONSE:
The Forest Service has the responsibility to disclose the potential effects of the proposed action and various alternatives. The fact of the matter is that livestock grazing may affect the recreational experience of some users of the National Forest. You are correct that livestock grazing is a permitted activity on National Forest System Lands and may keep some trails open. It is our responsibility under this analysis to disclose the potential effects either positive or negative.

Comment #: 19-12
COMMENT TEXT:
Alternative 1 No Action:

Comments: I feel that this alternative is not actually "NO Action" as many of the concerns expressed in the "Purpose and Need For Action" are incorporated in allotment management plans.

USFS RESPONSE:
We do not understand your comment. The No Action Alternative is the current management with no changes and is disclosed in Chapter 2 of the Draft EIS.

Comment #: 19-13
COMMENT TEXT:
Alternative 2 Proposed Action

Comments: The statement that Permitted numbers and seasons would be modified to meet standards, along with the statement that "It is estimated that AUM's may be less than the Current Management System" and "the amount is unknown but would be based on monitoring" is a vague statement and appears to be a destabilizing factor to the livestock industry.

USFS RESPONSE:
The first concern in your comment is actually correct for any of the action alternatives. If any allotment is unable to meet standards as identified in the permit, the season of use and/or permitted numbers could be adjusted through administrative processes to ensure that standards are met. For the second part of your comment, under the Proposed Action there is potential that standards could be reduced, particularly in areas where resources are not at desired condition. In this scenario there is also the potential for a corresponding reduction in season or numbers as a result. The potential for this effect to occur on livestock operations in each allotment varies significantly. Under the Proposed

Action allotments would be managed under an adaptive management approach where rotations and techniques may be adjusted and could potentially minimize any potential adverse effect upon the permittee from lower utilization standards

Comment #: 19-14

COMMENT TEXT:

Postage stamp size monitoring is not a true indicator of range condition throughout an allotment and if concerns are present for smaller areas this can be mitigated through fencing and water distribution.

USFS RESPONSE:

Monitoring and application of the Matrices would occur over a larger area and in sites that are representative of that particular vegetative community within the pasture or allotment in question.

Comment #: 19-15

COMMENT TEXT:

This appears to be redundant as most allotments are on a rest rotation where- by none of the allotment is grazed every other year.

USFS RESPONSE:

Under the proposed action this may no longer be the case. Allotments could be used in a deferred rotational system rather than a rest rotational system. This mitigation measure ensures that no pasture will be continuously used during the hottest months of the year, every year.

Comment #: 19-16

COMMENT TEXT:

Potential habitat could be anywhere. Actual habitat should be documented and if necessary fenced off. What puzzles me is the very fact that these so called sensitive plants exist at all after 100 years of grazing and more over why should there be concern for them at this point when grazing levels are the lowest in Forest history?

USFS RESPONSE:

The Forest Service is required to ensure the continued survival of these plant species and also to disclose the potential effect of our management actions on these plants or potential habitats. These effects are disclosed in Chapter 4 of the Draft EIS.

Comment #: 19-17

COMMENT TEXT:

Alternative 3 No Grazing

Comment: No grazing is not a viable alternative for numerous reasons such as the economic well being and stability of the livestock industry and individual financial security to the families as well as lending institutions. No grazing would also result in extreme build up of fuels resulting in catastrophic wild fires which in turn would result in the loss of all habitat, create extensive erosion and silting of streams.

USFS RESPONSE:

Thank You for your comments. This alternative is one of three that is fully analyzed within the Draft EIS and will be one of four alternatives included within the Final EIS.

Comment #: 19-18

COMMENT TEXT:

Sage Grouse Nesting habitat. It is stated that Under current management 65% util. is for upland areas would leave less cover than 50% under Proposed Action. The problem I have with this is that we don't obtain 65% utilization anywhere on the up lands therefore I don't see any lack or decrease in cover for any of the mentioned items, ie. Leks, brood rearing, and grouse habitat.

USFS RESPONSE:

You are generally correct as we rarely see the 65% utilization in upland habitats. We have observed some occasions where it is reached on allotments and in those cases the effects disclosed are accurate.

Comment #: 19-19

COMMENT TEXT:

Also, but not least of all, Sage Grouse Population decreases have never been scientifically tied to higher utilization levels. On the contrary most data indicates that sage grouse populations were at their largest when cattle and sheep numbers were much greater than present time.

USFS RESPONSE:

For the Project Area you are correct that there is no information to indicate that higher utilization standards have led to population decreases. Higher utilization levels can affect potential habitat by reducing forbs, reducing hiding and nesting cover and other potential impacts. I would caution you regarding drawing conclusions about sage grouse numbers being highest when livestock numbers were also high and drawing that conclusion that higher livestock numbers equals higher sage grouse numbers. Many wildlife professionals would argue that the subsequent declines in sage grouse populations may be the result from the adverse impacts that occurred following the heavy grazing during the early 1900's.

Comment #: 19-20

COMMENT TEXT:

Social and Economic: Under Current Management it is stated that individual economic effect would be as is at $ 613,683.00. This figure was derived in 1997 when cattle prices were significantly lower than now. Present use in the Project Area is approximately 5000+ cattle, using an 80% weanable calf crop less 15% for replacements would leave around 3,200 marketable calves with a present value of around $1,440,000.00.

USFS RESPONSE:

See response to letter #19, comment #4.

Comment #: 19-21

COMMENT TEXT:

I have no problem with the definitions for PFC however I feel that the application of these standards for the determination of the condition of a specific stream is subjective and questionable.

USFS RESPONSE:

We also agree, which is why the Forest Service developed the matrices used under the Proposed Action. These matrices involve measurements and factors which are more quantifiable and less subjective than PFC. PFC Assessments have value, however, they did not meet all of our needs related to the proposed action.

Comment #: 19-22

COMMENT TEXT:

The high Width/Depth ratio for some creeks could be attributed to flood damage where scouring occurred filling previously deeper channels with gravel and rock as occurred in Eight Mile Creek, Three Mile Creek and others.

USFS RESPONSE:

You may be correct. There are many factors that can affect width to depth ratios including floods, roads, livestock grazing, channel type, and others.

Comment #: 19-23

COMMENT TEXT:

Canopy Density on Three Mile is listed as roughly one half of the desired level. Again the topography and geology of the area is also a limiting factor. Photos taken in 2002 reveal good canopy density where there is a possibility for such.

USFS RESPONSE:

The information you are commenting on was obtained during GAWS surveys in the area and were included in the Draft EIS and considered during this analysis.

Comment #: 19-24

COMMENT TEXT:

Bank Vegetation was considered good or excellent but the numerical rating of 56% is misleading as the optimum is stated as 80%.

USFS RESPONSE:

Thank You for your comment.

Comment #: 19-25

COMMENT TEXT:

Ungulate Damage Rating is by definition physical damage that animal hoofs cause to stream banks: For Three Mile Creek I have a real problem with this rating at 46.9 when the optimum is 0 to 20%. No 1 as can be seen from the attached photos these banks were created by flood waters. No.2 Due to the loose gravel and rocky alluvial type soils any open spot not occupied with vegetation will have the tendency too slough. No. 3 there was less cattle in the area and for a shorter period of time in 2002 than other years and utilization studies and photos taken by Intermountain Range Consultants indicate little use on either creek, riparian or up lands. A note to this is that contrary to FS statements that slight use on the uplands was due to the permittee not riding and pushing cattle out of the creeks however in the same statement they stated that riparian utilization was only 15% that being due to "much of the vegetation along the stream are forbs and annuals, which are not palatable to livestock" (USFS letter File Code 2230 Aug.1, 2002).

USFS RESPONSE:

The ungulate damage rating is data obtained under the GAWS Stream surveys and has been included in the Draft EIS and considered during the analysis of this project. The information used in the Table in question was obtained during a 1997 survey of the area and not in 2002.

Comment #: 19-26

COMMENT TEXT:

The report states that there are no gauging stations on any of the creeks in the Project Area however that it is likely that livestock grazing will have or has had a detrimental effect and impact water quantity. This appears to be a biased statement which may lead readers not familiar with the area to incorrect conclusions.

USFS RESPONSE:

The professional making this statement used literature and professional knowledge to draw a conclusion that in watershed that are not in desired conditions, livestock grazing may affect water quantity. He did however clarify that the level of impact is not known.

Comment #: 19-27

COMMENT TEXT:

Water Quality – excessive algae growth during 2002 grazing season. Might not this be due to drought conditions resulting in lower water levels and consequent higher temps.?

USFS RESPONSE:

The statement concerning excessive algae growth has been deleted from the document.

Comment #: 19-28

COMMENT TEXT:

Water Quality

Level of grazing use in Three Mile is listed as "Heavy". This is absolutely incorrect and attached photos will document this as does the letter mentioned above (File Code 2230).

USFS RESPONSE:

This was a general observation made during collection of the water quality data. The photos that you reference were taken during mid grazing season and may not reflect the conditions existing when the samples were taken.

The level of grazing use column in Table 7-T will be deleted.

Comment #: 19-29
COMMENT TEXT:
DPS Distinct Population Segments - West Side Flat Creek Allotment

Comments have been made in the preceding pages concerning conditions on Three Mile Creek namely stream bank vegetation, canopy and ungulate damage.

The following six pages are photographs taken on Three Mile Creek in July 2002.

USFS RESPONSE:
Thank you for your comments and photos, they will be considered during this analysis.

Comment #: 19-30
COMMENT TEXT:
Chapter 4 Environmental Consequences

I see a continuing trend with the Service towards limiting livestock use and references towards increased recreation, and philosophical goals some of which are not physically possible unless the weather pattern were to change dramatically.

USFS RESPONSE:
Both livestock grazing and recreation uses are permitted activities that may occur on National Forest System Lands. The Forest service must manage both uses to ensure that resources are protected and conserved for the future.

Comment #: 19-31
COMMENT TEXT:
Social and Economic Consequences- Livestock Management Alternative 1: Current Management /No Action

The economic values as stated in this section were based on 1996 figures and were obtained from Resource Concepts, Inc. the main problem here is that the cattle market has had over a 90% increase since then which would result in the following:

10,000 hd. on USFS @ 80% weanable calf crop = 8,000 calves

Deduct 15% for replacements or 1500 calves = 6500 calves to be sold at ave. weight of 450 lbs. @ 1.00 = $ 450.00. If every dollar is attributed to Humboldt County, then

$ 450.00 x 6500 hd. = $ 2,925,000.00 divided by 30,000 AUM's = $ 97.50 per AUM.

Total economic value to Humboldt County would be twice this or $ 195.00 per AUM x 30,000 AUM's or $ 5,850,000.00

USFS RESPONSE:
See responses to letter #19, comments #4.

Comment #: 19-32
COMMENT TEXT:
No Grazing

As set forth in the above statement the loss to individuals ,community, county and state would be staggering. The value of each and every ranch associated with a grazing permit would be destroyed. Most if not all would be reduced to small uneconomical units with debt loads based on their original carrying capacity.

In addition, the statement is made that ranchers would have to lease other pasture in order to run their cattle. This would not be possible in many situations. When a ranch is purchased along with a grazing permit be it BLM or USFS, that permit is part and parcel of the purchase price as the operation is dependant upon this forage for the most of the year. Consequently the purchaser of a ranch has already paid for the pasture. Ranches are purchased and financed according to their carrying capacity, consequently if you loose your permit you have basically lost the ranch. The base properties are sufficient to maintain one's livestock while not on the range however without the permit the value of the ranch is reduced 50 to 75% or more.

USFS RESPONSE:
See response to letter #19, comment #4 and #17.

LETTER #: 20
BY: ROSE STRICKLAND, SIERRA CLUB

Comment #: 20-1
COMMENT TEXT:
[Thank you letter regarding range tour]

USFS RESPONSE:
Thank you for participating in the range tour

LETTER #: 21
BY: HOWARD F. KALE, JR.

Comment #: 21-1
COMMENT TEXT:
1. that the Forest Service reconsider their proposal for making the lower three miles of Rebel Creek a Riparian pasture.

USFS RESPONSE:
See response to Letter #18, Comment #1

Comment #: 21-2
COMMENT TEXT:
2. that Rebel Creek Canyon be taken off Forest Service maps as an access point to the trail.

USFS RESPONSE:
See response to Letter #18, Comment #2.

Comment #: 21-3
COMMENT TEXT:
3. that the boundary lines in the maps in the DEIS need to be examined.

The maps 12-M and 17-M, for example, appear to show private property owned by Rebel Creek Ranch included in the Martin Basin DEIS boundary.

USFS RESPONSE:
See response to Letter #18, Comment #3.

Comment #: 21-4
COMMENT TEXT:
4. that because of significantly questionable data and unsupported conclusions therefrom, the changes propsed will not achieve the objectives the Forest Service believes they will, and will lead to will lead to further unwarranted reductions in livestock grazing and increased fire damage.

USFS RESPONSE:
Thank you for your comment, your concerns will be considered during our analysis.

Comment #: 21-5
COMMENT TEXT:
5. that, through the years, a steady decrease in allowed grazing by both the BLM and Forest Service that has lead to a steady increase in range fires leading to property damage. The range can and must be grazed to prevent, or at least minimize, the inevitable damage caused by fire to the indicators (stream condition, water quality, riparian vegetation, etc.) cited in the DEIS.

USFS RESPONSE:
See response to Letter #18, Comment #5.

Comment #: 21-6
COMMENT TEXT:
I urge the Forest Service to consider Alternative 4, the proposal as submitted by the affected permittees.

USFS RESPONSE:
See response to Letter #18, Comment #6.

LETTER #: 22
BY: DAN CASSINELLI, HUMBOLDT COUNTY COMMISSION

Comment #: 22-1
COMMENT TEXT:
It is the recommendation of the Commission that Alternative 4 be included in the Martin Basin DEIS. Further, the Commission recommends you look favorable at this alternative as it is the preferred alternative of the Humboldt County Commission.

USFS RESPONSE:
Thank you for your comment. Alternative 4 will be included in the Final EIS and will be fully analyzed with the other three alternatives.

LETTER #: 23
BY: ROSE STRICKLAND, SIERRA CLUB

Comment #: 23-1
COMMENT TEXT:
1. DEIS FORMATTING: the document is very difficult to read and review. There is no table of contents, list of maps and figures, or index and the glossary omits many terms used in the document.

The sketchy outline on p. 1-1 could be expanded to form a more detaled table of contents, with a list of maps and figures. The glossary could also be expanded to include terms such as "riparian pasture."

USFS RESPONSE:
Thank you for your comment, we will do our best to correct these problems in the Final EIS.

Comment #: 23-2
COMMENT TEXT:
a. AMPs: Do any of the allotments have AMPs? Which ones? How old are they? Were they implemented? Have they been monitored for effectiveness?

Given the poor conditions of many of the streams and riparian areas, it would be hard to conclude that the AMPs are meeting "desired future conditions" or meeting Forest Plan goals.

When and how will the old AMPs be revised?

USFS RESPONSE:
The following allotments have allotment management plans.

Buttermilk 1979, Granite Peak 1973, Indian 1986, Martin Basin 1967, West Side Flat Creek 1976, Rebel Creek 1979, Buffalo 1977and Bradshaw does not have a plan. These plans were implemented and have since become very outdated and may not be meeting desired future conditions.

Allotment management plans will be developed for each allotment following the decision of the Environmental Impact Statement.

Comment #: 23-3
COMMENT TEXT:
b. Suitability/capability: How many acres of these national forest lands are not suitable or capable for livestock graxing - especially on the steep western slopes?

When were the suitability and capability analyses conducted? Have the extensive burned lands on this District been removed from the total areas suitable or capable for livestock grazing?

USFS RESPONSE:
Limited suitability and capability analysis were conducted under the Humboldt National Forest Land and Resource Management Planning process. Employees reviewed this information and have provided additional information regarding this subject. This information will be included in the Project Record. Lands burned under wildfires have not been removed from the acreages capable or suitable for livestock grazing.

Comment #: 23-4
COMMENT TEXT:
c. Stocking rates: When did the USFS last determine proper stocking rates.

How long ago were domestic sheep permits converted to cattle and horse permits? What were the conversion rates?

When and how will the USFS determine proper stocking rates using the propsed new approach?

USFS RESPONSE:
Stocking rates have not been determined or updated recently for most of the allotments in the Project Area, with exception of significant reductions on the Buffalo Allotment in the 1980's and 1990's. Sheep permits were converted to cattle permits in the 1950's or before and since then many of the allotments have had reductions. A current conversion rate does not exist and would not present an accurate conversion today with the reductions since the 1950's.

Under new allotment management plans, stocking rates will not be addressed. Using the adaptive management approach focuses on resource condition and flexibility in livestock management.

Comment #: 23-5
COMMENT TEXT:
3. MONITORING DATA: We could find little of the decades of monitoring data which should have been collected on these allotments. Even the stream survey data appear quite dated.

USFS RESPONSE:
Monitoring data varies by resource area. Stream survey data is one of our most complete sets of monitoring information. Some of the information was included in the document, additional information is available in the Project Record. Additional monitoring data for other resource areas has also been included in the Project Record even if it was not in the Draft EIS.

Comment #: 23-6
COMMENT TEXT:
a. How will the historic monitoring data be used in the proposed allotment assessments?

USFS RESPONSE:
Under the proposed action, the matrices will be the primary method of determining condition of resource and subsequent management decisions. Historic monitoring data will be used for ongoing monitoring and to assist in establishing trends on the allotments.

Comment #: 23-7
COMMENT TEXT:
b. Were the Forest Plan standards and guidelines incorporated into the annual operating instructions for the allotments?

Please explain how the Forest Plan standards were enforced.

USFS RESPONSE:
Forest Plan Standards and guidelines are incorporated into term grazing permits and annual operating instructions for all allotments. Each year priority drainages and allotments are identified to monitor adherence to grazing standards. Utilization is then monitored in key areas within those allotments to ensure compliance with standards.

Comment #: 23-8
COMMENT TEXT:
4. VACANT ALLOTMENTS: There is very little information provided on the 2 vacant allotments, the Bradshaw and Rebel Creek allotments, any rationale for the USFS proposal to authorize grazing in them, or whether alternatives of using the 2 allotments for grassbanking or as experimental control areas which are not grazed were considered by the USFS.

USFS RESPONSE:
A great deal of thought and consideration was placed on the future of the two vacant allotments. During the preparation of the Proposed Action it was determined that the lower 3 miles of Rebel Creek in the Rebel Creek Allotment should not be authorized for grazing under this alternative due to the steep nature of the canyon and other considerations. The Bradshaw Allotment is very conducive to grazing and would fit appropriately within either of the two adjacent allotments. As for the remainder of the Rebel Creek Allotment it was determined that grazing would be authorized, however, within which allotment(s) is yet to be decided. Grass banks could still be an option for portions of this allotment

Comment #: 23-9
COMMENT TEXT:
a. How long have these two allotments been vacant?

USFS RESPONSE:
Bradshaw allotment has been vacant since 1994. Rebel Creek allotment has been vacant since 1988.

Comment #: 23-10
COMMENT TEXT:
b. Why are they vacant?

USFS RESPONSE:
Bradshaw allotment is vacant due to a permit cancellation and Rebel Creek is vacant due to a permittee unable to qualify for the grazing permit.

Comment #: 23-11
COMMENT TEXT:
c. How many years has grazing occurred since the two allotments have become vacant?

USFS RESPONSE:
At times over the past decade or more limited livestock grazing has been authorized within portions of these allotments by adjacent livestock permittees. There was no increase in numbers and the actions were taken to reduce impacts in other areas. A temporary permit was issued to a BLM permittee for a portion of the Rebel Creek Allotment for two years in 2001 and 2002. This is very similar to the grass bank idea and was done to assist the BLM to provide rest on a recently burned allotment.

Comment #: 23-12
COMMENT TEXT:
d. Please explain how the two allotments can be "vacant" and "grazed?"

USFS RESPONSE:
See response to Comment #23-11.

Comment #: 23-13
COMMENT TEXT:
e. What are the current conditions on the allotments?

Have the allotments met recovery objectives?

Are the streams at proper functioning condition?

Are vegetation communities at desired future conditions?

USFS RESPONSE:
Please see (page 3-3) for Riparian and Stream Channel Conditions on Dutch John Creek, page (3-5) for GAWS data fro Bradshaw allotment, page 3-9 for water quality for parts of Road Creek, page (3-26) & (3-64-65) about allotments, and (3-50) for an overview of the stream group for Dutch John Creek.

Comment #: 23-14
COMMENT TEXT:
f. In chapter 4 (p. 4-1) , the discussion of direct and indirect effects appears to indicate that re-introducing grazing in these two allotments will adversely affect fisheries habitat, yet the USFS is proposing to re-authorize grazing on these vacant allotments. Please explain this contradiction.

USFS RESPONSE:
You are correct that by authorizing grazing within these two vacant allotments there may be impacts on fisheries habitats. There is no contradiction here in the analysis. The Forest Service may authorize activities on National Forest System Lands that may result in impacts to resources. Under NEPA we are required to disclose what those effects are to the best of our knowledge, which we feel we have done in Chapter 4. During the development of the proposed action and alternatives we have developed mitigation measures and standards which we feel will minimize the impacts of these activities on the various resources on the District.

Comment #: 23-15
COMMENT TEXT:
g. What process will the USFS use to determine whether all or parts of the two vacant allotments would be added to existing allotments?

What are the opportunities for public participation?

USFS RESPONSE:
Once a decision is made on the Final EIS and if the final decision authorizes grazing within all or parts of these two allotments, then determinations of how these two allotments will be incorporated into Allotments or Grazing rotations will be made through an administrative decision. The District and Forest may consider comments provided from the public, livestock permittees or agencies prior to this decision, however, it is not likely that there will be a formal public scoping process.

Comment #: 23-16
COMMENT TEXT:
h. We strongly urge the USFS to not re-authorize grazing in the vacant allotments unless the allotments are meeting desired future conditions.

Instead, the USFS should use the opportunity of no current permittee and designate all or part of the allotments for no livestock grazing and use the nongrazed areas as restoration research areas and as experimental control areas.

USFS RESPONSE:
Thank you for your comments, we will consider your concerns during this analysis.

Comment #: 23-17
COMMENT TEXT:
5. ADAPTIVE MANAGEMENT: While (on p. iii) a statement is made that "the proposed action is designed to provide for 'adaptive management' that would allow for flexibility to respond to changing conditions,: no other information is provided in the dEIS on how adaptive management would be implemented.

Please provide more details on implementation of adaptive management.

USFS RESPONSE:
Additional information regarding adaptive management will be provided within the Final EIS.

Comment #: 23-18

COMMENT TEXT:

6. DROUGHT: Please include an expanded discussion on how the continuing drought would impact the administration of the grazing program; I.e., changes in livestock numbers or seasons of use, etc.

USFS RESPONSE:

Thank You for your comment, however, your concerns are related to an issue that is administration. This analysis is to determine whether or not to authorize livestock grazing on these allotments and under what standards and conditions. Drought and other similar matters are administrative issues that are addressed annually and are therefore outside the scope of this analysis.

Comment #: 23-19

COMMENT TEXT:

1. FOREST PLAN DIRECTION: While the document lists the goals, desired conditions, and Santa Rosa management area prescriptions, it does not disclose whether some or any of the these goals, desired future conditions or prescriptions have been met since 1986.

Please provide this information in the final EIS.

USFS RESPONSE:

These goals and desired conditions are fairly broad and general in nature. Based upon a review of each of them we believe that progress has been made towards each of these goals and desired conditions to varying degrees. Some have shown better progress than others. For example, under Goal #24, we feel that significant progress has been made towards the control of noxious weeds and have seen significant improvement in coordination across administrative boundaries since 1986. This is in the face of significant wildfires that resulted in considerable weed problems. In other areas such as Desired Conditions for Wildlife, the progress has been slow and we have had numerous set backs which make progress more difficult. Large wildfires that result in serious loss of winter ranges, riparian habitats and other resource impacts have made progress slow and presented many set backs.

Comment #: 23-20

COMMENT TEXT:

2. PROPOSED ACTION: The proposed action includes the creation of two "riparian pastures" but does not define the term, nor disclose how management goals and objectives would be set for riparian pastures, nor event the exact locations of the proposed riparian pastures.

USFS RESPONSE:

Under the proposed action, the Rebel Creek riparian Pasture is actually a large exclosure where grazing would not be authorized. The Cabin Creek Riparian Pasture will be exactly that. Livestock Grazing would be authorized however the pasture would create a situation where management would be easier to ensure that resource goals for riparian management could be met ensuring accelerated recovery in those areas. Because insufficient information is available at this time regarding the exact locations of the boundaries and the fences, these actions will be approved under future NEPA analysis once the details are available.

Comment #: 23-21

COMMENT TEXT:

a. Why were these two areas proposed as riparian pastures, but none of the other dozens of riparian areas on the forest?

USFS RESPONSE:

The Rebel Creek location was proposed related to the decision to not authorize grazing in the lower 3 miles of Rebel Creek under the Proposed Action. The Cabin Creek Riparian Pasture has support from a livestock permittee as well as the Forest Service, EPA and Nevada Department of Environmental Protection. The Cabin Creek Pasture will involve relocation of pasture boundaries with improved riparian area management as a primary consideration.

Comment #: 23-22

COMMENT TEXT:

b. What are the conditions of these two proposed riparian areas and what is the rationale for authorizing any livestock grazing if desired future conditions are not currently being met in the areas?

USFS RESPONSE:

Current Information regarding the condition of Rebel Creek is not available. Information from GAWS surveys regarding Cabin Creek and Siard Creek within the proposed Riparian Pasture are shown on Page 3-5 of the Draft EIS. In general these streams are showing improvement, however, there are problems within the drainages in which this riparian pasture will help to recover at a faster rate. The Forest Service is not required to be at desired conditions in order to authorize livestock grazing. As stated in a previous comment we are required to disclose the potential effects of those actions.

Comment #: 23-23

COMMENT TEXT:

c. What are the costs of the additional fencing (and maintenance) required for these riparian pastures?

d. Who would pay?

e. Who would maintain?

USFS RESPONSE:

Costs related to any riparian pasture fencing is currently not known. Estimates can be provided during the NEPA analysis to authorize those structures. Forest Service, Livestock Permittees and grant money will be used to construct the fences. Livestock permittees will be required to maintain the fences.

Comment #: 23-24

COMMENT TEXT:

f. What are the environmental impacts of additional fences on wildlife, especially Sage Grouse?

USFS RESPONSE:

From our early estimates, the Cabin Creek riparian pasture will likely result in a long term reduction in the number of miles of fences on the Martin Basin Allotment. Fences do impact wildlife including sage grouse. The cumulative effects of fences on wildlife are disclosed on page 4-24 of the Draft EIS. The direct and indirect effects of these riparian pasture fences will be disclosed in the future NEPA Analysis once the Formal proposals are developed and locations selected.

Comment #: 23-25

COMMENT TEXT:

g. The document should show how the benefits of additional fences outweigh their costs?

USFS RESPONSE:

See response to letter #23, Comment #24.

Comment #: 23-26

COMMENT TEXT:

h. The document should include proposals to remove unnecessary fences or fences which cause management problems such as the ones we saw on the range tour at Cabin Creek meadow.

USFS RESPONSE:

Removal of old or unnecessary fences is not part of this proposal and is outside of the scope of this analysis. The Forest Service is interested in working with any individuals or groups to identify these structures which are no longer needed and identify ways to get them removed to reduce the impacts on wildlife. Please contact the Santa Rosa Ranger District if you would be interested in exploring opportunities further.

Comment #: 23-27

COMMENT TEXT:

i. Our recommendation is: If the USFS can propose new fences, then it should be proposing the removal of existing unnecessary or environmentally damaging fences. These fences should be identified in the final EIS and authorized for removal.

USFS RESPONSE:

See response to letter #23, Comment #26. Identification of and authorization for removal of unnecessary fences may be a fairly easy process to complete and should not be a part of a document as difficult as this EIS. Please contact the Santa Rosa Ranger District if you like to further explore this opportunity in the future.

Comment #: 23-28

COMMENT TEXT:

3. ISSUES - Social and Economic Conditions. While we agree that livestock grazing on the Santa Rosa District has many economic benefits as well as benefits to wildlife, we are concerned that this section omits an analysis of the positive economic benefits of improved rangeland managment and the costs of non-productive rangelands.

Benefits of reaching desired future conditions would include incrfeasing productivity of over-grazed rangelands, including the potential for increased livestock use, weights, etc., and costs of not reaching desired future conditions would include lowere

This section also omits an analysis of the economic benefits of increased recreational use (hunter, fisherman, and/or recreational user days) of national forests which are meeting desired future conditions and the costs of reduced recreational use due t

Please include this information on additional costs and benefits in the final EIS.

USFS RESPONSE:

We understand your concerns and will consider your comments during this analysis. Your comments will be included in an appendix to the Final EIS and within the Project Record.

Comment #: 23-29

COMMENT TEXT:

a. Several allotments in the Santa Rosa District were left out of the grazing dEIS. Please explain.

USFS RESPONSE:

More recent NEPA analysis has been completed on those allotments and it was determined that management on those allotments was in general working fairly well, therefore they were not included in this analysis.

Comment #: 23-30

COMMENT TEXT:

b. Will dEIS standards for vegetative communities be applied to all of the District allotments?

Or will there be two sets of standards on the Santa Rosa District?

Since administering double standards could be very difficult, how will the double standards be consolidated for the District?

USFS RESPONSE:

The Allotments under this analysis will be guided by whatever the final decision dictates. Standards for the remaining allotments will remain the same for the time being. We do not believe that administering these two sets of standards will be difficult as it is more of a tracking exercise.

Comment #: 23-31

COMMENT TEXT:

c. Fire: We were told on the rangeland tour that the USFS is proposing "fuels reduction" prescribed fires in the Martin Basin, but this is not discussed in this dEIS.

On the range tour, we also learned that over 1/3 of the Santa Rosa District has burned in the last seven years. Rehabilitation and restoration is occurring in some burned ares, but is very slow or non-existent in other burned areas.

We are concerned that this dEIS on grazing is not including important habitat disturbances, the need for restoration, and projects, like "fuels reduction," which will substantially affect the chances of achieving the "desired future conditions" describe

USFS RESPONSE:
The effects of Wildfires, rehabilitation activities, vegetation treatments and prescribed burns are cumulative effects to the impacts resulting from livestock grazing. Cumulative effects are disclosed in Chapter 4 of the Draft EIS. These activities were not included under this proposed action or the alternatives because this is outside the scope of this analysis. This Project involves the decision of whether or not to authorized livestock grazing in the analysis area and under what conditions.

Comment #: 23-32
COMMENT TEXT:
1. By excluding some related forest actions (fuels reduction projects, fire rehabilitation and restoration projects, wildlife habitat improvement projects), it appears that the NEPA process is being unnecessarily fragmented. Please explain.

USFS RESPONSE:
Your comment is not correct and we are not attempting to fragment the NEPA analysis. The purpose and need for this project is disclosed on page 1-3 of the Draft EIS and is tied to determining the management direction for livestock grazing within the Project Areas. These other activities that you have described are outside the scope of this analysis.

Comment #: 23-33
COMMENT TEXT:
2. Does the USFS intend to use a "categorical exclusion" for its fuels reduction projects, when the proposed projects could have been analyzed in this DEIS?

USFS RESPONSE:
The Decision Memo for the Buttermilk Prescribed Burn has been signed under a Categorical Exclusion. This project is outside the scope of this analysis.

Comment #: 23-34
COMMENT TEXT:
3. Where and when is the public going to obtain information from the USFS on the extent of fires in the Santa Rosa District, the locations, natural recovery, areas with no recovery, etc?

USFS RESPONSE:
Wildfire information for the Santa Rosa Ranger District is available from the Forest Service and may be requested. The potential cumulative effects of wildfires as they relate to this proposal are discussed in the various sections of Chapter 4 of the Draft EIS.

Comment #: 23-35
COMMENT TEXT:
4. The Sierra Club strongly supports more active fire rehabilitation and restoration efforts by the USFS on the 1/3 of the Santa Rosa District which has recently burned, including reseeding, rest, control of noxious weeds and the use of short duration, high intensity grazing where appropriate to accelerate recovery of the burned areas. . . .

USFS RESPONSE:
Thank you for your comments.

Comment #: 23-36
COMMENT TEXT:
. . . We would oppose early season grazing by livestock because of the risks of soil compaction and accelerated erosion as well as spreading Medusahead (Dr. Young's research) and slowing re-establishment of native grasses and shrubs.

USFS RESPONSE:
Thank you for your comments. Early season grazing can be appropriate under the right conditions. This type of activity is most appropriate within lower elevation allotments or pastures and under the right conditions. Grazing during the early season rather than during the hot summer can also

minimize impacts within riparian areas and accelerate recovery in these areas if done properly. The Santa Rosa Ranger District is actively monitoring for Medusahead and has treated the small infestations that have been located.

Comment #: 23-37

COMMENT TEXT:

d. Recreation-livestock conflicts: The final EIS should include a discussion of livestock grazing-recreational use conflicts, with proposed actions and/or mitigations to reduce these conflicts.

USFS RESPONSE:

The potential effects on Recreation of livestock grazing under the three alternatives is disclosed in the Draft EIS on pages 4-65 and 4-66.

Comment #: 23-38

COMMENT TEXT:

2. PROPOSED ACTION: We strongly support the lower utilization standards for herbaceous vegetation (p. 2-5) proposed in the dEIS as our experience has been that current Forest Plan standards are not only not resulting in desired future conditions on the District, but are allowing continuing damage from livestock grazing and other disturbances to national forest resources.

These include non-functioning plant communities, excess erosion, wildlife habitat damage, noxious weed invasions, accelerated fire cycles, lowered productivity, and in some case, crossing of ecological thresholds which may never be reversed, at least in our lifetimes.

USFS RESPONSE:

Thank you for your comment. The potential effects of each of the three alternatives on the various resources you mentioned above are disclosed in Chapter 4 of the Draft EIS.

Comment #: 23-39

COMMENT TEXT:

. . . We also support the use of adaptive management, as we are not certain that these particular utilization standards will result in desired future conditions and may need to be changed through monitoring and adaptive management. Unfortunately, the dEIS fails to adequately discuss the implementation of the ROD.

USFS RESPONSE:

Additional explanations and discussions regarding adaptive management will be included in the Final EIS.

Comment #: 23-40

COMMENT TEXT:

a. Will these standards be implemented immediately or will implementation be deferred until allotment assessments can be conducted?

USFS RESPONSE:

A discussion about how implementation will occur is described on page 2-6 of the Draft EIS. This will be updated for the Final EIS.

Comment #: 23-41

COMMENT TEXT:

b. If the latter, then we suggest the addition of interim standards in those areas suffering unacceptable resource damage from current livestock use to prevent conditions from getting even worse, especially since (p.2-6) "…funding would determine actual dates of completion..." of establishing management standards for the eight allotments and funding may be inadequate.

USFS RESPONSE:

Thank You for your comments. Please see response to Comment 1, Letter #16.

Comment #: 23-42

COMMENT TEXT:

c. Are the vegetative communities supposed to be inclusive of all areas of the district?

If not, what areas are not included?

USFS RESPONSE:
The vegetative communities are intended to cover the primary or dominant vegetation communities on the District.

Comment #: 23-43
COMMENT TEXT:
d. It is our experience that many of these vegetative communities are not pure stands, but are interspersed throughout other vegetative communities.

Which standards would apply to non-pure stands?

USFS RESPONSE:
You are correct that different communities or groups of communities are interspersed across the landscape. The question regarding standards is actually not a difficult one to manage once implemented. In general we will choose the standards that apply to the dominant vegetative community. Upland standards are generally very similar to each other. The standards for Riparian are also fairly straight-forward. Where challenges may arise is where aspen or cottonwood communities overlap with riparian communities. We will typically use the Riparian standards, however we will likely implement the matrices for both communities and will also monitor browsing of aspen or cottonwood if it is believed that there is a problem or concern.

Comment #: 23-44
COMMENT TEXT:
e. Uplands: which of the vegetative community utilization standards apply to uplands or are there no new stnadards proposed for uplands in the dEIS?

USFS RESPONSE:
Standards under the Proposed Action for uplands are shown in Table 1-T on page 2-5 of the Draft EIS.

Comment #: 23-45
COMMENT TEXT:
3. REFERENCE AREAS (p.2-6): This concept needs better explanation.

a. Are these "key monitoring areas?" Please explain.

b. How many reference areas would have to be selected in each vegetative groups for each allotment for sampling to be statistically valid?

c. The Sierra Club would be interested in serving on the monitoring teams for some of the allotments.

USFS RESPONSE:
A definition of reference areas is included in Appendix E on page E-13 of the Draft EIS. In essence a reference area represents the average site for that specific vegetative community within a particular pasture or allotment. It is not intended to be the site in the best condition nor is it intended to be the site in the worst condition. The number of reference areas in each Allotment or pasture will be determined on a case by case basis and will depend upon a wide range of factors including size of the pasture, variation within the pasture or allotment, size of the reference area and others.

Comment #: 23-46
COMMENT TEXT:
4. MITIGATION (p.2-7): We strongly support mitigation requirement of no "hot season grazing:in streams and riparian areas.

Other than proper livestock stocking, this action may result in the greatest improvements in the conditions of these critically important areas.

We question, however, whether prohibiting hot season grazing in only one of every three years is adequate for ecological improvement.

a. Please provide the scientific basis for this very limited hot season grazing mitigation requirement.

USFS RESPONSE:
Thank You for your comment. As you stated mitigation measures are listed on page 2-7 of the Draft EIS. The mitigation is written to require rest from hot season grazing in one out of three years. The Santa Rosa Ranger District is generally characterized as high elevation and receives considerable snowfall during the late fall, winter and early spring. The heart of the grazing season given these conditions is during the summer and within hot season conditions. Eliminating hot season grazing would be nearly impossible given the circumstances. Given this situation the No Grazing Alternative was included and analyzed in the Draft EIS.

Comment #: 23-47
COMMENT TEXT:
b. Early grazing of cheatgrass by livestock is not "mitigation": and could create other problems, such as soil compaction, accelerated erosion, streambank damage, etc. It can also accelerate the spread of Medusahead and other noxious weeds, as well as eliminate or delay the re-establishment of native grasses and shrubs. We strongly urge the USFS to be extremely cautious about this "mitigation" and use it only in experiemental situations where its reputed "effectiveness" is stringently monitored.

USFS RESPONSE:
Thank you for your comments, we will consider them and may make adjustments in the final EIS.

Comment #: 23-48
COMMENT TEXT:
5. MONITORING (p. 2-8): Please provide us a copy of the detailed monitoring protocal referenced in the dEIS for effectiveness monitoring.

a. Monitoring schedule (p.2-8): Please explain what is meant by the statement "monitoring would normally occur on a ten-year schedule." Does this mean once every 10 years for each allotment?

USFS RESPONSE:
A more detailed monitoring plan will be included within the Record of Decision. The monitoring protocol is included within the Project Record and may be requested by sending a letter to our office with a request for a copy of this document. The 10 year monitoring schedule that you mention involves only the implementation of the Matrices. Monitoring will occur annually and at much more frequent intervals than 10 years. Matrices will be run at least every 10 years and can be run more frequently if credible evidence indicates that a change in conditions has occurred.

Comment #: 23-49
COMMENT TEXT:
b. While we recognize that funding always limits management actions, we are very concerned that monitoring is often not done when funds and staff are short.

We do not believe that the USFS should be authorizing grazing if monitoring the impacts of grazing as well as the permit requirements is not completed.

We do not understand the purpose of establishing monitoring protocols, schedules and commitments if the USFS will simply authorize grazing if funding shortfalls prohibit monitoring?

Please clarify. We strongly recommend that the ROD set priorities for monitoring, given funding shortfalls, as well as how grazing would be authroized if monitoring is not carried out.

USFS RESPONSE:
See Response to Letter #23, Comment #48.

Comment #: 23-50
COMMENT TEXT:
6 ALTERNATIVE 3: This dEIS does not have an adequate range of alternatives. It appears to be intended to authorize the status quo on grazing levels and permits, increasing the size of some of the allotments, and eventually in the future, after more studies and assessments, include new utilization standards for some vegetative communities.

There are no alternatives for less than 100% of current grazing, except for Alternative 3, which is not seriously being considered for adoption by the USFS. . . .

USFS RESPONSE:
We disagree with this comment. The three alternatives presented in the Draft EIS include the No Action (current grazing) Alternative, the Proposed Action which takes a new approach to managing grazing and attempts to address areas that are not functioning as desired, and lastly analyzes the No Grazing Alternative.

Comment #: 23-51
COMMENT TEXT:
. . . We strongly urge the USFS to not authorize grazing in all or part of the two vacant allotments in order to provide areas for comparing restoration techniques, including not grazing as welll as improvement projects, and as experimental control areas.

Areas within the vacant Rebel Creek and Bradshaw allotments, including representative vegetative communities in functioning, non-functioning and crossed threshold conditions, as well as areas of diverse terrain - steep slopes, riparian areas and aspen

USFS RESPONSE:
See response to letter #23, comment #8

Comment #: 23-52
COMMENT TEXT:
a. Sage Grouse: WE are very concerned about the failure of the Proposed Action to protect Sage Grouse habitat from the impacts of livestock trampling and loss of and/or changes in the vegetation structure of big sagebrush communities and for current Sage Grouse populations to remain unchanged.

Livestock grazing should have a positive effects on conservation of Sage Grouse habitat and populations on national forests, especially in areas with degraded habitat and declining populations.

This is a major flaw in the proposed action. Either the proposed action should be changed or more substantive mitigation measures for Sage Grouse habitat and populations, consistent with Nevada Sage Grouse Conservation plans for the Santa Rosa PMU, should be developed and included in the final EIS.

USFS RESPONSE:
The potential effects of the proposed action on sage grouse are disclosed on page 4-26 of the Draft EIS.

Comment #: 23-53
COMMENT TEXT:
b. Other wildlife: We are also concerned about the lack of improvements to wildlife habitat of the proposed action, especially sagebrush obligates, Northern goshawk, and mule deer.

The proposed action is flawed as it does not include direct actions to restore wildlife habitat which has been seriously impacted by past livestock grazing and other disturbances.

Habitat improvements from implementation of lower utilization standards sometime in the future, if funding has been sufficient for proper monitoring, is a distant not-too-likely possibility.

Please strengthen wildlife habitat restoration in the final EIS.

USFS RESPONSE:
The potential effects of the Proposed action on sage grouse, mule deer, northern goshawks and other wildlife species are shown on pages 4-25 through 4-30 of the Draft EIS.

Comment #: 23-54
COMMENT TEXT:
c. Heritage resources: Because direct, indirect and cumulative impacts of livestock grazing on heritage resources are identified in Alternatives 1 and 2, the final ROD should include an accelerated program to identify and protect these sites.

USFS RESPONSE:
Currently the HTNF has a Rangeland Memorandum of Understanding (MOU) with the Nevada State Historic Preservation Office to address rangeland management issues as they pertain to cultural

resources. Please refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview for a description of the MOU and what has been conducted to date. Implementation and completion of the tasks identified in the MOU fulfills this agency's requirements under Section 106 of the National Historic Preservation Act.

Comment #: 23-55

COMMENT TEXT:

1. RIPARIAN AREA and STREAM CONDITIONS (Table 5-T): We are extremely concerned about the poor conditions of a large number of streams and riparian areas in the Martin Basin area of the national forest. . . .

We strongly recommend that the ROD authorize "no grazing" on non-functional streams as another alternative or as mitigation measures. . . .

USFS RESPONSE:

Thank you for your comments. We will consider your concerns when developing the record of decision.

Comment #: 23-56

COMMENT TEXT:

. . . In addition, the ROD should include fisheries and wildlife habitat restoration projects in the proposed action.

USFS RESPONSE:

These actions are outside the scope of this analysis.

Comment #: 23-57

COMMENT TEXT:

CHAPTER 4: We found this to be a very weak part of the dEIS. There are many questionable statements about the environmental benefits and impacts of livestock grazing;

on p.. 4-18 the claim that adding parts of the vacant allotments to existing allotments would disperse livestock and reduce stream impacts is counterintuitive, without fencing streams or herding cattle away from streams;

neutral impacts on wildlife habitat (p.4-24), cheatgrass infested areas (p.4-25); reduce fires (p.4-31); necessary for healthy cottonwoods and willows (p.4-37);

effects on springs and seeps (p.4-38); effects on aspen (pp. 4-42, 4-43); shrubs returning in 2-5 years in burned areas (p.4-44). This chapter should be substantially improved.

USFS RESPONSE:

Thank you for your comments we will review these areas and may make adjustments in the Final EIS.

Comment #: 23-58

COMMENT TEXT:

APPENDIX B: While we appreciate the specificity of the matrices for the proposed action in this appendix as well as the acknowledgment (p. B-3) that "management problems are indicated when any one of the attributes :does not meet desired future conditions," we do not understand how the USFS will use the matrices to address these management problems. Please clarify.

USFS RESPONSE:

The intent of the matrices are only to measure the various attributes and determine the condition of the various communities. Once that is determined, managers will then use adaptive management and under the proposed action, would adjust utilization standards to move those communities towards our desired conditions. The matrices are only to identify the problem and are not designed to come up with the solution.

LETTER #: 24
BY: BOB BUCKINGHAM, BAR X RANCH

Comment #: 24-1
COMMENT TEXT:
1. The DEIS does not discuss a full and appropriate range of alternatives, including increased stocking levels, increased utilization levels, and the development of allotment-specific details, and the development of allotment-specific objectives and management actions.

Instead, the DEIS is a broad-brush, one-size-fits-all proposal to do one thing and one thing only: namely, to reduce (without merit or reasonable foundation) the level of authorized use of the Santa Rosa District. We oppose such direction.

USFS RESPONSE:
We do not agree with your comment. The Draft EIS analyzed three alternatives including the No Action (Current Grazing which is the maximum allowed by the Forest Plan), the Proposed Action Alternative, and the No Grazing alternative. The Final will also include a fourth Alternative which was submitted during the public comment period.

Comment #: 24-2
COMMENT TEXT:
2. Only Alternative 1 of the DEIS is in conformance with the current Forest Plan as amended. Alternative 2 and Alternative 3 are not.

USFS RESPONSE:
We do not agree. All three alternatives may be in compliance with the Humboldt National Forest Land and Resource Management Plan.

Comment #: 24-3
COMMENT TEXT:
3. The State of Nevada Department of Agriculture has within the past few days submitted Alternative 4. Alternative 4 is a feasible and reasonable means of attaining and maintaining the objectives of the Forest Plan in a reasonable timeframe. We endorse Alternative 4, or in the alternative, Alternative 1.

USFS RESPONSE:
Alternative 4 will be included within the Final EIS.

Comment #: 24-4
COMMENT TEXT:
4. Approximately 10 years ago, the Forest Service adopted Amendment 2, which established utilization targets, without public input as to which (if any) areas such utilization levels should apply.

The Forest Service at that time stated that the prescribed utilization levels were subject to change through the AMP development process and/or as on-the-ground monitoring showed that other utilization levels (higher or lower) were more appropriate.

In the ensuing 10 years, the Forest Service has neither developed AMPs for the allotments in the Project Area nor conducted sufficient on-the-ground monitoring studies that justify any reductions in utilization objectives.

USFS RESPONSE:
Amendment 2 is a part of the Humboldt National Forest Land and Resource Management Plan and has been included as part of the Project Record.

Comment #: 24-5
COMMENT TEXT:
5. The DEIS Alternative 2 is to reduce allowable utilization levels and to shift dramatically away from the manner in which they are proposed under the existing Forest Plan.

This is not consistent with the Forest Plan, and the DEIS presents absolutely no scientific basis or monitoring conducted on the Granite Peak Allotment to justify such changes as related at least to the Granite Peak Allotment

USFS RESPONSE:
Alternative 2 is in compliance with the Humboldt National Forest Land and Resource Management Plan. Considerable scientific data has been considered during the analysis of this project and has been included in the Project Record. Alternative 2 in summary establishes a process whereby management would be adjusted related to the condition of various vegetation communities and resources within each Allotment. Monitoring data from the Granite Peak Allotment has been utilized during the analysis of the three alternatives. For example, on page 3-5, Table 6-T includes information from GAWS surveys for streams on the Granite Peak Allotment. Additional information from the Granite Peak Allotment has been included in the Project Record.

Comment #: 24-6
COMMENT TEXT:
At our request, our range management consultant requrested all data collected by the Forest Service related to the Granite Peak Allotment since Amendment 2 was adopted.

The data do not justify any reduction in the permitted use or any reduction in the permitted utilization levels, as proposed by the DEIS.

USFS RESPONSE:
Thank you for your comment. The three alternatives analyzed in the Draft EIS are shown in Chapter 2 of the document.

Comment #: 24-7
COMMENT TEXT:
6. The DEIS states (p. 1-6) that an "assessment" would be completed on each allotment. We believe such "assessments", particularly using essentially "made-up" matrices, which have not been scrutinized by the scientific community, are invalid as a means of determing progress toward Forest Plan objecties.

Instead, we favor actual measurements (monitoring) of the Forest objectives applicable to and specific to each Allotment, and the design of management actions specific to the varying topography and livestock use of each allotment through the development

USFS RESPONSE:
The matrices do require actual measurements, and monitoring sites and methods will be tailored to fit the objectives for a specific allotment. The matrices are based on existing inventory and monitoring data, a scientific review of literature has been completed to produce these matrices, and they have had review by a panel of scientists.

The matrices were created to describe the range of natural variation for a desired condition across some broad vegetative groups. The purpose of an objective is to describe what we hope to accomplish through analysis. Included below are two paragraphs from BLM Technical Reference 1730-1, *Measuring and Monitoring Plant Populations,* which describes the relationship between desired condition and management objectives.

From BLM Technical Reference 1730-1:

"...Inherent in defining monitoring as part of the adaptive management cycle are two key concepts. The first is that monitoring is *driven by objectives*. What is measured, how well it is measured, and how often it is measured are design features that are defined by how an objective is articulated. The objective describes the desired condition. Management is designed to meet the objective. Monitoring is designed to determine if the objective is met. Objectives form the foundation of the entire monitoring project…"

"…Management objectives can be written to describe either desirable or undesirable conditions and trends. You would frame your objective in desirable terms if you believe improvement of the plant population or habitat is necessary and you have implemented management you believe will result in improvement. These objectives are sometimes referred to as "desired condition objectives" because

they describe the target condition or trend of the resources (e.g., increase to 2000 individuals, decrease cover of a noxious weed by 40%)."

The matrices describe a broad range of values that would provide for sustainable ecosystems, and have been utilized to describe the conditions desired in the management objectives for this analysis. The sampling methods in the matrices can be used as monitoring tools, if repeated. On individual allotments, if special conditions warrant, the matrices are meant to be adaptive to local phenomenon.

Comment #: 24-8

COMMENT TEXT:

7. The DEIS proposes (p. 1-7) that certain vacant allotments be combined with other allotments. We believe the better venue for making such decisions is in the development of AMPs specific for each allotment.

WE do support the activation of the vacant permits, for use in addition to the existing active permits, but not to be melded into other allotments at the same or lesser livestock stocking rates, as the DEIS proposes.

USFS RESPONSE:

If the Record of Decision authorizes grazing in the Vacant Allotments, then the decisions of how to do this will be determined through an administrative decision at a later date. We will consider your concerns when preparing the Record of Decision.

Comment #: 24-9

COMMENT TEXT:

8. The DEIS lists (pp. 1-8 through 1-11) a variety of resources that can be affected by livestock grazing.

We do not dispute the list of resources, but we do dispute that the Santa Rosa District has collected any data, at least relative to the Granite Peak Allotment, which concludes that the listed resources have in any way been adversely affected.

USFS RESPONSE:

Information regarding the potential effects of the three alternatives on the various resources are disclosed in Chapter 4 of the Draft EIS.

Comment #: 24-10

COMMENT TEXT:

9. Tables 1-T and 2-T are not in conformance with the Forest Plan, nor are the matrices upon which the Forest Service relies in order to make such draconian changes in utilization levels at the whim of "assessments".

Further, assuming an area/allotment was "assessed" to have "crossed below a threshold", such determination implies that no amount of management and no degree of utilization restriction is meaningful because a key "threshold" has been exceeded, and would

Furthermore, the restriction of forage utilization on the basis of one or more (unrelated) matrix parameters "not functioning as desired) is unreasonable and is scientifically unfounded.

USFS RESPONSE:

Page IV-37 of the Range Resource Inventory section of the Humboldt National Forest Land and Resource Management Plan states under the column Management Direction, "Describe ecological sites and develop score cards to gage ecological status and resource value. Define management strategies for rangeland." The matrices are a score card assessment.

Page IV-32 of the Range Resource Planning section of the Humboldt National Forest Land and Resource Management Plan, as amended states under the column Standards and Guidelines, "In the absence of scorecards to define specific standards for vegetative condition, the minimum standard for satisfactory ecological condition is defined as either: 1) excellent or good range condition; or 2) fair range condition with an upward trend." Without score cards, there is still a minimum condition rating that should be met prior to allowing grazing.

Also on Page IV-32 of the Range Resource Planning section of the Humboldt National Forest Land and Resource Management Plan; as amended says, "The District I.D. Team as supported by other

resource specialists is responsible for determining Proper-use criteria. It is essential that the team consider the full spectrum of resource needs and values." This directs the team to determine utilization criteria by considering the full range of uses on the land and the ability of the land to support those uses.

In Amendment #2, under the tables labeled "Maximum Forage Utilization Values and Maximum Utilization values is the statement, "The maximum utilization levels would normally be used only where the plant community is at or near the desired future condition." This indicates that the further removed a site is from the desired conditions, the lower the utilization levels should be.

The matrices are based on existing Humboldt-Tioyabe National Forest inventory and monitoring data, a scientific review and use of scientific literature has been completed to produce these matrices, and they have had review by scientists.

Comment #: 24-11

COMMENT TEXT:

Additionally, the use of utilization as a "management standard" is an inappropriate use of the science and the information which utilization gives the decision maker.

Utilization should not be used as a stand alone standard. The real standard is the maintenance, attainment of long-term resource objectives and - in the mean time - of whether progress is being made toward those objectives.

Utuilization does not inform the manager of either the current condition or whether progress is being made toward such achievement.

Here, the Forest Service is proposing to use utilization as not only the one-and-only standard (without regard for its cause-and-effect relationship to either the objective or attainment of the objective), but also as a police tool, to punish the permit

USFS RESPONSE:

Utilization under both the No Action and Proposed Action is used as an annual standard to ensure compliance with the Forest Plan and establish limits for levels of use on each allotment. At no time during this analysis has the Forest Service ever written or indicated that utilization was going to be used for long term monitoring, too determine condition of a resource or community, or would be used as a resource objective as your comment indicates.

Comment #: 24-12

COMMENT TEXT:

Further, the DEIS proposes to use one utilization level for each determination level, regardless of the management system put in place.

Therefore, there exists no reason to defer-rotate or rest-rotate, and no incentive for the permittees to do so.

USFS RESPONSE:

Thank you for your comment, this concern will be considered during the development of the Record of Decision.

Comment #: 24-13

COMMENT TEXT:

10. The notes to Table 1-T and 2-T note that four "resources were used to develop the utilization guidelines represented in the tables."

However, neither the Forest Plan, Amendment 2, nore "Managing Grazing of Riparian Areas in the Intermountain Region, Genereal Technical Report INT-263"; nore "Growth and Reproduction of Grasses Heavily Grazed under Rest-Rotation Management:, nor: "Grazing Studies: What We've Learned" support the level listed in the tables of the DEIS.

Further, the last is not even a peer-reviewed research article, but is merely a subjective opinion paper of what the authors feel, and is not a paper that is representative of the body of scientific literature on the subject.

USFS RESPONSE:
The standards and matrices were developed based using the knowledge and expertise of Forest Service specialists, forest plan direction and from data gathered from research sources.

Comment #: 24-14
COMMENT TEXT:
11. There exists no rational reason to "defer livestock use in sage grouse nesting areas prior to June 1 of each year (p. 2-7).

The DEIS has presented absolutely no evidence, either in the literature or relative to specific monitoring in the Project Area, to show that the mere presence of livestock on the landscape at the time sage grouse are nesting has had or is having any . . .

USFS RESPONSE:
Nesting and early brood rearing of sage grouse in Nevada generally occurs from April through June. Habitats used by pre-laying hens are also part of the general breeding habitat and these areas provide forbs that are high in essential nutrients which are necessary for egg production. There is limited information on nesting and brood rearing habitats in Nevada because site-specific data is scarce.

As stated in the DEIS on page 4-19 under the "Current Management/No Action" alternative livestock grazing would primarily affect the quality of brood rearing habitat for sage grouse within riparian areas, wet meadows, and springs though a reduction of vegetation that serves as food sources and cover. Localized and concentrated use by livestock unter this alrenative may reduce understory grass cover, which may impact the quality of nesting habitat. There is also the potential for direct mortality of young chicks and damage to nests due to livestock trampling in these concerntrated use areas. It is not known if these effects are contributing to decrease chick survival, but the potential for effects is greater than under the "Proposed Action" alternative. Past grazing practices and current utilization standards, particularly in springs and meadows, has resulted in a reduction of the quantity and quality of forbs available for attracting insects for sage grouse hens and their broods, and has led to a reduction in the amount of cover available to successfully escape from predators. Localized and concentrated use by livestock under this alternative may also reduce understory grass cover, which may impact the quality of nesting habitat in the following year.

Comment #: 24-15
COMMENT TEXT:
12. The DEIS (p. 3-25 and elsewhere) discusses the severe adverse impact that wildfire has had and continues to have on riparian, fisheries, and particularly LCT within the Project Area.

Yet Alternatives 2 and 3 would reduce the allowable utilization levels (utilization objectives), thereby increasing the already-abundant fine fuels subject to such wild fires.

We recognize that livestock grazing can have adverse impacts on stream banks and on fisheries habitat, but we also recognize - and believe the Forest Service should recognize - the devastating impacts of wildfire to almost all wildlife species which use

We also recognize - and believe the Forest Service should - that livestock can be distributed away from the stream sides onto the hillsides with the use of livestock water facilities. This approach is a "win-win", wherein livestock reduce the fine fuels

USFS RESPONSE:
The potential cumulative effects of Wildfire under both Alternatives 2 and 3 are disclosed throughout Chapter 4 of the Draft EIS.

Comment #: 24-16
COMMENT TEXT:
The Forest Service must recognize the need to use livestock (even increase stocking rates) to reduce fire hazards to mule deer winter range, sage grouse nesting and brood-rearing range, LCT watersheds, and livestock grazing range.

USFS RESPONSE:
See response to Letter # 24, comment #15.

Comment #: 24-17

COMMENT TEXT:

13. The DEIS at several locations (including p. 3-45 through 3-46) discusses the diverse topography, upland vegetation, and riparian characteristics of just the Project Area, let alone the Santa Rosa District as a whole.

For the most part, the Forest is in good condition in both the uplands and the riparian areas, with some localized areas which may (or may not) respond to specific management actions (see also letter from Sierra Club, dated August 6, 2004….)

This generally good overall condition, with some exceptions, does not support the drastic departures from the Forest Plan which are contemplated by the Project DEIS. Rather, the existing conditions favor a site-specific, allotment-specific approach to "fixing what is broken" and "not fixing what isnt broken".

This cannot be done by broad-brush approach, but must be undertaken in Allotment Management Planning. See Alternative 4.

USFS RESPONSE:

See response to Letter # 24, comment #6 and #12.

Comment #: 24-18

COMMENT TEXT:

As a footnote, we note the inclusion of three photographs at pp. 3-46 and 3-47, of a single riparian zone within a single location of the Forest.

This location is not on Granite Peak Allotment, but we nevertheless comment to state that one location does not indicate the conditions on all streams of all allotments on the forest, nor even of all the areas of the same stream in the same pasture of the same allotment.

The depiction is of a single location with very cow-easy topography, which does not represent the majority of the forest, the planing area, and in particular, the Granite Peak Allotment.

Further, it appears that the last photograph is from a significantly different photo-point than the first two, and does not show the same reach of stream from the same focal distance, thus biasing the representation made by the photographs.

USFS RESPONSE:

Thank You for your comments.

Comment #: 24-19

COMMENT TEXT:

14. Many of the conclusions (see, e.g., p. 3-48) are made on the basis of the subjective opinion of a single individual. However, no monitoring, no studies, and no reports are presented in support of the individual's opinion.

It appears that the "matrices" and many of the conclusions are developed by the same single individual without benefit of any monitoring data whatsoever.

We find it unacceptable to have our livelihoods dependent upon the whims of a single individual's opinion, which is not supported by monitoring data, especially specific to our allotment.

USFS RESPONSE:

The matrices were not written based on the subjective opinion of a single individual. There are four authors of the draft document, but the data used to create the matrices comes from a multitude of scientific literature and studies.

As for the monitoring data supporting the matrices there were 400 (15 sites in the Santa Rosa District) sagebrush sites sampled and summarized (Nelson and Jensen 1987), and 138 sagebrush sites sampled and analyzed (6 sites on the Santa Rosa District (Mooney 1985). For aspen, 2,013 sites were sampled and analyzed on National Forests in Utah, Idaho and Nevada. Three hundred and eighty-two of these sites were on the Humboldt-Toiyabe National Forest in Nevada. (Mueggler 1988)

For riparian sites, Manning and Padgett (1995) sampled and analyzed 820 (47 on the Santa Rosa District) riparian sites on the Humboldt-Toiyabe National Forest. Nine hundred and ten (32 on the

Santa Rosa District) riparian ecology plots have been sampled and analyzed for the Humboldt-Toiyabe National Forest. (Howell 2003; Weixelman and others 1993a, 1999) These riparian plots include dry, moist and wet meadows, aspen and cottonwood plant communities.

These are just the sampling plot data that has been published in score card format. There is also a multitude of monitoring data on the Ranger Districts established for project monitoring purposes. Where feasible this data was used to check the matrices for reliability. The extensive data collected by the NRCS in White Pine, Eureka, Lander, Nye, Humboldt, Elko and Esmeralda Counties in Nevada for soil survey was also utilized for describing and clarifying data within the matrices. The matrices are not the whim of a single individual, but the accumulation of much scientific literature and extensive monitoring studies.

Comment #: 24-20

COMMENT TEXT:

15. The DEIS states (p. 3-64) that there are six units within the Granite Peak Allotment. In practice, there are four lower spring pastures, and one summer pasture.

We rest-rotate the spring (entry) pastures, and defer-rotate portions of the summer pasture.

Due to the lack of fencing, some livestock drift occurs, but the result is that the summer pasture has "more concentrated" and "less concentrated" use on alternate sides in alternate years.

USFS RESPONSE:

This information is interesting, and we understand that there are challenges on this allotment, however, under the annual operating instructions and other information contained in the permit files and under Alternative 1, this allotment is a six pasture rest rotational system where certain pastures were to be rested each year. Under Alternative 2 there is an adaptive management approach whereas we can look at situations like this and attempt to find better management solutions.

Comment #: 24-21

COMMENT TEXT:

16. The DEIS states (p. 4-1) (see also p. 4-4) that Chapter 3 shows the current impacts of livestock grazing have been shown to be "consistent with the known effects of grazing found in published sources" regarding water quality.

However, this statement is not consistent with table 7-T and the narrative at p. 3-7, which note that the water quality standards of the State of Nevada were met in all such monitoring.

USFS RESPONSE:

The statement "…the current impacts resources were shown to be consistent with known effects of grazing found in published studies" has been deleted to improve the text's presentation of effects in the final EIS document. The statement, however, is correct. While water quality is generally within State standards, the analysis in Chapter 3 shows that the Project Area streams have livestock-caused problems with sedimentation and many of the drainages are non-function or functional-at risk.

Comment #: 24-22

COMMENT TEXT:

Additionally, the DEIS concludes that "under this alternative [no action] "the water quality standards would at the least remain unchanged, possibly recover at their current rate, or, more likely, degrade further."

This conclusion makes no sense whatsoeer; since the Forest Service found that all water quality standards were met, as discussed at p. 3-7 and table 7-T.

USFS RESPONSE:

See response to letter #24, comment #21.

Comment #: 24-23

COMMENT TEXT:

Likewise there is no basis for the statement (p. 4-2) that "riparian areas and streams that are currently in recovery would likely recover at a slower rate than with the other alternatives".

Following the 1983/84 and 1984/85 back-to-back 100-year events, BLM and the Forest Service conducted, a few years after the events, a riparian tour of several allotments, demonstrating stream recovery under full rest, deferred rotation, rest-rotation, and season long use….

All streams toured showed equal recovery, regardless of management system applied after the flood events. Therefore the evidence on this District is that, even in the face of the catastrophic events of 1983/84 and 1984/85, livestock grazing continued on the streams and allotments, and all of the streams have made amazing recovery.

There is no evidence at all to support the conclusion that Alternatives 2 and 3 would more rapidly improve the streams (assuming any further improvement is necessary or attainable) - and particularly not so in the granite peak allotment.

USFS RESPONSE:
Some riparian and stream community types are not improving under the "Current Management/No Action" alternative, see (page 3-46 thru 3-50) for a riparian and stream group overview.

Each vegetative group effects analysis for each separate alternative can be found starting on (page 4-36 thru 4-50). Flooding is a cumulative effect and is also considered under each alternative on the above said pages.

Comment #: 24-24
COMMENT TEXT:
To the extent that any stream or portion of stream in any allotment is not in a recovered or recovering mode, the fastest, most direct means to address change is through the development of an Allotment Management Plan, which specifically identifies the problem area and assigns management to address such improvement.

The broad brush, "matrix" approach does not do so, and does not result in workable, feasible, management alternatives, but only serves to further reduce livestock use and allowable utilization, regardless of the lack of nexus between what the problem may be and utilization.

USFS RESPONSE:
Thank you for your comment. We will consider these concerns during development of the record of decision.

Comment #: 24-25
COMMENT TEXT:
17. The DEIS states (p. 4-19) that "Past grazing practices and current utilization standards, particularly in springs and meadows, has resulted in a reduction of the quantity and quality of forbs available for attracting insects for sage grouse hens and their broods, and a reduction in the amount of cover abailable to successfully escape from predators."

As with other conclusions of the DEIS, there exists absolutely no data to support this conclusion, particularly as it applies to the Granite Peak allotment.

Our rangeland management consultant reviewed the Forest Service files for any such data, and found that no data exists to support this conclusion, at least as it relates to current utilization levels and current livestock management practices.

USFS RESPONSE:
As stated in the DEIS on page 4-19, riparian meadows that are not moving toward Forest Plan vegetation management objectives within sage grouse habitat would continue in this trend. Past grazing practices and current utilization standards in streams and riparian meadows has resulted in a reduction of quantity and quality of forbs available for attracting insects for sage grouse hens and their broods, as well as a reduction in the amount of cover available to escape predators.

As stated on page 4-19 of the DEIS indirect evidence suggests that grazing by livestock significantly reduces the herbaceous understory in brooding habitat and would provide less cover for the protection of young chicks and thus may have negative impacts on sage grouse populations. These effects are based on the assumption that grazing at greater intervals would leave less vegetation remaining on the site. It makes sense that under higher utilization standards there will be less vegetation left on the site each year resulting in less hiding cover for sage grouse.

Comment #: 24-26

COMMENT TEXT:

As to "past grazing practies", the DEIS itself notes that there were far more sage grouse in the forest and in the Project Area at the turn of the century, when 16,000 head of cattle, 1,500 head of horses, and 150,000 head of sheep occupied the Santa Rosa Mountain Range (p. 1-2) than at present, when only 10,087 head of cattle, 25 head of horses, and 0 (zero) head of sheep occupy the forest, for a limited duration each year (p. 1-2).

Neither the Forest Service nor the graziers at that time were sensitive to "properly functioning" streams or uplands, and the sage grouse apparently didn't know the difference either.

If any correlation can be drawn between numbers of livestock, utilization, and numbers of sage grouse, it appears that the sage grouse thrived under far greater numbers of livestock and far higher utilization than is be proposed by the DEIS, even under

USFS RESPONSE:

As stated on page 4-19 of the DEIS indirect evidence suggests that grazing by livestock significantly reduces the herbaceous understory in brooding habitat and would provide less cover for the protection of young chicks and thus may have negative impacts on sage grouse populations. These effects are based on the assumption that grazing at greater intervals would leave less vegetation remaining on the site. It makes sense that under higher utilization standards there will be less vegetation left on the site each year resulting in less hiding cover for sage grouse.

As explained on pages 4-19 and 4-20 of the DEIS under the “Current Management/No Action” alternative the impact to sage grouse nesting habitat in the uplands would be localized as most upland utilization standards are generally not reached. Information on the effects of the “Proposed Action” alternative to sage grouse nesting habitat can be found on page 4-26 of the DEIS. Information on the effects of the “No Grazing” alternative to sage grouse nesting habitat can be found on pages 4-30 and 4-31.

Comment #: 24-27

COMMENT TEXT:

It is equally likely, and possibly more so, that the severe reductions in livestock numbers in the last half-century have resulted in range recovery, then range decadence (in the sense of standing fuels), then range deterioration as a result of wildfire, which not only reduced sagebrush cover but also allowed the dominance of large areas of the range by the annual cheatgrass.

This has resulted in an ever-increasing fire recurrence, to the detriment of all grazing animals, including cattle, deer, and sage grouse, as well as threats to recovering species such as LCT.

USFS RESPONSE:

See response to Letter # 24, comment #15.

Comment #: 24-28

COMMENT TEXT:

The Forest Service needs to recognize the negative effects of fire fuel build-up, stop "loving the species to death", and start using livestock grazing to higher levels to more effectively curtail the increase in fire frequencies.

USFS RESPONSE:

See response to Letter # 24, comment #15.

Comment #: 24-29

COMMENT TEXT:

18. Overall, there is an entirely inadequate discussion and detailing of losses to income to the local economy and to the local ranching industry in the DEIS as a result of implementing Alternatives 2 or 3, . . .

USFS RESPONSE:

See response to Letter #6, Comment #1

Comment #: 24-30

COMMENT TEXT:

20. Alternative 4 would also provide for the incorporation and/or splitting of community allotments into individual allotments. For example, those of us in the Granite Peak Allotment would prefer that the Allotment (possibly in conjunction with portions of other allotments) be divided into individual allotments.

We believe this is most efficiently accomplished in the "AMP process" advocated by Alternative 4, with a much more aggressive time schedule than that called for in the DEIS under Alternative 2.

USFS RESPONSE:

Either Alternative 2 or 4 would allow for adjustments or modifications to existing allotments under an adaptive management approach.

LETTER #: 25
BY: PATTI BAKKER, PUBLIC RESOURCE ASSOCIATES

Comment #: 25-1

COMMENT TEXT:

I wish to make some comments regarding noxious weeds. First I am concerned, following our meeting on August 10, about the possibility of a change in management to favor early spring grazing. While I appreciate the flexibility you are trying use in altering dates of grazing for best management, I would like to see that you have researched the best available science for the possible repercussions of such actions.

For instance, there is the possibility that early grazing on cheatgrass can lead to medusa head invasion, which could be more devastating to the health of rangelands than cheatgrass. The Santa Rosa District has been very active in battling noxious weeds…..

It is much harder to bring lands back from weed populations than it is to prevent them in the first place.

USFS RESPONSE:

Thank you for your comments. Early season grazing can be appropriate under the right conditions. This type of activity is most appropriate within lower elevation allotments or pastures and under the right conditions. Grazing during the early season rather than during the hot summer can also minimize impacts within riparian areas and accelerate recovery in these areas if done properly. The Santa Rosa Ranger District is actively monitoring for Medusahead and has treated the small infestations that have been located.

Comment #: 25-2

COMMENT TEXT:

I also hope that the District will be able to effectively monitor the rangelands after the new management is in place, again particularly in the case of noxious weeds. It is essential in the battle against weeds that infestations are identified quickly, and monitored closely after discovery.

Invasive weeds thrive in disturbed areas; it is important that rangelands are monitored so that any infestations occurring due to changes in management are identified and treated quickly. If an annual report is done of the range management on the District, as suggested at the August 10 meeting, please consider having a section addressing noxious weeds and any changes in the infestations on the rangelands.

Noxious weeds know no boundaries, so information regarding new infestations is important not only to the landowner or manager of that land, but also to neighboring landowners and the region as a whole.

USFS RESPONSE:

Thank You for your comment, the Santa Rosa Ranger District is very serious about noxious weed management and treatment and is currently implementing a very aggressive program.

LETTER #: 26
BY: DUANE BOGGIO, SPERRY RANCH

Comment #: 26-1
COMMENT TEXT:
Comment: The willows and aspens are doing very well throughout the Santa Roasa. Cattle grazing is very positive for willows and aspens. . . .

USFS RESPONSE:
Thank you for your comment.

Comment #: 26-2
COMMENT TEXT:
Page Chapter 1-8

Alternate water development needs to be put into play with the E.I.S.

It is unfair to talk about it and just say we don't know how it will be resolved.

It should be settled before we go any further.

USFS RESPONSE:
New water developments are not a part of this proposal and are therefore outside of the scope of this analysis.

Comment #: 26-3
COMMENT TEXT:
Put large amounts of the grazing fees into a fund to develop these waters.

An advisory board could administer these monies.

USFS RESPONSE:
This issue is outside the scope of this analysis and is already decided by laws and regulations.

Comment #: 26-4
COMMENT TEXT:
The USFS could never hold a water right because they have no way to show beneficial use. . . .

USFS RESPONSE:
This issue is outside the scope of this analysis.

Comment #: 26-5
COMMENT TEXT:
. . . The Nevada Division of Environmental Protection is capable of and should handle the water quality for these creeks.

USFS RESPONSE:
The Forest Service has been cooperating with the Nevada Division of Environmental Protection to monitor the effects of approved activities on Forest System lands and the resultant impacts on water quality. Additionally, the Forest Service is required to disclose the potential effects of livestock grazing under the three alternatives on water quality and we have done so within Chapter 4 of the Draft EIS.

Comment #: 26-6
COMMENT TEXT:
Page Chapter 1-4

Comment: Sage Grouse: The Santa Rosa Sage Grouse plan needs to be incorporated into the E.I.S. and the permittees should be able to help form any needed objectives.

USFS RESPONSE:
Permittees have been given the opportunity to participate in the Planning process for the Santa Rosa Sage Grouse PMU Plan. This plan is currently in draft form and has not been finalized.

Comment #: 26-7
COMMENT TEXT:
Rebel Creek!

There has been no grazing system in Rebel Creek for approximately thirty years.

I am very familiar with that country. It is not steeper than much of the other Santa Rosa areas.

Using site-specific resource objectives, a grazing system can be developed to meet everyone's goals.

USFS RESPONSE:
Only a portion of Rebel Creek has been identified under the proposed action to create a large exclosure where no grazing would be authorized. The details and reasons for this have been included within Chapter 2 of the Draft EIS.

Comment #: 26-8
COMMENT TEXT:
Cabin Creek!

If a riparian pasture is considered, main objectives are:

1. Be able to manage the cattle better. What we are doing now is very good as the creek is in better shape than 1982 and on a stable to upward trend.

2. The cost of fencing cannot be so high that it is prohibitive. Drawing information from your 2004 Range tour, the Quinn River riparian pasture shows progress, but the geography is altogether different. There you only had to fence one side of the creek

USFS RESPONSE:
Thank you for your comment.

Comment #: 26-9
COMMENT TEXT:
Page Chapter 1-7

Comments: The Martin Basin Allotment has a deferred grazing system. I believe this is the best for our allotment and can meet our objectives. As a preferred alternative, our allotment needs more country rather than more fencing.

The way it sits now, it will not support our numbers and time frame even with extra good management. I would like to see a breakdown of acres per permitted cow for each allotment.

The Martin Basin allotment, I am sure, has the lowest I am resubmitting my proposal letter dated 06/01/97.

USFS RESPONSE:
Thank you for your comment.

Comment #: 26-10
COMMENT TEXT:
Utilization standards should be set on a site-specific basis acocrding to resource objectives. Also ecological sites and soil surveys should be used instead of a matrix.

USFS RESPONSE:
Thank you for your comment. We will consider your concerns during the development of the Record of Decision.

Comment #: 26-11
COMMENT TEXT:
The D.E.I.S. has so many unfounded, controversial, and contradictory statements in it, I would like to see you use our comments and Alternative 4 to build a 50 to 60 page E.I.S. for the Martin Basin Rangeland Project.

USFS RESPONSE:
The Forest Service is accepting Alternative 4 into the analysis. This alternative will be included and analyzed in the Final EIS.

LETTER #: 27
BY: DON HENDERSON, NEVADA DEPARTMENT OF AGRICULTURE

Comment #: 27-1
COMMENT TEXT:
After reviewing this document, the Nevada Department of Agriculture (Department) has serious concerns with the document overall and with the "Proposed Action" alternative #2 in particular. Major concerns center around 1) the use of this document (and subsequent District EIS's) to update the Forest Plan for grazing; 2) general negative tone of the document regarding grazing; 3) Forest Service (FS) inappropriate use of utilization as a standard for livestock grazing management; 4) FS lack of trend data or other documentation to substantiate alleged resource problems; 5) FS decreasing grazing utilization standards as the primary grazing management action to achieve desired resource conditions; and 6) inappropriate development and use of the resource assessment method detailed in Appendix B Matrices.

USFS RESPONSE:
The Forest Service will consider your concerns during development of the Record of Decision for this Project. Individual concerns raised in the comment above will be addressed further below in detail.

Comment #: 27-2
COMMENT TEXT:
The Department is very concerned that the proposed actions in this draft document are based on erroneous assumptions dealing with unsubstantiated problems. The Department contends that the MB DEIS is not a sound planning document, as written, and does not adequately or accurately address existing resource conditions.

USFS RESPONSE:
Information contained in portions of the Draft EIS and from other data that has been included in the Project Record indicates that although many areas continue to show improvements, there are problems and areas of concern. Chapter 3 of the Draft EIS outlines the current conditions of various resource within the analysis area.

Comment #: 27-3
COMMENT TEXT:
FS must recognize the importance of multiple use and economic impacts of FS's decisions on local communities and economies. Although all of these topics are touched upon by FS in the MB DEIS, the Department does not believe that the FS has, in fact, used the best available science, or adequately recognized the impact of their proposed alternative on the local communities.

USFS RESPONSE:
See response to Letter #6, Comment #1. Potential effects are also disclosed on pages 4-56 through 4-58 of the draft EIS.

Comment #: 27-4
COMMENT TEXT:
The Martin Basin DEIS is written with a very obvious bias against the livestock grazing. Many instances throughout the DEIS state that livestock are, or can be, potentially detrimental to a particular resource condition. For example, on page 3-6 water quality, the chapter commences with "Livestock grazing in wildlands is known to have a negative effect on the quality of water in streams…". In the last paragraph is the admission that "None of the laboratory or sample or field measurement results exceeded Nevada water quality standards." *NOWHERE* in the document does it say that improper livestock grazing or unmanaged livestock grazing may cause detrimental effects. The DEIS simply states that livestock grazing, good or bad management, is detrimental.

USFS RESPONSE:
The Forest Service is required to disclose the potential effects of livestock grazing on various resources on the District. It is not legal nor appropriate for us to try and disclose a picture that portrays that livestock grazing does not have adverse impacts on resources. The fact that livestock grazing may have adverse impacts does not mean that we would not authorize that use of the National Forest. We are, however, required by law to disclose what we believe these effects are prior to making these types of decisions.

Comment #: 27-5
COMMENT TEXT:
It would be beneficial to identify what the FS believes proper and improper grazing is in the planning area.

USFS RESPONSE:
Developing a strong definition of what proper and improper grazing is not as easy as it may appear. The definition of these terms is very dependent upon site specific conditions and would vary widely to different people. In very general terms improper grazing could be interpreted as grazing actions or techniques which do not attempt to meet standards, goals/objectives or move the condition of resources towards desired future conditions.

Comment #: 27-6
COMMENT TEXT:
As written, the DEIS is erroneous, inflammatory and unprofessional. It imposes a negative bias on the uninformed public against properly managed grazing. To that portion of the public that has an existing prejudice against livestock grazing this document provides an abundance of negative statements about grazing to further their agenda of eliminating grazing from public lands.

USFS RESPONSE:
See response to Letter #27, Comment #4.

Comment #: 27-7
COMMENT TEXT:
This positional bias is also very self critical. The document states, “livestock grazing has been occurring on this site for over 100 years”, and gives the impression that the entire MB is in imminent jeopardy of total environmental collapse, which is in fact false. Documentation of existing rangeland conditions and a description of how far existing conditions are from the desired condition are nonexistent. The DEIS implies that rangeland and riparian conditions are not generally at desired levels or conditions, that livestock grazing is the causal factor and that simply decreasing livestock utilization levels will result in rapid improvement and attainment of desired conditions. This is seriously flawed and an inappropriate application of the current state of science of range management.

USFS RESPONSE:
See response to Letter #27, Comment #4. We will consider your concerns during the development of the Record of Decision for this project.

Comment #: 27-8
COMMENT TEXT:
Forage utilization was never intended to be a management objective or standard for grazing administration. It is a livestock management tool, primarily to be used by the grazing permittee. Site specific forage utilization estimates was to be used in conjunction with utilization mapping to identify areas of under and overuse in a specific grazing season so management could improve distribution the following grazing season. Utilization cannot be considered independent of season of use, frequency of defoliation, and intensity of defoliation (which is not the same as utilization).

USFS RESPONSE:
The Humboldt National Forest Land and Resource Management Plan, Amendment 2, establishes maximum utilization standards for the management of livestock allotments. There is considerable controversy regarding the use of utilization standards. This document never identified utilization standards as an objective or a goal. Utilization is both a standard and a tool to be used both by agency administrators and by livestock permittees to ensure that areas such as riparian habitats do

not receive excessive and/or inappropriate use that may result in unacceptable resource impacts. Good judgment must be used when using utilization standards as it is not a one size fits all approach and may not be appropriate in all situations. For example, herbaceous utilization standards may not be appropriate on a stream that is dominated by willows. In this situation browse standards may be more appropriate.

Comment #: 27-9

COMMENT TEXT:

Research has shown that season of use primarily affects species composition. Intensity of use largely influences annual biomass production. These are the two mechanisms that influence vegetation change and the subsequent effects on soils, hydrologic function, and wildlife habitat. If these two mechanisms are not addressed there is a very good chance that management changes based on a pre-determined utilization level will not have the desired effect.

USFS RESPONSE:

Under the proposed action, adaptive management will be allowed and season of use can be adjusted to improve the condition of various resources on the allotment. Intensity of Use and utilization levels can be very closely tied. Generally as your intensity increases so does the utilization levels. Different grazing systems can be used emphasizing high intensity, short duration grazing, however, if implemented properly, the utilization level is still at an acceptable level because the time period the livestock spend in the area is shorter.

Comment #: 27-10

COMMENT TEXT:

The focus on utilization levels and not the full spectrum of herbivory is likely to have unintended

consequences and not lead towards attainment of management objectives. The Department strongly recommends that the Santa Rosa District carefully consider the University of Idaho Stubble Height Study Report which clearly defines appropriate use and misuse of annual indicators as does the Oregon State University Station Bulleting 682 “Stubble Height and Utilization Measurements: Uses and Misuses”. Both of these documents recommend an adaptive management approach with terms and conditions based on long-term trend monitoring, rather than annual indicators. If the FS truly wishes to identify where resource conditions are problematic and where real success can be obtained then they must begin managing and monitoring for trend.

USFS RESPONSE:

See response to Letter #27, Comment #8. The Forest Service will consider your concerns during the development of the Record of Decision for this project. The Forest Service does recognize your concerns and agrees that long term trend monitoring is needed, however we don’t believe that it should be the sole replacement for utilization standards.

Comment #: 27-11

COMMENT TEXT:

Finally, since the District EIS are what the FS will use to update the HTNF Plan, it is imperative that the current way FS is applying utilization standards be changed at this level. Instead the MB DEIS further tightens utilization standards.

USFS RESPONSE:

This EIS will not amend or modify the Humboldt National Forest Land and Resource Management Plan.

Comment #: 27-12

COMMENT TEXT:

In order to determine and achieve positive resource conditions the FS must work directly and cooperatively with the livestock permittee to: 1) gain a common understanding of the resource issues on an allotment that relate to livestock grazing; and, 2) mutually explore, select and implement management oriented actions to address the previously identified resource issues. Successful grazing management can only be developed and implemented by the resource managers and livestock managers working together on a site-specific basis to apply the following steps at the allotment level:

1. Identification of livestock-dependent resource issues;

2. Development of site-specific resource objectives;

3. Development and implementation of a grazing management strategy to achieve the previously identified resource objectives; and,

4. Monitoring, evaluation and adjustments based on the documented trend toward the resource

objectives under the applied grazing management.

USFS RESPONSE:
We agree and these actions can be undertaken during the preparation of Allotment Management Plans which will follow the completion of this process.

Comment #: 27-13
COMMENT TEXT:
Good grazing management cannot be unilaterally imposed.

This approach was obviously not incorporated into the Martin Basin Project planning process. It is imperative that FS recognize the value of collaborative and cooperative grazing management and incorporate this philosophy in the remaining District EIS's and in updating the HTNF Forest Plan.

USFS RESPONSE:
Thank You for your comment.

Comment #: 27-14
COMMENT TEXT:
In determining management actions to be taken in response to non-attainment of utilization standards and in developing allotment-specific grazing plans, there are many tools which should be considered prior to permit reductions.

USFS RESPONSE:
Thank you for your comment.

Comment #: 27-15
COMMENT TEXT:
In most situations, the substantially greater area and forage resources associated with the uplands provide the best opportunity for resolving riparian grazing issues. Grazing management techniques that shift grazing pressure to the upland and away from riparian areas is the preferred initial management strategy. These management techniques include water and salt distribution on the uplands, herding, changes in livestock class, changes in initial livestock entry and distribution on the allotment, shortening the grazing period with increase stocking levels, upland forage improvements such as burning and seeding, rotation grazing and adjusting the grazing season.

USFS RESPONSE:
We agree, however, we would like to address what is often occurring when management is actually being implemented on the ground. These are great theories that when implemented as you stated would solve many of our problems. Now let's get back to what is actually occurring. We can talk about new water developments, however when many of our existing developments are not being maintained or are not functioning, we have real concerns. At times salt has been placed near streams and troughs and has created problems. We can all discuss the benefits of herding and riding to distribute livestock, however, some of our operators do not believe in doing this or believe that it is not a priority. Lastly, we can talk about adjusting seasons, however, often times I see decisions being made with personal convenience or economics as the driving force and not how to best improve the resources.

Comment #: 27-16
COMMENT TEXT:
Grazing season can profoundly affect livestock distribution and vegetation recovery after grazing use. Hot season grazing tends to increase animal concentrations in riparian areas and limit vegetation recovery. In conjunction with other distribution management strategies, preferred grazing management actions should consider summer/fall rest periods at least on a rotational basis.

USFS RESPONSE:
Thank you for your comment.

Comment #: 27-17
COMMENT TEXT:
In some situations riparian pastures would be the preferred management action. Separating upland range from riparian zones provides much better control of grazing use in the bottomlands and can increase livestock use in the uplands. When excluding livestock from riparian water sources there must be upland water made available.

USFS RESPONSE:
Thank you for your comment.

Comment #: 27-18
COMMENT TEXT:
Small riparian exclosures may be an appropriate management action where, due to topography, other management techniques cannot adequately protect small isolated riparian areas.

USFS RESPONSE:
Thank you for your comment.

Comment #: 27-19
COMMENT TEXT:
Fence construction should be laid out so as to improve livestock distribution rather than create further animal concentration.

USFS RESPONSE:
Thank you for your comment.

Comment #: 27-20
COMMENT TEXT:
The Department also has concerns with the proposed matrices for alternative 2 in the DEIS. The FS vegetation community approach is not substantiated in the EIS, and is not a known or publicly accepted method outside of FS circles. Therefore, it is imperative that FS and permittees create exclosure areas within their allotment for the various vegetative communities that can be used over time to verify if the vegetation, conditions and ranges stated in the matrix are accurate. Further, if the FS wishes to continue this assessment method, use of the existing NRCS soils data and exclosures can help in verification and assessment should be used to focus management attention, but not to make management decisions without site specific analysis as presented in the DEIS.

USFS RESPONSE:
NRCS soil data and other research was used during the development of the matrices. Exclosures may be an option to monitor as you indicated and can be identified during the Allotment Management Planning Process.

Comment #: 27-21
COMMENT TEXT:
The vegetative communities and matrices (reference sites) appear to closely resemble the Rapid Rangeland Health Assessment process (Interpreting Indicators of Rangeland Health, Tech ref 1734-6) employed by BLM and NRCS. This process was developed and intended to assist land managers inventory rangeland and assess conditions at a point in time i.e. “provide a preliminary evaluation of soil/site stability, hydrologic function, and integrity of the biotic community (at the ecological site level”)). It was never intended to “ a) Identify the cause(s) of resource problems; b) Independently make grazing and other management changes; c) Monitor land or determine trend; d) Independently generate national or regional assessments of rangeland health”. Further, the approach as presented in the DEIS is not based on soils information or ecological site descriptions as provided by the NRCS which has the broad support of range management professionals in universities, governmental agencies and private industry as an accepted practice.

USFS RESPONSE:
The matrices may resemble Technical Reference 1734-6, in that this document introduces some of the more recent literature regarding states and transitions, ecosystem function, range of natural

variability and defining thresholds. However, the information in Technical Reference 1734-6 is qualitative and thus meant for discussion among the interpreters. The matrices were purposely set up to quantify data using scientific sources to allow for a more intensive assessment of ecosystems. This document was used as a reference for some of the soil measurements in the matrices that can not be adequately quantified.

The list of vegetation groups used in the matrices were developed by the Range Management Specialists responsible for the NEPA analysis for range rescission and any similarity to Technical Reference 1734-6 is coincidental. The matrices are an assessment tool that utilizes methods appropriate for long-term monitoring, and thus, if repeated at some point in the future can be adapted to analyze trend on an individual site basis.

The matrices are based on NRCS ecological site descriptions, as well as sampling conducted on the Forest for the creation of score cards and for monitoring at the project level. The soils data from the NRCS was used to describe the soils on the Santa Rosa District for the NEPA analysis. The data from these descriptions is good, but it is production-based, which varies from year to year. For vegetation section of the matrices, we used the NRCS data more as a presence/absence indicator or as a rough estimate for cover.

The NRCS does a soil inventory and provides a point in time assessment or a projection of potential condition. NRCS ecological site descriptions for the Santa Rosa District were ground-truthed in locations on the District and several of the inspected sites were found to be outside of the recommended parameters in the ecological site descriptions. If used, this inventory data is not likely to allow for a higher condition rating on the vegetation component of the Santa Rosa District, then the matrices allow.

The matrices were created to be used as an assessment tool, but with quantifiable measurements that can be used for condition assessment, and if repeated can be used for long-term monitoring.

Comment #: 27-22

COMMENT TEXT:

Instead the Forest Service version uses a comparison of vegetation observed by FS staff in various similar locations throughout the state. This is an unsubstantiated approach that was developed within the FS without soils classification or ecological site descriptions and without public participation or comment. What makes this particularly frustrating is that the FS has published soils information, and most likely the ecological site references, for the Martin Basin area. It is also the Departments' understanding that the Secretary of Agriculture has directed FS and NRCS to work together to obtain soil data on all FS Districts. The FS approach is questionable at best. It is certainly not appropriate to utilize this approach across the Martin Basin as the sole means of monitoring and assessment of range conditions for management of livestock grazing. It would be further folly to compound this misapplication of a preliminary assessment procedure to guide livestock management throughout the HTNF.

USFS RESPONSE:

The soil survey data was used extensively in this analysis. A summary of the soil survey data is in the specialist's report for soils. We do not do anything in soils without using NRCS soil data. NRCS has the experts, the publications and the inventory data for soils, and we have utilized their expertise in this analysis.

However, soil survey is inventory, not monitoring. It does not tell us if the soil is currently compacted, eroded or trampled. It does not give us trend for soil condition. It does not supply much information on the management of soils with livestock grazing and other uses.

Range site descriptions provide a description of the vegetation that should occur on a site in a climax plant community. It does not tell us if the current plant community is at or near climax. It does not tell us if the climax plant community was ever known to exist on that particular site. It does not establish a cause and effect for the uses that occur on a particular soil type.

Soil survey is not meant to answer management questions, such as 1) Can existing numbers of livestock be supported for the long-term on this landscape? 2) What is the proper season of use for these livestock? 3) What is the best grazing system for this particular area? 4) Is this area in a sustainable ecologic condition? 5) How can management be adjusted if this site is not in a sustainable ecologic condition? 6) Is the current livestock management having a significant impact on

the watershed, on wildlife or fisheries habitat or on the recreational experience? 7) Is the trend improving, decreasing or remaining static under current management? 8) What rate of change can or should be expected with a change in livestock grazing?, etc. These are the types of questions we need to address in an analysis, and while soil survey data may provide a good baseline, it can not respond to these questions.

The Forest Service has been given the authority and responsibility to management these lands in an ecological sound and sustainable manner. With this authority, the agency also has the responsibility to assess what a functioning, sustainable, ecologic condition is, determine what uses the National Forest lands are capable of supporting and at what level they will need to be balanced. For this analysis the Forest has chosen to use the matrices as guides for determining the ability of the ecosystems to support uses under current management. These matrices are out for public comment with this Draft EIS.

Comment #: 27-23

COMMENT TEXT:

In regards to the "Stream Group", FS states that the water quality standards are derived from Nevada Water quality standards. That is true, however, FS fails to recognize that the standards are not applicable to most of the streams and reaches in the Martin Basin or the balance of the state, since they are not "Class" or "Designated" waters as defined by the Nevada Administrative Code (NAC) which have no numeric standards except for radioactive compounds. We defer detailed comment to the Nevada Division of Environmental Protection letter to FS, regarding the MB DEIS, dated June 30, 2004.

USFS RESPONSE:

See response to letter #13, comment #5.

Comment #: 27-24

COMMENT TEXT:

It is disturbing not to see better use of the Governors plan or the specific local planning document (Santa Rosa Population Management Unit Risk Factor Assessment and Proposed Action Plan) that was developed with regular input from the local District Ranger. These plans have local participation and buy-in that should assist in implementation, that over the long term, should see continued effort from the local community to assure that Sage Grouse are indeed positively affected. The local sage grouse conservation plan should be the preeminent document guiding FS conservation for sage grouse in the MB.

USFS RESPONSE:

The Forest Service was involved during the preparation of this plan and considered this effort during the analysis on this proposal. Currently the Santa Rosa PMU plan Is still in draft stage.

Comment #: 27-25

COMMENT TEXT:

Due to the many inconsistencies, inaccuracies and unsupported allegations of resource damage in the Martin Basin DEIS, the Nevada Department of Agriculture has participated in the development of an alternative to be included in the DEIS as a preferred alternative titled "An Integrated and Collaborative Management Approach". This alternative is a superior approach to resource management and provides a better management process for FS and permittees to develop mutual goals and objectives and work towards measuring and achieving these objectives through the adaptive management approach as defined in the University of Idaho Stubble Height Report, July 2004. The "Integrated and Collaborative Management Approach" alternative is formally submitted to the FS as a portion of the comments provided to the MB DEIS. The Department looks forward to working with the FS to refine and implement this new approach so that it can be adopted as the preferred management approach by the HTNF throughout Nevada.

USFS RESPONSE:

The Forest Service will include and analyze this alternative within the Final EIS.

LETTER #: 28
BY: JOHN L. MCLAIN, RESOURCE CONCEPTS, INC. (RCI)

Comment #: 28-1
COMMENT TEXT:
Despite extensive reductions, installation of vast range improvements, planned grazing systems, and monitoring systems, the USFS unfortunately continues to attribute an array of faults to livestock grazing. Long term residents, and historical records substantiate the fact that improvements occurred across the landscape as a result of all of the above mentioned actions, but USFS records are apparently lacking and the current approach more focused on finding fault with grazing rather than realizing its value and importance toward achieving long term objectives.

USFS RESPONSE:
See response to Letter #27, Comment #4.

Comment #: 28-2
COMMENT TEXT:
Natural events can be, and often are, much more damaging to resources than the effects of man with his animals. This is evidenced with flash floods, fire, and the invasion of cheatgrass throughout the region. Yet livestock grazing is throughout this document being represented to be the cause, or a major contributor, to most any activity that affects resources negatively.

USFS RESPONSE:
The purpose of this document is to decide whether or not to continue to authorize livestock grazing and under what conditions. The reason that the effects of grazing are emphasized throughout this document is because that is the activity that is being analyzed here and therefore it should be the focus of the disclosure of effects. The potential effects from other activities and events such as fires, although they may be more damaging, they are cumulative to the effects from grazing as it relates to this analysis. These effects are summarized in the cumulative effects sections within Chapter 4 of the Draft EIS.

Comment #: 28-3
COMMENT TEXT:
The reported decline of some meadows and riparian areas should be carefully considered to ascertain if grazing is the cause or even a contributor in each of the cases reported. Periods of successive drought were not mentioned in the report. Riparian area assessment, as well as site specific planning, should always include the experience, knowledge and inputs of the operator. Imposed reductions and/or altered management schemes, absent operator inputs, will achieve little toward mitigating problem areas.

USFS RESPONSE:
During the implementation of the matrices, if other activities are the cause of any problems that are identified then that will be noted. If livestock grazing does not contribute to the problem and if changes in grazing would not assist in correcting the problems then no actions should be taken regarding livestock management.

Comment #: 28-4
COMMENT TEXT:
Allowable use rates should not be the issue on riparian areas so much as when the grazing occurs, how long it occurs, and if livestock are allowed to continue use throughout the designated season.

USFS RESPONSE:
Livestock management practices will be addressed during the allotment management process. During this time pasture management techniques can be used to improve resource conditions.

Comment #: 28-5
COMMENT TEXT:
Goals #13, 14, 15, 16, 17, 18, - each of these goals relate to livestock grazing. Emphasis is on cooperation with NDOW to achieve the goals with habitat, while USFS emphasizes the need to "manage" livestock, allotments, etc. It's unfortunate that there is not emphasize on cooperation with

the permittees, who are the day-to-day managers of the livestock and the allotment. With the limited field personnel in FS offices today, the FS is hard pressed to issue permits and conduct the necessary monitoring.

USFS RESPONSE:
The goals identified in this comment were taken directly from the Humboldt National Forest Land and Resource Management Plan. If there are concerns with these goals then those should be raised during the upcoming Forest Planning Process.

Comment #: 28-6
COMMENT TEXT:
Fisheries

Desired streambank stability is 90% of estimated potential. What is potential and is it based on Ecological sites?

USFS RESPONSE:
Desired streambank stability is 90% for streams with threatened and/or endangered species (e.g., Lahontan cutthroat trout) in the matrices on page B-3. The metric is not compared to estimated potential, instead calculated directly as per the Forest Service General Aquatic Wildlife System, Level III, protocol.

Comment #: 28-7
COMMENT TEXT:
Were the permittees involved or even consulted in the proposed "updated grazing management direction"? Will permittees be included in the monitoring that leads to "adaptive management" or is this proposed only for FS purposes?

USFS RESPONSE:
Permittees were sent the original scoping document on this project. Involvement prior to this stage was limited to discussions with individuals in an informal setting. Permittees will be involved in monitoring and other activities related to the adaptive management approach of the Proposed Action or what ever is in the Record of Decision.

Comment #: 28-8
COMMENT TEXT:
The assessment to be completed on each allotment will determine the functioning level on representative sites within the vegetative communities. Assessments should occur across the entire allotment, not just on representative sites. The areas determined to have little or no use on the allotment following use pattern mapping, in fact present opportunities to relieve pressure from key, or representative areas, and promote better distribution and use overall.

USFS RESPONSE:
To implement the matrices across entire allotments rather than representative areas would be cost prohibitive and could not be accomplished.

Comment #: 28-9
COMMENT TEXT:
Sage grouse - are permittees to be included in developing the management practices and mitigation measures being proposed for the allotments regarding both sage grouse and LCT?

USFS RESPONSE:
The three alternatives and associated mitigation measures were outlined in Chapter 2 of the Draft EIS.

Comment #: 28-10
COMMENT TEXT:
The proposed mitigation for Cabin Creek and Rebel Creek riparian areas is to create fenced riparian pastures in selected areas. This assumes that the permittees have been involved and are in agreement with the proposals. Have all alternatives been explored to determine that fencing is the best approach? Because of the work and high cost associated with fencing, it should be considered the last resort if no other viable alternative is available.

USFS RESPONSE:
The proposed Riparian Pastures are not included as mitigation measures in Chapter 2 of the Draft EIS. There are currently no permittees on the Rebel Creek Allotment. Permittees on the Martin Basin Allotment have been consulted and one of them actually proposed this pasture. The realignment of fences and creation of this pasture may in the long run result in a reduction in the total miles of fences to maintain on this allotment

Comment #: 28-11
COMMENT TEXT:
Page Ch 1-7

"continue rest-rotation grazing systems on all allotments" is proposed as part of the proposed alternative. Limiting grazing systems to rest-rotation could be a serious mistake over the long term.

Rest rotation grazing is not a panacea, but rather a "tool" amongst many, that should be considered along with deferred rotation grazing, holistic resource management (HRM) and other systems that are designed to achieve the site-specific objectives while also reducing fuels throughout the allotment annually if possible.

USFS RESPONSE:
Your concerns are well taken and this will be corrected in the Final EIS.

Comment #: 28-12
COMMENT TEXT:
This is not the case with wildfire. It knows no boundaries, and will readily decimate sage grouse habitat, LCT habitat, and watersheds. The high cost in time and dollars to the public, local communities, ranchers, and the FS to address fire suppression and rehabilitation should no longer be an option.

USFS RESPONSE:
The cumulative effects of wildfires are disclosed in Chapter 4 of the Draft EIS.

Comment #: 28-13
COMMENT TEXT:
Grazing system selection and design should be carried out in concert with the permittees to be followed by implementation, and effective and consistent monitoring to achieve objectives.

USFS RESPONSE:
We agree fully.

Comment #: 28-14
COMMENT TEXT:
Decision Framework – it's inconceivable to think that removal of livestock is even an option under consideration today, particularly given the vast losses of resources to wildfire in the region. Over 60% of the Wyoming sagebrush type is already reportedly lost from the neighboring BLM allotments due to wildfire. It is likely that the Forest Service is also experiencing losses of critical habitat due to wildfire. There is no indication in the report of the value of using livestock to reduce fine fuels, thereby contributing significantly to pre-suppression on the allotments. Also, presently the fire threat is further exacerbated through the grounding of large air tankers for fire suppression activities recently. The land management agencies should not overlook one of the most viable tools available to help protect the allotments from uncontrolled destructive wildfires - properly managed livestock grazing.

USFS RESPONSE:
The No Grazing Alternative is one of three alternatives analyzed in the Draft EIS. The potential cumulative effects of wildfires under each of the alternatives has been disclosed in Chapter 4 of the Draft EIS.

Comment #: 28-15
COMMENT TEXT:
Did USFS review and consider the Humboldt County Public Land Use Advisory Committee/County plans as regards uses and importance of FS managed lands to the County as part of the scoping?

USFS RESPONSE:
The Forest Service met with the Humboldt County Commission as part of the scoping process (see page CH.1-7). The Forest Service did not send a scoping document to the State of Nevada Public Land Use Advisory Committee, however the Humboldt County Representative on the State of Nevada Public Land Use Advisory Committee was part of the scoping process.

Comment #: 28-16
COMMENT TEXT:
Soil Quality – the MBDEIS states that "livestock have the potential to affect soil quality". True, but so do natural storm events, wildfire, recreation, and sometimes wildlife species. Wildfire has even greater potential to create long-term resource damage. Livestock enter the Forest annually through an Annual Operating Plan (AOP) or (AOI) that can be altered annually to assure that excessive grazing does not occur if conditions dictate. Why then is the Forest Service presenting such an unbalanced picture of grazing throughout the document? This is not the 1800's. Management has been in effect on the land for many decades and efforts ongoing to address problems that evolve with a dynamic resource.

USFS RESPONSE:
See response to Letter #28, Comment #2.

Comment #: 28-17
COMMENT TEXT:
Water Quality

"Livestock grazing has the potential to affect water quality". The report indicates that "livestock grazing can lead to increases in erosion, sedimentation, temperature, etc." In reality, livestock *overgrazing or mismanagement* can potentially affect the described conditions. The paragraph would also lead one to believe that other "downstream beneficial uses" are the only beneficial uses. Livestock grazing remains a recognized beneficial use on the forest, and as such should be so stated. Unless the Forest Service has the expertise on staff to design and implement intensive and extensive water quality monitoring programs in concert with the Nevada Division of Environmental Protection (NDEP), this program should be left to the responsible agency, the NDEP.

USFS RESPONSE:
Text has been added to clarify that "poorly managed" livestock grazing can potentially affect water quality.

Chapter one of the EIS, as well as the Forest plan, identifies livestock grazing as recognized use of Forest land. Beneficial uses of water are determined by Nevada law (NAC 445A), which is cited many times in the document. In addition, just because a human activity is a beneficial use, it is not allowable under Nevada and Federal law for that activity to degrade water quality. The purpose of the paragraph in question is simply to identify the potential harmful effects of poorly managed livestock grazing. Not to establish beneficial uses of Project Area waters. As stated earlier, a designation of beneficial uses can be found in Nevada State law (NAC 445A).

Thank you for your concern, but the U.S. Forest Service does have personal that are very qualified to conduct a water quality monitoring program. The Clean Water Act, as amended, requires the Forest Service to meet state, interstate, and local procedural requirements regarding the control and abatement of pollution. Section 319 addresses non-point source pollution, which is an important concern in the management of livestock. As the designated agency, the Forest Service is responsible for implementing non-point source pollution control as well as Nevada State Water Quality Standards. The U.S. Forest Service also recognizes the responsibility of NDEP to monitor water quality and welcomes their continued guidance and collaboration.

Comment #: 28-18
COMMENT TEXT:
Fisheries - PFC determinations, however subjective, require specialized training in soils, plants, water, etc. It is assumed that the evaluators that conducted the evaluations were fully qualified and experienced professionals.

USFS RESPONSE:
Yes, they were.

Comment #: 28-19

COMMENT TEXT:

Wildlife

It's true that "livestock have the potential to affect sage grouse habitat, etc", but in most instances not in the negative manner indicated in the report. Fire is the primary cause of the loss of the sagebrush type in this region (i.e. 60% of Wyoming big sagebrush in the BLM District has been lost to wildfire over the past decade). This is not a result of grazing, but rather a lack of grazing at the proper time and level to control cheatgrass and to reduce the fine fuels prior to the fire season. Failure to take heed from the research of the USDA-ARS Reno Lab, and University Rangeland Scientists over the past several decades, has greatly exacerbated this condition. If livestock are not recognized for their value and used effectively through allotment specific plans to address the fuels issues, it is conceivable that we will lose innumerable additional acres of prime sage grouse habitat to wildfire. It is true that disturbance to nests could result in reduced hatches. However, effective grazing management could help to reduce the threat of habitat destroying events. Livestock and sage grouse have successfully coexisted on rangelands for more than 100 years. Well managed grazing is vital to sage grouse habitat protection and viable grazing operations help to insure that productive rangelands will remain available for wildlife habitat.

USFS RESPONSE:

See response to Letter #28, Comment #2. The potential effects of each of the three alternatives on sage grouse are disclosed on pages 4-19, 4-26, 4-30, and 4-31.

Comment #: 28-20

COMMENT TEXT:

Riparian Habitat - The MBDEIS indicates that these areas continue to be impacted by flooding, recreation, and grazing. Certainly, if evidence is conclusive that grazing use is a factor, then the permittees should be consulted as to cause and effect, and seek their inputs as to changes they might make in concert with FS to help correct the situation. Long term experience and observations are invaluable for efforts to address these problems. Involving the permittee and making him a part of the solution is much preferred to approaches outlined in the MBDEIS.

USFS RESPONSE:

This approach is a part of the adaptive management portion of the Proposed Alternative in the Draft EIS and will be more evident within the Final EIS.

Comment #: 28-21

COMMENT TEXT:

Aspen - Fencing aspen groves of concern would seem a possible option, for a period of time, to allow young trees to grow above hedging height. These areas can sometimes demonstrate problems with livestock lounging during hot periods.

USFS RESPONSE:

This is a band aid approach to addressing management problems. If the areas of concerns are very limited in numbers and size then there may be options, however, I would like to remind the commenter that in comment #10 you raised concerns about fencing and costs and indicated that this should be the last resort. If concern areas are numerous or large in size then fencing may not be an option and other management actions should be considered.

Comment #: 28-22

COMMENT TEXT:

Upland Vegetation

We agree that, "grazing may alter the composition and structure by reducing some species and allowing others to increase." However, this is mostly a case of isolated situations anymore, given the progress that has been made on the Forest over the past several decades. If monitoring demonstrates a declining trend, the USFS and permittee should adjust the AMP/AOP to address the evolving condition. With responsible monitoring, there should be no reason for range deterioration from grazing. For the most part, fire and noxious weeds are a far greater threat to condition changes today than is livestock grazing.

USFS RESPONSE:
We believe that these conditions are not always just isolated situations. For example the PFC Assessments indicate that there are problems with many streams and several may be non-functional. We agree that in general conditions are improving, however, the progress varies widely from allotment to allotment. The effects of fire and noxious weeds are disclosed in the cumulative effects sections in Chapter 4 of the Draft EIS.

Comment #: 28-23
COMMENT TEXT:
Noxious Weeds - What is the disturbance level attributed to livestock that encourages noxious weeds? A failure by FS to chemically treat incidents of weed infestations has encouraged the spread of weeds on public lands in general. Wildfire encourages invasion by invasive and noxious weeds and is well evidenced over vast areas throughout the County. If livestock were a serious contributor to introduction and spread of noxious weeds, the country would have experienced extensive invasion by these weeds decades ago. Other sources of weed invasion include ATVs, imported hay for pack animals, birds, and wind.

USFS RESPONSE:
We have concerns related to the inference in this comment that the Santa Rosa Ranger District is failing to address noxious weeds and encouraging their spread. The Santa Rosa Ranger District has one of the most aggressive treatment programs in Humboldt County and has been working cooperatively across administrative boundaries to deal with weeds on adjacent BLM and Private Lands. We agree that many activities and situations can result in the spread of noxious weeds and that livestock is not the only cause or contributor. We do not agree that livestock does not contribute to the spread and/or establishment of noxious weeds. The fact that they do spread or contribute to the spread of weeds can be confirmed by research, professional experiences, and site specific examples. Livestock can loaf in areas creating areas of bare soil which provide seed beds. Weed seeds can be transported in the hair or within the stomach of livestock and deposited in these areas where weeds then become established. A prime example of this can be observed adjacent to the Santa Rosa Ranger District in Canyon Creek. There is a large area where cattle tend to concentrate and create large areas of bare ground. Weeds have been established on this site and are expanding with the grazing impacts. This site is one of the worst scotch thistle infestations in Humboldt County.

Comment #: 28-24
COMMENT TEXT:
“Reductions in livestock grazing that may occur as part of the proposed project have the potential to effect the attendant ranching operations, etc” is a leading statement that shows that the USFS is in fact proposing to reduce livestock numbers. As previously mentioned, very significant reductions have occurred over time on this forest, albeit likely necessary initially to achieve acceptable stocking rates. Today, management issues that deal with overstocking of rangelands are mostly rare. Rather, the issues are about sore spots, most generally riparian, that make up about 1% of most allotments. The issue then is mostly one of distribution, rather than overstocking.

USFS RESPONSE:
Thank You for your comment and this will be corrected in the Final EIS.

Comment #: 28-25
COMMENT TEXT:
Range improvements that assist in remedying the problem are necessary.

USFS RESPONSE:
Range Developments are not a part of this project and are outside the scope of this analysis.

Comment #: 28-26
COMMENT TEXT:
Further, the MBDEIS indicates that “reductions in livestock numbers or season can be offset by private leasing, however added costs may have an affect on the economic viability of their ranching operations”. How confident is USFS that additional AUMs are available to lease from private interests? Private lands leases are not readily available in a state that is 87% public land, and if available, they are most generally taken.

USFS RESPONSE:
Private land leasing for individual permittees on these allotments is an option that they could exercise as we explained. These leases are available, however we acknowledge that most or all private leases may already have operators on them and therefore the existing operators on those lands could be displaced.

Comment #: 28-27
COMMENT TEXT:
The University of Nevada Department of Applied Economics is the appropriate and best source of current available economic data regarding each of the rural counties and their economies throughout Nevada. It is curious that USFS does not utilize this credible source of sound and current information.

USFS RESPONSE:
The Forest Service recognizes that there are numerous sources of social and economic information available related to this analysis. The information used is deemed sound and credible and was adequate for the level of analysis needed. Use of other sources of information is not necessary at this time.

Comment #: 28-28
COMMENT TEXT:
Heritage Resources

This section leads one to believe that livestock are significant contributors to destruction of heritage resources. It is apparent that the author knows little or nothing about livestock grazing. By outlining the potential for soil disturbance and dispersal of artifacts vertically and horizontally, and also the potential to damage artifacts through grazing, the FS effectively condemns grazing as a threat to cultural or heritage resources.

Is there conclusive evidence of specific damage now occurring to artifacts and or historic resources on any of the allotments, or is the information provided merely to mislead the public?

USFS RESPONSE:
Studies have shown that cultural resources can be adversely impacted by heavy livestock use. Refer to the following references for additional information: Mayben & Moskowitz (1996), Osborn et al (1987) and United States Army, Corps of Engineers (1988). Currently the HTNF has a Rangeland Memorandum of Understanding (MOU) with the Nevada State Historic Preservation Office to address rangeland management issues as they pertain to cultural resources (Please refer to Chapter 3 Affected Environment, Heritage Resources, Existing Condition and Brief Overview for a description of the MOU.) When cultural resource sites are found information about the site and any impacts that are occurring on site are also documented. In the past many sites have been reported to be impacted by livestock. Unfortunately the forest does not have a specific count on how many sites are being impacted. A recent cultural resource survey of approximately 600 acres in the Santa Rosa District in range utilization areas identified 17 sites. Of those sites, varying degrees of impacts from livestock were documented on all sites. These impacts included trampling, grazing, disturbed deposits, trailing and stream bank deterioration. Preliminary evaluations of the sites have determined that ten of the sites are not eligible for listing on the National Register of Historic Places. The remaining sites have been determined eligible or require additional work to determine their eligibility, which includes assessing whether the damage done to the site by livestock has rendered the site ineligible.

Comment #: 28-29
COMMENT TEXT:
Dispersed Recreation and Trails

It is apparent that livestock grazing occurs in dispersed recreation sites and near streams and aspen sites as indicated in the report. Livestock in these dispersed areas may detract from the recreation experience of some, but also be appreciated by those who recognize the value of grazing to the overall environment.

USFS RESPONSE:
You are correct, thank you for your comment.

Comment #: 28-30

COMMENT TEXT:

Alternative 1 – "Current Management/No Action"

The USFS appears to be scrubbing this alternative as having failed and with no potential to improve resources beyond existing condition, thereby justifying introduction of a new preferred alternative. Is it conceivable that this alternative has in fact worked well in most instances and that all that might be needed is to adjust the grazing system, management, and improvements to focus on identified areas of concern. If levels of utilization have not worked well in some instances, then it is probable that changes are warranted, but are best addressed on a site-specific basis and give due consideration to the season of use, etc. It is troubling that FS has put their major emphasis on utilization levels with the past Forest Plan utilization table in Appendix A, and also introduce a new table of utilization levels under the preferred alternative titled Table 1-T: Standards for Herbaceous Vegetation. This approach leads one to believe that the FS is relying strictly on utilization as a means of achieving objectives. As mentioned previously, utilization monitoring is a measure of the current year's grazing program and meant to alert the operator to areas of opportunity as well as those that require more immediate attention. This information should then be used to effectively outline the grazing management changes needed for the next grazing season. Please refer to the Nevada Range Monitoring Handbook for specific guidance.

USFS RESPONSE:

The No Action Alternative is one of three alternatives that was analyzed within the Draft EIS. See response to Letter #27, Comment #8.

Comment #: 28-31

COMMENT TEXT:

Alternative 2 – "Proposed Action"

It is curious that the FS has developed a proposed grazing plan absent the inputs of lifetime ranching families, thoroughly familiar with their allotments, livestock movements, and with a commitment to the betterment of the land.

USFS RESPONSE:

See response to Letter #28, Comment #7.

Comment #: 28-32

COMMENT TEXT:

Alternative 2 – "Proposed Action"

It is estimated that Animal Unit Months (AUMs) may be less than "Current Management/No Action". This statement blatantly indicates that reductions are in store for the allotment(s). As indicated earlier in this response, dramatic decreases have occurred on a continuum over time on the Santa Rosa forest. It is likely that allotments are not overstocked, but rather under-managed. Absent range improvements to help with distribution, the FS will realize little or no improvement to the site-specific resource issues, as the animals that remain following possible reductions, will continue to congregate in the areas where problems are presently identified. Permittee inputs and allotment specific range improvements are the primary need and it would behoove the FS to come to grips with this fact.

USFS RESPONSE:

See response to Letter #27, Comment #15.

Comment #: 28-33

COMMENT TEXT:

Alternative 2 – "Proposed Action"

This statement ties to attributes in matrix form found in Table 1-T and Table 2-T. The matrix begs questions regarding the justification for the utilization standards tied to functionality. Why would FS impose a reduced utilization standard on land that has "crossed below the threshold"? If rangeland condition has deteriorated to a poor condition, then the remaining desired vegetation is found in low percentage or only a trace of the total vegetation. In addition, invasive species such as cheatgrass are typically in greater abundance. When in this condition, the very best of management will rarely demonstrate improvement over time. This is true even if all livestock are removed from the range.

Most rangeland restoration scientists recommend mechanical or other restoration applications at this point rather than grazing changes.

USFS RESPONSE:
This is a very controversial subject regarding the worst of the worst. In some cases you may be correct that only aggressive mechanical or restoration techniques will restore some of these sites, however, if livestock may be the cause or a contributing factor to the condition at hand then many scientists and professionals would argue that livestock grazing should be removed until restoration is complete. In the end many of these types of calls will have to be made on a case by case basis and be based upon site specific conditions which is the intent of the adaptive management approach in the proposed action and the matrices.

Comment #: 28-34
COMMENT TEXT:
Alternative 2 – "Proposed Action"

The best means of determining potential to achieve desired condition is to install exclosures at key sites that are representative of the soils and plant community, particularly along stream zones, where the response is more rapid. This, coupled with USDA-NRCS national soil surveys, and ecological sites correlated to these soils, combine to provide the best scientific information to assess and measure potential for a site. Permanent exclosures then would become the measurement of what is achievable in a given area of concern, such as riparian, as livestock grazing is totally excluded from the exclosures. The data generated is site-specific and most useful for a comparison area.

USFS RESPONSE:
We agree that these are viable options and can be a part of the development of the AMP's after a Record of Decision is issued.

Comment #: 28-35
COMMENT TEXT:
Alternative 2 – "Proposed Action"

With respect to utilization standards appropriate to Nevada's environment, we are curious as to the FS position on the Nevada Rangeland Monitoring Guidelines. We strongly recommend that the FS commit to these guidelines that have been in effect since 1982 and are presently being updated.

USFS RESPONSE:
Any decision as to whether the Forest will commit to these monitoring guidelines is a separate decision and is outside the scope of this analysis.

Comment #: 28-36
COMMENT TEXT:
Alternative 2 – "Proposed Action"

The management standards developed for vegetative communities that are within the Project Area present a number of questions. Why must standards be developed to further detract from the flexibility to conduct site-specific management applications? Soils, aspect, slope, stream flow conditions, and many more factors can affect the decision process. Specialists need the flexibility to design grazing systems based on what they and the permittee are viewing throughout the allotment. The matrix approach appears to be a convenient shortcut to find an operator in violation of imposed standards. Utilization standards were never intended to govern grazing as a standard, but rather to help guide it on an annual basis. Utilization requires allotment wide mapping at the end of each growing season.

USFS RESPONSE:
The matrices do not involve using utilization standards to determine conditions and are not intended to determine if a permittee is not in compliance. See response to Letter #27, Comment #8.

Comment #: 28-37

COMMENT TEXT:

Alternative 2 – "Proposed Action"

It is not difficult to find a specific problem use area and to visit the same annually, while imposing violations and restrictions on the basis of a small key area analysis using these standards. It's quite another to map use the entire allotment, thereby identifying areas of heavy, moderate, slight, light, or no use. These areas, once mapped, will afford relief to the problem area(s) if distribution is addressed, and appropriate range improvements authorized.

USFS RESPONSE:

The Humboldt-Toiyabe National Forest has established policy regarding Key areas and how these areas are chosen. This policy is available upon request. This policy is not intended to find small problem areas and to impose violations strictly as a result of those isolated locations. As far as the distribution and range improvement comments, your theory assumes that individual permittees are willing to ride the allotment and install/maintain range improvements, which by practice is not always the case.

Comment #: 28-38

COMMENT TEXT:

Alternative 2 – "Proposed Action"

Ecological sites are correlated to specific soils on the District and provide dependable and science supported information on site potential. Congress has recently instructed the USDA and USDI to pursue standardization of methods for assessing rangelands. Ecological sites are viewed as one of the most important moves toward standardization. Is there a reason that FS is not subscribing to this methodology and utilizing available ecological sites as developed in conjunction with the standard national soil surveys?

USFS RESPONSE:

We are currently standardizing our inventory, assessment and monitoring data to be placed in digital databases that would be accessible by all natural resource agencies. Soils data is generally collected and stored using NRCS protocols. However, there are several acceptable methods for sampling vegetation based on the need for and use of the data collected.

There are several multi-agency publications that outline techniques for inventory and monitoring of vegetation. The methods are similar regardless of the publication. The NRCS ecological site descriptions are based on vegetative production and on describing the potential natural community or climax vegetative cover. The data collected is inventory.

Production is most often a measure of the standing crop of vegetation at peak production or before the plants start losing leaves. This approach tends to over or underestimate individual species production in rangelands with multiple species and different rates of plant growth and is highly variable depending on yearly climate. The vegetation assessment and monitoring protocol used on the Forest is frequency and/or cover based, as these sampling techniques are less dependent on yearly climate.

The NRCS ecological site descriptions are excellent, and were used in the creation of the matrices by roughly translating production to vegetative cover and by using the vegetation species lists as presence/absence of indicator plants. The Humboldt-Toiyabe is a large National Forest and we do not have ecological site descriptions for the entire Forest. We needed one description per broad vegetative group that would encompass several similar plant communities and yet contain the range of natural variability for these plant communities. A review of the NRCS ecological site descriptions for areas of Nevada that have National Forest lands was completed and utilized in the creation of the matrices.

Range site descriptions provide a plant list and relative amounts of species or species groups that should occur on a site in a climax plant community. It does not tell us if the current plant community is at or near climax. It does not tell us if the climax plant community was ever known to exist on that particular site. It does not establish a cause and effect for the uses that occur on a particular soil type.

Ecological site descriptions are not meant to answer management questions, such as 1) Can existing numbers of livestock be supported for the long-term on this landscape? 2) What is the proper season

of use for these livestock? 3) What is the best grazing system for this particular area? 4) Is this area in a sustainable ecologic condition? 5) How can management be adjusted if this site is not in a sustainable ecologic condition? 6) Is the current livestock management having a significant impact on the watershed, on wildlife or fisheries habitat or on the recreational experience? 7) Is the trend improving, decreasing or remaining static under current management? 8) What rate of change can or should be expected with a change in livestock grazing? etc. These are the types of questions we need to address in an analysis, and while ecological site descriptions may provide a good baseline, it can not respond to these questions.

Comment #: 28-39

COMMENT TEXT:

"Vegetative Groups". What type of vegetative classification system is this based on? Setting Utilization numbers on such a broad classification of plant communities does not seem to be technically supportable.

USFS RESPONSE:

Standards are established for groups such as sagebrush habitat types, riparian areas, aspen and others depending upon their condition as defined under the Matrices. We believe that this approach is very supportable.

Comment #: 28-40

COMMENT TEXT:

What are the criteria for selecting reference areas? Are these presumed to be the same as key areas?

USFS RESPONSE:

Reference areas are locations that are representative of a vegetative community within any given allotment or pasture and should show change with changes in livestock management. These sites will be identified by resource professionals with input from the permittees and will be approved by the District Ranger. These sites are not intended to be the best sites in the pasture and are also not intended to be the worse sites.

Comment #: 28-41

COMMENT TEXT:

The MBDEIS states "Until they are categorized, the vegetative groups would be managed under the standards listed for Functions as Desired". This statement assumes that USFS has adequate data already available to unequivocally make that determination on each allotment.

USFS RESPONSE:

Your assumptions are not correct. The Forest Service is proposing this because we feel until the Matrices are run it would not be appropriate or fair to the livestock permittees to make assumptions about the conditions and/or reduce utilization standards under the proposed action until data from the matrices has been collected. This is the reasoning behind this determination.

Comment #: 28-42

COMMENT TEXT:

Will ecological sites and soil surveys be utilized, and if not, why not? Small exclosures in representative areas, on each stream would serve as the best representative site as to stream potential.

USFS RESPONSE:

Ecological sites and soil surveys were used during the development of the matrices and in the analysis within the draft EIS. See response to Letter #28, Comment #34.

Comment #: 28-43

COMMENT TEXT:

What specifically are the resource issues, and how will riparian vegetation fare without periodic removal of herbaceous plant material?

USFS RESPONSE:

Resource issues in the lower 3 miles of Rebel Creek include steep terrain that lends to cattle congregating within the riparian area.

Issues related to Cabin Creek can be found on (page 3-23, 3-49)

Cabin Creek pasture will be used on a rest-rotation grazing system, therefore herbaceous material will be used periodically.

There are no riparian pasture proposals for wood canyon.

Comment #: 28-44

COMMENT TEXT:

How will this effect sage grouse in the area that may depend on the riparian areas?

USFS RESPONSE:

Under the "No Grazing" alternative it was assumed as conditions of seeps and springs improve so would sage grouse habitat. However, in the long term without grazing, there would be an increase in decadent vegetation and a resultant loss of forbs. As stated in the DEIS on page 4-31 under the "No Grazing" alternative, some important forb species for sage grouse chicks such as dandelion would be reduced as meadows recover. Additionally, as stated under the analysis of effects to the "No Grazing" alternative on page 4-31 a termination in grazing within the Project Area would result in an increase in fine fuels which in turn could result in a higher risk of catastrophic wildfires which could potentially eliminate large areas of sage grouse habitats. Also, under this alternative sage grouse populations on adjacent private lands may decrease as increased pressure is placed on those private lands to maintain grazing operations.

Comment #: 28-45

COMMENT TEXT:

Grazing systems can be designed to fit the specific needs of a stream reach to both benefit the trend and also maintain the vegetation in a productive state for all users. Excluding grazing across this size of area warrants a closer review, perhaps by the National Riparian Team. We encourage the FS to utilize this highly qualified team for a second opinion prior to imposing no graze parameters on any pastures.

USFS RESPONSE:

Thank you for your comment.

Comment #: 28-46

COMMENT TEXT:

The reports also states that "maintenance of structural developments would be outlined in the individual term grazing permits". What constitutes a structural development? If a development is not beneficial to livestock management needs, and maintenance agreed to by the permittee, then maintenance should not be imposed as a condition of the grazing permits.

USFS RESPONSE:

Thank you for your comment.

Comment #: 28-47

COMMENT TEXT:

If the FS intend to defer livestock use in sage grouse nesting areas prior to June 1 of each year, then it is critical that these areas are accurately depicted on resource maps to verify and permittees alerted to these areas well in advance of implementation.

USFS RESPONSE:

The Final EIS will be corrected to address these concerns.

Comment #: 28-48

COMMENT TEXT:

Please list the research data that supports the deferral of "hot season" grazing one out every 3 years for ALL stream areas. Blanket imposition of standards impedes creative site-specific and unit-wide planning opportunities for allotments and associated stream zones. Here again we recommend review and inputs from the National Riparian Team before moving forward with this proposed action.

USFS RESPONSE:

Hot Season Grazing on an annual basis has been well documented to create possible problems and adverse impacts in riparian areas. Cattle concentrate in riparian areas most frequently during the

hottest months out of the year resulting in increased ground disturbance, higher utilization rates and increased streambank damage. The intent of this mitigation measure was to ensure that rest from hot season grazing is allowed in one of every three years while still providing additional flexibility as compared to the existing management situation. There is still adequate flexibility to meet this requirement and utilize the allotments effectively within the Project Area. See also Comment #16 in Letter #27 from the Nevada Department of Agriculture regarding rest from hot season grazing.

Comment #: 28-49

COMMENT TEXT:

The proposed protection by FS, to various identified species (e.g. Osgood Mountain milkvetch, etc.) and also sensitive plants, if "negative effects are occurring," raises question. Did these species exist under historic grazing, and if so in greater numbers? Do the USFS have data to support the management requirements of each of these species? Is it possible that some of these species thrive under grazing pressure?

USFS RESPONSE:

It is unknown if Osgood Mountain milkvetch or obscure scorpion plant existed under historic grazing and are no longer present on the Santa Rosa Ranger District (Pg. 3-60 & 3-61). Actual and potential effects (positive and negative) of grazing have been documented for other known populations and were discussed in the effects analysis as described in Moseley,1989; Knight, 1991; and Holland, 1996 (Pg 3-61, 4-50 to 4-52). Mitigations for monitoring under alternative 1 and 2 would only be used if populations are found in the Project Area. If monitoring showed the species benefited from grazing, no additional management actions would be necessary.

Comment #: 28-50

COMMENT TEXT:

Short Term

It is not helpful nor effective to limit utilization monitoring to "selected areas annually" as suggested in the MBDEIS. Mapping utilization allotment wide helps to identify the areas of various use levels. These areas afford the opportunity to plan for better distribution to relieve the pressure on identified key areas through planning of needed range improvements such as water development, fencing, salting, or other. Rangeland management is not about checking a small representative area and redirecting management on the bases of a single observation, but rather viewing the allotment in its entirety to continually identify better management opportunities. This is best carried out at the end of the growing season by both the FS and the permittee.

USFS RESPONSE:

See Response to Letter #28, comments 8, 36, and 37. Also see response to letter #27, comment #8.

Comment #: 28-51

COMMENT TEXT:

Long term - Will the FS accepted methodologies include the Nevada Rangeland Monitoring Guidelines? The ten-year schedule for conducting trend studies is not adequate. These studies should occur on a 3-5 year basis. If funding availability limits the monitoring conducted, then efforts should be made to secure qualified outside support to gather this information. Decisions made in the absence of sound monitoring information are too often bad decisions. A high priority should be given to both short and long term monitoring on all allotments. Again, it is imperative to include the permittee in the monitoring process. This is best accomplished by effective dialogue and careful scheduling.

USFS RESPONSE:

See response to Letter #23, Comment #48.

Comment #: 28-52

COMMENT TEXT:

Alternative 3 "No Grazing"

The concerns associated with not harvesting annual biomass are numerous. Surely the FS can assess the risks and hazards associated with this alternative. A partial listing of impacts would include:

Absent livestock grazing, biomass buildup will eventually lead to creation of extreme fire hazards that could result in large-scale wildfires.

Wildfires burning under excessive biomass conditions typically burn hotter and are therefore more destructive to native vegetation and soils, often leaving behind sterile soil conditions and exposed watersheds. The costs associated with fire suppression, reseeding, and loss of watershed/stream under these conditions are especially high.

There are two forms of management readily available to harvesting vegetation, a) grazing animals, and b) fire. Grazing can be managed.

Vegetative conditions would improve initially in some areas, however, overgrowth from lack of harvest would eventually lead to decadent plants and deteriorating conditions. Exclosures in meadows have demonstrated the unhealthy conditions that can arise over a relatively short period of time absent a harvesting process. Overgrown meadow vegetation is compacted by snow, increasing runoff, decreasing productivity, and encouraging increased rodent activity. This condition can easily affect meadow use by sage grouse due to reduction of insects and a spring flush of needed forbs. While prescribed burns could be used as a management tool, public sentiment toward fire, prescribed or otherwise, is changing with respect to air quality concern and the threat of losing control of the fire.

The economic impacts to ranching and local rural communities are evident. Reductions account for direct loss of rancher wealth for every AUM taken. This in turn results in fewer dollars turning in the local economy (see Nevada Grazing Statistics doc).

USFS RESPONSE:
The potential effects of Alternative 3 were disclosed in Chapter 4 of the Draft EIS.

Comment #: 28-53
COMMENT TEXT:
Effects of Implementation - Comparison Table – Water Quality/Soil Quality

The projections set forth in the water quality table are arbitrary and lack both sound judgment and scientific fact. How possibly can one suggest that “no action” will result in unchanged or increased amounts of anything due to livestock? Applied management is ongoing. If there are areas of concern, certainly these can be addressed by on-site, cooperative management. The areas of concern are normally small areas of concentration that potentially could be improved, not through reduction in livestock AUMs, but rather through identifying and placing needed range improvements to assist in better distributing livestock. Range improvements are needed to assist in distributing livestock. Additional reductions will buy very little for the land or water quality, as the remaining few livestock will continue to concentrate on the areas of concern. The permittee and local economy experience the impact, with little or no change to the resources.

USFS RESPONSE:
The comparison is intended to be used as a summary of the potential differences between alternatives and is very general in nature. A more detailed analysis of the potential effects from each alternative on water quality and other resources is shown in Chapter 4 of the Draft EIS. See also responses to Letter #26, Comment #2; Letter #27, Comment #15; and Letter #28, Comment #25.

Comment #: 28-54
COMMENT TEXT:
Comparison Table – Fisheries

See above comments. We reiterate that the proposed action buys little when compared to the “no action”. Any existing concerns should be dealt with on a site-specific basis between the livestock permittee and USFS. This opportunity has always existed and does not require a DEIS to project needed changes on the land. It does require communication, coordination, and site-specific analysis to explore alternative treatments needed to achieve objectives.

USFS RESPONSE:
See response to Letter #28, Comment #53.

Comment #: 28-55
COMMENT TEXT:
Comparison Table – Wildlife

The FS should refer to the recommendations found in the sage grouse plan developed by the North Central Nevada Sage Grouse Planning Group.

USFS RESPONSE:
See response to Letter #27, Comment #24.

Comment #: 28-56
COMMENT TEXT:
Sage grouse are heavily impacted by large-scale destructive wildfire. Managed livestock grazing can help to protect the habitat by harvesting herbaceous vegetation, thereby reducing the risk of wildfires and also promoting growth of forbs necessary for young bird development. In addition, mule deer typically benefit when old, coarse growth is periodically harvested from desired browse species, thereby promoting young succulent growth preferred by deer.

USFS RESPONSE:
The potential effects of the three alternatives on sage grouse and mule deer were disclosed in Chapter 4 of the Draft EIS. The potential cumulative effects of wildfires were also disclosed in Chapter 4.

Comment #: 28-57
COMMENT TEXT:
Comparison Table – Vegetation

How did FS come to the conclusions outlined in this table? Here again, utilization limits are presented as the means to improve and manage these habitats. Utilization is a tool to help reach an objective and should not be the objective itself. Identified problems should be addressed on a site-specific basis and the appropriate treatments outlined for that site. To apply blanket utilization standards is to invite problems, and to further jeopardize the viability of ranching operations. The entire toolbox of range improvement tools, including water developments, fencing, grazing systems, salting, utilization cages, and others should be given equal consideration. Utilization helps to guide the annual grazing program and should be assessed at the end of the growing season to determine effectiveness across a specific pasture and the allotment on a whole.

USFS RESPONSE:
Utilization is not identified as an objective under the Martin Basin Draft EIS. See also responses to Letter #26, Comment #2; Letter #27, Comment #15; and Letter #28, Comment #25.

Comment #: 28-58
COMMENT TEXT:
If protection is needed for areas of desired tree development, fencing should be considered for a period that allows trees to grow above the hedge height. Carefully planned grazing systems could also assist in promoting more tree growth, while not reducing numbers.

USFS RESPONSE:
See response to Letter #28, Comment #21.

Comment #: 28-59
COMMENT TEXT:
Riparian and Stream Channel Conditions

The PFC approach is of value for cursory or initial assessment of streams with respect to functionality, however, it is a subjective process and streams that are rated nonfunctional, or functional at risk, should be followed up by experienced professionals to ascertain the resource characteristics and events that may have effected stream function. The MBDEIS is misleading, as it tends to attribute most problems to livestock grazing. High intensity, short duration storm events are not uncommon in the Great Basin. These events impact a number of stream zones almost annually, incising channels, damaging stream banks, oftentimes lowering water levels. Clearly, when this damage occurs it is important to address mitigation, which may require changes in grazing

prescriptions until again stable. Attributing the problems to livestock grazing is an unbalanced and biased approach to dealing with the perceived problems. Other factors and users also impact stream zones, but little is attributed to these causes in the document.

USFS RESPONSE:
The matrices were developed for the exact reasons that you states in your comments regarding PFC. The PFC Assessments were completed by experienced professionals. See response to Letter #27, Comment #4.

Comment #: 28-60
COMMENT TEXT:
Riparian and Stream Channel Conditions

The FS indicates significant improvement from applying "rest rotation" grazing for several allotments. We again caution FS to not become attached to a single grazing system, but rather allow for the full spectrum of rangeland management systems and tools to be available when planning allotments. Not all land areas are conducive to a single system such as "rest rotation" and, in fact, when applied carte blanche across a land area such as the Santa Rosa Forest, can potentially result in some undesired results. Allotment specific and site-specific planning is necessary to select the system that would best accomplish the resource objectives for a given allotment.

USFS RESPONSE:
We agree.

Comment #: 28-61
COMMENT TEXT:
Water Quantity

The FS is alluding to the fact that livestock are impacting water quantity through soil compaction and removal of ground cover. Actually, livestock are carrying out a natural biological process when harvesting forage, as opposed to "ground cover removal" as indicated in the DEIS. Livestock can contribute to "soil compaction" if repeated heavy concentrations are evident over an extended period of time. The same can be said of elk and other wildlife that occupy public lands. Fenced, and ungrazed areas along stream zones typically become more productive initially, however, over time the herbaceous material can become decadent and often much less productive. With snow loads compacting this buildup of litter and unharvested plant growth, the opportunity for increased infiltration can become affected negatively. In addition, runoff is oftentimes accelerated due to the flattened and compacted plant material. Grazed plants that leave adequate stubble height in fact serve to trap sediment, and encourage infiltration. To indicate that on the basis of a one point in time, subjective PFC survey, the "water quantity has likely been impacted in streams determined to be nonfunctional or functional at risk", is a reach at best. This is particularly true given that there are no stream gauging stations within the watersheds to support this statement. In addition, FS unfortunately did not utilize the soil survey and ecological sites available to them to assess the condition of the plant communities along stream zones and throughout the Santa Rosa.

USFS RESPONSE:
Thank you for your comment. We will consider your concerns during the development of the Record of Decision. The soil surveys and ecological site information was used during development of the matrices and were considered during the analysis of these alternatives.

Comment #: 28-62
COMMENT TEXT:
Water Quantity

Why would anyone want to support livestock grazing after reading this section on water quality? Is it possible that when properly managed, livestock grazing impacts to water quality can be minimized? Too much of anything can have undesirable consequences. The livestock industry is also very concerned about water quality and work ardently to avert situations that encourage increased pollution to waterways. This is evidenced by the many off-stream livestock watering facilities developed to encourage movement away from perennial streams, springs, etc. If the FS were to examine the precipitation records for 2002, a very dry year at best, it might realize that stream flows were below average and temperatures generally higher. This combination of low, slow flows and

higher temperatures encourage algae growth, even in the absence of livestock grazing. The information presented would lead the reader to believe that any livestock grazing is detrimental to stream zones, increases water temperatures and algae growth, and contributes to turbidity and increased sediment, thereby impacting aquatic life. If streams were not dynamic historically, even before domestic livestock came on the scene, how then did our fertile valley bottoms evolve and continue to build? Erosion and sedimentation are, and have always been natural processes, certainly not requiring grazing as the means to occur. A more balanced presentation that relates the value of managed livestock grazing and how water quality might be further improved, would better serve the reader. Since the Nevada Division of Environmental Protection (NDEP) has the responsibility for water quality data collection and interpretation, the FS would benefit by opening a dialogue with the NDEP to determine how FS might assist the state, or cooperate in carrying out a meaningful water quality monitoring program.

USFS RESPONSE:
Text has been added to clarify that "poorly managed" livestock grazing can be detrimental to water quality. No text, however, was added to advocate livestock grazing as a means to "improve" water quality. There is no scientific evidence that livestock grazing is a necessity for improving water quality.

The U.S. Forest Service does recognize that natural geomorphic processes exist and that they have acted to form Project Area valleys and stream channels.

The U.S. Forest Service has in the past and continues to welcome the dialog, assistance, and cooperation of all Federal, State, and local governmental agencies concerning water quality and other land management issues. It is clear from the shared data presented in this document that the U.S. Forest Service and NDEP are cooperating.

Comment #: 28-63
COMMENT TEXT:
Project Area Soil Characteristics

It is well that the FS discovered the Soil Survey of Humboldt County, however, it is flawed, since it tries to simplify the soils on the soils maps, Table 5M, page C-3. Taking a multi-unit soil taxonomic unit (STU) description and attempting to group the whole Soil Map Unit into a "dominant" soil is not technically correct and is a poor presentation of the soils situation that exists.

USFS RESPONSE:
The soils map is simplified for presentation purposes and, as such, its origin is explained thoroughly in the text. If the reader finds a need for a more detailed map, the reference is provided in the text. A copy of the reference is available in the Project Record or free of charge from the NRCS.

Comment #: 28-64
COMMENT TEXT:
Project Area Soil Characteristics

While the various interpretations cited for such things as potential for wind and water erosion, compaction, etc. are listed, and clearly of value, it's unfortunate that greater use was not made of the wealth of information in the soil survey throughout the MBDEIS. The ecological site information would have served well in addressing the rangelands with respect to condition, potential natural community, and other value when compared to the questionable vegetation groups approach presented in the MBDEIS. Ecological sites are recognized by the scientific community as a preferred approach for agencies to be utilizing.

USFS RESPONSE:
The ecological sites were used to create the vegetation groups in the MBDEIS. The vegetation groups in the MBDIES are a summation and simplification of many plant communities ranging across the Humboldt-Toiyabe National Forest. These vegetation groups allow for a greater range of variability than the ecological site descriptions to meet the needs of assessing sites across the majority of the Forest, not just Martin Basin.

Obstacles to relying on the ecological site descriptions are:

We do not have soil survey across the Forest, yet we have the responsibility to assess the National Forest lands for the potential to graze livestock within a tight timeframe, and we need tools to complete this analysis.

We were not able to use the ecological site descriptions in the soil survey for riparian sites, as the mapping detail is not fine enough to account for the small meadows and woody riparian sites that occur on the Forest.

The ecological site descriptions are based on vegetative production measurements, and production varies from year to year and with drought cycles. Production is a better tool for cultivated or irrigated agricultural lands.

Comment #: 28-65
COMMENT TEXT:
Project Area Soil Characteristics

The ecological site, linked to standardized soil surveys was recommended as the preferred methodology. Agencies are presently working toward this end. Clearly, utilizing this valuable tool, presently available across the Santa Rosa District, would lend immense credibility to vegetation assessments and determination of desired plant community.

USFS RESPONSE:
See Response to comment 28-64 above.

Comment #: 28-66
COMMENT TEXT:
Project Area Soil Characteristics

To indicate that riparian areas have a higher potential for compaction due to water availability is misleading. Agriculture apply intensive grazing to irrigated pastures with high clay and or silt content on a regular basis, throughout the growing season, and have done so for decades without detrimental effects overall.

USFS RESPONSE:
The above comment appears to be based totally on conjecture, and fails to provide any scientific documentation. In there review of scientific research related to livestock grazing in riparian areas, Mosley et al. (1999) found that infiltration rates can be measurably reduced due to increased compaction from livestock trampling in periods of high soil moisture (wet season). During dryer periods, an increase in compaction was not observed under the same grazing intensity.

Comment #: 28-67
COMMENT TEXT:
Project Area Soil Characteristics

Soils information can and should be used to assist in devising a grazing program that will minimize any adverse impacts and maintain or improve the riparian conditions, as opposed to outlining various degrees of compaction that are predicted to occur with grazing across vast acreages. To state that “a high potential for water erosion is predicted to occur on 84,976 acres,” leaves question as to under what conditions? The same is true of the other acreage listings attributed to compaction, etc. Under what conditions will the compaction occur? Is responsible livestock management predicted to result in compaction and wind erosion because soils characteristics demonstrate a potential? What is this information intended to demonstrate to the reader as regards livestock grazing?

USFS RESPONSE:
This information was included in the draft EIS to help assess and disclose the potential effects of the three alternatives on soil resources in the Project Area.

Comment #: 28-68
COMMENT TEXT:
The use of the Erodibility ‘T’ Factor is best utilized for tilled cropland areas that are subject to stubble mulching practices, as was its intended use, and not applied to rangelands where the land supports permanent vegetative cover.

USFS RESPONSE:
Soil survey was originally developed for cultivatable lands and in many cases remains much better adapted to croplands than rangelands. Factor 'T' is an example of where cropland assessment has been overlaid on a range environment.

The statement that this factor is "not applied to rangelands where the land supports permanent vegetative cover" may not always be accurate considering land conversions to annuals and small areas where concentrated use over time has converted vegetated sites to bare ground or noxious weeds.

The use of Erodibility 'T' Factor was found in the glossary and in Chapter 3 – Affected Environment. The affected environment is a summary of the known data, and since the data related to this factor is present in the soil survey, it is summarized.

Comment #: 28-69
COMMENT TEXT:
Measured Soil Conditions: States that this was only done on riparian areas. "Ecology Plots" (whatever they are) were placed in many areas in the Martin Creek Basin and one on the Little Humboldt, according to Map 6-M, page 3-5. No monitoring was apparently done in the upland areas. Was the allotment monitoring not to be done throughout the allotment? Are FS management decisions now based solely on the riparian areas? Is this in accordance with the Forest Plan?

USFS RESPONSE:
Riparian zones are minor in terms of the land surface area they represent, however, they are of major concern in terms of land use and management. Most inventory data available for lands on the Humboldt-Toiyabe National Forest has not adequately addressed riparian sites. In an effort to describe and analyze riparian ecosystems, the Humboldt-Toiyabe National Forest has been sampling riparian sites since 1986 and utilizing the data to describe riparian ecological types and developing riparian scorecards for these types. The data collected are referred to as "ecology plots" or "eco-plots" by the field specialists that collect and utilize the raw data. There are currently 910 riparian ecology plots on the Forest spread across all Districts except the Spring Mountains.

With limited personnel, the Forest has focused on monitoring the ecological condition of the riparian areas with knowledge we are missing the majority of the uplands. However, if we can effectively analyze and respond to the needs of the riparian areas through changes in livestock management, we will be also providing some relief to uplands. This is not a complete solution, and we hope to change that with this analysis.

The District has already begun to establish some monitoring of uplands utilizing protocol outlined in the Rapid Assessment matrices, as well as other methodologies. In the analysis we also used the soil survey data, which while dated, provides ecological site descriptions of the potential natural condition for all of the uplands. Since the DEIS was released, the Forest has received a vegetation map that will provide us with the ability to access acreage of recent burns, cover ranges of shrub and tree species and some ideas of where to focus our monitoring efforts.

The Forest has several instances that emphasize management direction and standards and guidelines toward riparian areas and uplands:

1. Grazing systems will be developed to enhance riparian zones.
2. Where possible, relocate stock driveways and trailing areas away from riparian zones.
3. Conversion from sheep grazing to cattle grazing will not be allowed where riparian areas would be adversely affected.
4. Management will be directed toward having riparian areas in good or better ecological condition and stable or upward trend.
5. Describe ecological sites and develop score cards to rage ecological status and resource value. Define management strategies for rangeland.
6. Conduct monitoring and evaluation on all allotments in accordance with Forest Service Regional Handbook. The Nevada Rangeland Monitoring Handbook will be used as a guideline.

Minimize livestock/big game conflicts on key winter range:

1. Hold stocking levels of livestock on key winter ranges to the carrying capacity needed to meet objectives.
2. Implement grazing systems that reduce competition for forage on winter ranges.
3. Apply vegetative treatment on winter range which improve habitat conditions.

Minimize livestock/fisheries habitat conflicts in riparian areas:

1. Implement grazing systems that enhance riparian are streambank stability and vegetative cover.
2. Apply vegetative treatment which will improve habitat conditions.
3. Install structural improvements (range and fisheries) to aid recovery of riparian area resources.

Comment #: 28-70

COMMENT TEXT:

The FS went through a tenuous process of developing matrices for "eight representative vegetative groups that occur in the Project Area". These were "simplified from the range site (ecological site) descriptions for potential vegetation communities present in the Project Area and from the site-specific soil and vegetation sampling conducted by the Humboldt-Toiyabe personnel. Why possibly would the FS abandon a proven and valued tool such as the range sites, correlated to a published soil survey, in favor of the vegetative groups?

USFS RESPONSE:

Please see response to Letter # 28, Comment # 28-64.

Comment #: 28-71

COMMENT TEXT:

Each vegetative group likely includes at least one, or in many cases potentially more, range sites with described soils and potential plant communities. The range sites are set aside for what appear to be extrapolated vegetative groups that cross range site and or soils boundaries. The accuracy and potential effectiveness of the vegetative groups and matrices are highly suspect when compared to soil surveys with range site descriptions.

USFS RESPONSE:

See Letter #28, Comment #64.

Comment #: 28-72

COMMENT TEXT:

The statement, "It is likely that historic and current grazing practices, perhaps combined with the effects of drought have contributed to soil health that is not functioning as desired or less" presents question as to the methodology, and experience of the assessment team. Without historic baseline data to compare trend over time and measured soil loss, how can FS justify making such statement? Are we to believe that no improvement has occurred to the land as a result of FS and permittee rangeland improvements and management over time?

USFS RESPONSE:

No we are not to assume that no improvement has occurred to the land as a result of FS and permittee rangeland improvement and management. There is nothing in this line that states there has or has not been improvement over the years. Any assumption is based on the reader's own experiences.

Based on knowledge of similar soils in like riparian plant communities, the author of this statement was speculating on possible causes for the soil health to be below desired. It appears that this statement is conjecture and was not written as fact. It is not necessary to have this sentence in the document, as the facts are adequately discussed.

Comment #: 28-73

COMMENT TEXT:

Where is the discussion of natural processes of erosion that occur across all landscapes and the fact that function is also affected by these processes? Does management bring anything to the discussion or are we to believe that livestock grazing has in the past, and will in the future impair soil function?

USFS RESPONSE:
There are several places within the DEIS that refer to natural erosion processes:

From Appendix C

Water erosion is the detachment and removal of soil material by water. Sheet erosion is the more-or-less uniform removal of soil from the surface. Rill and gully erosion occurs when concentrated runoff cuts conspicuous channels into the soil.

Erosion is caused by the impact of raindrops on bare soil and by the power of running water on the soil surface. Natural erosion rates depend on inherent soil properties, slope steepness, slope length, and climate, which together determine the ability of the site to support vegetation.

Wind erosion is the physical wearing of the earth's surface by wind. Wind erosion can occur only when wind speed at the soil surface is sufficient to lift and transport soil particles. Loss of soil by wind erosion is a concern for the same reasons as those for water erosion. The risk of wind erosion may be increased by fire, by soil disturbances, or by the establishment of weeds.

Soils are more susceptible to wind erosion where disturbance exposes individual particles and soil aggregates to the wind. Moist soils and soils with stable aggregates or rock fragments are less likely to be eroded than other soils.

From the DEIS Chapter #3, which refers to natural erosion potential:

Potential for water erosion on bare soil may be predicted by multiplying the Erosion Factor 'K' for sheet and rill erosion by the percent of the slope. Values from 0-4 are given a low erosion potential, values from 4-8 are given a moderate erosion potential, values from 8-12 are given a high erosion potential, and values from above 12 are given a very high erosion potential. A high potential for water erosion is predicted to occur on 84,976 acres.

Potential for wind erosion may be predicted based on the Wind Erodibility Group classification. The different groups indicate the susceptibility of soil to blowing. It is based on the assumption that the soil is bare, lacks a surface crust, or occurs in an unsheltered position. There is a close correlation between soil blowing and the size and durability of surface clods, rock fragments, organic matter and calcareous reaction. Pure sands are generally most susceptible to wind erosion by blowing. Susceptibility decreases as silt and clay content increase (U.S. Department of Agriculture, Natural Resources Conservation Service, 2002). A high potential for wind erosion is predicted to occur on 4,352 acres.

The DEIS is analyzing livestock grazing, requiring that possible effects of grazing on the soil resource is focus of discussion. Natural processes are mentioned, but not included as part of the effects of the use being analyzed.

The paragraph below taken from Chapter 3 of the DEIS alludes to the fact that there is not quantifiable and repeated information from data gathered on the Santa Rosa District to determine overall effects of historic management on soil erosion, therefore no solid conclusions can be derived about the timing of observed soil impacts. The determination of management effects are taken from other sources.

The magnitude of the effects of grazing on soils or the degree of recovery that may have occurred has not been measured quantitatively in subsequent years. There is no historic quantitative soil quality monitoring data for the Martin Basin Project Area. Previous monitoring (Site Analysis Summary-Green Sheets) rated soil condition based on a combination of ground cover and soil movement. Although ground cover was generally evaluated using quantitative methods comparable to those currently used, soil movement evaluations appear to be qualitative and focused mainly on the presence or absence of erosion features (U.S. Department of Agriculture, Forest Service, 1983). Thus, there is no well-defined benchmark for determining changes in soil quality.

The following paragraphs from Chapter 4, discuss livestock management and soil resources, but do not specifically state that livestock grazing have and will always impair soil function. Assumptions are derived from the reader's own experiences, and are not in the content of the DEIS.

Chapter 4, Alternative 1 - As described in the Affected Environment section, the magnitude of the effects of grazing or the degree of recovery that may have occurred throughout its long history has not been measured quantitatively. Nonetheless, direct soil impacts due to inappropriate grazing such as compaction, livestock trampling, soil nutrient cycling, water erosion, and wind erosion have been well documented in scientific literature. Many of these same types of soil impacts have been observed both quantitatively and qualitatively on the monitoring sites within the Project Area.

Chapter 4, Alternative 2 - Soil impacts are likely to decrease when forage utilization is decreased compared to "Current Management/No Action." This is because a decrease in forage utilization would likely help increase plant vigor and root biomass, reduce bare ground, increase soil organic matter and nutrient cycling, break up soil compaction, and improve soil infiltration and water holding capacity. The areas where forage utilization is decreased would likely recover to a desired function from previous grazing effects, while continuing to be grazed.

Decreased forage utilization criteria have the potential to reduce direct livestock impacts to soils compared to "Current Management/No Action." Improved plant vigor and decreased adverse soil impacts would likely enhance soil recovery on existing impacted areas due to less forage utilization. Regardless of these overall changes, existing detrimental soil disturbance may be perpetuated at sites where livestock congregate.

Under "Proposed Action" alternative, soil quality indicators for compaction, riparian trampling, and upland trampling are expected to trend upward due to less grazing pressure because of lower forage utilization. Soil nutrients are likely to remain static on sites dominated by undesirable annual or invasive plant species and trend upward elsewhere due to lower forage utilization rates. Water erosion and wind erosion trends are likely to remain static where a site has crossed below threshold due to excessive soil loss. Otherwise the erosion trends that may be attributed to improperly managed livestock grazing should be upward because of increased ground cover due to lower forage utilization.

Comment #: 28-74

COMMENT TEXT:

We disagree with the creation and use of the matrices approach, as it is much inferior to range sites (ecological sites) that already exist on the Santa Rosa Forest.

USFS RESPONSE:

Disagreement noted. This is a statement of personal belief and is not backed by any literature, research or documentation that supports it. There is nothing to discuss, as the commenter does not explain why he finds the matrices inferior to range sites. Nor has he explained how the range sites would be used, such that the information could be considered, analyzed for potential and a response developed.

Comment #: 28-75

COMMENT TEXT:

Additionally, the manner that grazing is depicted, as relates to soil function, is subjective at best and hardly reflects the overall conditions of the district.

USFS RESPONSE:

This was an observation made by a professional given the information available, soil surveys, and research data.

Comment #: 28-76

COMMENT TEXT:

We strongly recommend the FS abandon the matrices approach and adopt the existing range sites (ecological sites) outlined in the Humboldt County Soil Survey. To do so will not only lend credibility to the process, but also follow the direction underway as set by both the Secretaries of Agriculture and Interior to help standardize rangeland inventories and assessments.

USFS RESPONSE:

Recommendation noted. This is another statement of personal belief and is not backed by any literature, research or documentation that supports it. The commenter does not specify what credibility will be lent to the process and by whom. Nor has he documented the direction set by the

Secretaries of Agriculture and Interior that specifically states that soil survey and range ecological sites should be used as standard inventory and assessment tools.

The matrices use standardized rangeland sampling methods. The data collected from the matrices can be readily placed in the National Resource Inventory System (NRIS). The format is there to place matrix data in this multi-agency database, which should indicate that it is standardized. The matrices do not create new methods for rangeland inventory or assessment.

Comment #: 28-77

COMMENT TEXT:

At what time of the year did the surveys occur? Did sampling occur before livestock entered the allotment and again after they were removed? Were samples taken at the same locations or along the same reaches? Which years were drought years? Were there recorded occurrences of storm events? Did fire occur over any of the identified streams during the sampling period? It is a fact that fire, drought and storm events can have significant effects on both land and water resources. We do realize that mismanaged livestock grazing can also impact stream zones and water quality, however, efforts should be made to differentiate the cause and effect.

USFS RESPONSE:

The Nevada Department of Wildlife (NDOW) performs fisheries population and habitat surveys on the stream of the Santa Rosa Ranger District as part of long-term monitoring. Sampling by NDOW usually has no relation to entry/exit date of livestock, fire, major storms, or other events unless a particular stream or fish population has been identified due to specific concerns by the local NDOW office. The Forest has no knowledge of any of the streams used in the document to have been so identified.

Surveys by NDOW typically occur June through August, but may begin sooner or continue later, weather permitting. Sampling is done at permanent transect points which are relocated each sample cycle as close as possible. Some streams may have additional stations added, or established stations moved, as on-site conditions require. A given stream may be sampled every 5 to 10 years.

Recent relevant fire history (1996-present) for Santa Rosa Ranger District is noted on pages 3-25 and 3-29.

Comment #: 28-78

COMMENT TEXT:

Sage Grouse

The declines in sage grouse populations are presented as “may have resulted from multiple factors that included hard winters and heavy snow years during the early to mid 1980’s which were followed by multiple drought periods during 1980’s, 1990’s and the past few years.” Fire is likely a significant contributor when considering that the adjacent BLM District, extending over an extensive land area, have reported a loss of approximately 60% of the Wyoming big sagebrush type to wildfire over approximately a 20-year period. Fire has ravaged resources throughout the region, often converting vegetation types to invasive species (cheatgrass) and narrowing the fire cycle from 30-50 year norms to 3-5 year frequencies. This trend should be highlighted as a major factor. Through carefully planned grazing systems, livestock can be manipulated to address the fuels buildup problems, thereby reducing these fuels and the potential for catastrophic fire events that impact sage grouse habitat and the rangelands overall. On the other hand, prescribed fire, when carefully planned and carried out can contribute to improved habitat conditions for sage grouse.

USFS RESPONSE:

The potential effects of the three alternatives on sage grouse was disclosed in Chapter 4 of the Draft EIS. The potential cumulative effects of wildfires were also disclosed in Chapter 4 for each alternative.

Comment #: 28-79

COMMENT TEXT:

Mule Deer

The MBDEIS correctly points out the threat and impacts of wildfire to mule deer habitat over the past two decades. Here again, carefully planned livestock grazing could be utilized as an effective tool to help reduce both the size and impacts of wildfires through fuels reduction.

USFS RESPONSE:
Thank you for your comment.

Comment #: 28-80
COMMENT TEXT:
Vegetation

A lot of work was carried out by FS to create the vegetation groups identified in this section. Again we question this effort when range sites (ecological sites), a much more effective and reliable tool, are available to utilize.

USFS RESPONSE:
Ecological site data was used when developing these vegetative groups.

Comment #: 28-81
COMMENT TEXT:
The report states that grazing permits were "issued after the establishment of the NFS, but not before thousands of sheep, cattle and horses grazed the range to very poor condition." While we recognize that very heavy use on a continuing bases occurred historically, it is a fact that ecologically poor (low serel) condition, or as reported, rangeland in "very poor condition" is for the most part not capable of recovery without the likes of mechanical treatment such as plowing and reseeding. Rangeland in "very poor condition does not have enough remnant desirable native species remaining to recover on its own. This would be especially true in a desert environment.

USFS RESPONSE:
Thank you for your comments, however, the historical photos and records paint a pretty clear picture of what occurred historically and there is little question regarding the condition of the ranges in the early 1900's. It has taken nearly a century to recover from the impacts that resulted from historical grazing and some locations still show the evidence of those impacts in the form of incised channels, sagebrush encroachment into meadows, and loss or changes of some vegetation communities at specific sites.

Comment #: 28-82
COMMENT TEXT:
Environmental Consequences

Water Quality

This section states that livestock grazing "has the potential to cause largest and most widespread detrimental effects to water quality." Does FS mean by this statement, all livestock grazing, or that which may lack good management? The inference is that all livestock grazing is damaging to water quality and this is certainly debatable. What about extensive wildfires (e.g. 1.6 million acres in 1999) that denude complete watersheds and result in extensive erosion, stream warming, ash and nutrient loading, and other impacts for an extended period of time? Do storm events effect water quality when stream zones are ravished by floods and debris flows? This section lacks balance and demonstrates a bias against grazing overall.

USFS RESPONSE:
The text has been edited to clarify that the statement concerns landscape activities by humans, not nature, and that "poorly managed" livestock grazing can potentially cause detrimental effects to water quality.

Comment #: 28-83
COMMENT TEXT:
Environmental Consequences

It is very difficult to accept the statement that this alternative "presents the greatest cumulative risk to water quality and stream/riparian conditions," when later on the page a statement is made to the 41,828 acre fire that "the fire is briefly mentioned here because of the possible cumulative effects on

water quality, including increased sedimentation and turbidity, release of nutrients from burned vegetation, and increased temperatures due to decreased shade (NWCG 2001)." How does the FS rate the effects of increased occurrence and size of wildfire when compared to managed livestock grazing?

USFS RESPONSE:
This alternative poses the greatest risk as it relates to livestock grazing in comparison to the other alternatives. The risks from wildfire are a cumulative effect and are disclosed in chapter 4 of the Draft EIS.

Comment #: 28-84
COMMENT TEXT:
If Alternative 3 were to be selected, it is likely that the entire forest would quickly experience high risk of wildfire due to buildup of fuels over time. The increased threat of wildfires that burn more intensely and with more damaging impacts is likely under this alternative. Was this considered when the statement "No grazing would likely have the most beneficial effects for water quality and provide a more rapid recovery" was made in the report? The threat to water quality should accordingly be evaluated for the increased fire risk it presents.

USFS RESPONSE:
Livestock are by no means the only method for reducing fuels that may contribute to intense wildfires. The threat of catastrophic wildfire is currently being managed in the Project Area by methods, such as prescribed fire, under the "Healthy Forest Initiative." While livestock can help to reduce fuel loads, they are not a necessity.

Comment #: 28-85
COMMENT TEXT:
Cumulative Effects

The report states "there may, however, be a detrimental effect to private or BLM lands under "no grazing." If cattle do not have access to the National Forest, the grazing intensity on these other lands may increase. This would likely lead to greater damage to the water resources and riparian areas on these other lands." Does this mean that ranchers will intentionally overgraze their personal property and/or the BLM administered public lands? This statement lends little to the evaluation and is likely very inaccurate. In fact, many of the ranching operations dependent upon the FS permits would be at risk of going out of business as the availability of private leases is scarce in a state that is approaching 90% public lands.

USFS RESPONSE:
We stand by our assessment that this may have a cumulative affect. We also agree with you that it could put the permittees at risk of going out of business as well.

Comment #: 28-86
COMMENT TEXT:
The statement "Improperly managed livestock may impair soil nutrient cycling" appears to be taken from a USDA, NRCS citation and throughout the Soil Quality section is reiterated. These are only a few of the times that the words "improperly managed livestock" appear in the MBDEIS. One is led to believe throughout the report that livestock grazing, whether managed or not, is the major cause of resource issues on the District, not improperly managed livestock.

USFS RESPONSE:
Livestock grazing is the most extensive and largest use of the Santa Rosa Ranger District and may result in adverse impacts on various resources on the District as disclosed in Chapter 4 of the Draft EIS.

Comment #: 28-87
COMMENT TEXT:
The report states "aside from livestock grazing, of the various cumulative effects, fire has the potential to affect soil quality over the greatest area." Here the FS is recognizing the extensive impacts of wildfire, an ever-increasing event in northern Nevada. Without grazing, the potential for "high burn severity" will increase due to reduced harvest of biomass and should be evaluated accordingly.

Natural revegetation on these sites is usually too high a risk, due to the amount of dead plant material, and reseeding often times required.

USFS RESPONSE:
Thank you for your comment.

Comment #: 28-88
COMMENT TEXT:
This alternative proposes to reduce utilization rates, thereby enhancing riparian conditions due to being "grazed at a lower utilization level or not at all." Utilization is not the key to riparian area management, but rather a combination of tools are needed to address typical riparian concerns that may include utilization, fencing, off steam water developments, herding, and other. The MBDEIS incorrectly places all of its emphasis on utilization matrices.

USFS RESPONSE:
See response to Letter #27, Comment #15.

LETTER #: 29
BY: B. SACHAU

Comment #: 29-1
COMMENT TEXT:
. . . i think the wild horses lose their homes due to this grazing profiteering. . . .

USFS RESPONSE:
Thank you for your comment, however, there are no wild horse herd management units within the Martin Basin Project Area.

Comment #: 29-2
COMMENT TEXT:
. . . i think the cattlemen get very very low rates for their profiteering to continue and the horses lose their lives. . . .

USFS RESPONSE:
Thank you for your comment.

Comment #: 29-3
COMMENT TEXT:
. . . i think we need bonds up front from these profiteering cattlemen to guarantee environmental clean up from the destruction of the cattle. . .

USFS RESPONSE:
This issue is already decided by Laws and Regulations and is therefore outside the scope of this analysis.

LETTER #: 30
BY: DALE L. BARTOS, USDA FOREST SERVICE

Comment #: 30-1
COMMENT TEXT:
P 1-1

The last sentence, which continues on the next page, doesn't make sense! Should it be written "…or have additional information sent by interested parties to the District Ranger."?

USFS RESPONSE:
This will be corrected in the Final EIS.

Comment #: 30-2
COMMENT TEXT:
P 1-2

2nd to last sentence. Can you indicate the size of the "large stands of aspen"? It might help the reader to better understand.

USFS RESPONSE:
Large stands of aspen in the area may exceed 100 acres in size.

Comment #: 30-3
COMMENT TEXT:
P 1-10

Sec "Aspen". 1st sentence. Livestock does impact the stands as stated. However, they also have a tremendous impact on the aspen reproduction.

In some instances, depending on intensity, can eliminate aspen stands from the site. This impact is directly related to the grazing intensity of the surrounding rangeland e.g. overgrazed sites would cause more pressure being placed on the aspen regeneration.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-4
COMMENT TEXT:
P 1-10

2nd sentence. I would rather not see the word "grazing" used in reference to the young aspen. These animals "utilize the aspen suckers".

USFS RESPONSE:
Thank you for your input.

Comment #: 30-5
COMMENT TEXT:
P 1-10

Sec "Noxious Weeds" One good argument for getting your plant communities into a Properly Functioning Condition is that it is less likely that noxious weeds will invade sites that are approaching or in PFC.

Degraded and abused plant communities are much more receptive to invasion by foreign species.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-6
COMMENT TEXT:
P 2-4

4th Paragraph "These vegetative communities or groups are: …" You go ahead and list these communities so I don't believe you need to include the word community in the list.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-7
COMMENT TEXT:
P 2-5

You use 20% utilization of aspen suckers. This is a very good figure. Forests in northern CA started out talking about up to 45% utilization but have since dropped it to ~20% also.

You might need to clarify that this is utilization of the terminal leader. You could get utilization of side branches and it wouldn't be as meaningful as utilization of the terminal leader.

If you have the terminal constantly utilized then you will never get the height to get out of the reach of the animals.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-8
COMMENT TEXT:
P 2-18

Aspen Communities---use levels. I would like to see reference to herbaceous vegetation use be first and then aspen sucker use second in the various alternatives or vice versa.

One could compare easier. Under no action can you keep sucker utilization to 35%? That would be good if you could and maybe that is the situation in your part of the country.

Also, under the "No Grazing" alternative would you just have 0% utilization? It would be for livestock but might wildlife impact this? Maybe that doesn't need to be distinguished here.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-9
COMMENT TEXT:
P 3-51

Photograph 17-P This aspen clone should have a nice complement of aspen suckers in the understory..

It appears to me that the use by livestock (and maybe wildlife) has been keeping the suckers eaten off. If this site was given protection from animal use there would probably be a flush of suckers within a year or two.

With sufficient moisture these suckers would grow out of the reach of animals within 3-5 years

USFS RESPONSE:
Thank you for your input.

Comment #: 30-10
COMMENT TEXT:
P 3-53

Photograph 21-P This is a very decadent aspen clone. I am sure the same thing is going on here as I talked about in the previous comment.

Protection from animal use would get a regeneration event. It wouldn't be as large as the previous picture because you have a lot fewer aspen roots in Photo 21 than you have under Photo 17.

USFS RESPONSE:
Thank you for your input.

Comment #: 30-11
COMMENT TEXT:
General Comments:

This DEIS is well organized and contains a very good evaluation of the problems and appropriate alternatives. I really didn't have that much concern with the entire document.

As I said earlier, it is well written. One thing that I notice with the EIS's that I look at is that there is always a lot of repetition.

I realize that this is a necessary way to develop the document but I have always felt that these EIS's could be streamlined a lot if one was able to condense the information. I know that this is easier said than done. Over all I would say this is a go . . .

USFS RESPONSE:
Thank you for your input.