Proposed Decision for ZX Allotment

Sage-grouse Playa Management Environmental Assessment

NEPA Register Number DOI-BLM-OR-P000-2012-0027-EA

U.S. Department of the Interior, Bureau of Land Management, Prineville District

3050 NE Third Street, Prineville OR 97754

http://www.blm.gov/or/districts/prineville/plans/index.php

Background

The Prineville District of the Bureau of Land Management (BLM) prepared an Environmental Assessment (EA) and Finding of No Significant Impacts (FONSI) for the proposed Sage-grouse Playa Management Environmental Assessment, NEPA Register Number DOI-BLM-OR-P000-2012-0027-EA. The actions included in this Proposed Decision were analyzed in that EA. The project area includes BLM-administered public land in and around playas south of Highway 20 near Hampton, Oregon, shown on the attached project area map (Appendix A).

The EA considered actions to renew or renew with modifications the grazing permits for the Hampton, Ram Lake and ZX Allotments. The EA also considered actions to improve ecological conditions of playas and surrounding areas for sage grouse including mechanically thinning young juniper, mowing silver sage brush and decommissioning and rerouting roads or primitive routes that currently impact sage grouse habitat. We combined analysis of these two different but related actions into one comprehensive EA for several reasons, including:

- Grazing permit renewal requires a comprehensive look at grazing and any issues that might exist in the allotment. Since the only issue with grazing involved sage-grouse, it seemed an ideal time to address other risk factors that might be affecting sage-grouse.
- Habitat improvement in these three allotments would complement other recent habitat improvements in these allotments and the surrounding area, providing habitat connectivity for sage grouse.
- Instruction Memorandum 2012-043 directs BLM to “evaluate land treatments…in a landscape-scale context.” The IM also says, “When several small or isolated allotments occur within a watershed or delineated geographic area, strive to evaluate all of the allotments together.”
- Federal policy (40 CFR 1508.25(a)(3) encourages analyzing multiple similar actions in one EA when it will improve the quality of analysis and efficiency of the NEPA process, and provide a stronger basis for decision-making. Similar actions have common timing and geography, not just type of action.

The EA and FONSI were prepared for compliance with the National Environmental Policy Act of 1969 (NEPA). The EA and FONSI are available at the Prineville BLM office and on-line (address at the top of this page).

Public, tribal and other involvement

The BLM mailed over 50 tribal and public scoping letters in March 2012, and received 12 letters, including ones from: Oregon Department of Fish & Wildlife (ODFW); USFWS; Blue Mountain Biodiversity Project; Oregon Wild and Oregon Natural Desert Association; and the livestock grazing permittees within the project area. In many cases the comments led to the development of issues and the incorporation of project design features into the action alternatives (as described in the EA Chapter 2, Alternatives).

The general public was also notified of the project in March 2012 via the Prineville District Project Planning Update which is posted on the Prineville web page.

The BLM met with and talked on the phone with the grazing permittees multiple times during development of the project to gain an understanding of how the proposed actions would affect their operations.

The BLM again requested public and tribal input in November 2013 when it published the EA and draft FONSI to the BLM's public website and sent notification letters to those on the original scoping list and others who expressed interest since scoping. During the public review period for the EA ending December 6, 2013, the BLM received nine comment letters. The comments and BLM response is attached (Appendix B) and available from the BLM Prineville District office and on its public web page (address at top of page).

Based on comments, the BLM made several minor changes to the EA to clarify meaning or intent (Appendix C). These changes do not alter the conclusions of the analysis; therefore the BLM did not re-circulate the EA for public review, although it did re-post the revised EA to its public website.

Proposed Decision

The BLM is preparing four decisions to implement actions from the EA. This proposed decision covers the following actions, all in the ZX Allotment:

- Renew grazing permit
- Install water developments
- Build exclosure fences
- Fill dugouts

Each of the above action categories includes a number of specific actions. These are explained under the headings below.

Two other proposed decisions cover these actions in the Hampton and Ram Lake Allotments (though not all of the actions occur in each allotment). The fourth decision covers actions that will occur in all three allotments: thinning juniper, mowing silver sagebrush and adjusting route locations in and around playas.

Before implementing each decision point, the BLM will talk with and coordinate actions with the grazing permit holders to ensure timing, sequencing and site specific needs are being completed.

Based on the analysis documented in the EA and FONSI, it is the BLM's proposed decision to implement portions of action Alternative 4 for the ZX Allotment as described in EA # DOI-BLM-OR-P000-2012-0027-EA. The following is a summary of management actions that will be implemented. The actions were described and analyzed in Alternative 4 unless otherwise noted.

Authority for the actions contained in this proposed decision is found in 43 CFR §4100.0-8, 4110.2-2, 4110.3, 4120.2, 4120.3-1, 4130.2 (a), (b), (d), and (e), 4130.3, 4130.3-1, 4130.3-2, 4130.3-3, 4130.6-2, 4130.8-1(e), 4160.1, 4160.2, 4160.3, 4160.4, 4180.1, and 4180.2. The BLM issues and renews grazing permits consistent with the 1995 grazing regulations, Title 43 Code of Federal Regulations (CFR), Grazing Administration, Exclusive of Alaska, Subparts 4100-4190, and all other pertinent laws and regulations.

Renew grazing permit

Under the authority of 43 CFR Subparts 4120.3-1 and 3-2 (cooperative range improvement agreements), 4130.2 (a), (b), (c), and (d), 4130.3 (terms and conditions), and 4160.1, it is my proposed decision to renew grazing permit authorization number 3605569 for a period of 10 years on the ZX Allotment (No. 15238), as shown in the table below, and described in the terms and conditions. In the table, PPL stands for percent public land in the allotment.

Table 1. Grazing permit for the ZX Allotment.

Authorization Number	Livestock Number and Type	Grazing Period	PPL	Active Permitted Use (AUMs)
3605569	712 Cattle	3/1 – 2/28	82	7100

The terms and conditions of the permits are:

- All grazing is to be in accordance with the Brothers/La Pine Resource Management Plan and any current Allotment Management Plan, Cooperative Rangeland Management Agreement, or yearly turnout statement if issued, and with this Proposed Decision.
- Permittees are required to submit Actual Use grazing records within 15 days of completion of the year's grazing use.
- Salting of livestock within one-quarter mile of water is prohibited. Supplemental feeding of livestock on public lands is prohibited without prior authorization from the BLM. Supplemental feeding will not occur on playas.
- Mineral and protein supplements are prohibited within one-quarter mile of playas.
- Permittees are required to maintain all range improvements for which they have maintenance responsibilities.

- Permittees are to provide reasonable access across private and leased lands to the BLM for the orderly management and protection of the public lands as allowed in 43 CFR 4130.3-2 (h).

The renewal will also encompass transferring the grazing preference on the ZX Allotment from J R Simplot, Trustee JR Simplot SDR (Authorization No 3605569) to JRS Properties III, L.P. This is in response to a transfer application JRS Properties III, L.P. filed in February 2014 with the BLM Prineville Office. The grazing preference to be acquired by JRS Properties III, L.P. is associated with the deeded base property attached to the grazing preference for the ZX allotment. The transfer paperwork submitted by JRS Properties III, L.P. meets all the qualifications and requirements of the grazing regulations found at CFR 43 Part §4100. Upon approval of the transfer application and the completion of a Final Decision for the ZX Allotment, a new grazing permit will be issued with the new terms and conditions stated above.

Install water developments

It is my Proposed Decision to implement the actions listed below, which were analyzed in Alternative 4 of the EA. Project design features described in the EA and listed below will be incorporated into the planning and implementation phases of all range improvements. Refer to attached maps for the approximate location of the developments.

Fence, pipeline, well, storage tank, and trough locations shown on the attached maps and listed in the table below are approximate. Facilities will be installed in the general location, but may be moved slightly from locations shown on maps to minimize effects on wilderness characteristics and visual, cultural and other resources. The BLM will adjust locations to ensure the effects will not exceed those analyzed in the EA.

The BLM will install **three new water wells** to lessen impacts to livestock from water lost by filling dugouts and/or fencing playas. These three new wells will each include one to three storage tanks at or near the well, in a location that will allow gravity to fill troughs. The storage tanks will be sized to provide a three day water source (30,000 gallons) to minimize impacts of well/pump problems. Water will be pumped from the wells to the tanks via portable generator when cattle are in the pasture. The water from these tanks will be gravity fed using up to 1/2 mile of new pipeline to four new trough locations (each about ½ acre), with two troughs per location. Approximate locations of wells, pipelines, and troughs are displayed on attached maps and in the table below.

Table 2. New wells in the ZX Allotment.

Well Name	Well location		New pipeline (miles)	No. of Trough Locations
	Legal	Pasture		
Berger Ridge	T22S R17E Sec 15	S. Four Corners	¼ mile	1 in N. Four Corners Past. + 1 in S. Four Corners Past.
Line Lake	T22S R19E Sec 31	Frederick Butte	0	1 in Frederick Butte Past.
Two Post	T22S R18E Sec 20	S. Four Corners	0	1 in S. Four Corners Past.

The following design features were analyzed in the EA and will be followed when installing wells, storage tanks, pipelines and wells:

- New troughs will be located at least 150 feet from fences to reduce bird and bat collisions.
- New troughs will be located at least 0.75 miles from playas that contain existing dugouts, unless the dugouts are fenced to exclude livestock grazing or the dugout is filled.
- No new troughs will be located 0.25 mile from pygmy rabbit home range (BLM will conduct surveys prior to trough placement).
- The BLM will install ramps in all water troughs to allow wildlife to gain access to and escape from the water.
- Water tanks or troughs in areas with wilderness characteristics or visible from a key observation points will be painted to match surrounding vegetation.
- Pipelines will be built next to existing primitive routes when possible.
- Limit well housings to height of adjacent vegetation when possible.

The BLM will purchase materials and pay for installation of new wells, storage tanks, pipelines, troughs and fences. Once installed, they will be added to the existing Cooperative Rangeland Agreement, assigning maintenance to the permittee, except exclosure fences which the BLM will maintain. The BLM will grant itself rights of way for developments on public land.

Build exclosure fences

Permanent exclosures

The BLM will build and maintain three permanent exclosures which will exclude grazing from approximately 102 acres, including three playas. Since this amounts to about four AUMs, no AUMs were removed or placed in suspension on the renewed permit. Approximate fence locations for permanent exclosures are displayed on the attached maps. The table below shows approximate exclosure locations, and acres associated with each exclosure. About 2.2 miles of new fence will be built to construct the exclosures.

Table 3. Permanent exclosures in the ZX Allotment.

Exclosure Name	Exclosure location		No. playas excluded	Acres		
	Legal	Pasture		Playa	Upland	Total
Two Post Lake	T22S R17E Sec 24	S. Four Corners	1	22	12	34
Paiute Lake	T22S R18E Sec 31	S. Four Corners	1	17	11	28
Playa #465	T22S R18E Sec 36	Frederick Butte	1	23	17	40

All action alternatives in the EA fenced livestock out of Mud Lake. The Proposed Decision does not include this action for the following reason. Mud Lake provides water to both the ZX Allotment and the neighboring Ram Lake Allotment. Water would need to be replaced in both allotments in order to exclude the playa from livestock and fill the dugouts. Replacement water is not being provided in the Ram Lake allotment and therefore the Mud Lake exclosure is not being built at this time.

Temporary exclosures

Temporary exclosures were analyzed in Alternative 3. Within the ZX allotment the BLM will install no greater than three miles of temporary fence around the perimeter of one playa (#345) and around the filled dugout (i.e. reclaimed area) of two playas (#427 and #438).

Temporary fences will be installed for one or two years to help vegetation establish after dugouts are filled and to reduce the probability of cattle getting stuck in the filled dugouts. After that time the BLM will remove these temporary fences. This is to minimize the amount of new fence construction in sage grouse habitat to minimize collisions and to reduce the overall costs of restoring all of the target playas.

The following design features were analyzed in the EA and will be followed as permanent and temporary exclosures are constructed:

- BLM will provide replacement water for livestock before fencing playas.
- Fences will be constructed as directed in BLM Handbook H-1741-1.
- The BLM will install reflectors on fences within 1.25 miles of leks to reduce sage-grouse hitting fences.
- Fences will be constructed at least 100 feet outside of playas, unless restricted by another facility such as a travel route.
- The BLM will install small gates in all exclosures, to facilitate equestrian access or removal of stray livestock.

Fill dugouts

The BLM will fill five dugouts as analyzed in Alternatives 2-5 in the EA (except as noted below), using heavy equipment to replace soil displaced during original excavation. The BLM will provide replacement water for livestock before filling dugouts. One dugout per playa will be filled on playas # 345, #427, and #438 and two dugouts will be filled on playa #472 (see attached maps).

Alternatives 2-5 also included filling several other dugouts that are not included in this Proposed Decision. The reasons for not filling two dugouts in Mud Lake are stated above under "Build exclosure fences." Grassy Lake is not part of the Proposed Decision since the Grassy Lake well is not being built to provide replacement water. Grassy Lake is surrounded by old-growth

juniper woodlands. Thus, sage-grouse use is probably low and the free water at the dugout is an important water source for other wildlife. Jaynes Well and Basalt Lake are not part of the Proposed Decision because the wells along Fox Butte road and the powerline in the southern portion of South Four Corners Pasture are not being built to provide replacement water. The well along Fox Butte would have introduced greater cattle use into sage-grouse habitat that currently receives sparse use due to limited water sources. The well location along the powerline was moved north to reduce cost associated with installing pipeline. Additionally, ODFW did not support filling the two dugouts at Basalt Lake because they are important water sources for wildlife. Playas #320, #351, and #359 are not part of the Proposed Decision because the well in the southwest corner of Frederick Butte pasture is not being built to provide water. Annually, playas #320 and #359 do not hold water so the cost of installing a well and pipeline do not out weigh the potential benefits for improving these playas. Playa #351 holds water annually, however it is located in old-growth juniper woodlands and probably receives low sage-grouse use.

The following design features were analyzed in the EA in Alternatives 2-5 and will be followed as dugouts are filled:

- To reduce effects from soil compaction, operate heavy equipment when soils are dry or frozen. Soils are wet when they are at or above field capacity in the top three inches of the soil surface. Cease operations when equipment tracks create ruts greater than or equal to three inches deep with one pass or when equipment is slipping and sliding.
- If a route is not available to access the playa/dugout, limit equipment passes to four or fewer trips over a single piece of ground. If five or more trips are likely, designate a single route into the playa/dugout.

Rationale for the Proposed Decision

The BLM selected the combination of actions based on several factors. One consideration was how well the actions improve ecological condition of playas and surrounding areas for sage-grouse, the purposes of the project as stated in Chapter 1 of the EA. Other factors were the tradeoffs between effects on resources presented in Chapter 3, the agency (public) cost for implementation and maintenance, the risk of long term investment in infrastructure, and the potential for the actions to be successful. The BLM also considered public input in letters regarding people's desires for and concerns about the area.

Alternative 2 would have provided the most improvement to the ecological condition of playas and surrounding areas for sage-grouse with the least expenditure on infrastructure (water developments and fences). However, the BLM weighed that against the effect on grazing permittees and the local economy, and the difference in effects on sage-grouse between Alternative 2 and the other action Alternatives. This is explained in the next two paragraphs.

First, the ZX permittee would see a reduction in revenue of almost a million dollars annually (EA pages 73-76) and have a severe negative impact on their operation, and the loss would be felt

in the four counties in which the company operates. Revenue from the ZX Allotment is spent mostly in Deschutes and Lake County Oregon, and the remainder in Idaho and Washington.

Second, since the only identified concern regarding livestock grazing and sage-grouse was about concentrated livestock grazing on or near playas, removing livestock from the entire allotment, including upland areas or areas not providing nesting habitat, would not provide any more benefit to sage-grouse than just fencing off playas.

The selected grazing system was the same in Alternatives 3, 4 and 5. It will provide periodic rest from grazing for an entire growing season, which would promote plant vigor, reproduction, and productivity. The June 2006 Standards and Guidelines Assessment concluded that all standards and guidelines are being met by the existing grazing permit terms and conditions. The selected actions will restore and rehabilitate playas within the ZX allotment. This will be accomplished with multiple actions including through the installation of three wells associated pipelines, and water troughs. This will facilitate off-site watering conditions for livestock away from the playa features.

In all action alternatives, the wells, tanks and troughs were purposely placed in "unsuitable" sage-grouse habitat, e.g., adjacent to power lines, near roads/routes, or in juniper woodland.

In deciding between Alternatives 3, 4 and 5, the BLM selected the combination of actions that would best minimize the amount of new fence (reducing installation and maintenance costs and reducing negative effects on wildlife), retain dugouts that were important for wildlife, and provide replacement water to keep the livestock grazing operations viable.

Based on the analysis of potential impacts contained in the EA, the BLM has determined in the FONSI that the Sage-grouse Playa Management project will not have a significant impact on the human environment within the meaning of Section 102(2) (c) of the National Environmental Policy Act of 1969 (FONSI pages 1-4). Thus, an EA is the appropriate level of analysis, and an Environmental Impact Statement (EIS) will not be prepared.

Compliance

The Proposed Decision is consistent with BLM Instruction Memorandum 2012-043 which provides direction for management of sage-grouse habitat. This IM directs BLM to "evaluate land treatments…in a landscape-scale context" which this EA does. The IM also states, "When several small or isolated allotments occur within a watershed or delineated geographic area, strive to evaluate all of the allotments together. Prioritize this larger geographic area against other PPH areas for processing permits/leases for renewal"; the BLM has done this. The BLM would also comply with this IM by "…monitor[ing] activities and projects using the BLM core indicators and protocols…to ensure that the objectives are being met" and "…prioritize[ing] use supervision and effectiveness monitoring of grazing activities to ensure compliance with permit conditions and that progress is being made on achieving land health standards."

The Proposed Decision is consistent with the Brothers/La Pine Resource Management Plan (RMP) (USDI BLM 1989), which says (pages 86-90):

- All actions will be consistent with the BLM's Visual Resource Management criteria. The management criteria for the specific visual class will be followed.
- In crucial wildlife habitat...work will be scheduled during the appropriate season to avoid or minimize disturbances.
- Surface disturbance at all project sites will be held to a minimum.
- Where exceptional riparian habitat potential does exist, measures … will be taken to provide both livestock water and riparian improvement.

Renewing the grazing permit is in conformance with the Brothers/La Pine RMP which states BLM will manage livestock grazing through seasons of use, grazing systems and livestock numbers (page 75).

The Brothers/La Pine RMP also states, "All rights-of-way applications will be reviewed using the criteria of following existing [utility] corridors wherever practical and avoiding proliferation of separate rights-of-way" (page 33). This Proposed Decision includes ¼ mile of new pipeline; the pipeline was purposely located near an existing powerline within a utility corridor to minimize new disturbance. The corridor is 2,000 feet wide (.4 miles). The BLM will work with BPA (who holds a 300 foot wide right-of-way for the existing powerline within the corridor) to ensure the pipeline and associated well are placed in a manner that does not interfere with operation and maintenance of their right-of-way. If BLM receives applications for additional rights-of-way within this corridor in the future, it will consider whether there may be a need to adjust the location of the water developments to accommodate higher priority projects.

In accordance with BLM IM 2012-043, under all action alternatives, BLM would "…monitor activities and projects using the BLM core indicators and protocols…to ensure that the objectives are being met" and "…prioritize use supervision and effectiveness monitoring of grazing activities to ensure compliance with permit conditions and that progress is being made on achieving land health standards." The RMP and associated EIS are available at the Prineville District (address at top of this Proposed Decision) or on the Prineville District public website http://www.blm.gov/or/districts/prineville/plans/prinevillermp.php

Renewal of the grazing permits is in conformance with Title 43 of the Code of Federal Regulations (CFR) Section 4130.2(a), effective March 24, 1995.

The BLM complied with 43 CFR 4130.3 by making allotment monitoring data, including the Rangeland Health Assessments, available to the permittee prior to and during preparation of the EA on which this Proposed Decision is based. Interested publics were contacted during scoping and in the EA we stated all data was available upon request.

The decision is consistent with the Oregon Department of Fish and Wildlife's Greater Sage-Grouse Conservation Assessment and Strategy for Oregon (Oregon Conservation Strategy, Hagen, 2011a) because it includes actions listed as conservation guidelines in that document.

For example, the Oregon Conservation Strategy says (page 104), "For playas, wetlands, and springs that have been hydrologically modified for livestock watering, local working groups should identify water improvements that have population limiting implications. These should be rehabilitated and off-site livestock watering facilities developed; new water should be available before existing water is eliminated." This decision is consistent with the conservation guideline that calls for juniper removal to promote the return of sagebrush, native grasses and forbs (page 105 in the Oregon Conservation Strategy).

The selected action ensures compliance with Section 106 of the National Historic Preservation Act. This compliance includes consultation with the Oregon State Historic Preservation Office and interested tribes, and project design features that avoid disturbance to historic properties and paleontological resources.

Protest and appeal opportunities

Protest

In accordance with 43 CFR §4160.2, any applicant, permittee, lessee or other interested public may protest the proposed decision under §4160.1 of this title, in person or in writing to the Bureau of Land Management, Molly Brown, Prineville District Office Field Manager (authorized officer), 3050 N.E. Third Street, Prineville, OR 97754 within 15 days after receipt of this decision. The protest, if filed, must clearly and concisely state the reason(s) as to why the proposed decision is in error. A written protest electronically transmitted (e.g., email, facsimile, or social media) will not be accepted as a protest. A written protest must be on paper.

In accordance with 43 CFR §4160.3 (b), should a timely protest be filed with the authorized officer, the authorized officer, at the conclusion to his/her review of the protest shall serve his/her final decision on the protestant and the interested public.

In accordance with 43 CFR §4160.3 (a), in the absence of a protest, the proposed decision will become the final decision of the authorized officer without further notice.

Appeal and petition for stay

In accordance with 43 CFR §4160.3 (c) & (f), a period of 30 days following receipt of the Final Decision or 30 days after the date the Proposed Decision becomes final is provided for filing an appeal and petition for stay of the decision pending final determination on appeal.

In accordance with 43 CFR § 4160.4, any person whose interest is adversely affected by a final decision of the authorized officer may appeal the decision for the purpose of a hearing before an administrative law judge and may also petition for a stay of the decision pending final determination on appeal. Appeals and petitions for a stay of the decision shall be filed with the office of the authorized officer. Additionally the person appealing must serve a copy of their appeal and petition for stay on any person named in the decision including the name to which the decision is addressed, those listed at the end of this decision, and the Regional Solicitor,

Pacific Northwest Region, U.S. Department of the Interior, 805 SW Broadway, Suite 600, Portland, Oregon 97205 within 15 days of filing the appeal and petition for stay. Appellant needs to be able to document service to any other person named in the decision and the Solicitor. A notice of appeal and/or request for stay electronically transmitted (e.g., email, facsimile, or social media) will not be accepted. A notice of appeal and/or request for stay must be on paper.

In accordance with 43 CFR 4.470, the appeal shall state the reasons, clearly and concisely, why the appellant thinks the final decision of the authorized officer is in error.

A petition for stay, if filed, must show sufficient justification based on the following standards (43 CFR 4.471(c)):

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

The appellant requesting a stay bears the burden of proof to demonstrate that a stay should be granted.

Any person named in the decision from which an appeal is taken (other than the appellant) who wishes to file a response to the petition for a stay may file with the Hearings Division a motion to intervene in the appeal, together with the response, within 10 days after receiving the petition. Within 15 days after filing the motion to intervene and response, the person must serve copies on the appellant, the Office of the Solicitor and any other person named in the decision (43 CFR 4.472(b)).

Signed by Molly Brown
Field Manager, Deschutes Resource Area

June 12, 2014

Appendices:

A. Map
B. Response to comments on EA
C. Changes to EA

Mailing list: The list of persons to whom this decision was sent was included in the cover letter the BLM mailed to each interested public, including the livestock grazing permittees.

Appendix A. Map.

The map is posted separately on the BLM's public web page.

Appendix B. Response to comments on the EA.

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Introduction

Who commented on the EA?

The BLM published the Playa EA on November 8, 2013 and received nine letters during the 30 day comment period. The letter numbers referenced in this document are:

1. **Oregon Natural Desert Association**
2. **Oregon Wild**
3. **U.S. Fish & Wildlife Service**
4. **Private individuals** ("we have lived in the area for more than 20 years")
5. **Simplot Livestock Company** (grazing permittee for the ZX Allotment)
6. **Van Wert Enterprises** ("I have been involved in the Hampton area for close to 30 years, and for six of those years I owned a ranch with grazing rights [privileges]").
7. **Schwabe, Williamson & Wyatt** (attorney representing Stephen and David Roth, grazing permittees for the Hampton and Ram Lake Allotments, respectively)
8. **Private individual** ("consulting biologist for Stephen Roth, Hampton")
9. **Oregon Department of Fish and Wildlife**

Did BLM respond to every comment from every letter?

The BLM responses focus on comments that suggest one or more of the following:

- Information that was not considered in the analysis.
- Faulty effects analysis.
- Failure to follow law, regulation or policy.
- New alternatives that would meet the purpose / need described in Chapter 1 of the EA.
- Corrections and clarifications.

Comments often included a vote for a specific alternative or were generic in nature and or did not apply to this project. Some of these comments are noted but not responded to unless they also make one or more of the suggestions described above.

How is this report organized?

Category of concern e.g., effects on wildlife

Summary statement e.g., "the EA should have considered XYZ"

Comment(s) are quotes from letters

BLM response

Within comment quotes, BLM used brackets [like this] to show words added for clarity, and dots . . . to indicate words left out for brevity. The full text of all comment letters is available at the Prineville BLM office. Full citations for references cited below are in the EA references section if not in the BLM response.

Effects on playa hydrology or vegetation

1. Analysis of playa moisture needs to factor in drought years and juniper encroachment.

Comment(s):

Due to the high variability in timing and amount of precipitation received annually within this area, we question the utility of using a model to characterize moisture conditions on the playas. Several dry years in a row can have a significant impact on plant or animal populations regardless of what an average or modeled moisture regime may be. The determination/conclusion that playa inundation will be extended 16.7 days under Alternatives 2-3, 15.6 days under Alternative 4 and 14.2 days under Alternative 5 is also highly presumptuous. The same holds true for determining the additional acres that will be inundated and the estimate of the shortened number of days a playa will contain water sans dugouts. Even assuming the model does have value, the EA fails to analyze the trade-offs between the various time estimates and the impacts the trade-offs would have on all wildlife, including Sage Grouse. The EA also fails to acknowledge that the duration of playa moisture availability will not extend beyond the time frame normally attributed to upland vegetation desiccation; i.e., late June or early July. Perhaps a more useful scenario would be to develop an estimate of the duration of available vegetation moisture during a defined dry year as compared to the duration of available vegetation moisture during a defined wet year. This scenario should recognize that dry years are much more frequent than moist years. The impact of this changing condition on Sage Grouse must also be taken into consideration. ***– Letter #5***

The RHSAs, and by extension the draft[1] EA, also failed to consider local, relevant and significant science relating to playa health and functioning. Information is replete concerning the role western juniper can play in Central Oregon surface and subsurface water depletion, riparian vegetation degradation, and bare soil expansion. However, the EA does not mention, discuss or analyze the possibility that a significant causal factor for current playa conditions may be post-settlement western juniper expansion (and attendant system water loss) within their respective watersheds. Similarly, the BLM fails to provide current and historical precipitation data relied on in making assumptions of playa potential in the draft EA, and fails to analyze the potential impact that precipitation patterns could have on playa conditions. ***– Letter #7***

BLM response:

The comments claim BLM failed to consider how precipitation patterns and juniper encroachment affect playas.

The EA did contain a citation for the precipitation data used in the analysis. The BLM reviewed the current and historical precipitation data and considered it when making assumptions about

[1] Some comments refer to the EA the BLM published on November 8, 2013 as a draft. This is not accurate. It was not a draft.

how playas would respond. See EA page 27, "The BLM created model to calculate the volume of water within the playa . . . data was collected from a weather station at Brown's Well, a site near the project area." The BLM recognizes precipitation varies greatly from year to year. The intent of the model and analysis was to show relative change in duration and extent of playa inundation under a given set of conditions, not to make a true prediction. The assumptions the model is based on were outlined in the EA pages 25-28. The commenter questioned the data and analysis, but did not provide a better data source or model for how to estimate effects.

The comment said the EA failed to analyze how changes in playa moisture would impact wildlife. This is inaccurate. The EA explains the expected effects from filling dugouts and additional duration and inundation of water on playas, and includes ample discussion of how sage-grouse, deer, pronghorn, elk, bats, waterfowl and other wildlife would be affected by changes in playas. The tradeoffs between alternatives are contained in the Chapter 3 effects analysis in the EA.

The BLM did acknowledge in the EA that juniper encroachment may be affecting ecological processes on some playas. This EA includes alternatives to remove young encroaching juniper on some playas. And the BLM's May 2011 Decision on the High Desert Shrub Steppe EA treated encroaching juniper on other playas in the project area. However, not all playas in the project area have young juniper in or around them; juniper expansion or infill doesn't contribute to playa degradation in areas were juniper doesn't exist. This is why this EA addresses issues including but not limited to juniper encroachment.

2. The EA needs to explain the basis for assumptions relating to water depth and timing of inundation on playas.

Comment(s):

The draft EA needs to provide the scientific basis for its finding that a comparison of dugout capacity to playa surface area rations yielded a natural break at 3% (Draft EA at 14). . .[and] for its assessment of the length of time that the playas will be inundated with water under the Alternatives that provide for filling in the playas. The draft EA needs to account for factors, such as climate conditions, that can impact the presence of specific plant species within the playas. (Draft EA at 22). The BLM needs to provide some scientific basis, tied to conditions in the playas at issue here, supporting its assumptions relating to water depths in playas. (Draft EA at 24). ***– Letter #7***

BLM response:

The commenter asked why the BLM thought the natural break for when to fill dugouts on playas was at three percent (ratio of dugout capacity to playa capacity). In looking at the playa and dugout data, BLM found all playas greater than 100 surface acres had a dugout capacity to playa capacity ratio of less than 0.5 percent, except for one playa that had a ratio of 2.6 percent. Many playas less than 100 surface acres have a dugout to playa capacity ratio of greater than three percent. There was not a scientific basis for using this break in the alternatives, but three percent seemed a reasonable mark to use when prioritizing whether to

fill or not fill dugouts. The commenter did not provide an alternative rationale for deciding when to fill dugouts.

The commenter also said the BLM needed to take climate and other factors into account when making assumptions about vegetation on playas. As explained in the BLM response above, the analysis in the EA does take into account how playas would be affected by climate. The BLM responses below provide additional information on how the BLM estimated playa condition and potential.

3. Information on playa condition is inadequate and/or incorrect.

Comment(s):

Though the draft EA does engage in a cursory discussion of playa conditions, it fails to provide any monitoring information or trend information on those playas, and does not identify where, when, and how the determinations supporting playa condition were made. ***– Letter #7***

The RHSAs, and by extension the draft EA, do not correctly recognize that playas are unique lentic systems that often do not possess all of the characteristics of traditional wetlands. For example, playas can have more alkaline soil chemistry than other wetland areas, which can impact the types of plant species one would expect to see on the playas. See attached Literature Review Report - Sage-Grouse Playa Management EA ("Report") at 2. When it updates it's RHSAs [rangeland health standards assessments] for these allotments, the BLM will need to provide a corrected analysis of the site potential for the playas given their unique soil chemistry, soil type, and vegetation potential. ***– Letter #7***

Similarly, the draft EA must account for other factors impacting site potential. Studies suggest that natural playa conditions, such as alkaline soil and other inherent site characteristics, have a significant impact on vegetation in the playas. ***– Letter #7***

The EA fails to provide the basis for its ecological site and condition data for playas. The draft EA should include data on its surveys of ecological condition, including the date of the survey, the results of the survey, and the trend for each playa. Trend data is critical, because the both the rangeland health guidelines and the RMP both require management decisions to be based on allotment trends, not present allotment conditions. ***– Letter #7***

BLM response:

A commenter said the EA lacked information on how the BLM determined playa conditions. In fact, the EA includes the results of Ecological Site Inventories (ESI) conducted from 2001 to 2007. Information regarding ESI in the project area is provided beginning on page 31 of the EA. The ESI and related ecological site descriptions provide baseline information about playas. They include a description of a lakebed and silver sagebrush playa site potential (EA pages 31-32). Selection of the representative ecological site and subsequent condition ratings for playas in the project area were determined following the protocols in Habich 2001. While there is no

trend data, the ESI presented is the most current information. Further information on ESI is available at the Prineville BLM office.

A commenter claimed the EA failed to recognize playas are unique and don't necessarily react like a traditional wetland. The BLM agrees that playas in the project area are unique compared to traditional wetlands; however, these playas are non-saline as described in the ecological site descriptions by Clausnitzer and Huddleston 2002. As non-saline wetlands, they have a greater potential to support understory vegetation than the saline playas described in other studies conducted in other geographic areas. The EA also recognizes these systems are unique, and potential may not be what it once was: "Caution should be taken when interpreting these results, because both playa communities are well below their average expected production and are either missing key plant species or there is a discrepancy in functional group dominance according to the ecological site description" (EA page 32).

4. The EA needs to explain why it is changing management on so many playas, when only a few are in poor condition.

Comment(s):

The BLM should explain why wholesale management changes are needed when only 19% of silver sage playas and 6% of lakebed playas were found to be in poor condition and no trend data was provided. If only small portions of playas are not meeting standards, changes to management should be focused on those playas. ***– Letter #7***

BLM response:

The comment asks why wholesale management changes are needed when only a few playas are in poor condition. The BLM looked at more than just condition rating when making proposals for playa management. In addition to condition, the BLM looked at characteristics of ecological function on the playas based on the ecological site to identify playas that had potential for restoration. The BLM also reviewed current research to estimate playa potential. Condition rating was just one of many considerations.

As for condition ratings, the BLM was initially surprised at how few playas rated in poor condition. It was expected that playas with low perennial grass/grass-like production would rate poor due to high bare ground and/or higher than expected presence of increaser and weedy forbs. However, these playas rated as in fair condition (26-50 on the similarity index) due to the high amount of silver sagebrush on site. Silver sagebrush is the dominant shrub described in the ecological site. Since silver sagebrush is a sprouter, it is logical that it would comprise a larger portion of the site than other slower establishing sagebrush species on other sites, but the Ponded Clay ecological site allowed silver sagebrush to comprise up to 25 percent of the composition by weight for the site. This meant that if a playa had 25 percent or more composition by weight of silver sagebrush it rated out as fair based on the similarity index used in ESI, regardless of what other species were present or absent. In the time since the inventory was conducted, the ecological site has been updated to include only 20 percent silver

sagebrush composition by weight. If the similarity index was re-run on the inventory data a greater portion of the playas would rate poor.

5. The EA incorrectly estimates how filling dugouts would affect playas.

Comment(s):

The effect of filling in dugouts on playa vegetation is unknown. There are presently no known restoration pathways for state 4 (excavated) playa sites, and active restoration would be required to achieve the desired state. Without active restoration, the desired state would be unlikely to be achieved. The Oregon Conservation Strategy lists different playa species than those listed in the draft EA. The playas on the allotments are more similar to ODFW's seasonal ponds or vernal pools, which are not mentioned as being a concern for the Northern Basin Range ecoregion for sage-grouse habitat. The site potential for small, internally drained basins like the playas is more shrub dominated with a spare understory, rather than a grass community with a presence of silver sage brush. Barren areas in these basins may be a function of soil chemistry rather than past management. ***– Letter #7***

The ideas put forth by the BLM are that filling in the dugout excavations will distribute the available water more widely across the whole playa, thereby making more water available for riparian plant growth over a longer time period, and that fencing would keep livestock from eating and trampling this vegetation. Again, no data were presented to show that these techniques actually can produce the results claimed. ***– Letter #8***

I did find a study conducted on playas where an attempt was made to document on a small scale the effects of doing just what the draft EA is proposing to do on a large scale. In fact, this study was conducted on two of the playas of the Ram Lake and ZX allotments, but was not referenced in the draft EA, perhaps because the results of the study suggest considerable caution before proceeding with filling dugouts and fencing. L. Dlugolecki (2010) studied two playas, one in each allotment, to assess the hydrologic effects of filling dugouts and fencing out livestock. Her results were very preliminary and not conclusive, but she did have this advice: "I recommend caution and patience with restoration activities. Attempts to return systems to within their historical range of biotic and abiotic characteristics and processes may not be possible. Management activities directed at removing undesirable features of a system may perpetuate new undesirable systems." In addition, the NRCS has studied playas and classified them according to their level of alteration (e.g. dugouts), and provides suggested "pathways" to improve or restore playas. (NRCS, 2005 and 2013.) Their conclusions also suggest that some restorations may not be possible, especially in the case of long-term presence of dugouts. ***– Letter #8***

BLM response:

The comments challenge several assumptions from the EA: 1) filling dugouts would distribute water across a wider area, 2) more water would benefit plants, and 3) exclosure fences would prevent livestock from trampling or eating vegetation. A comment also challenges why the EA does not present data from a thesis by Laura Dlugolecki that cautions against filling playas. The

response below addresses these challenges, except for the challenge about fencing keeping out livestock, which BLM has not responded to because the commenter did not explain why that assumption was in error.

The Prineville BLM conducted an extensive literature review related to playas in an attempt to understand them. None of the research challenged the first two assumptions, though some of it did say results may take longer than expected. A study by Reuter et al. 2013 on the Prineville District suggests water would spread more widely across the playa after filling dugouts.

The Dlugolecki thesis is based on data primarily obtained from the Prineville BLM. In 2007 the BLM inventoried playas on the district (primarily within the project area). In 2008 the BLM filled two dugouts in playas, one within the project area and one adjacent to the project area, using the protocols described in the EA. These are the playas referenced in the Dlugolecki thesis. Dlugolecki participated in the filling of the dugouts and then conducted an electrical conductivity study on these playas.

As part of her thesis, Dlugolecki attempted to summarize the inventory data. The BLM has since done its own analysis of the inventory data. The BLM was able to remove a lot of "noise" (irrelevant data) associated with how the data was collected that Dlugolecki did not consider. For this reason, the BLM believes its results are more accurate than those presented in the Dlugolecki thesis.

Dlugolecki's thesis does not include follow-up data or monitoring data for these filled playas, so there is no basis for conclusions on the success or failure of the action. Based on our data and field observations, the Prineville BLM believes the playas selected to be filled were among the drier on the district and may not have been representative of restoration potential. Based on this observation and limited monitoring data conducted since filling the dugouts (available at the BLM) the BLM proposed in this EA to fill playas where dugout capacity was greater than three percent of playa capacity to try and focus on playas that would have a higher potential for restoration.

The Prineville BLM did consider Dlugolecki's electrical conductivity data, which supported the assumption that filling the dugouts would redistribute the water across the playa. This data is referenced as Reuter et al. 2013 (in the EA it was referenced as Reuter, in press; it has since been published). The BLM chose to cite the more recent research, rather than Dlugolecki.

In reference to the NRCS ecological sites and state and transition models, the Prineville BLM has worked closely with the NRCS to develop the state and transition model displayed in the ecological site. Data from the 2007 inventories was used extensively to support the model. Other than the two dugouts filled by the Prineville BLM, restoration has not been attempted on these sites. Potential restoration pathways were developed using the best available science to support assumptions.

Reference: Dlugolecki, L. 2010. A characterization of seasonal pools in Central Oregon's high desert.

6. The EA relies on incorrect assumptions about "climax plant communities."

Comment(s):

In its discussion of playa health, the draft EA notes that while the majority of playas are in "good" or "fair" condition, caution should be taken when interpreting these results because the playas are below their average expected production and are missing key species (Draft EA at 31-32) . . . according to the draft EA, BLM is basing these statements on its expectations of the "historic climax community" but has failed to assess whether such conditions are even possible today. . . the BLM fails to provide any scientific support for its description of the historical climax community. . . ignores current and directly relevant science and causal factors that impact playas, and fails to support its conclusions. Indeed, playas have a different expected site potential than traditional wetland areas. ***– Letter #7***

BLM response:

The historical climax community is based on the ecological site descriptions. Ecological site descriptions are based on field observations and data collection as outlined in the National Range and Pasture Handbook (USDA NRCS 2003). These are the best available data, and BLM's local inventory data supports the ecological site descriptions. Field inventory by the Prineville BLM in other portions of the district have found playas that are close to the historical climax community, and field inventories within the project area have documented the same suite of species described in the ecological site descriptions, but in different proportions.

While restoration pathways are unknown for these sites, as stated in the EA we are using the best available knowledge to support doing active management on these playas to move them toward the historical climax community.

Reference: U.S. Department of Agriculture-Natural Resources Conservation Service. 2003. National range and pasture handbook.

7. The EA should include an alternative that constructs berms instead of filling dugouts.

Comment(s):

Rather than back filling the dugout in order to affect the extent and duration of playa inundation, it is suggested a simple berm be constructed that prevents drainage into the dugout from the playa. This restoration method will be much less expensive than completely filling the dugout. It will also be much less expensive to re-activate the dugout if playa restoration proves to be unnecessary in the future. ***– Letter #5***

BLM response:

Creating berms would not achieve two of the stated objectives of filling dugouts: to spread the water that is isolated in dugouts over a larger surface area of the playa, and reduce cattle

utilization on playas by removing water sources (EA pages 31, 33, 34). Creating berms around the edges of dugouts may reduce or eliminate playa surface water from flowing into the dugout, but a large amount would remain in the dugout from precipitation and snowmelt that would not be available to vegetation. Additionally, berms would not restrict cattle use. Therefore, small berms were not analyzed because they would not achieve the objective stated above.

The importance of playas to sage-grouse

8. Playas are not critical sage-grouse habitat, and there is already plenty of sage-grouse habitat in the project area.

Comment(s):

The EA also fails to recognize that the ZX Allotment contains the majority of preliminary priority habitat (PPH) within the project area. This preponderance of PPH indicates something is "right" out there. No discussion is given to the fact that total livestock exclusion, particularly with riparian type vegetation, often times results in over-grown vegetative characteristics that are unsuitable for Sage Grouse use. Is Playa Condition a limiting factor for Sage Grouse in this area? Until the question is answered, we may be wasting effort by using playas as a focal point for change. ***– Letter #5***

The draft EA contains virtually no data, onsite or otherwise, or other evidence to support the claims that playas are important for many aspects of the sage-grouse life cycle. I searched all of the sage-grouse literature available, including those cited in the EA, but turned up very little mention of playa habitat being important to the sage-grouse in any stage of its life cycle. What evidence exists appears to be mostly anecdotal and extrapolative, and not the results of any specific research or study of playas and their role in providing sage-grouse habitat. In fact, in my opinion the literature review indicates that the Hampton and Ram Lake allotments contain most of the elements necessary for sage-grouse habitat, although juniper encroachment has likely eroded the value of the habitat. . .In conclusion, based on my observations of surrounding sage-grouse populations as well as a review of the literature, it appears to me that playas are not a required element of sage-grouse habitat in this region of Oregon, and are very likely not a limiting factor to the species on either the Hampton or Ram Lake. ***– Letter #8***

BLM response:

Stating which allotment contains the greater amount of PPH in the project area is not necessary for the description of the project area or analysis of the proposed actions. The commenter did not provide a reason why inclusion of this information would be important.

The commenter didn't provide any new information to support their claim that "something is right out there" in the PPH areas or its relevance to the proposed project and analysis; therefore, there isn't anything new to consider. The purpose and need section of the EA (pages 4, 5 and 6) described sage-grouse population trend, and the USFWS proposed listing and need for BLM to improve habitat conditions. The U.S. Fish and Wildlife Service found that listing sage

grouse as a threatened or endangered species is warranted. The Greater Sage-Grouse Conservation Assessment and Strategy for Oregon (Hagen, 2011) states for the Prineville District, under Population trends—"There has been a negative but non-significant trend in males per lek during the assessment period. The declining trend for the Prineville District is the most sustained of all districts. Annual rate of change analysis indicated a population in decline (–0.004), and the population rate of change has remained fairly consistent since 2001. These data also suggest that the population earlier in the assessment period was on average 39 percent larger and five percent less prior to and since the 2003 benchmark, respectively."

The commenter did not provide any new information (data or references) to support the claim "that total livestock exclusion, particularly with riparian type vegetation, often times results in over-grown vegetative characteristics that are unsuitable for sage-grouse." Without more specific information from the commenter, such as type of riparian area, type of vegetation, level and season of use for grazing and references it is not possible to address their opinion. The commenter may be referring to the ability of some riparian areas to sustain certain levels (and timing) of grazing and provide some suitable habitat conditions for wildlife such as sage grouse; while this belief is generally accepted in the scientific community the specifics can be contentious.

This comment is based on a report that cites Mike Atamian's research as a graduate student in Nevada and published in the Journal of Wildlife Management (Atamian et al. 2010). Atamian's research suggests sage-grouse used playas and pinyon-juniper woodlands less proportionally than what was available in the study area. While this data is valuable to sage-grouse conservation in Nevada, playas in the project area do not share the same ecological characteristics. The SWReGAP Landcover Description of Inter-Mountain Basin Playa which occurs in Mike Atamian's study area is "This ecological system is composed of barren and sparsely vegetated playas (generally <10% plant cover) found in the intermountain western U.S. Salt crusts are common throughout, with small saltgrass beds in depressions and sparse shrubs around the margins. These systems are intermittently flooded. The water is prevented from percolating through the soil by an impermeable soil subhorizon and is left to evaporate. Soil salinity varies greatly with soil moisture and greatly affects species composition. Characteristic species may include Allenrolfea occidentalis, Sarcobatus vermiculatus, Grayia spinosa, Puccinellia lemmonii, Leymus cinereus, Distichlis spicata, and/or Atriplex". This playa description does not meet early and late brood-rearing habitat characteristics. However playas in the project area have the potential to meet the habitat guidelines (Connelly et al. 2000, Hagen et al. 2007). The report is referencing a different plant community than what occurs in the project area. Site potential for playas in the project area was determined using the Ponded Clay and Lakebed ecological sites, as outlined in the EA. Playas in the project area are not saline and do not have soil chemical properties that restrict plant growth. Soil characteristics are similar to those described in Clausnitzer and Huddleston 2002).

Furthermore, the most convincing point of Atamian's paper is late brood-rearing habitat (e.g. mesic areas) are a potential limiting factor for sage-grouse.

The EA includes scientific evidence that filling dugouts spreads water across the playa (page 33) and this hydrologic function is more similar to natural playas than playas with dugouts (Reuter

et al. 2013). The results from this study were generated from filling two dugouts in the project area that did not hold water annually which suggests filling dugouts that hold water would have a greater positive effect on ecosystem processes.

The EA states that limited brood-rearing habitat is a threat to sage-grouse (page 30). The primary literature suggests sage-grouse use mesic (wet) areas that are abundant in insects (early-brood) and forbs (late-brood). Playas are seasonal wetlands that are located in an arid, riparian limited environment that historically probably provided high abundance of insects and forbs. Many of the playas in the project area are limited in plant species diversity (i.e. herbaceous layer) and/or have altered hydraulic and nutrient cycling processes (page 31). Insect abundance is directly related to plant diversity in many ecosystems. Playas with limited forbs and insects (i.e., food) could be a limiting for sage-grouse in the project area. Furthermore, the Atamian report states that insects are an important food source for sage-grouse. The Oregon Conservation Strategy identifies playas as a rich source of invertebrate prey.

9. Playas are not critical sage-grouse habitat (specifically brood rearing).

Comment(s):

The literature on sage-grouse habitat selection does not indicate that sage-grouse are selecting for playa habitat. Forb availability is an essential component for selection of brood habitat by sage-grouse hens. However, there is no evidence that playas provide this forb rich brood rearing habitat. Indeed, of the 21 forbs that are commonly found in sage-grouse diets, only two of the forbs occur in the ponded clay and lakebed ecological sites that playas are part of. As such, it is not likely that restoring site hydrology would improve sage-grouse food for availability at the playa sites proposed for filling. – ***Letter #7***

A major focus of the EA is to improve the ecological condition of playas on behalf of Sage Grouse. However, there is no information provided that indicates playa condition is a limiting factor for Sage Grouse within this area. The importance of playas being in pristine condition in order to provide adequate brood rearing habitat is grossly overstated. This problem is further exacerbated by the fact Ecological Site Inventories have not been completed for the ZX Allotment. The EA misconstrues lakebed playas by failing to recognize the relative small size of the concentric pattern of playa vegetation that exists in relation to the total acreage characterized as a playa. ***– Letter #5***

Many studies have shown that young sage-grouse are largely insect eaters during the first few weeks after leaving the nest. Ants and beetles typically comprise the majority of animal food eaten by chicks during this time. Studies have also shown that these insect food sources are generally widely distributed throughout healthy sage brush communities, including those found in the Hampton and Ram Lake allotments. Freese (2009) studied insect abundance in central Oregon high desert rangelands and found especially abundant insect populations in dry lake rabbit brush sites, and suggested these areas may have greater value to sage-grouse broods. These sites are fairly common within the Ram Lake and Hampton allotments, but the draft EA does not address this particular, important, habitat type. Given that the shrub-steppe

vegetative type exists in 1/3 to 2/3 of the total area of these two allotments, plus the presence of the aforementioned dry lake rabbit brush sites, I would expect no shortage of suitable early-season sage-grouse brood habitat even in the absence of playas. Thus, playas are not a critical habitat for early brood raising. ***– Letter #8***

The draft EA states: "Playas provide high quality habitat for wildlife after upland vegetation has dried out" (pp. 26-27). The draft EA asserts that "playas are important for early and late broodrearing because of their potential for containing high quality forb and insect abundance" (p. 31). However, these statements are unsupported by any studies or research. Additional studies are needed to determine whether playas play even a small role in late season sage-grouse use. ***– Letter #8***

BLM response:

The EA (pages 30, 31 and 32) contains information supporting the assumption that playas (as opposed to surrounding vegetation in the project area) provide important habitat for sage-grouse brood rearing and that sage-grouse will select for these areas. The EA states that limited brood-rearing habitat is a threat to sage-grouse (page 30). Playas provides sage-grouse brood-rearing habitat and are particularly important because brood-rearing habitat is limited in the project area (page 31). Many of the playas in the project area are limited in plant species diversity (i.e., herbaceous layer) and/or have altered hydraulic and nutrient cycling processes (page 31). Insect abundance is directly related to plant diversity in many ecosystems. Playas with limited forbs and insects (i.e., food) could be a limiting factor for sage-grouse in the project area.

The EA did not state that playa condition is a limiting factor for sage grouse within this area. Instead, the EA stated (page 5) “the project focuses on playas, because playas are important for many aspects of sage-grouse life cycle.” Additionally, the EA stated (page 30) “limited brood-rearing habitat is believed to be a major factor contributing to declines of sage-grouse populations across their range (Aldridge and Boyce 2007, Atamian et al. 2010).” And “given the significance of these habitats to sage-grouse, brood rearing sites have been identified as critical restoration and conservation areas (Connelly et al. 2004, Hagen 2011a).”

The EA does not state that playas must be in “pristine condition in order to provide adequate brood rearing habitat.” The EA states (page 6) the “purpose is to improve the ecological condition of playas and surrounding areas for sage-grouse…” The EA also mentions (pages 31, 32) that ecological site inventories have been completed on 57 playas in the project area and summarized the results.

Inventory conducted by the BLM within the project area identified over 100 different forbs on the playas. The only areas that provide late spring moisture in the project area are playas. Many of the playas in the project area are limited in plant species diversity and/or have altered hydraulic and nutrient cycling processes (EA page 31), therefore they may not currently be providing optimum sage-grouse brood rearing habitat. The Oregon Conservation Strategy (Hagen 2011) values playas for their insect abundance and playas historically provided an abundance of forbs.

After reading the comment referencing a study by Freese (2009) regarding insects and dry lake rabbit brush sites present in the Hampton and Ram Lake allotments, we believe the commenter meant to reference Ersch (2009). Ersch looked at insects and Freese didn't. The Ersch (2009) study didn't reference a dry lake rabbitbrush site; however, it did reference an "Ericameria nauseosa (rubber rabbitbrush) dominated dry meadow" we think the commenter is referring to. The summary statement of the abstract says, "In conclusion, the meadow E. nauseosa dominated community provided the most forb cover and caterpillars, suggesting that inclusion of this community type within the landscape would provide quality sage-grouse brood rearing habitat." The commenter did not provide any information to support their assertion that "these sites are fairly common within the Ram Lake and Hampton allotments." It would be difficult to determine how much rabbitbrush is in those allotments, but even if there is a lot of rabbitbrush on sites, the potential for those sites isn't meadow as described in the thesis, it would be any number of dry upland sites. Restoration of those sites is outside the scope of this EA.

Both the Freese 2009 and Ersch 2009 theses referenced lakebeds and the context leads us to believe they are referring to the playas. The only reference made to them was in context of their use as leks.

Mark Freese's thesis (2009) conducted a broad extent mapping exercise of sage-grouse habitat on the G.I. Ranch. He included a number of references because he was mapping seasonal habitat, not quantifying insect populations. Some quotes from his thesis: "Drut et al. (1994a) reported an increased use of lakebeds and meadows during late brood-rearing (summer season) in southeastern Oregon. In addition to harboring succulent forbs longer into the summer season, Drut et al. (1994b) and Ersch (2009) found that insect abundance increased in mesic habitats. Areas with increased insect and forb abundance may provide important food sources for late brood-rearing and for broods that are a result of second or third re-nesting attempts."

Reference: Ersch, E. A. 2009. Effects of plant community characteristics on insect abundance: implications for sage-grouse brood-rearing habitat.

10. Playas are not critical sage-grouse habitat (specifically lekking).

Comment(s): Playas are not a critical element of lek site establishment. It does appear that the Canary Lake area is an historic lek site along with another site to the south, although no data are offered in the draft EA to illustrate exactly where these sites are in relation to playas. In fact, it appears that these two sites are inactive and have been so for some years. Yet, they appear to be the sole reason for the PPH designation within the Hampton allotment. The draft EA states: "There are six active lek complexes in the project area and another six complexes within three miles . . ." (p. 26). In fact, all of these are in or near the ZX allotment and none involve the Ram Lake or Hampton allotments. It is not clear in the EA that any of these active leks in the ZX allotment involve playas, but the draft EA does not refer to any active leks in either Ram Lake or Hampton. From my own experience and the literature, the sage-grouse does not seem to be particular about its selection of lek sites. I have personally observed sage-grouse using old sheep bed grounds, heavily grazed pastures, abandoned airfields, beat-out cattle enclosures and even newly-constructed roads as lek sites. The only requirements seem to

be an open, flat or slightly elevated site where the birds have a wide field of view, with little or no shrub cover, and within suitable sage brush habitat. Numerous areas within these two allotments could serve as lekking sites. ***– Letter #8***

BLM response:

The EA does not suggest playas are critical for sage-grouse lek site establishment. The EA does, however, cite research showing playas are used as leks and sage-grouse typically nest near leks. There are active leks on playas within the ZX allotment and there are two active leks within 0.75 miles of the Hampton Allotment. The specific location of leks are not included in EA because sage grouse are sensitive to human disturbance during the breeding season and people like to visit this sites to view the males' display. On the Prineville District in the past, we have had a couple viewing sites and sage-grouse abandoned these sites. While we cannot say for sure that it was related to people, we do not want to facilitate public viewing by displaying lek site locations. Also, the parties most directly involved and potentially affected by the proposed actions, already know where the leks are located.

11. Playas are not critical sage-grouse habitat (specifically nesting).

Comment(s):

Although the draft EA lists playas as being potentially important for nesting habitat, neither the literature review nor on-ground observations would support this idea. In fact, in the draft EA the discussion focuses on upland mountain sage brush with a medium grass understory when describing sage-grouse nesting habitat. And, with 113 to 112 of the total allotment acreage in the shrub-steppe habitat type (sage brush, grass and forb), it would appear there is adequate nesting habitat potential outside of the playa types. ***– Letter #8***

BLM response:

The EA does not state that playas are important nesting habitat. The EA presents the rational for the nesting suitability buffers and assumptions in Chapter 3 (39-42). Page 39 of the EA includes the following:

"The most detrimental impacts to sage-grouse are repeated heavy grazing that reduces residual grass cover, causes nest desertions, or avoidance of an area (Beck and Mitchell 2000). Because livestock are dependent on water, they are attracted to and concentrate around these resources within a grazing pasture (Ganskopp 2001). Typically, there is an inverse relationship between grazing intensity and distance from a water source (Valentine 1947, Brooks et al. 2006), thus forage production tends to increase farther from water (Adler and Hall 2005). However, there is a distance at which the effects of heavy livestock use are reduced or not measurable. The primary area of influence associated with livestock use is within one mile of a water source (Valentine 1947, Holechek 1988). Therefore, for this analysis we assume all shrub-steppe habitats within one mile of water sources will either be unsuitable or marginal and areas greater than one mile will be suitable."

Effects on wildlife . . . from filling dugouts

12. Filling dugouts would affect other wildlife besides sage-grouse; the EA does not analyze this or provide alternatives to address it.

Comment(s):

We urge BLM to consider an alternative approach to filling dugouts. BLM should consider impacts to other wildlife species from lost water sources if all of the dugouts are filled, and consider the likely impacts from concentrating grazing around fewer water sources. ***– Letter #2***

Do not fill in dirt tanks. Ducks, grouse, elk, deer, pronghorns use them. They need to be dug deeper, they have not been maintained since mid-1990s. Wells pipelines troughs will not be maintained, grouse and small animals will not use them. The elk and the deer all go to the dirt tanks because they don't like the other tanks. These areas are big enough for the small critters to get away from the coyotes and other predators. ***– Letter #4***

Dirt ponds are the only water from midsummer to the end of December unless there are private water systems which are dependent on the snow pack and rainfall. . .I have not seen any differences between playas with dirt ponds and those without, with the exception of wildlife having life sustaining water with ponds. I have observed that playas hold water for shorter period of time over the past 15 years with or without dirt ponds. All wildlife including sage grouse depend on these dirt pond. ***– Letter #76***

The BLM needs to provide more information on the specific species the sage-grouse is serving as the focal species for. (Draft EA at 29). The draft EA needs to provide the basis for its assumption that other species will benefit from restoring playas, particularly given the lack of data on whether forage quality would increase if playas are filled (Draft EA at 33). ***– Letter #7***

The draft EA should address potential impacts to waterfowl more thoroughly. (Draft EA at 58) The dugouts have provided habitat for water fowl - indeed, water fowl and their broods have been observed utilizing some of the dugouts every year. ***– Letter #7***

You identify several sites on the west side of the project area as having “no importance as a water source”. To the contrary, the Basalt lakes sites are very important water sources to pronghorn/deer/elk, many years late into the summer. These playas should be deleted from playas to be “filled in”. ***– Letter #9***

BLM response:

Several comments suggested the EA failed to analyze effects of filling dugouts on any species besides sage-grouse. This is not the case. The EA directly analyzed the effect of filling dugouts on mule deer, pronghorn and elk (pages 49-50), bats (pages 55-56) and waterfowl (pages 57-58). It explains why detailed analysis is not necessary for effects on bald eagles, golden eagles, migratory birds, and birds of conservation concern (pages 59-62).

The EA also includes indirect analysis of effects on other wildlife using a "focal species" approach. The EA says (page 30), "in addition to improving sage-grouse brood rearing habitat, this analysis assumes many other wildlife species would benefit from restoring playas . . . and improved forage quality; in particular, shorebirds, pronghorn, and birds associated with shrub-steppe and old growth juniper woodlands." And on page 40, "This analysis assumes sage-grouse is a focal species for other ground nesting species such as vesper sparrow, western meadowlark, horned larks, and common nighthawks. All of these species except for common nighthawks. . . exhibit considerable overlap with sage-grouse habitat characteristics (Rowland et al. 2006, Hanser and Knick 2011)." The USFWS and ODFW comment letters on this EA did not oppose the focal species or other methods used in the effects analysis.

Other commenters suggested that due to effects on wildlife, the BLM shouldn't fill in dugouts. The BLM recognizes there would be tradeoffs in terms of benefits to different wildlife species and other resources, and therefore included alternatives that would fill dugouts (Alternatives 2-5) as well as one that would not fill dugouts (Alternative 1) and would leave the door open for maintaining the dugouts by making them deeper. The EA includes a basis for the assumption that wildlife forage would improve as a result of filling dugouts (pages 31 – 38).

A commenter (letter #9) says the EA mistakenly identifies playas on the west side of the project area as having "no importance as a water source." While the EA notes these playas are not important as livestock water, it does recognize they are important for wildlife. Basalt Lake is shown as an important wildlife water source on the EA maps.

A response to the comment about how concentrated grazing around fewer water sources would affect wildlife is in Summary Statement #27 on page 28.

13. The BLM should install guzzlers to replace wildlife water lost by filling dugouts.

Comment(s):

Water trough sites do not serve as adequate replacement water sites for wildlife if they are available for cattle use. Dug-out waterholes have provided water sources for a variety of wildlife species for several decades. To fill in 34-41 dug-outs in the project area and provide no dedicated replacement wildlife water sources is unacceptable. We request that 2000 gallon, fenced wildlife guzzlers be placed strategically (2 mile centers) throughout the project area to replace the dugout water sources. The guzzlers will provide water to sage grouse/ deer/ pronghorn/ elk/ bats/ predators/ small mammals/ and song birds. ***– Letter #9***

BLM response:

Early in development of this project, the BLM considered installing guzzlers to replace filled dugouts in Alternative 2 (where dugouts would be filled but no replacement water provided). This was dropped for several reasons. First, there are already 12 guzzlers in the project area as well as many large dugouts that would not be filled, including dugouts on Canary Lake, Cracker Lake, Line Lake, Ram Lake and Dog Lake. Second, the BLM and ODFW already struggle to

maintain existing guzzlers under reduced budgets, and more guzzlers would be an added expense that might not be feasible.

Third, while the action would potentially mitigate effects on deer, elk and pronghorn, it would not further the purpose of the project, "to improve the ecological condition of playas and surrounding areas for sage-grouse . . ." (EA page 7). The BLM is not required to identify mitigation in an EA when the adverse effects are not "significant" (i.e., effects of such context and intensity that an environmental impact statement is required). The BLM issued a draft Finding of No Significant Impact (FONSI) at the same time it published the EA. The draft FONSI showed no significant effects, but the BLM will re-evaluate significance of effects prior to completing a Decision. At that time the BLM will identify mitigation measures that might be necessary to ensure effects are not significant.

14. Playa restoration would increase mosquitoes and thus West Nile Virus. The EA needs to acknowledge this.

Comment(s):

The EA fails to fully acknowledge the effect playa restoration will have on the production of mosquitoes capable of transmitting the West Nile Virus. It is common knowledge that natural playas provide better mosquito rearing conditions than dugouts located within playas. **–** ***Letter #5***

BLM response:

The EA does address West Nile Virus (WNV) on page 48. The studies cited in the EA show artificial water developments, including both dugouts and livestock troughs, are potential vectors for mosquitoes that carry WNV. This is in contrast to the commenter's claim that natural playas are better mosquito habitat than artificial developments. The commenter did not present studies to support this claim.

Increases in artificial water developments on public lands since the 1960s (Knick et al. 2013) have facilitated the spread of WNV throughout sagebrush habitats (Walker et al 2007). Mosquito larval development requires wet areas with moderately warm air temperatures and both larval development and adult activity increases with hotter temperatures (Walker and Naugle 2013). Artificial water developments such as dugouts not only provide habitat for WNV carrying mosquitoes, but provide water (i.e. habitat) for longer durations than natural playas. Natural playas are generally dry by early summer when temperatures are moderately warm, whereas dugouts can hold water through late summer when temperatures are higher and more suitable for mosquitoes. Thus, current sage-grouse conservation includes reducing anthropogenic structures (e.g., dugouts) which promote WNV throughout sage-grouse habitat (Walker and Naugle 2013).

15. The EA needs to quantify effects on bats, not just mention effects would occur.

Comment(s):

The draft EA should provide the standards used to evaluate the impact of an action on a special status species, and analyze the anticipated negative and positive impacts under that standard. (Draft EA at 56). The draft EA notes that the project could have a significant host of impacts on bats, including reduced distribution, reduced water availability, and reduced bat use of new water sources. (Draft EA at 55-57). These impacts are significant, but BLM's analysis did not analyze them. The BLM must analyze and quantify the potential impacts on bats of losing the dugouts as a water source, and address how it will handle those impacts. A simple statement about impacts is not the same as an analysis. ***– Letter #7***

BLM response:

The EA did provide a quantitative method for comparing effects of the alternatives on bats (pages 55-57). The analysis assumed that higher densities of water sources and less distance between water sources would make bat populations healthier. The analysis then quantified the density of and distance between water sources, so a reader could compare which alternatives would be most beneficial to bats. The comment did not explain why the current approach was inadequate, nor did it suggest a better way to compare effects on bats.

Effects on wildlife . . . from fences

16. The EA should include an alternative where fences are placed differently to minimize effects on sage-grouse and other wildlife.

Comment(s):

The negative impacts of fences on sage-grouse and other wildlife are well documented. Construction of new fence in the project area should be minimized, and existing fence should be removed wherever possible. Pursuant to our above comments, fence construction could be tied to a tiered and adaptive approach to selective filling of dugouts and removal of livestock grazing from playas. New fence should be constructed only where the benefits of removing grazing are found to outweigh the impacts of additional fence on sage-grouse. ***– Letter #1***

The [US Fish & Wildlife] Service recommends using the fence mapping model created by Bryan Stevens and The Nature Conservancy to assist in fence placement as well as to more accurately identify fences that may pose an increased strike hazard for sage-grouse. We also recommend marking additional fences in the project area that are identified by the model as an increased strike risk. ***– Letter #3***

Generally support the fencing of playas to enhance grass/forb re-establishment. However, we do not support fencing on the immediate playa zone boundary. All fencing should be done in the uplands (suggest ¼ mile) away from the playa to minimize impacts to running pronghorn. In addition, fence specifications should be consistent with those described in BLM Technical Note

347, Habitat Management Guidelines for Pronghorn Antelope. Described as a smooth bottom strand, 16" above ground, max. 3 wire strands total, and overall height not to exceed 36". – ***Letter #9***

BLM response:

The EA includes a range of alternatives related to building fences, including one where no new fence is constructed and 89 miles of existing fence is removed. In the alternatives where new fence is constructed, it is designed and placed in a manner that minimizes adverse impacts to wildlife. The effects to wildlife from building new fences are presented in Chapter 3 of the EA.

The EA already incorporates the recent knowledge from Bryan Steven's research in Idaho (2011). As a result of Steven's findings, one of the BLM's interim sage-grouse conservation policies is to install sage-grouse collision reflectors on fences within 1.25 miles of leks (USDI BLM 2011). The model that Stevens and The Nature Conservancy developed uses distance from leks and terrain ruggedness to estimate collision probability (Stevens et al. 2013). The BLM did an exercise in GIS where new proposed fences, 1.25 polygons around active leks, and the collision model overlaid each other. The results show that the 1.25 mile distance includes all fences in the area considered "high risk" by the model and portions of "moderate and low risk" areas. Therefore the BLM believes installing collision markers on fences within 1.25 miles of leks would reduce sage-grouse collisions.

The EA does not propose fencing directly on playa boundaries. As stated in the EA, all fence construction would be to the standards in BLM Handbook 1741-1, and "fences would be constructed at least 100 feet from playas" (EA page 16).

17. The effect of fences on wildlife is flawed and/or missing.

Comment(s):

While the draft EA acknowledges that the modification of sage-grouse habitat due to fence construction is an increasing threat to sage-grouse, the draft EA does not substantially address those impacts in the draft EA, despite the fact that it proposes constructing miles of fence near sage-grouse leks and in PPH sage-grouse habitat. Instead, the draft EA simply notes that fence densities will remain below guidelines and fences will be marked. ***– Letter #7***

The draft EA should analyze the potential for wildlife loss due to the impacts of the proposed alternatives and provide the estimated number of animals impacted. (Draft EA at 50-51). – ***Letter #7***

BLM response:

The EA incorporates current published scientific research related to sage-grouse and fences in the analysis for both preliminary priority habitat (PPH) and preliminary general habitat (PGH) (EA page 47). In the action alternatives, only three miles of proposed permanent fence would occur within 1.25 miles of a lek and marking fences reduces collisions. The EA also includes alternatives that do not install any new fences. In its 12/9/2013 comment letter on this EA, the

USWFS said it recognized the risk for sage-grouse fence strikes, but nonetheless said it would like to the playa fences to be permanent rather than temporary.

18. The effects of fences on sage grouse are overstated because there are no active leks in the Ram Lake or Hampton Allotments.

Comment(s):

In discussing the number of fences within active leks, the draft EA should provide an allotment specific analysis of leks and lek conditions. (Draft EA at 46) There are presently no active leks in the Ram Lake or Hampton Allotments. The draft EA doesn't analyze the proposed decision in light of the fact. ***– Letter #7***

BLM response:

The commenter is correct there are no active leks in the Hampton or Ram Lake Allotments; the analysis the BLM completed for the EA reflects this. Canary Lake (in the Hampton Allotment) is not an active lek. The EA only analyzed the effects of fences near active leks. Even though there are no active leks in the Ram Lake and Hampton Allotments, there are active leks outside but near them that would be impacted by fences in some alternatives. The fence analysis is based on active leks, not on core/PPH circles on the EA maps. None of the alternatives make changes in livestock grazing to reduce effects of existing or new fences.

The BLM did a detailed analysis of conditions at each playa in the project area, and presented much of that information in the EA. Additional more detailed information is in the project record and available upon request at the Prineville BLM office.

In an EA, NEPA calls for "concise" and focused descriptions of the proposals and "brief discussions … of the environmental impacts of the proposed action and alternatives." 40 C.F.R. 1508.9. The EA is to "Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a finding of no significant impact 40 C.F.R. 1508.9(a)(1). Not all background information is required to be part of the NEPA document. 40 C.F.R. 1502.1. The Council on Environmental Quality (CEQ) advises an EA "should not contain long descriptions or detailed data which the agency may have gathered. . . To avoid undue length, the EA may incorporate by reference background data to support its concise discussion of the proposal and relevant issues."

Effects on wildlife . . . from grazing

19. All exclosure fencing should be permanent, not temporary, to protect the playas from livestock grazing.

Comment(s):

The [US Fish & Wildlife] Service further recommends that the temporary exclosures in alternative 3 become permanent exclosures that are set-back farther from the playa edge to provide additional longterm high quality brood rearing and nesting habitat in the core area. We

recognize the risk for sage-grouse fence strikes, but are concerned that temporarily fencing the playas will only result in a temporary increase in habitat quality, as mentioned in your analysis for Alternative 5: "While we don't expect areas with temporary exclosures to improve and maintain as good of ecological conditions as they would with permanent exclosures, they should continue to provide better vegetative conditions than currently under Alternative 1." Additionally you also indicated in your analysis that: "Because these playas are riparian areas and will provide desirable succulent plants, livestock will be attracted to these areas." ***– Letter #3***

When the temporary exclosures are removed after 7 years (Alt. 3 and 5) what will happen to playa plant structure when grazing is re-introduced to the site? ***– Letter #9***

BLM response:

The analysis presents the tradeoffs between long term risk to sage-grouse from fences versus impacts to permittees and the local economy from areas excluded from livestock grazing. The EA includes a range of alternatives to recognize these tradeoffs, including alternatives where the fences are temporary instead of permanent. As stated in the EA, playas are expected to improve with removal of livestock grazing, and remain in better condition even after temporary fences are removed. The reason for this assumption is livestock would no longer congregate at the playas since the dugouts would be filled in and salt and mineral blocks would be placed away from the playas (EA pages 34-36). Another reason for this assumption is by the time the temporary fences are removed (after about seven years), the cattle grazing in the allotment would never have used the dugout as a water source, and therefore they wouldn't be inclined to return to the same area.

20. Grazed areas within one mile of troughs can provide nesting habitat; the analysis needs to recognize this.

Comment(s):

The draft EA does not explain its reasoning for determining that there is not suitable habitat within a mile radius from livestock water sources. Draft EA at 40. This position is extremely over broad. In many areas, the Roth's biologist has observed suitable nesting habitat within a mile of water sources. See Letter from AI Boss. Further, the Roths have observed sage-grouse on their other allotments near water sources, demonstrating that sagegrouse do not avoid livestock water sources. The draft EA' s assessment relies on broad generalizations and fails to account for actual observations (which contradict the draft EA's generalizations) within the allotments. ***– Letter #7***

The draft EA asserts that cattle grazing in the vicinity of water sources is impacting the suitability of these upland types as nesting habitat for grouse. In assessing this impact, the BLM uses a generalized approach of drawing concentric 1/2-mile and 1-mile circles around existing water sources and classifying the areas within the circles as "unsuitable" and "marginal," respectively. However, on the face of it this would not be the case in any given year because of the rest-rotation grazing systems in place on both allotments. In many cases the "rested"

pasture could retain enough grass cover to provide nesting cover to sage-grouse hens. In other words, in the rested years many, if not all, of the "unsuitable" habitat of the previous year could be classified as "suitable" or "marginal." In addition to the above, even in heavily grazed sites within 1 mile of water sources, I have found suitable nesting islands or patches. These are areas of lightly grazed or ungrazed sage brush areas from .5 to 3-4 acres in size which, for whatever reason, the cattle largely avoid. This could be because of strategic rock ledges inhibiting cattle movement, or simply habitual patterns of use in some pastures. It is my experience that many pastures within the Ram Lake and Hampton allotments contain these areas of suitable nesting habitat within a 1-mile radius of water. In my opinion, the draft EA should reflect some allowance for suitable habitat within the 1 mile radius of a water source, and should account for rest-rotation management resulting in more suitable nesting habitat. ***– Letter #8***

BLM response:

The EA (page 39) explains how the BLM estimated suitability of nesting habitat: areas within ½ mile of a livestock water source are unsuitable, areas ½ to 1 mile are marginal, and areas farther than that are suitable. The EA cited several sources for the assumption that the area within ½ mile of a livestock water source would provide unsuitable or marginal nesting habitat. This is an assumption used to make a general estimate for analysis purposes; the BLM recognizes there could be patches of suitable nesting habitat within one mile of a water source, perhaps offset by patches of unsuitable nesting habitat further than one mile from water. Also, the BLM assumes a direct relationship with nesting habitat suitability and distance from water, but does not assume that sage-grouse avoid water sources.

The analysis didn't take rested pastures into account, which may have overestimated the effects of livestock grazing, but if so it was overestimated the same for all alternatives. Also, even if a pasture is rested for a year it wouldn't necessarily have more grass available in the spring for nesting grouse; if the pasture was grazed after grass stopped growing the previous year (about mid-July), the grass would not have had a chance to regrow by the following nesting season.

An additional citation that wasn't included in the EA suggests that residual perennial grass height is 1.2 to 2.2 times higher in ungrazed areas compared to grazed areas (Davies et al. 2010). In a study on Prineville District, successful sage-grouse nests were located in areas with taller grass than unsuccessful nests (Hanf et al. 1994).

The analysis of nesting habitat near water sources provided habitat suitability information that was used in the placement of new troughs.

21. The alternative that eliminates livestock grazing is not reasonable because it would increase fire risk and reduce water available for wildlife (currently provided at troughs).

Comment(s):

Discontinuing grazing is not a reasonable alternative [because] . . .On page 27, the EA acknowledges that "Many species such as bats, waterfowl, and mule deer have extended their use period and possibly expanded their distribution due to these artificial water developments (Krausman, et al. 2006)". If livestock grazing is eliminated, range improvements will not be maintained and will even be removed. This will be detrimental to all wildlife that rely on the water currently being provided. ***– Letter #5***

Nowhere within the document does BLM analyze the total negative impact of removing livestock grazing; particularly the increased severity/frequency of wild fire which may result from increased fuel loading. Research from the USDA Agriculture Research Center concluded, "Our results suggest long-term grazing exclusion compared to moderate livestock grazing would increase the probability that sagebrush steppe plant communities would burn. Increased probability of wildfire is a concern because Beck et al. (2009) and Rhodes et al. (2010) reported that fire decreases the habitat value of less productive sagebrush plant communities for sagebrush obligate wildlife species thus we suggest there are some potentially negative consequences that must be fully considered before implementing long-term livestock grazing exclusion in sagebrush plant communities and probably other semi-arid and arid plant communities." From: Davies et al., Effects of Long-Term Livestock Grazing on Fuel Characteristics in Rangelands: An Example From the Sagebrush Steppe. ***– Letter #5***

The draft EA completely fails to address the increased risk of fires due to its proposed decision to fence off playas. If the playas are filled and fenced off, the forage found in the playa areas will not be consumed by livestock, but will instead be left to accumulate in place. This creates an increased risk of fires that could spread across the allotments and onto private property. The draft EA must analyze this risk and the attendant loss of sage-grouse habitat that would occur in the event of a fire. ***– Letter #7***

BLM response:

The commenter cites a study that found long term grazing exclusion increases the severity and frequency of wildfire.

The Davies et al. 2010 study does not present causative evidence that non-grazed areas would increase in severity or frequency. The researchers did not burn the grazed and non-grazed areas to examine fire severity, nor did they test fire frequency. The researchers compared grazed and non-grazed areas by combining measurements of fuel loads from three common plant communities (mountain, Wyoming, and low sagebrush) across the west. These three plant communities have different vegetation structure, function, ecological processes and resistance and resiliency to fire. The approach of combining the three plant communities could incorporate sampling bias due to high sampling variance between the three plant communities.

They used a random block design, but only to stratify grazed and non-grazed areas. If a higher number of samples in the non-grazed sites were from mountain sagebrush communities and a higher number of samples in the grazed sites from low sagebrush communities, the data could be skewed. This issue would be eliminated if the experimental units were paired, but this method was not mentioned in the article. Furthermore, the Beck et al. 2009 and Rhodes et al. 2010 studies were conducted in different plant communities than what occurs in the project area, so caution should be taken when generalizing outside of the scope of inference.

Another comment says removing all livestock troughs (Alternative 2) would have a negative effect on wildlife. The BLM responds to this in other areas in this document, and provides analysis of the expected effects in Chapter 3 of the EA.

22. The EA needs to be expanded to consider all effects of livestock grazing, not just effects on sage-grouse.

Comment(s): Since BLM is proposing to reissue grazing permits, BLM must consider all the resource concerns related to livestock, not just playas and sage grouse. Water quality, wildlife other than sage grouse, springs and wetlands other than playas, non-playa habitats, vegetation outside of playas, soil quality, soil crusts, etc. We are concerned that this proposal does little to address the adverse effects of livestock. The proposed active AUMs differ little among alternatives. No matter how carefully they are managed, livestock consume vegetation that represents habitat for sage grouse and many other wildlife. The adverse effects of grazing on ecological structure, composition, and ecological processes are not significantly reduced until livestock numbers are significantly reduced. ***– Letter #2***

BLM response:

The BLM agrees permit renewals need to examine all concerns related to livestock grazing. When BLM initiated this project, the specialists reviewed all concerns raised in the earlier RHS, comments raised by the public during scoping, and all other information regarding effects of livestock grazing in the allotments. Several concerns were raised but not considered in detail in the EA (as noted in Chapter 3 of the EA). All concerns warranting detailed analysis are included in the EA.

23. The EA needs to present more data on existing condition and trend related to wildlife.

Comment(s): Glaringly absent from the EA is any monitoring or trend data relating to wildlife populations or resource conditions within the ZX Allotment. Without knowing what directions past management decisions are taking us, we should be cautious of where we are trying to take the bus. ***– Letter #5***

BLM response:

Regarding data on resource conditions, please see BLM response to summary statement #3 on page 5 regarding condition of playas. Additional information the BLM has on resource and habitat conditions include rangeland health assessments on each allotment in the project area

(EA page 24 and 25), ESI (EA pages 30, 31, 35, 36, 41 and 46), and sage-grouse habitat assessments (EA page 30).

As for data on wildlife populations, the BLM used a combination of surveys and literature review and coordination with the ODFW and USFWS to determine which species were likely to be present in the project area, and how they would respond to proposed projects. Additionally, we reviewed past projects to learn what has worked, including juniper removal done under the 2011 Decision for the High Desert Shrub Steppe EA, and previous dugout/playa work in the ZX Allotment summarized in Reuter et al. 2013. These sources are listed in the EA Chapter 3, and additional information is in the project record and available upon request at the Prineville BLM.

24. The EA needs to show how the BLM calculated the effect of proposed actions on sage-grouse habitat suitability.

Comment(s):

The EA fails to tie its proposed activities under each alternative to its discussion of habitat suitability under each alternative. Draft EA at 39-41. The BLM provides an analysis for current suitable, marginal, and unsuitable sage-grouse habitat under current management of each of the alternatives. Under Alternatives 2 and 3, suitable habitat would increase. Draft EA at 40- 41. Under Alternatives 1, 4, and 5, suitable habitat would remain the same. In drawing these conclusions, the BLM provides insufficient information on how the calculations were derived and which activities under each alternative are driving changes in habitat. In discussing the increase in habitat under Alternative 3, the BLM states that the increase in habitat is the result of fewer water developments, and notes that the proposed exclosures in Alternative 3 are larger than those in Alternative 4. Draft EA at 41. However, the draft EA fails to state how these exclosures or reductions in water developments result in an increase in sage-grouse habitat. – ***Letter #7***

BLM response:

The commenter says BLM did not tie proposed actions to habitat suitability by alternative, and did not provide enough information on how it made conclusions about habitat suitability.

The EA does tie habitat suitability to the alternatives and does explain how it was calculated. The effects of livestock water sources on sage-grouse nesting habitat are described on pages 43-45 of the EA. The BLM explained how nesting habitat suitability was calculated on pages 42-45 (suitability is associated with certain plant communities, roads, powerlines, exclosures and water sources). The effects on sage-grouse brood rearing habitat from filling dugouts, removing grazing and reducing silver sagebrush are described on pages 33-41 in the EA. The calculations for these effects are also on those pages.

25. The EA needs to specifically address whether current livestock grazing is actually affecting sage-grouse or playas.

Comment(s):

When the draft EA analyzes the impacts of livestock grazing on sage-grouse habitat in the playas, it should include discussions specific to each pasture and the playas contained within each pasture. The overly generalized EA draft misses several key, unique aspects of each pasture's operation, season of use, and playa types. (See e.g. Draft EA at 34). For example, the BLM fails to discuss the current livestock management system in the Ram Lake Allotment. Due to pasture rotation patterns, only half of the Ram Lake playa is grazed each year. On the Hampton Allotment, two pastures are rested season long in most years. The Canary Lake Pasture is never grazed before June 15 and is only grazed after July 25 on 4 out of 5 years. This grazing system was developed specifically to benefit sage-grouse and has been in a place for a number of years. The draft EA fails to discuss how the current management of the allotments has resulted in conditions that have improved over time. More troubling, the draft EA has failed to tie livestock grazing to its assessment of the playa's condition on a project-wide, allotment, or pasture specific basis. Draft EA at 31. Indeed, the draft EA notes that the playas have been impacted by a number of factors, including juniper expansion. The draft EA needs to specifically address whether current livestock grazing is actually affecting sage-grouse or playas, which will be difficult to do without current monitoring data, which is not provided in the decision. It must also assess whether grazing can be modified when the proposed decision does not address effective juniper removal and plans to alter silver sage habitats. ***– Letter #7***

BLM response:

The comment says the EA doesn't explain how livestock grazing in each pasture affects specific playas, it only makes generalized assumptions about the effects.

For analysis purposes, the EA did not factor in rest periods or actual amount of use. Instead, the analysis assumes grazing would occur or not, and regardless of the season of use, livestock would concentrate around water sources. The EA does not analyze effects of livestock grazing except for effects on nesting habitat around water sources, and effects on playa condition when the playas have a dugout.

While the EA analyzes effect on nesting habitat, none of the alternatives propose to modify grazing (except for the location and number of troughs) to reduce this effect. The only reason alternatives include AUM reductions is to account for forage in exclosures that are fenced to let playa hydrology and vegetation recover without grazing pressure after filling dugouts.

The comment also asks why the alternatives modify livestock grazing when they don't address removing juniper and silver sagebrush. As mentioned above, the reduced AUMs are not to address livestock grazing problems; the reductions are to account for forage no longer available in playas that are exclosure fenced. The alternatives do address removing juniper and silver sagebrush.

The EA does contain allotment specific information on season of use, grazing systems and number of pastures: Alternative 1 description in Chapter 2 and Economics section in Chapter 3. The EA has been modified to clarify the current grazing system for Ram Lake is two pastures grazed and two pastures rested each year.

26. The EA should have a reduced grazing alternative in addition to complete removal of grazing.

Comment(s):

As was prescribed in Alternative F of the Oregon Sub-Regional Greater Sage-Grouse Resource Management Plan Amendment/EIS, the BLM should analyze how an overall 25 percent reduction in AUMs would impact ecological function and habitat suitability for sage-grouse. The BLM should have included a reduced grazing alternative in addition to complete removal of grazing in order to have a full and realistic range of alternatives. ***– Letter #1***

BLM response:

The EA has an alternative that continues existing grazing, one with slightly reduced AUMs, and one where all livestock grazing is removed. This is an adequate range for several reasons. First, an alternative with AUMs reduced 25 percent would not meet the purpose of the project any better than the existing alternatives. Second, "When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared" (Council on Environmental Quality (CEQ) memorandum re: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Federal Register 18026 March 23, 1981, as amended). Since the EA analyzed effects of up to 100 percent reduction, the Decision could select a level of grazing anywhere within that spectrum, be it a 100 percent reduction, 25 percent reduction, or no change, or anywhere between. For example, the Decision could be to protect playas from concentrated grazing using a combination from several alternatives: fencing for Hampton Allotment as analyzed in Alternative 3, 4 and 5, but removal of grazing in Ram Lake and ZX allotments as analyzed in Alternative 2. This would result in a 53 percent reduction in AUMs.

27. The EA should provide more data to support assumptions about how grazing affects playas.

Comment(s):

It appears that Brooks (2006) is one reason the draft EA concludes that excessive concentrations of livestock are causing harm to playas. (Draft EA at 34). Brooks' work was in the Mojave Desert, which is an entirely different geographic, soils, climate and landform setting. Indeed, much greater livestock concentrations on perennial and ephemeral riparian areas on Bear Creek Watershed public and private lands have provided good ecological and hydrological responses, even when grazing has occurred while soils are wet. We would request that BLM provide data to support its assumptions relating to potentials for impacts in playas. Further, the draft EA does not analyze the fact that livestock grazing levels here do not even begin to

compare to the grazing at issue in Brooks (2006). In the scientific community, studies cannot be applied to an area with dissimilar ecological features and that is not subject to the same treatments analyzed. ***– Letter #7***

BLM response:

The EA identifies playas with dugouts within the project area as water sources for livestock and wildlife (EA pages 5 and 21). The EA cites multiple sources, including Brooks et al. 2006, documenting that use by livestock is greatest closest to water sources and decreases as distance from the water source increases. In addition to the sources listed in the EA, others have shown the same result, including Ganskopp 2001, Washington-Allen et al 2004, Holechek 1988, Holechek 2004, and Valentine 1947. The BLM recognized the Brooks et al. 2006 study was not conducted in a similar ecosystem, therefore it did not use results from the study to make any determinations of distance of impact, stocking levels, or to draw conclusions about vegetative condition within the project area. However, the study supports other studies cited in the EA and field observations within the project area that livestock concentrate around water sources and impacts of livestock use lessen as distance from the water sources increases.

Analysis in the document related to grazing when soils are wet is specific to playas. Soils within the playas have a high clay content making them very susceptible to compaction when wet, as is described in the ecological site description. Grazing on playas in the project area was not compared to other riparian grazing such as the Bear Creek Watershed because playas are lentic riparian areas, not lotic, and thus function differently and are not comparable.

Effects on wildlife . . . from removing sagebrush on playas

28. The alternatives should clarify that brush control would be limited to treatment of silver sage on playas.

Comment(s):

We are strongly supportive of juniper and silver sage control work identified in alternatives 2, 3, and 4. We are not supportive of any bitterbrush/sage brush “mowing or crushing” that is not silver sage. ***– Letter #9***

BLM response:

The BLM is only proposing to mow silver sagebrush on playas that are dominated by silver sagebrush. We have clarified this in the EA.

29. The EA needs to provide support for the assumption that reducing sagebrush would improve playas and benefit sage-grouse.

Comment(s):

The BLM cited no authority for its assertion that reducing silver sagebrush would improve ecological condition of playa habitat. Studies on the effectiveness of sagebrush removal in improving habitat for sage-grouse have been inconclusive, and more research is needed to determine if positive gains in habitat can be accomplished through this method. However, studies have found potential for negative impacts from sagebrush mowing on sage-grouse and their habitat. As reported in a study published in the journal Environmental Management on the topic of sagebrush treatments, mowing did not prove effective in increasing perennial herbaceous vegetation, but may increase the risk of exotic annual grass invasion. Additionally, Swenson et al. found that after sagebrush was treated on just 16% of sage-grouse winter range in Montana, the study group of breeding males decreased by 73%, while no losses were seen on untreated habitat. BLM acknowledges that playas provide winter habitat for local sage-grouse populations, yet proposes to mow sagebrush on playas in spite of evidence that this action could have negative impacts on local sage-grouse populations. Our review of scientific literature indicates that sagebrush reduction treatments are inappropriate on playa habitats and sagebrush mowing should be removed from the final proposed action. If the BLM has scientific evidence that sagebrush mowing can improve habitat conditions for sage-grouse, this information should be included in the EA. ***– Letter #1***

Please reconsider the proposal to mow sagebrush. Evidence is lacking to support the idea that mowing sagebrush benefits sage grouse. In fact, there is a clear body of evidence showing that mowing is adverse to sage grouse habitat. This activity should be dropped from the project. ***– Letter #2***

DO NOT thin the Sage Brush. The drought has thinned the Sage Brush. The grouse the rabbits and all the small critters hide from the raptors and live under lt. The cattle have not eaten it the drought has killed it. ***– Letter #4***

Current science does not suggest that playa areas are preferred for late brood rearing habitat, but current literature suggests that areas dominated by silver sage (the current condition of many playas in the Hampton and Ram Lake Allotments) may be a beneficial community type for late brood rearing habitat. ***– Letter #7***

BLM response:

The EA contains two alternatives (1 and 5) that would not reduce silver sagebrush on playas and three alternatives (2 - 4) that would reduce silver sagebrush. The objective for reducing silver sagebrush on playas is to help grasses and forbs recolonize. The current vegetation functional groups that occur on many silver sagebrush playas are a severe departure from the historical natural vegetation community (Table 5 page 32). Most playas in “fair and poor” condition exhibit higher sagebrush canopy cover and lower grass and forb cover than expected according to the ecological site descriptions. Mowing is expected to reduce competition between shrubs

and the herbaceous layer. The BLM is aware of the negative effects associated with shrub removal on sage-grouse habitat in specific plant communities such as Wyoming sagebrush (Davies et al 2012a). However, Wyoming sagebrush communities are less resilient and resistant to disturbance and recover slower than silver sagebrush or mountain sagebrush communities. The BLM expects a positive response from the herbaceous layer from mowing silver sagebrush as was reported in mowing mountain sagebrush communities (Davies et al. 2012b). Furthermore, the maximum amount of area that would be treated (890 acres) is less than one percent of the total project area of 143,000 acres. Current guidelines for brood-rearing habitat suggest maintaining 10 to 25 percent sagebrush cover (Connelley et al. 2000, Hagen et al. 2007). Playas would only be treated when sagebrush canopy cover exceeds 25 percent and would not be reduced below 10 percent.

Sage-grouse move across large areas (~ 1,480 km²) and use multiple sagebrush plant communities during winter on the Prineville District (Hanf et al. 1994, Bruce 2008). Although birds occupy silver sagebrush during winter, use is low in this plant community compared to mountain and low sagebrush communities (Hanf et al. 1994). The BLM is not aware of previous research that indicates mowing sagebrush is "inappropriate" on playa habitats and the commenter did not provide such research to support the claim.

30. The EA should clarify whether mowing sage would need to be re-done periodically.

Comment(s):

Is the anticipated 16 average days longer of increased inundation long enough to preclude silver sage re-establishment on playas? Or will silver sage removal require periodic re-entry? **–** ***Letter #9***

BLM response:

Silver sagebrush cover is expected to fluctuate with precipitation. Several drought years are likely to increase silver sagebrush cover, whereas many wet years will reduce cover. Depending on actual weather over the next few decades, areas where silver sagebrush was mowed would need to be periodically re-treated.

Effects on wildlife . . . from juniper cutting

31. The alternatives that cut juniper should cut only on playas. There should be an alternative that cuts (or doesn't cut) old growth trees.

Comment(s):

We support retention of all large and old junipers, as well as recruitment trees for future old growth. Please train juniper cutters to look carefully for nests and cavities in each tree before cutting it. ***– Letter #2***

Please cut all young juniper in Playas only. Cutting the young would bring back the water. ***– Letter #4***

The best idea you have in this letter is cutting, burning junipers in the greater sage grouse country. The results will be: More water retention for the growth of new foliage for all the wild life and sage grouse [and] fewer places for hawks and ravens to spot and ravage the sage grouse. The cost of doing this is the most cost effective and long term protection of the sage grouse. ***– Letter #6***

The draft EA agrees that juniper removal is important, yet it fails to analyze even one alternative that would remove all juniper in the areas the BLM has determined that all sage-grouse habitat features would be present with the full removal of juniper. Rather, the draft EA merely analyzed removal of non-old growth juniper trees in the Hampton and Ram Lake Allotments in Alternatives 2 through 4. The BLM has the authority to remove the old growth juniper in the allotments - even in the areas determined to have wilderness characteristics. Given that juniper treatments may be the most successful activity for increasing sage-grouse habitat, the BLM must consider at least one, if not a variety, of alternatives in the allotment which propose removal of juniper trees in areas that otherwise possess the necessary sage-grouse habitat characteristics. The draft EA inexplicably overlooked the fact that, absent juniper removal, the Ram Lake and Hampton Allotments will not be converted to "suitable sage grouse habitat." ***– Letter #7***

BLM response:

Several commenters expressed support for the proposed juniper cuts, but asked BLM to retain old trees, and/or cut only on playas.

Alternative 2, 3 and 4 would each cut up to 45,589 acres of juniper in the project area, all in areas with wilderness characteristics. The retention of large and old trees when conducting juniper cuts is part of all alternatives that involve juniper cuts (Alternatives 2-4). The juniper on these areas with wilderness characteristics could be burned using the 2011 Decision on the High Desert Shrub Steppe EA, but that EA deferred the decision on cutting in these areas.

Cutting only on playas would reduce the amount of juniper removal to less than 2,000 acres, which would not allow substantial accomplishment of the purpose or need of the project, "to improve the ecological condition of playas and surrounding areas for sage-grouse . . ." (EA page 7). There is very little juniper in the playas in the project area.

Others said BLM should include an alternative that cut juniper in the rest of the project area, too, not just on areas with wilderness characteristics. This EA only proposes to cut trees on the areas with wilderness characteristics because the rest of the project area can already be cut using the 2011 Decision on the High Desert Shrub Steppe EA.

Another commenter felt the BLM should go even further, and cut old growth trees as well as younger trees. The EA includes alternatives that thin young trees within old growth stands, but BLM did not include any alternatives that also cut the old growth trees. The land use plan that

directs BLM management in the area, the Brothers / La Pine Resource Management Plan Record of Decision (USDI BLM 1989), says, “trees will be left to provide for creatures that live in tree cavities” (page 41). Even without cutting old trees, the alternatives that cut juniper would allow BLM to substantially meet the purpose of the project to “improve ecological condition . . .” Ecological sites that are considered sage grouse habitat are found throughout the project area and are interspersed with the old growth juniper sites.

32. The EA should acknowledge that juniper expansion is cyclic.

Comment(s):

Please recognize that the expansion of juniper in Oregon may be cyclic and climate-related or related to CO2 enrichment. If so, we will likely never control juniper, so we can't rely on the historic range of variability. Instead, we need to learn to live with juniper as part of the new natural range of variability. We may be able to influence the establishment and persistence of juniper at the margins by removing livestock, and reintroducing fire. If we do these things, juniper will take care of itself. Please focus on ecological process, not just vegetation structure. ***– Letter #2***

BLM response:

The EA recognizes cutting juniper does not prevent it from re-establishing. “The estimated acres of juniper forest and savanna in Oregon have increased dramatically since the 1930s from about 1.5 million acres to around 6.5 million acres. Area classified as juniper forest has increased from 420,000 acres to over 3 million. Over 1 million acres of area classed as juniper savanna have more than 25 trees per acre. Over one-third of the acres classed as savanna had seedlings. All indications are that the area of juniper forest will continue to increase (Azuma et al. 2005).” EA page 26.

33. When cutting juniper, include treatment and post-treatment specifications to benefit sage-grouse and other wildlife.

Comment(s):

Please also consider post-treatment restoration activities [after juniper cuts] similar to those implemented after wildfire, such as resting the treated area from livestock grazing and off-road vehicle activity for a sufficient amount of time to allow robust recovery of native vegetation that will benefit sage-grouse. ***– Letter #1***

The EA says "Juniper cover would be retained in key areas, such as along rock outcrops; in wildlife movement corridors; or areas that have other values important for wildlife." We urge that these areas be identified as much as possible during the NEPA process (but also allow specialists to identify and protect newly discovered areas during implementation). ***– Letter #2***

When removing juniper the Service recommends all branches and slash needs to be cut to a height of less than 4 feet to help further eliminate raptor perch opportunities and help reduce

sage-grouse predation (Hagen 2011). Also, when burning juniper evaluate the effectiveness of spring burns (March and April) when soils tend to be frozen-to limit the amount of damage to understory shrubs, grasses, and forbs (Hagen 2011). ***– Letter #3***

When there is fire on the rangeland, the grass should be replanted on the roughed up ground. These plants should be what the grouse like. Idaho is currently working on this matter, there were two good articles in the September 2013 Capital Press. Brothers Hampton RFA is currently working on this (researching) with the aid of Department of Forestry and other Burns area farmers and ranchers, who are working with the water district in the area we are all interested in the same solution, taking into consideration all habitat and wildlife, not just the sage grouse. ***– Letter #4***

BLM response:

Several comments asked BLM to be sure juniper cuts were designed to protect or enhance wildlife habitat. All alternatives that involve cutting juniper (Alternatives 2-5) include design features to protect sage-grouse and other wildlife (pages 12-14), including resting treated areas from livestock grazing (when a resource concern is identified), retaining trees that have cavities that could be used as nests, and seasonally limiting treatment activities so as not to disturb wildlife during nesting and breeding seasons. Some of the key areas to be left un-cut have already been identified during field visits; additional areas would be identified prior to treatment.

One commenter asked BLM to make sure juniper branches after cuts do not provide perching opportunities that would increase predation on sage-grouse. The alternatives that would cut juniper (Alternatives 2-4) include several actions that could be used to burn or remove juniper trees after they are cut (page 13). If the BLM selects one of these alternatives, it may include specific provisions in the Decision Record stating that all branches must be below four feet, except in areas where there are already perches (e.g., un-cut old trees).

Commenters suggested burns should be done in spring to limit damage to understory vegetation, and BLM should replant grass after fires. Prescribed burning (including standing vegetation as well as burning after juniper cuts) and subsequent seeding or planting in the project area was covered under the May 2011 Decision Record for the High Desert Shrub Steppe EA. These actions were not re-analyzed in the current EA.

Effects on wildlife . . . miscellaneous

34. The BLM should consider how sage-grouse are affected by predators, past juniper cuts and other actions in the area.

Comment(s):

Please properly study the cumulative impact of this project. . .The potential impact area of the project should be defined to include all possible connected habitat so that all potential impacts

to sage-grouse in the region are analyzed. Any data or analyses BLM relies upon to support its final decision must be in the EA itself. ***– Letter #1***

We urge that this be a comprehensive effort that addresses all of the threats to sage grouse and playas that are within BLM management authority. This would include: restoring natural disturbance regimes, reducing/removing non-native herbivores like domestic cattle, removing and preventing weeds, reducing the impacts of roads and OHVs, etc. ***– Letter #2***

The draft EA also ignores a number of significant other factors impacting sage-grouse populations in Central Oregon. For example, it is common knowledge that ravens are significant sage-grouse nest predators, but the draft EA ignores this and other causes of sage-grouse population decline. Even though the BLM does not have direct control over predators, such impacts are important factors in sage-grouse population recovery, and should be discussed in detail to ensure that BLM is actually investing in projects and making changes that will provide a real benefit for species. More importantly, the draft EA should be mindful of areas where greater predation is likely due to certain features (i.e. juniper and fences) and address the potential impacts of predation on those areas as it is analyzed how best to achieve its objectives. ***– Letter #7***

The BLM failed to consider the proper baseline in its decision. As just one example, the decision notes that proposed juniper treatments have already been authorized for the areas without wilderness characteristic determinations within these allotments. However, the BLM utterly fails to examine the impacts these treatments have had on the habitat features in this area, and whether the juniper treatments have increased suitable habitat in the project area. See Draft EA at 39-41. This analysis is critical in determining whether the decision would or could carry the assumed habitat increases, and whether the decision is even necessary to increase suitable habitat. The failure to analyze predator impacts is another example of baseline effects not considered. NEPA requires the BLM to adequately consider and explain the baseline conditions. BLM has not done so here. ***– Letter #7***

The BLM failed to consider the potential for cumulative impacts on sage-grouse habitat from its decision. While the BLM did engage in a cursory cumulative effects analysis based on its decision, it failed to consider important factors such as predation, fire, prior management decisions that may impact this decision (such as prior juniper treatments), and other significant information on the overall impacts of this decision. ***– Letter #7***

BLM response:

Some commenters said the EA did not adequately disclose cumulative effects, including those from predators and past juniper cuts. Others said the BLM should have undertaken a more comprehensive project to benefit sage-grouse.

The EA cumulative effects sections disclose effects of a number of the actions mentioned in the comments. For example, "Effects from ongoing and future actions that would combine with effects of the current proposed action include nearby juniper treatments (including up to 13,600 per year under the HDSS Decision Record) and continued juniper encroachment" – EA

page 26. On page 40 the past juniper cuts are again mentioned, along with filling two dugouts on playas, and extending a water pipeline 3.5 miles. The affected environment description takes existing powerlines and roads into account, and the cumulative effects sections considers the ongoing effect of these structures on wildlife. The affected environment inherently takes past fires and noxious weeds into account, but these are not discussed in the cumulative effects section as they are not "actions," per se.

Predators are not discussed in the cumulative effects section because an EA only has to address effects raised as issues related to the actions proposed in the EA, not every issue related to sage-grouse. While the proposed actions would affect sage-grouse habitat, they would not necessarily affect the sage-grouse population. Therefore, there is no discussion in the cumulative effects section of how predators affect the sage-grouse population. While the cumulative effect of predators on sage-grouse populations is not discussed, the EA is not silent on predators. The EA acknowledges juniper can serve as perches for sage-grouse predators (EA page 6); noise from chainsaws can make sage-grouse nervous about predators, reducing sage-grouse foraging efficiency (EA page 51); and artificial water sources can attract predators (EA page 51).

The EA focuses on this "small" project area and only a few actions for the reasons stated on pages 5-7 of the EA: First, "The project focuses on playas, because playas are important for many aspects of the sage-grouse life cycle. . ." and there is a high density of playas in the project area. Second, the project focuses on these three livestock grazing allotments, because their ten year permits are expiring. And third, the project focuses on this area because this work would complement other work the BLM has done in the area. The BLM did not undertake a larger more comprehensive project including the surrounding area because there was not a combination of: high-priority sage-grouse habitat, expiring grazing permits, and a need for improvement (or lack of an existing Decision to support such improvement).

35. The EA needs to consider how reducing the number of water sources may concentrate elk grazing around the few remaining sources, with negative effects on sage-grouse habitat.

Comment(s):

The draft EA does not address the effects on wildlife of filling in the playas and installing wells, pipelines, fences, and new/improved roads proposed by the decision in light of the lack of science supporting filling in playas. This would include loss of water for wildlife and could decrease wildlife distribution. Decreased wildlife distribution is likely to be a significant issue in these allotments. At the initial playa field trip on November 8, 2007, a section of overgrazing was identified in the Stud Horse pasture, which was rested from livestock use that year. The BLM's biologist examined the hoof prints in the pasture, and confirmed that the overutilitzation was from elk use of the pasture. With fewer water sources available, wildlife distribution is likely to decrease, and be more heavily concentrated on areas where livestock are also present. The BLM entirely fails to address this issue and analyze the impacts that such increased concentration could have on sage-grouse habitat. ***– Letter #7***

BLM response:

The EA did consider the effects on wildlife of filling in playas, installing wells, pipelines and fences, and re-routing roads. Chapter 3 of the EA includes estimates of effects of these actions on sage-grouse, mule deer, elk, pronghorn, bats, waterfowl and pygmy rabbits.

The EA did consider how the changes in water availability would affect wildlife. Chapter 3 of the EA discusses effects of reduced water locations on sage-grouse, mule deer, elk, pronghorn, bats and waterfowl (EA Chapter 3).

Since there would still be a number of water sources in all alternatives (including 28 in the project area in Alternative 2), the BLM does not believe elk use would markedly decrease at any one remaining water location. Elk will sometimes congregate at one trough (as the commenter notes), but this obviously can occur even in the current situation, with 93 water sources in the project area.

As summarized on page 52 of the EA, the number of water sources in the project area would be highest in Alternative 4 (96 sources), followed by Alternative 1 (93), Alternative 5 (89), Alternative 3 (81), and Alternative 2 (28).

36. The EA should have a wider range of alternatives to benefit sage-grouse without reducing AUMs. One idea is to include an alternative that installs water gaps.

Comment(s):

The Roths propose that the BLM analyze an alternative that would increase juniper treatments to increase sage-grouse habitat and study the impacts of filling in dugouts over time. Specific to the Ram Lake and Hampton Allotments, the Roths propose that the BLM move forward with the proposed juniper treatments first and analyze the impacts to sage-grouse. In addition, the Roths propose that the BLM install a water gap in the Ram Lake dugout to enable the BLM to study the potential benefits of water gap use to improve playa habitats. The water gap would provide the added benefit of allowing elk and other wildlife access to dugout water. This alternative would allow the Roths to continue their proactive grazing management on these allotments, would not require a reduction in AUM, and would not require significant new fence, wells, roads, or pipes within the allotments. ***– Letter #7***

For the Hampton Allotment, the proposed water development in the Paramele pasture would be beneficial to livestock distribution if the playas are left in place. The Roths would appreciate the opportunity to discuss installation of water developments that may aide in livestock distribution when playas are left intact, and believe that such actions, when playas are left intact, would benefit wildlife populations as well. ***– Letter #7***

BLM response:

The commenter suggests installing water gaps. One way to create a water gap is to fence a narrow alley (gap) so livestock can access a portion of a playa to get water, while excluding the rest of the playa from livestock. In the Ram Lake Allotment, creating a water gap in two or even

all four pastures would involve removal of some existing fence and construction of new fence to create gaps.

During planning for this project, the BLM considered using water gaps on playas instead of temporary or permanent exclosures as a way to limit the expense of new water developments, and reduce effects on permittees from AUM reductions. The wildlife biologist expressed concern about how fences through the middle of playas would affect wildlife, specifically bats and ducks.

Since the analysis already includes effects of existing fences through the middle of playas (Alternative 1, current situation), effects of removal of these fences (Alternatives 2-5), effects of construction of new fences (Alternatives 3-5), and effects of removing or not removing livestock from playas, the installation of water gaps could be a component of the Decision. For this reason, the BLM did not include an alternative that specifically called out installation of water gaps, since the effects of that action were essentially the same as portions of other alternatives that were analyzed.

See summary statement #31 for a response to the comment asking BLM to cut more juniper, and summary statement #69 for a response to the comment asking BLM to study the impacts of filling in dugouts over time.

Effects on grazing permittees / local economy

37. The EA should present monitoring and condition data separately for each grazing allotment, so permittees can understand how it was used to make decisions that affect them.

Comment(s):

Finally, the BLM should have provided all relevant monitoring data and condition assessments as part of this decision (usually, this information is provided in an appendix). Without this information, the Roths have been deprived of an adequate opportunity to review and comment on the draft EA's designation of the ecological conditions of the playas in their allotments. Indeed, since the draft EA does not even provide allotment specific information on playas, it is difficult to determine how the minimal ecological information provided even relates to the Hampton and Ram Lake Allotments. ***– Letter #7***

[T]he draft EA does not explain how the historic climax community is part of any standards applicable to the Roths' allotments and how this information could be used as a basis for making a change in the permits. . . the draft EA relies on outdated RHSAs, fails to account for changes in grazing that have improved range conditions. Each of these issues need to be addressed in a revised EA or EIS in order to allow the Roths a fair and reasonable opportunity to understand and provide comments on the proposed decision. ***– Letter #7***

BLM response:

The commenter says the BLM should have provided allotment specific information in the EA so the grazing permittees could see how this related to changes in allowable grazing.

At the onset of this project, which includes grazing permit renewal, the BLM reviewed existing livestock grazing and related resource conditions to determine if there were issues that would warrant changes in livestock grazing. The only area of concern was on playas, therefore the alternatives focused just in those areas. The BLM did a detailed analysis of conditions at each playa in the project area, and presented much of that information in the 90 page EA. Additional information is in the project record and available upon request at the Prineville BLM office.

The EA provided information on playa condition, and also explained that changes in AUMs in the alternatives were based on forage within exclosures that would no longer be available to livestock. The estimate of unavailable forage was not based on condition or trend or site potential of playas; for the EA, the BLM assumed an acre of playa had the same forage as an acre not in playa (see summary statement #42).

As stated above in BLM response to summary statement #18 not all background information is required to be part of the NEPA document (40 C.F.R. 1502.1). The Council on Environmental Quality (CEQ) advises an EA "should not contain long descriptions or detailed data which the agency may have gathered. . . To avoid undue length, the EA may incorporate by reference background data to support its concise discussion of the proposal and relevant issues."

38. Some of the proposed wells and pipelines wouldn't provide enough water pressure. And there should be more water locations to better distribute livestock use.

Comment(s):

<u>Dominick Pasture:</u> The proposed trough location in alternatives 3, 4 and 5 is good, but additional water to the north would allow for better dispersal within the pasture and would replace the water that would be eliminated by the proposed exclosure in the southeast corner. Therefore, we [livestock grazing permittee] propose extending the existing Cody Spur line stemming from our private land south about 1.5 miles into the Dominick pasture, to replace water displaced by the fencing of the playa at the southeastern portion of the pasture. We support the exclosures and road reroute as shown in alternatives 3 and 5. ***– Letter #5***

<u>Frederick Butte Pasture:</u> In alternative 3, there is a proposed pipeline running to the large playa in the center middle of this pasture; however there is no proposed trough. We propose that this well be relocated (see below). We also propose that any new pipeline also provide at least one trough. To provide water to that area, we propose that an additional line be run from an existing well (Last Chance Well) from the allotment to the south into the pasture to replace water that would be excluded within the exclosure. As noted above, the proposed well in the southwest corner of the pasture needs to be reconsidered. While it will provide good water to the line to the most eastern part (alternative 3 only), it is located in an area that we feel would

be extremely difficult to gravity flow water to the other two lines. To remedy this, we propose an additional well be drilled near the northern part of the pasture, where water will flow downhill to the proposed tanks from alt 3, 4 and 5. We support the additional well, and tanks, as well as the exclosure and road reroute for the playa on the east side of the pasture in alternatives 3, 4 and 5. We do not oppose the exclosures proposed in alternatives 3 and 5, but would prefer that they are small in size. ***– Letter #5***

North Four Corners Pastures: We support the exclosures and road reroutes in alternatives 3 and 5. While we support additional pipelines in this pasture, we do not believe that the proposed well in South Four Corners will be able to pump water to the location in North Four Corners; therefore, we propose moving this well location north, along the pasture fence for N and S Four Corners. This should allow for gravity feed to supply water to the proposed troughs, in both directions (tanks in alternatives 4 and 5). Another option to address this problem would be to hook into our existing Fredericks Butte Well, and pipe water down the hill to those same trough locations. We would propose that an additional tank be put into the southwestern corner of this pasture, to be fed by the proposed new well in South Four Corners Pasture, on Millican Road. ***– Letter #5***

South Four Corners Pasture: We do not believe the proposed well at the southeastern area of this pasture can pump water to the designated locations, therefore we propose that it be moved to along the fenceline between the N and S Four Corners pastures. ***– Letter #5***

Along the Fredericks Butte Road, there is a proposed well and tank in alternatives 3, 4 and 5, however there are no pipelines proposed to go along with it. We would like to propose that pipelines are extended to the north, south and west of the proposed well, to fill 4 additional tanks, two to the north (one in North Four Corners, one in South Four Corners); one to the west in the KO Butte pasture, and one to the south, in South Four Corners. ***– Letter #5***

As proposed, there would also be inadequate water pressure to pump water to the Benjamin and Stud Horse pastures. A pumping station would need to be installed, and it would need to be a solar pumping station to reduce maintenance and gas costs. Similarly, in its consideration of playa closures, the draft EA does not propose development of enough new water troughs to provide for adequate distribution of livestock across the pastures. The available water locations for cattle during the grazing season will decrease from 16% to 32% under Alternatives 3 to 5. This reduction will impact grazing and wildlife distribution in the allotments. See Map of Distribution Under Alternatives (the shaded areas demonstrate the projected use of the Stud Horse and Parmele pastures under Alternatives 1, 3, 4, and 5). The decrease in available water for wildlife during the off season is even more dramatic, and is expected to decrease by 63% to 74% under Alternatives 3 to 5. The draft EA should address the distribution issue, and ensure water sources are placed to match the historic distribution patterns on the pasture in the alternatives where it closes the playas to grazing activities. ***– Letter #7***

BLM response:

Several comments question specific locations of various developments. The locations identified in the EA are our best estimates, but some changes based on actual field conditions and design

considerations would still likely occur. The BLM would work with the grazing permittees when identifying exact project locations. Changes from those shown in the EA would only occur if effects from the new locations would still be within the effects analyzed in the EA.

Dominick Pasture: The EA includes three alternatives (3-5) that propose to install a water trough to replace water lost from filling a dugout in the southeast part of Dominick pasture. Providing additional livestock water sources to the north would not improve sage-grouse habitat, and would not meet the purpose and need of the EA. This does not preclude the permittee from installing water troughs and a water gap on private ground to facilitate better livestock distribution on the northern end of this pasture.

Frederick Butte Pasture: Regarding the pipeline running to the large playa, please refer to response to summary statement #52. The EA makes the assumption that water troughs would be installed at every new well except Soldier's Cap well which is on a ridge, and this will be clarified in the Decision if it includes wells. As stated above, the BLM would involve the grazing permittee when siting projects.

North and South Four Corners Pastures: The BLM chose this site because it provides the most troughs per well for gravity flow. The BLM double-checked elevation models and still feels this is a possible scenario. The locations of wells and pipelines would be field verified and designed by experts.

Regarding the comment about the Fredericks Butte Road, the BLM believes the comment intended to refer to the proposed well along the Fox Butte road, instead of the Fredericks Butte Road. The EA proposes a well, tank and water trough along Fox Butte Road in the KO Butte pasture to replace water that would be lost to filling dugouts on the Jaynes Well playa in alternatives 3 – 5. An additional water trough would be located near the well but on the other side of the road in the South Four Corners pasture to replace water lost from filling dugouts in the Basalt Lake playa. Additional water troughs to the north, south, and west of the proposed well would not improve sage-grouse habitat, therefore would not meet the purpose and need of the EA.

Regarding the comment in Letter #7 about inadequate pressure to pump water to the Benjamin and Stud Horse Pastures, the BLM double-checked elevation models and still feels this is a possible scenario. The locations of wells and pipelines would be field verified and designed by experts.

A comment said there should be more troughs to improve livestock distribution. Alternative 1 retains water at all existing dugouts and trough locations. Alternatives 4 and 5 would have at least as many water locations as current. In Alternative 3 five to seven troughs would be removed in the Hampton Allotment, but that was done with distribution in mind. The BLM tried to maintain the current distribution or increase it with the new water locations by placing replacement water in the vicinity of the water being taken away.

See summary statement #12 for a response to the comment about how wildlife would be affected by fewer water sources.

39. The BLM needs to repair existing pipeline before proposing to link new pipeline to it, and maintain existing roads before putting in wells and other developments along them.

Sample comments(s):

The draft EA' s proposal of connecting the new pipe to the existing Parmele water pipeline in the Stud Horse pasture of the Hampton Allotment also needs to be addressed. The existing Parmele water pipeline was installed in 1966 and is in such a deteriorated condition that it is barely functional. Attaching new pipe to this old, deteriorated pipe would dramatically increase maintenance costs and would not result in functional water developments. The BLM should replace the existing Parmele pipeline before moving forward with a new. The draft EA also does not analyze installing the Mountain Springs line, even though the installation of the water line was approved in a 1991 Environmental Assessment and would benefit the proposed action. Please address why this installation is not considered. ***– Letter #7***

In order to install and maintain the new troughs, pipelines and wells, a large number of roads will need to be improved. As presently constructed, the roads that would allow access to the proposed improvements are nearly impassible, create significant wear and tear on vehicles, and could not be utilized to haul equipment or water out to the site if needed. In the Ram Lake Allotment, the main access road to the proposed well site and trough would need to be graded and graveled. The areas that need improvement are indicated on the attached map. ***– Letter #7***

BLM response:

Maintenance and repair of <u>existing</u> range developments and roads are not addressed in this EA, because they are part of ongoing actions. Under all alternatives, the permittee would continue to be responsible for maintenance and repair of existing range developments, and the BLM would continue to be responsible for road maintenance. The BLM can sometimes assist with major repairs of range developments.

Well and pipeline maintenance and repair are the responsibility of the livestock grazing permittees, as part of the Cooperative Agreement for Range Improvements which is included in the terms and conditions of their grazing permits. The BLM authorizes these actions under existing Decisions or as “categorically excluded” actions if no additional analysis is needed.

Road maintenance is a BLM responsibility. The BLM conducts periodic road maintenance on many roads throughout the Prineville District. Maintenance standards for specific roads depend on a number of factors, including the amount of public use on a road, and whether the road is needed for access to developments such as wells. The BLM considered road maintenance standards in siting the developments in this EA, so as not to place developments in areas that are inaccessible. It will work with the permittees to ensure projects are sited so travel to new wells does not add a lot of time.

The comment also suggests the BLM should install the "Mountain Springs" pipeline (covered in a 1991 EA and Decision). The BLM did not carry forward this Decision into the current proposal because the proposed additions to the existing pipeline in the Hampton allotment are much less ground-disturbing and less expensive than installing an entirely new pipeline, such as Mountain Springs.

40. Before moving forward, the BLM needs to know if it has a commitment for funding, if the wells can produce enough water, and if well permits are required.

Sample comments(s):

The draft EA does not address whether the BLM has found that the wells will produce sufficient water for livestock and wildlife, whether it has a commitment of funding to construct and maintain these systems, and whether it has obtained all necessary permits and approvals to secure these wells. Obtaining a new groundwater permit has become increasingly difficult in recent years. Should you decide to move forward with this project, please outline and analyze the relevant facts, discuss this issue with the Oregon Water Resources Department, and provide documentation of those discussions in the final EA. ***– Letter #7***

BLM response:

The analysis of effects in the EA does not vary by amount of funding the BLM is able to secure for the project. The BLM's Decision will select an alternative (or combination of actions from several alternatives), and BLM will then prepare an implementation plan that outlines which actions would occur under certain funding scenarios.

As stated in the EA, BLM would not fill in dugouts that are important water sources for livestock until it is able to provide alternate water sources. If wells do not produce, the actions associated with them (pipelines, troughs, playa exclosures, etc.) would be dropped.

The BLM has discussed the proposed wells with the Oregon Water Resources Department, and documentation of those discussions is in the project record. Small capacity ground water wells are exempt from state water right requirements if the consumptive use is for livestock watering.

41. The BLM needs to work with the grazing permittees to make sure the proposed road re-routes and location of water developments do not disrupt the permittees' operations.

Comment(s):

Please consider that all proposed road closures or re-routes should be fully vetted with our [ZX Ranch] livestock managers in order to prevent major disruptions to the grazing administration program. ***– Letter #5***

Locations for the proposed wells, pipelines and troughs should not be finalized without on-the-ground consultation / coordination with our [ZX Ranch] livestock managers. Please refer to Attachment 1 [to our letter which] . . . gives a preliminary overview of where most of the proposed projects should be located in order to best facilitate management on the allotment. . . We have not proposed any additional wells, but simply the relocation of a few. ***– Letter #5***

I recommend that BLM approach the permittees and cooperatively design studies to develop strategies to improve playa condition and assess their values to sagegrouse. ***– Letter #8***

BLM response:

The BLM staff involved in this project proposal spent considerable time out in the field getting to know the area as well as in the office going over maps, field notes and monitoring data. The BLM staff met with and spoke on the phone with all three of the livestock grazing permittees during development of the alternatives. The staff met with the permittees again after release of the EA but prior to making a decision to ensure all proposed water developments and proposed route re-alignments were viable and would not interfere with the permittees' authorized grazing.

42. The calculation of AUM reductions needs to account for the lack of forage on playas.

Comment(s):

The EA fails to recognize the relative insignificance of playa produced livestock forage when compared to forage production within the entire allotment. . .Construction of the proposed fences will not result in a measurable loss of forage for livestock. ***– Letter #5***

In Alternatives 3 through 5, the BLM proposes suspension of 268 to 837 AUMs. Presumably, this reduction is due to the proposed fencing that would exclude cattle from playa areas. However, the BLM failed to analyze 1) whether the areas proposed to be fenced are areas on which forage calculations should be based in making a reduction in AUMS, and 2) whether a reduction in grazing would provide any benefit. The Roths' observations of use indicate that playas do not provide significant forage in the Hampton or Ram Lake Allotments, and that a reduction in grazing is not warranted in the event that the BLM decides to proceed with an alternative that fences the playas. Indeed, the 2004 Hampton RHSA states that of the 57,990 acres in the Hampton Allotment, "56,666 are grazeable and 1,324 are not, being rock outcrop and playas/ playettes." Playa areas have historically not been considered "grazeable" by the BLM, so there is no basis for reducing grazing in the event playas are fenced. ***– Letter #7***

The portion of the Canary Lake Pasture the BLM proposes to fence should not form part of the available pasture under the current AUMs. In a 1987 utilization study in the file, the BLM does not consider the Canary Lake pasture to have available grass. The Roths and other permittees have used the full permitted AUMs without grazing Canary Lake or the playas for many years. The draft EA should revise the "source" of AUMs to reflect this fact and should not reduce the AUMs if it proceeds with its proposal to fence the playas. The BLM must specifically explain why

AUMs should be reduced if the lake and playas are not a current source of forage and the total AUMs are being consumed while meeting utilization standards. ***– Letter #7***

BLM response:

The AUM reductions in the EA were to account for forage in exclosures no longer available to livestock. The analysis assumed forage on an acre of playa was equivalent to an acre of upland. The BLM recognizes this assumption is not necessarily accurate, but it used this baseline as a way to compare the alternatives since accurate forage production estimates are not available. The BLM will review existing and new data on current and potential forage prior to making final AUM changes to the permits; the figures used in the EA alternatives are the maximum reduction. A preliminary look at 1964 range survey data (available at Prineville BLM office) shows playas were less productive than surrounding areas at that time.

A commenter said "Playa areas have historically not been considered 'grazeable' by the BLM, so there is no basis for reducing grazing in the event playas are fenced." The 1964 range survey data shows that the BLM did consider playas grazeable historically, though less productive than surrounding areas at that time. The 2004 rangeland health assessment did note some playas were unproductive, but that statement reflects conditions after concentrated livestock grazing in a drought year.

While the 1987 utilization form did indicate there was no available grass that year on Canary Lake, all other utilization reports between 1970 and 2005 showed forage was available on Canary Lake. Utilization varied anywhere from 10 percent (slight use) in 1978 to much higher levels of grazing, including 90 percent (very heavy use) in 1991. The varying degrees of utilization over the past 35 plus years indicate there has been available forage for livestock use, whether it was annual or perennial vegetation.

Regarding the statement, "The Roths and other permittees have used the full permitted AUMs without grazing Canary Lake or the playas for many years," grazing has been authorized for entire pastures, including playas. Grazing has occurred on playas throughout the allotment, as utilization studies indicate varying degrees of use each year.

The BLM recognizes that AUM reductions would affect grazing permittees and the local economy, and therefore included a range of alternatives in the EA, including one that didn't reduce AUMs at all, one that reduced AUMs but only temporarily, and one that had the smallest exclosures possible while still keeping fences out of the playa itself.

43. The BLM needs to explain how it calculated AUM reductions in the Canary Lake Pasture, and what the correct active preference AUMs are for the Hampton Allotment grazing permit.

Comment(s):

For the Canary Lake Pasture, the BLM needs to provide additional information and analyze the base level AUMs BLM used to calculate the AUM reduction. In the 1989 Cooperative Management Agreement, the Canary Lake AUMs were reduced from 612 to 452 to more accurately reflect acres/AUM (the acres/AUM for Canary Lake was adjusted from 4.0 to 5.4). Please indicate how BLM calculated the AUM decreases, and make sure that BLM used the numbers reflected in the 1989 Cooperative Management Agreement, which is part of the permit. ***– Letter #7***

The BLM should also ensure that the AUMs for the Hampton Allotment are correctly stated. The Permit itself and the draft EA both state that there are 6899 AUMs, while the renewal attachment shows 6895 AUMs. The Cooperative Rangeland Management Agreement shows 7084 AUMs. Since all three documents form part of the permit, the BLM should make clear which AUM level applies to these allotments (which should be the original 1989 level), or treat AUMs as a range. ***– Letter #7***

BLM response:

The commenter asked how the BLM calculated AUMs for the Canary Lake Pasture. The number of AUMs in Canary Lake Pasture was based on the 1989 Cooperative Management Agreement, which as the commenter notes shows the pasture contains 452 active preference AUMs. Alternative 1 reflects the current AUM levels. Alternative 2 reflects no grazing, and therefore no AUMs. Alternative 3 reflects a loss of 630 AUMs in the Hampton allotment. This accounts for the AUMs on the entire Canary Lake pasture being placed in suspense and for the AUMs on Cracker Lake being placed in suspense. Alternative 4 reflects the small proposed exclosure on Canary Lake and Cracker Lake, which totals 174 AUMs placed in suspense. And finally, Alternative 5 reflects the large exclosures around the playas, with 205 AUMs placed in suspension.

The commenter also asked what the right number was for current active preference AUMs on the Hampton Allotment.

The 1989 Cooperative Management Agreement lists AUMs for the entire allotment, but as stated on page 69 of the EA, Hampton is a community allotment, and the EA only considers that portion of the allotment south of the highway. There are 7,084 active preference AUMs on the entire allotment, of which 6,899 are allocated to the portion of the allotment in the project area under permit to Stephen Roth. The remaining 185 AUMs in the allotment are authorized to a permittee whose portion of the allotment does not fall within the project area.

The AUMs listed on the current grazing permit and those on the renewal attachment the BLM mailed permittees may not list correct active preference AUMs. This is due to computer

calculation rounding. Depending on the number of days in the grazing period and the percent public land in the allotment, the number of AUMs shown on the permit may vary slightly from actual grazing preference.

44. Proposed changes to livestock grazing would set a bad precedent, and are not based on scientific evidence.

Comment(s):

Within the EA narrative, relating to Soils, Hydrology and Wildlife, the prevalence of opinions, subjective and value laden terms, false assumptions, and non-applicable citations have created a document that lacks any creditable scientific reasoning. The occurrence of these items are too numerous to mention individually within the content of these comments. However three examples readily illustrate our concern: Page 34 of 85, Characterizing livestock grazing as a chronic disturbance; page 39 of 85, assuming shrub steppe habitats within one mile of water sources are unsuitable or marginal sage grouse habitat; and Page 41of 85, stating the greatest amount of suitable nesting habitat would be available because BLM would remove livestock grazing from the project area. More examples can be provided if needed. ***– Letter #5***

Creating a permanent exclosure out of the Canary Lake Pasture in the Hampton Allotment sets a bad precedent as the closure is not based on any proven scientific rationale and does not consider any mitigation other than elimination of livestock grazing to resolve impacts. ***– Letter #5***

BLM response:

While statements about "chronic disturbance by livestock at water sources" and "improper grazing" are accurate, BLM cautions they are not intended to point blame at the permittees. In fact, since livestock grazing on public land in the project area is at the authorization of BLM, it is fair to say that any improper or chronic grazing is the fault of the BLM. It was the BLM that authorized the construction of dugouts and the BLM that authorized season long livestock grazing on the playas. Much of the damage happened years ago, and in many cases the problems have already been addressed by modified grazing practices, often from prompting by the permittees.

Regarding the permanent exclosure in the Canary Lake Pasture, the EA includes alternatives that do not fence and remove cattle grazing from the Canary Lake pasture. The rationale for the closure in some alternatives is presented on pages 38-39 of the EA. The livestock grazing permittee for this allotment previously expressed support for the large Canary Lake Pasture exclosure, rather than a smaller fence exclosing just the playa. According to him there isn't that much forage in the exclosure. He was willing to have the AUMs in the Canary Lake pasture suspended, if BLM would put two pasture division fences in the pastures to the south, which would offset the loss of AUMs in Canary Lake because he would get better cattle distribution in the other pastures.

45. The EA needs to clarify who would pay installation and maintenance costs of this project. And clarify BLM would provide alternate water for livestock before filling dugouts and fencing playas.

Comment(s):

The draft EA needs to make it clear that the BLM is responsible for constructing and maintaining all wells, pipes, water troughs and fences proposed as result of this decision. The Roths lack the technical expertise, equipment, manpower, and ability to effectively construct the proposed well installations, pipes, and water developments proposed by the decision, even if the materials were provided. . . The BLM should also maintain the constructed improvements, as the decision to construct them is not related to the Roths' needs or operations, but is based on the BLM's (questionable) determination that such action is necessary. ***– Letter #7***

The draft EA should also make it clear that playas will not be filled or altered in any manner until the proposed water developments are installed, functional, and operating (and accessible) without issue. ***– Letter #7***

BLM response:

While range improvements can be installed by either the BLM or the permittee per CFR 4120.3, for this project BLM has committed to the installation. This is mentioned in several places in the EA, such as page 16, "The BLM would install five new water wells to lessen impacts to livestock, as well as wildlife, from water lost by filling dugouts and/or fencing playas." The BLM added the following statement to the EA to clarify this includes all installation costs: "The BLM would purchase materials and pay for installation of new wells, pipelines, troughs and fences."

After construction/installation, maintenance costs would be the permittees' responsibility, under a term/condition of their permits, per their Cooperative Agreement for Range Improvements. Exclosure fence maintenance would be the BLM's responsibility.

As stated on page 16 of the EA, "…BLM would provide replacement water for livestock before filling dugouts or fencing playas." This would occur in Alternatives 3, 4 and 5.

46. The maintenance costs to the permittees from the proposed water developments would be more than offset by the benefits.

Comment(s):

The costs associated with installing these new facilities [wells and pipelines] will be more than offset by the reliable source of water provided and by the lessening of management adjustments that must be made due to the unpredictability of playa water. . .We support your proposal to provide an alternate source of water prior to constructing the exclosures and our only comment is to insure the fence specifications used for the exclosures are adequate to prevent livestock access to the restricted area and require a minimum amount of maintenance.

The ZX Ranch is willing to share in the costs of all range improvements to the extent they are beneficial to our livestock operation. ***– Letter #5***

BLM response:

The commenter does not propose changes to the EA, but asks that BLM construct exclosures adequate to keep out livestock. In response, the BLM would use steel posts and wire for the temporary and permanent exclosure fences to ensure livestock are excluded and to reduce the need for maintenance.

47. Maintenance of the proposed water developments would have a significant economic effect on the grazing permittees.

Comment(s):

In the event that BLM is not proposing to assume maintenance responsibility for the wells, pipes, water troughs and fences proposed in the draft EA, the draft EA entirely failed to capture the economic impacts of the proposed decision. Presently, the Roths estimate that they spend over $17.03 per AUM on oversight, operation, and maintenance of the existing water developments in the Hampton Allotment. Given the current condition of the road and the likelihood that the pipes will fail with some frequency under the alternatives proposed in the draft EA, the Roths estimate that they would spend an additional $5-12 per AUM on oversight, operation, and maintenance of the wells, pipes, water troughs and fences proposed in the draft EA, for a total increase in operational costs of $10,500 to $17,000 annually (operating costs plus vehicle wear and tear). In addition, to the basic costs of operations, the systems can require repairs above annual operational costs, which usually range from $100 to $1,200 per repair, with repairs averaging $4,000 to $4,500 per year. The Roths calculation of these costs is supplied in the attached spreadsheet. Instead of accounting for these costs, the BLM states that the changes to maintenance responsibility would not have a "measureable effect'' on permittees. Draft EA at 70. This statement is incorrect. The draft EA fails to adequately consider the impacts of its alternatives on the Roths, and fails to analyze whether additional actions (as proposed above) can or should be taken to limit these impacts. ***– Letter #7***

BLM response:

As described in a previous BLM response, maintenance of proposed water developments and pasture division fences would be the responsibility of the permittees. The BLM considered these costs as it developed the EA, using assumptions including:

- New developments would be functional prior to filling in dugouts and fencing playas that serve as livestock water sources (EA page 16).
- If new developments do not function properly, the BLM would fix or remove them and leave associated dugouts unfilled/unfenced.

- Storage tanks and troughs would hold enough water to support livestock in the pasture for three days in case of problems with a well, pipeline or trough (this is in meeting notes in the project record, and has been added to the EA for clarification).
- The well locations in the EA were designed with permittees in mind. The BLM would consult permittees when siting wells to ensure they are in a location the permittee can service as needed without much more effort than currently. The final location of wells would also be subject to recommendations from contractors who have expertise in such projects.
- The permittees already check their livestock, dugouts and existing developments on a regular basis, and checking new developments in the same or nearby areas would not add a lot of cost.
- Wells and troughs would require more maintenance than dugouts in playas, but clean, permanent, reliable water would provide an economic benefit, offsetting the increased cost to maintain new water developments. See response to summary statement #48, below, for additional information about this assumption.

To gain an understanding of how much costs would increase, the BLM asked one of the permittees to provide an estimate of current costs. The permittee provided the BLM an itemized list of operational costs associated with grazing livestock in the allotment. Annual operating costs related to management of livestock grazing in the project area include labor (e.g., employee salaries), equipment (e.g., annual cost and depreciation on pickup truck, generators for well pumps), and materials (e.g., wire to patch fences, fuel for generator or pickup truck).

Given the information from the permittee, and the assumptions stated above, the BLM estimated additional costs would be offset by economic benefits; therefore, the BLM rolled these costs/benefits into the estimated economic "value" of AUMs presented in Chapter 3, EA page 73, "The formula used to calculate the [economic] effects in this analysis accounts for maintenance costs, so those costs are not analyzed separately."

48. The EA needs to consider the increased cost to permittees when wells, pipelines and troughs fail.

Comment(s):

The wells and pipelines proposed by the draft EA are inadequate and would result in exponential increases in costs to the Roths [livestock grazing permittees on Hampton and Ram Lake Allotments]. . .The EA must address how alternative water sources will be provided in the inevitable event that a well, pipe, or trough fails and cattle are left without water. ***– Letter #7***

Further, the draft EA does not acknowledge that in the event a well or pipeline fails, livestock could die if the issue is not addressed immediately. Unlike waterholes, wells and pipelines require constant vigilance. This means more costs, more vehicle travel, and greater risk. The costs associated with a failure in the new water system would be significant, and failures are

frequent. Broken floats and broken water lines occur multiple times per year. The Roths have had two pump failures on the Parmele system in the 10 years they have grazed. They have also had 3 booster pump failures in the same amount of time. Generator failures are also common. As such, the three to six day water capacity safety feature provided by the dugouts is vitally important. If the dugouts are removed, roads are not improved, and the water developments fail, the Roths will have to move pastures immediately as the roads are not practical to haul water with a truck. The EA proposes a massive reduction in the following water safe locations: Potato Lake, Midway Lake, Cracker Lake, Canary Lake, Ram Lake, Brooks Lake, Mud Lake. All of those locations could handle 893 cows at one time needing emergency water. That number of cattle without water for even one day would require over 22,000 gallons of water. With a water system providing 15 gallons per minute it would take 24 hours to provide as much emergency water as the dugouts were able to supply. The draft EA's analysis of these effects is sorely lacking. ***– Letter #7***

BLM response:

Per the permittee's request during scoping, the BLM factored in a three day water supply for each water storage tank being proposed. Playas have been found to be dry before turnout, in which case, pipelines and troughs have been utilized as a backup. Conversations the BLM had with the permittees indicated that in general, replacing playa dugouts with water supplied by wells and pipelines was a more reliable source of water. The costs associated with installing these new facilities would be more than offset by the reliable source of water provided and the need for management adjustments during the year is far less than the unpredictability of playa water. The Hampton permittee has never run more than 400 head in one pasture at one time. As stated above, a three day capacity has been planned for at each water storage tank per the permittee's request. Careful consideration was made when removing a water source, that there would be sufficient alternative water provided. This was part of the scoping process with each permittee. Playas do not dry up overnight. As drought concerns arise, as they have in the recent past, adjustments are made to the grazing rotation to accommodate water shortage and livestock/vegetation concerns.

49. The BLM needs to do a full cost-benefit analysis to understand the effects of this project.

Comment(s):

What is the cost of digging wells to provide water and how many wells are you projecting would need to be constructed? . . .Who is providing [fencing] materials, installation, maintenance and man power?. . . Will all costs be "earmarked'' before the start of any action? Theft in the greater Hampton area is rampant. Who is going to guard the pumps, fuel and materials? Who is going to replace stolen items in a timely manner? Will there be "ear marked" funds designated? What your letter suggests is cost prohibitive in today's economy and does not meet with any credible scientific evidence to support your contention. ***– Letter #6***

The draft EA does not contain sufficient analysis of the costs, benefits, and feasibility of the proposed rangeland improvements, including fence construction and water development

construction. Specifically, the draft EA does not include any information on technical feasibility, total operational impact, cost, or cost-benefit information for the proposed fences, wells, troughs, or pipelines. Without this information, the BLM has not complied with NEPA's requirements to analyze the impacts of its proposed decision, nor can it construct a decision that would reasonably lead to the implementation of the improvements necessary to continue permitted grazing activities should playas be fenced from livestock grazing and watering. – ***Letter #7***

BLM response:

As stated on page 9 of the EA, "The decision will also consider the agency (public) cost to implement and maintain the selected alternative, the risk of long term investment in infrastructure, and the potential for the actions to be successful."

Regarding implementation costs: Consistent analysis of the alternatives required the assumption of similar implementation schedules for all alternatives. To presume specific funding for any year is speculative, and in addition would mask the environmental differences between alternatives, since it then would be the budget level that would dictate environmental consequences, not the differences in management approach and intensity between the alternatives. Knowing the actual funding levels the BLM will receive in the future is not necessary in choosing among the alternatives, since in making that choice it is not the absolute numbers, but the relative differences among the alternatives that is important.

While BLM's implementation costs are not useful in weighing the environmental consequences of the alternatives, the BLM considered them as it developed the alternatives. It will weigh them as it makes the Decision about how quickly to implement each portion of the Decision. The BLM's budget is indeed limited, and implementation of any of the action alternatives would therefore be accomplished over a number of years. As stated in other responses in this document, the BLM would not fill dugouts, fence playas or reduce AUMs until it has successfully provided replacement water sources for livestock.

Regarding analysis of maintenance costs, see summary statement #47. See summary statement #45 for a response to the comment about who would cover cost of materials, installation and maintenance. The BLM is not able to quantify potential theft and vandalism, but some commenters stated this was likely to be minimal as there is not much public use in the area. As stated in other responses, the permittee is responsible for repair and maintenance of range developments, but BLM covers installation and replacement costs when replacement is not the result of failure to adequately maintain a development.

See other responses in this document for an answer to the statement about lack of "credible scientific evidence to support your contention [about project benefits]."

50. The pipelines should be buried in all alternatives; otherwise they will freeze or be vandalized.

Comment(s):

The proposed pipelines should be buried. Leaving them above ground and exposed to direct sunlight will result in rapid deterioration, increased maintenance requirements and increased susceptibility to vandalism. Proper rehabilitation, following installation, will not result in impaired visual aesthetics, increased landscape fragmentation, or provide a corridor for weed expansion. ***– Letter #5***

If installed above ground, the pipelines would move, freeze, and burst with much more frequency than if the water lines were buried. Burying the water lines increases their useful life and reduces maintenance costs and issues (i.e. additional use of roads to access and repair pipelines, etc.). Additionally, the pipes should be buried at sufficient depth to avoid frost, instead of the 2-6 inches suggested by the BLM. All alternatives should use these simple, important and reasonable steps where pipelines are proposed. ***– Letter #7***

BLM response:

The EA includes alternatives that bury new pipe and alternatives that don't bury new pipe. The effects of these alternatives are presented in Chapter 3. The BLM included an alternative with some pipe on the surface at the suggestion of one of the permittees who said there is new, more durable material that does not need to be buried. In addition, the permittee shared a concern about how rocky the ground is in the project area and how expensive burying pipe would be.

51. The economic analysis needs to reflect impacts on the proper communities.

Comment(s):

The economic analysis is not reflective of the impacts to the proper communities. The majority of economic activity attributable to the ZX livestock operation occurs within Lake and Deschutes, Counties. Significant contribution also occurs in Elmore County, Idaho and Walla Walla County, Washington, where livestock feedlots are located. Very little economic activity occurs within Ada County, Idaho. ***– Letter #5***

BLM response:

It was an assumption that Simplot headquarters was based in Ada County, Idaho. We have corrected the EA to show that effects would occur across the four counties the comment mentions rather than Ada County Idaho. The conclusion of the economic effect on permittees is the same as originally displayed in the EA. The impact on the counties is less than originally assumed, since net annual revenue loss associated with the ZX Allotment in Alternatives 2-5 would be spread across more counties.

52. The maps are hard to read and contain errors.

Comment(s):

The maps are difficult to comprehend. A smaller scale would be much more conducive to illustrating the locations of proposed pipelines, fences and vegetative treatments and would present a much clearer picture of what is being proposed. ***– Letter #5***

Based on the maps only and not discussed within the body of the EA, . . .several pipelines are designed solely to supply water to playas and not to provide water for livestock. That situation will raise many questions relating to the operation, maintenance and responsibility for the new facilities. ***– Letter #5***

The maps accompanying the draft EA are hard to read, and are drawn on a small scale relative to each allotment. As currently drafted, it is difficult to determine whether proposed troughs next to a pasture fence if means the trough will serve both pastures. Further, the maps are missing important details, like wilderness study areas and the Benjamin Natural Area. Maps broken out by allotment with all relevant designations would be more effective in enabling the permittees to understand the specific impacts of each alternative on their operations. ***– Letter #7***

BLM response:

We posted more detailed maps to our website right after publication of the EA, and extended the EA review period for those who asked for more detailed maps.

Early in planning for this project the BLM considered piping water to playas in dry years. This action was abandoned for several reasons; however, we inadvertently left this proposal on the Alternative 3 maps published with the EA. The maps have been corrected and re-posted with the EA on the BLM's public web site.

The maps do not show wilderness study areas because there are none in the project area. One of the EA maps shows areas with wilderness characteristics within the project area. The 640 acre Benjamin Research Natural Area will be displayed in the Decision map.

53. Old crested wheatgrass seedings in the project area weren't just to benefit livestock. The EA should clarify this.

Comment(s):

The draft EA alleges that crested wheatgrass was seeded only for livestock. (Draft EA at 28). It is our understanding that soil stability and wildlife habitat improvement were also seeding objectives. ***– Letter #7***

BLM response:

The Hampton Allotment Evaluation, dated 1988, states the crested wheatgrass seedings were for the benefit of both wildlife and livestock. This has been clarified in the EA.

Effects on wilderness characteristics

54. New livestock developments should include design features that limit effects on naturalness in areas with wilderness characteristics.

Comment(s):

Where new livestock developments such as water tanks or wells are necessary on lands with wilderness character, it is possible to construct such developments in a way that they do not have a substantially noticeable impact on the naturalness of the area. Techniques such as utilizing vegetative or topographic screening and installing solar panel arrays rather than generators can help lessen the noticeability of new range developments. ***– Letter #1***

BLM response:

Alternatives that involve new livestock developments (Alternatives 3-5) already include design features to limit effects on wilderness characteristics. "Water tanks or troughs in areas with wilderness characteristics or visible from a key observation point would be painted to match surrounding vegetation. Pipelines would be built next to existing primitive routes; well buildings and water storage tanks would be located in areas with juniper trees for screening; and well housings would be limited to the height of adjacent vegetation when possible" (EA page 16).

55. The alternatives should limit effects on naturalness by minimizing juniper cuts, new route construction and route maintenance in areas with wilderness characteristics.

Comment(s):

In the EA, the BLM did not analyze a range of methods for treating juniper in the project area or the levels of impact that certain methods would have on wilderness characteristics. We urge the BLM to put more limits on where and how juniper can be cut to minimize impacts to naturalness, and to analyze a complete and reasonable range of alternatives with varying amounts of acres proposed for treatment. For example, gathering and piling cut juniper by hand rather than by mechanical means can lessen noticeability of the treatments and decrease the potential for noxious weeds to spread within the project area. The BLM should concentrate impacts to naturalness from juniper thinning by focusing on areas where naturalness is already compromised, thereby minimizing the overall number of acres where naturalness is diminished. ***– Letter #1***

The depiction of how the “minimum tool” would be used in relation to new route creation in Alternative 2 (as well as 3 and 4) is inaccurate. Prior to creating new primitive routes by “driving

over the area with a truck multiple times," BLM must first consider whether and how the creation of new routes in lands with wilderness character can be avoided. Only after determining through the minimum requirements analysis that the creation of new routes is necessary would the BLM then analyze and select the minimum tool with which to accomplish the action. ***– Letter #1***

Please maintain existing motorized routes at their currently assigned maintenance level only where necessary, and implement "spot" blading on Maintenance Level 2 routes only where necessary. Where a maintenance level has not been assigned, avoid mechanical maintenance. Do not undertake any mechanical maintenance or improvement of existing motorized routes that were not previously constructed. ***– Letter #1***

In principle, we like the idea of rerouting primitive routes to reduce impacts on playas. However, there are potentially significant trade-offs from new route impacts outside the playas. Please avoid rerouting through WSAs or other unroaded areas. Consider just closing routes altogether. We urge BLM to avoid building any new roads or routes while implementing this project (everywhere, but especially within unroaded areas), whether from water developments, or to support filling dugouts, or juniper cutting. This project area has very few noxious weed infestations and we would like to keep it that way. New disturbance could start an infestation. We are also concerned about impacts to lands with wilderness characteristics (LWC) from route maintenance/perpetuation. ***– Letter #2***

BLM response:

Alternatives 2-5 in the EA include re-alignment of some routes so they don't go through playas. This would involve decommissioning 16 to 20 miles of routes (depending on the alternative), and creating 8 miles of new routes. None of the proposed new routes (or decommissioned routes) is in areas with wilderness characteristics. In all alternatives the net result is fewer miles of routes than in Alternative 1.

None of the alternatives propose or address route maintenance, so the EA doesn't address ways to limit effects on naturalness when taking that action.

The EA includes alternatives that would not cut any juniper in areas with wilderness characteristics (Alternatives 1 and 5), and alternatives that do cut in areas with wilderness characteristics (Alternatives 2-4). Alternatives 2-4 include a number of design features to limit effects on naturalness (pages 13-14). Juniper cuts in the remainder of the project area (areas without wilderness characteristics) were already covered in an existing EA and decision (May 2011 Decision Record for the High Desert Shrub Steppe EA), and the BLM continues to implement that decision.

56. The BLM should mitigate effects of juniper cuts on naturalness by closing vehicle routes, limiting off road vehicle travel, and removing man-made developments in areas with wilderness characteristics.

Comment(s):

Under a more limited, scaled-down alternative for juniper treatment, the BLM should analyze how impacts to naturalness could be mitigated. Where BLM finds that juniper treatments may result in short-term decreases in naturalness, please mitigate these impacts by closing and rehabilitating motorized routes, limiting off-road travel in areas with wilderness character, or removing other manmade developments that are determined to be substantially noticeable. – ***Letter #1***

BLM response:

The alternatives that involve juniper cutting (Alternatives 2-4) include a number of design features to limit the effects of juniper cuts on naturalness (pages 13-14) in both the short and long term. These design features mean juniper cuts would have no long term (after ten years) effect on wilderness characteristics (EA pages 66-68). Some effects on naturalness would remain after ten years from other developments in the area (up five percent of the area with wilderness characteristics), but not from the juniper cuts.

There would be short term effects to naturalness from juniper cuts. The EA includes some road closure and removal of existing developments in some alternatives, but with the objective of improving sage-grouse habitat, not improving naturalness. The BLM did not include actions in the EA to increase naturalness because these actions would not help meet the purpose of the project, "to improve the ecological condition of playas and surrounding areas for sage-grouse . . ." (EA page 7).

The BLM is not required to identify mitigation in an EA when the adverse effects are not "significant" (i.e., effects of such context and intensity that an environmental impact statement is required). The CEQ regulations at 40 CFR 1508.27(b) include ten considerations for evaluating intensity. The BLM issued a draft Finding of No Significant Impact at the same time it published the EA. The draft FONSI showed no significant effects, but the BLM will re-evaluate significance of effects prior to completing the Decision. At that time the BLM will identify mitigation measures that might be necessary to ensure effects are not significant.

Regardless of whether the Decision identifies mitigation measures, the BLM will consider the actions the commenter proposes in the future as it develops projects where the purpose is to improve naturalness on areas with wilderness characteristics.

57. The EA shouldn't try to quantify current naturalness in areas with wilderness characteristics; it is not a quantitative exercise, and it can only be determined by inventory.

Comment(s):

The analysis of impacts to naturalness should be redone as it is based on faulty assumptions that do not align with wilderness inventory methods outlined in Manuals 6310 and 6320. In the discussion of Wilderness Characteristics in the Affected Environment section, BLM assumes that naturalness can be measured based on distance from manmade improvements such as fences and water troughs. Measurement of naturalness and other wilderness characteristics is not a quantitative exercise. Distance from manmade developments is not necessarily relevant to naturalness, and improvements such as fences and water troughs are typically considered substantially unnoticeable. Additionally, the assumption that juniper treatments will appear natural after 10 years may not be accurate. Naturalness can only be determined by an inventory of conditions on the ground, and BLM should base all analysis of the potential impacts of project activities on current inventory data for the area. ***– Letter #1***

BLM response:

The commenter suggests BLM should have used BLM Manual 6320. The BLM did not use that manual, as it applies to the BLM land use planning process, not to an implementation level assessment of impacts to wilderness characteristics such as that in this EA. Nor does that manual provide direction on how to inventory wilderness characteristics.

The commenter also suggested BLM should have used BLM Manual 6310. The BLM did pattern the quantitative analysis in the EA after this manual, which says to "Document noticeable human impacts within the area. If several minor impacts exist, summarize their cumulative effect on the area's degree of apparent naturalness." The analysis in the EA quantified the area of influence of manmade improvements on the landscape in order to determine their combined effect on naturalness on lands having wilderness characteristics. The analysis assumed developments would be substantially unnoticeable from more than 1/8 mile (for roads, water storage tanks, wells, troughs, and fences in sagebrush), or ¼ mile (for fences in playas). The effects of juniper treatment on naturalness was based on a percent of younger juniper trees cut annually with anticipated short and long term effects quantified. The BLM also presented an explanation for its division between short and long term effects. The commenter does not say how the effects analysis is flawed, other than to say it shouldn't be a quantitative comparison.

The commenter says the BLM should base it's analysis of potential impacts on current inventory data for the area. The analysis in the EA did use the most current inventory.

58. The EA shouldn't have an alternative that creates new routes in areas with wilderness characteristics.

Comment(s):

We support the closure and rehabilitation of primitive routes wherever practical within lands with wilderness character, but we do not support the creation of new motorized routes as this would diminish the natural appearance of these lands. The BLM should not include creating new routes on lands with wilderness character in any of the alternatives. ***– Letter #1***

BLM response:

None of the alternatives create new routes on lands with wilderness characteristics. Alternatives 2-5 create up to eight miles of new routes in order to decommission up to 20 miles of existing routes in playas, but this is all in areas without wilderness characteristics.

Compliance with policy or law

59. In Alternative 1, the BLM has to reissue livestock grazing permits as-is, without added terms and conditions.

Comment(s):

On page 11, Alternative 1 addresses the option of renewing grazing permits by utilizing appropriations language (Public Law 113-46, H.R. 2775). The EA goes on to state, "All standard terms and conditions of the permits would remain the same as current, with the following additions, which apply to all three permits unless otherwise specified…" emphasis added. In order to comply with Public Law 113-46, H.R. 2775, renewed permits must have the same terms and conditions as the expiring permits. The wording on page 11 does not conform to the law. If our [ZX Ranch] permit is renewed using appropriations language, we request the permit remain exactly the same in order to prevent any un-necessary legal challenge. ***– Letter #5***

The BLM proposes to add terms and conditions to the permittees' permits under Alternative 1. Draft EA at 11. The BLM cannot add any terms and conditions to a permit under the appropriations rider renewal process (Public Law 113-46). Rather, the permits must have the same terms and conditions to qualify for renewal under the appropriations rider. The BLM cannot use the appropriations law renewal process to renew permits with modified terms and conditions. ***– Letter #7***

BLM response:

The commenters are correct that Alternative 1 is the reissuance of permits as-is, without added terms and conditions. We mistakenly labeled some terms/conditions as "additional" in the EA (page 12), when in fact all items listed there were already on the existing permits. We have clarified this in the EA.

60. Changes to livestock grazing are not warranted because current grazing is meeting all standards for rangeland health.

Comment(s):

On page 19, the EA states Alternative 1 will not conform to 43 CFR, Subpart 4180. This regulation requires BLM to make changes to livestock grazing if existing grazing management practices or levels of grazing use are significant factors in an area's failure to achieve rangeland health standards. This is irrelevant, because as stated on pages 6 and 19, current management within the ZX Allotment is meeting all standards. ***– Letter #5***

Justification for the proposed change in Season of Use or reduction in Authorized AUMs within the ZX Allotment is entirely absent from the EA. As the document states, all standards of rangeland health are being met. In addition, BLM monitoring, using the SGHA method, indicates that the three functional habitat groups are well within the range of natural variability and provide suitable year round upland conditions for Sage Grouse. . . If implemented, the shortened authorized use period will eliminate flexibility in developing future management proposals. Reducing authorized AUMs should only be considered when current forage utilization exceeds production levels and is negatively impacting the entire allotment. Our observations indicate this is not occurring, achieving S&Gs indicates it is not occurring, and the EA provides no monitoring information showing that it is. The proposal to reduce grazing seasons and AUMs appears to be very arbitrary and capricious and more in line with satisfying an anti-livestock agenda rather than multiple-use management. ***– Letter #5***

Because the Hampton Allotment is presently meeting applicable standards, a change in grazing management is not authorized under the Rangeland Health Standards and Guidelines 43 CPR§ 4180.2(1). . .The BLM should perform an updated RHSA before making any management decisions for the Hampton Allotment. The Hampton Allotment has been under new management for nearly a decade, and the information contained in the RHSA is out of date. The BLM should not be relying on decade old data to determine whether management changes are warranted. ***– Letter #7***

The draft EA presents an incomplete picture of conditions on the Ram Lake Allotment. David Roth started grazing on the Ram Lake Allotment during the 2005 grazing season - the last season discussed in the RHSA for Ram Lake. The RHSA was released in September 2006, and covered the period of June 2003 through June 2005. Under Rangeland Health Standards and Guidelines, the authorized officer is charged with taking "appropriate action" once BLM determines that existing grazing management needs to be modified to meet rangeland health standards. 43 CFR § 4180.2(1). Such action must be taken no later than the start of the next grazing year after the determination is made. In this instance, BLM is proposing to take an action allegedly based on the RHSA nearly a decade after it was complete. Further, the BLM took action to address the findings of the RHSA. Among these changes were scheduled seasonal and year-long grazing rest, improvement of allotment fences, shorter duration grazing, faster livestock turn-ons and gathers, and other incidental actions. These changes have translated into improved ecological processes (such as soil and plant nutrient replenishment through elimination of re-grazing), favorable management outcomes (such as enhanced livestock

distribution), and wildlife habitat improvement (such as preconditioning of forage and more forage and ground-level cover being left after cattle are removed). The record documents the improved conditions of the allotment. Finally, in discussing the Ram Lake RHSA in the draft EA, the BLM failed to account for the fact that, in multiple instances, it states that undesired conditions were the result of a variety of causal factors. Draft EA at 22. For example, the RHSA found that the undesirable ecological conditions on Ram Lake and Mud Lake were due to drought during six of the seven prior years, the soil type present, and surface sealing (the subsequent drying and tightening of soils). The RHSA further noted that unauthorized use by a neighboring permittee resulted in excess forage utilization in some instances. None of these facts are acknowledged in the draft EA. As in the Hampton Allotment, the BLM may not base the permit decisions on the outdated Ram Lake Allotment RHSA, particularly when the requests of the BLM's RHSA requirements have already been met and conditions are improved. **–** ***Letter #7***

BLM response:

This EA is analyzing the renewal of grazing permits which is an appropriate time to make adjustments and/or changes to the grazing management on an allotment. The proposed new permits in Alternatives 3-5 include a shorter grazing period for the Ram Lake and ZX Allotments, and a change in grazing systems in the Hampton Allotment (facilitated by building a new pasture division fence). These changes are to provide more flexibility in livestock management and to increase grass growth between grazing periods.

None of the changes to livestock grazing proposed in the alternatives are tied to failure to meet Rangeland Health Standards (RHS). The BLM has clarified this in the EA. As the commenter states, livestock grazing changes implemented soon after the 2005 RHS assessments adequately addressed the issues identified at that time.

However, BLM can make changes to livestock grazing even when all RHS are met. The changes proposed in the alternatives are a reduction in AUMs to reflect forage within playa exclosures that would no longer be available for livestock. These exclosures are designed to benefit sage-grouse, not to address failed RHS.

As described in CFR 4130.3-3, the BLM may change livestock grazing for a variety of reasons: *"Following consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 of this part. To the extent practical, the authorized officer shall provide to affected permittees or lessees, States having lands or responsibility for managing resources within the affected area, and the interested public an opportunity to review, comment and give input during the preparation of reports that evaluate monitoring and other data that are used as a basis for making decisions to increase or decrease grazing use, or to change the terms and conditions of a permit or lease."*

We have corrected the EA on page 19 by removing the statement about Alternative 1 not conforming to 43 CFR, Subpart 4180.

61. The BLM can't reduce or eliminate livestock grazing in Wilderness Study Areas and Natural Areas because continuation of grazing is guaranteed by the Federal Land Management and Policy Act.

Comment(s):

The grazing permit mentions a wilderness study area that is present in the Hampton Allotment, while the 1989 Cooperative Rangeland Management Agreement mentions the "Benjamin Natural Area" in the Hampton Allotment. The draft EA entirely fails to analyze these areas, and their impact on sage-grouse habitat. At any rate, their presence does not provide a basis for altering grazing use on the allotment, as continuing of existing grazing uses is guaranteed under FLPMA. 43 U.S.C. 1782 c. ("During the period of review of such areas and until Congress has determined otherwise, the Secretary shall continue to manage such lands according to his authority under this Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness, subject however, to the continuation of existing mining and grazing uses and mineral leasing in the manner and degree in which the same was being conducted on October 21, 1976."). ***– Letter #7***

BLM response:

The commenter appears to believe this EA includes alternatives that would reduce livestock grazing to protect Wilderness Study Areas (WSA) or the Benjamin Research Natural Area (RNA). While the EA includes alternatives that reduce livestock grazing, the rationale for the reductions is not related to WSAs or the RNA. The Hampton Butte and Cougar Well WSAs are within the Hampton Allotment, but are not within the project area, and the EA does not propose actions outside the project area or related to these WSAs. The Benjamin RNA is within the Hampton Allotment and in the project area, but it was fenced and excluded from livestock grazing years ago, and any reduction in grazing use to account for this exclosure is already a part of the current grazing permit. None of the alternatives propose to reduce permitted AUMs relative to this RNA.

62. The BLM needs to complete a plan amendment before the EA can include alternatives that eliminate grazing or manage for wilderness characteristics.

Comment(s):

Discontinuing grazing is not a reasonable alternative [because] . . . It is not in accordance with the Brothers/La Pine RMP. ***– Letter #5***

Grazing cannot be entirely removed from these allotments, which are located within grazing districts and are classified as chiefly valuable for grazing. . .this decision must be consistent with the RMP, which directs the BLM to provide for grazing within these allotments. . . removal of

grazing is inconsistent with the BLM's multiple use objectives, [and] violates the Brothers/La Pine Resource Management Plan ("RMP"). . . ***– Letter #7***

The BLM cannot manage for wilderness characteristics in these allotments without a full NEPA analysis and RMP amendment authorizing that change. Further, the BLM must account for the fact that these allotments are in a grazing district and grazing cannot be removed or reduced except under limited circumstances not present here. ***– Letter #7***

BLM response:

The EA can include an alternative that eliminates grazing for some allotments in a grazing district, but the BLM can't implement that alternative until it completes a plan amendment. This is acknowledged in the EA in several places, including page 21: "Alternative 2 would not conform to the Brothers/La Pine RMP (USDI BLM 1989) because it would remove grazing from an area that is available for grazing (pages 76 – 79, USDI BLM 1989). Therefore, if this action from Alternative 2 is selected, the Brothers/La Pine RMP would need to be amended, which would involve additional public involvement and environmental analysis."

The BLM can manage for wilderness characteristics in these allotments under the existing land use plan. An amendment is not necessary. The EA does not propose any changes to livestock grazing to accommodate wilderness characteristics, though the alternatives were designed to minimize effects of water developments and fences on wilderness characteristics.

63. The Prineville BLM should amend its land use plan to allow "buyout" of grazing permits.

Comment(s):

In whichever alternative is selected, the BLM should amend the Brothers-La Pine Resource Management Plan to allow for voluntary buy-out of the affected allotments. ***– Letter #1***

BLM response:

The BLM does not have the authority to allow "buy-out" of grazing permits. That action can't be included in any land use plan. The BLM does have the authority to identify areas where voluntarily relinquished permits can be left vacant for the life of the plan or until conditions change. However, this is beyond the scope of the current project, the purpose of which is to take actions "to improve the ecological condition of playas and surrounding areas for sage-grouse . . ." (EA page 7).

64. The BLM needs to identify a preferred alternative in the EA, and clearly state whether the Decision will be a grazing decision.

Comment(s):

The draft EA must clearly address whether the draft EA is a grazing decision. . .If the BLM decides to modify the permits under this decision, it must treat the decision as a grazing

decision and provide the monitoring information, standards, and analysis typically provided in a grazing decision. ***– Letter #7***

The draft EA fails to select a preferred alternative or alternatives under 40 C.F.R. 1502.14. Due to the BLM's failure to select a preferred alternative and the number of significant flaws in the BLM's analyses in the draft EA, the BLM should issue a revised draft EA for review and comment. Failure to do so will deprive the Roths of the opportunity to meaningfully comment on a draft EA that complies with NEPA and other legal requirements the BLM failed to meet in the draft EA. ***– Letter #7***

BLM response:

While not required in an EA, we have added a short explanation about "grazing decisions" on page 8 of the EA under the heading Decision Factors. The Proposed and Final Decision Records will have additional information.

The commenter cites 40 Code of Federal Regulations 1502.14 and claims the EA needs to identify the BLM's preferred alternative. Part 1502 of the CFRs applies to Environmental Impact Statements, not EAs. The BLM is not required to identify a preferred alternative in an EA. The text of the citation the commenter referenced reads as follows: "Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft [environmental impact] statement and identify such alternative in the final [environmental impact] statement unless another law prohibits the expression of such a preference."

65. The BLM should modify its policy on wilderness characteristics inventory.

Comment(s):

We request that BLM make an explicit finding that creating juniper stumps in LWCs [lands with wilderness characteristics] would not disqualify the areas from meeting wilderness criteria. ***– Letter #2***

BLM response:

Modifying the BLM's national policy regarding lands with wilderness characteristics is outside the scope of this project. It would not serve to meet the project's purpose or need.

66. The BLM should prepare an EIS instead of an EA, because this project has the potential for significant effects.

Comment(s):

We support efforts to restore playas and sage grouse habitat, but the name of this project is a bit misleading because it involves extensive juniper removal, water developments, fencing, route construction, and reauthorizes livestock grazing across a large area, including areas with wilderness character. This project may have significant effects and should be considered in an EIS. ***– Letter #2***

Grazing cannot be entirely removed from these allotments [because]. . .this decision . . . would have a significant financial impact on the Roths. ***– Letter #7***

The BLM should consider preparing an EIS for this decision [because] . . . the decision has the potential to have significant impacts on sage-grouse and wildlife habitat, in addition to significant impacts on the permittees' operations. Given the large suite of potential known and unknown impacts of this project, the BLM should prepare an EIS and engage in a more thoughtful analysis of the potential impacts of its decision. See 40 C.F.R. § 1508.27(b)(5) (the BLM must consider the degree to which the possible effects are highly uncertain or involve unknown risks when deciding project significance). ***– Letter #7***

BLM response:

Several commenters believe BLM should prepare an EIS because the effects are unknown; there are unknown risks; and/or there is a potential for significant effects. The BLM has responded above to the comments about unknown effects and risks. The commenters did not point out flaws in the BLM's disclosure of context and intensity of effects in the draft Finding of No Significant Impact published at the same time as the EA.

67. The Decision should be placed on hold until the state wide plan amendments for sage-grouse are completed.

Comment(s):

BLM is currently in the process of amending its resource management plans to direct Sage Grouse conservation at a state wide level. We suggest the decision for the playa project be placed on hold in order to insure compliance with the anticipated new RMP guidance. ***– Letter #5***

BLM response:

The BLM's Land Use Planning Handbook (H1601-1) states, "Existing land use plans decisions remain in effect during an amendment or revision until the amendment or revision is completed and approved." The EA summarized conformance with the existing land use plan on pages 21-22 of the EA.

The Handbook further states, "During the amendment or revision process, the BLM should review all proposed implementation actions through the NEPA process to determine whether approval of a proposed action would harm resource values so as to limit the choice of reasonable alternative actions relative to the land use plan decisions being reexamined." We have reviewed the statewide plan amendments; the actions proposed in the current EA do not limit the choice of alternatives relative to the ongoing Draft EIS/Resource management Plan.

The Handbook also says, "A decision to temporarily defer an action could be made where a different land use or allocation is currently being considered in the preferred alternative of a draft or proposed RMP revision or amendment. These decisions would be specific to individual

projects or activities and must not lead to an area-wide moratorium on certain activities during the planning process." The proposed actions in this EA do not involve any "allocations," let alone allocations that are different than those being considered in the state wide plan amendments. Therefore, there is no need to defer Decision on the actions proposed in this EA.

Other

68. The BLM should select Alternative 1 (or 2, 3, 4 or 5).

Comment(s):

Off-road travel should be avoided, but if it is necessary to implement treatments, the BLM should ensure that all impacts are rehabilitated after the completion of the project. ***– Letter #1***

If the goal is to help sage grouse, it will be better to remove livestock than build fences around playas that could cause sage grouse mortality. Also, fencing individual playas results in an unfavorable and excessive ratio of fence per unit of habitat. It would be better to exclude livestock from larger areas encompassing multiple playas, because the latter approach has a better ratio of fencing to habitat. ***– Letter #2***

In general, the juniper cutting should be focused on areas where there is the highest potential to benefit sage grouse and least impact to lands with wilderness characteristics (ie: in core habitat, but outside of LWC [lands with wilderness characteristics]). ***– Letter #2***

We are currently engaged in a number of ongoing conservation efforts to benefit sage-grouse and are encouraged about the benefits this project will provide to sage-grouse within the project area. The [US Fish & Wildlife] Service supports your efforts to restore, improve and protect habitat for sage-grouse. . . The Service appreciates the opportunity to comment on this project and we applaud your efforts to restore this limited habitat type for sage-grouse. ***– Letter #3***

The larger permanent exclosures proposed under alternative 3, compared with those in alternative 4, provide a farther set-back from the greenline/wet area of the playas and will promote larger patches of suitable brood rearing habitat for sage-grouse and their chicks in addition to creating larger amounts of suitable nesting habitat directly adjacent to the playas. It will also reduce pressure on the fences from livestock trying to access these greener areas later in the season than fences situated directly adjacent to the edge of the playas. ***– Letter #3***

The roads are fine. The roads do not bother the grouse. The grouse are already accustomed to the roads. The motor traffic fluffs up the road dirt and the grouse dust in the dirt. ***– Letter #4***

Grazing permits are fine in this area, ZX does a fine job of moving cows around to use the grass land, and the grouse like the new grass after grazing and the grouse move around and eat the bugs from the cow pies and the ZX is very conscious of the grouse. Do Not Fence Playas, the

grouse come in after grazing and eat the seeds from grasses after it has been grazed. ***– Letter #4***

Please take the opportunity to get to know this area. We have lived in the area for more than 20 years and know the wildlife habitat and habits of the area. We are willing to come in to the Prineville office and speak with or take someone interested around to the areas and show the habits and habitat in our area. ***– Letter #4***

Expansion of juniper control efforts into areas with Wilderness Characteristics is commendable. State and Transitions models readily illustrate the impact closed juniper woodlands have on species diversity and reinforce the old adage that "a mature forest is a biological desert". ***– Letter #5***

In Central Oregon, juniper control would have a larger effect on increasing desired sage brush habitat than filling in dugouts. ***– Letter #7***

We support the re-routing of roads away from playa areas. We also strongly support closing additional miles of roads, wherever possible, to minimize human disturbance to sage grouse and other wildlife. ***– Letter #9***

BLM response:

These comments express support for one or more alternatives or project design features that are already contained in the EA; propose an alternative that is outside the scope of this project (e.g., doesn't meet the purpose and need); or express non-support but don't present rationale for why the alternative is unreasonable.

No BLM response is necessary to these comments because they don't suggest that the analysis in the EA needs to be modified, or that there are other alternatives that would meet the purpose and need, or that an alternative needs to be removed, or that the actions would not be in conformance with policy or law.

69. The BLM should monitor project results and use a phased, incremental approach to implementation.

Comment(s):

As you continue to develop this project and study its environmental impacts, please consider utilizing an adaptive management strategy that maximizes benefits to sage-grouse and their habitat while minimizing the impacts to lands with wilderness character. We also urge the BLM to take a strategic, incremental approach to determine if the selected actions are having the desired effect of improving conditions for sage-grouse. ***– Letter #1***

While we understand and support the goal of returning playas to a more natural condition, we ask BLM to consider a phased, incremental approach to filling dugouts. As no scientific evidence is cited regarding the effectiveness of filling dugouts to improve habitat for sage-grouse and other wildlife, this project could provide an opportunity for BLM to study the positive and

negative impacts of filling dugouts and adjust their management accordingly. Dugouts identified as having little or no importance as a water source for livestock could be filled first to minimize the need for development of new water sources and related infrastructure. To lessen the impacts of new range developments on the naturalness of lands with wilderness character and maximize the benefits to sage-grouse habitat, the BLM should prioritize filling dugouts outside of lands with wilderness character but within Preliminary Priority Habitat (PPH). Please develop additional alternatives providing a full and realistic range of options for analysis and decision making on dugout filling and related management activities. Information gathered using the adaptive management framework could then be used to determine if filling selected dugouts has had positive impacts on sage-grouse habitat at which point further dugouts could be evaluated for similar work. ***– Letter #1***

BLM should carefully consider ONDA's suggestion for an adaptive management approach. Identify a small sub-set of the dugouts that have the highest potential for vegetative recovery and lowest likelihood to increase grazing impacts. Then monitor the success of filling the dugouts and conduct further filling when and if desired vegetation recovery occurs and clear benefits to sage-grouse are demonstrated without undue trade-offs/impacts from changed grazing use. ***– Letter #2***

However, if you decide to use temporary exclosures, the [US Fish & Wildlife] Service recommends monitoring vegetative response in the playas that are temporarily excluded from livestock grazing as well as those that are permanently excluded. For the temporarily excluded areas the Service recommends that you meet pre-determined vegetation objectives prior to removing the exclosure fencing and returning livestock grazing. Lambert (2005) recommends at least 3 to 5 years after seeding which will allow adequate tjme for the shrubs, forbs and grasses to become fully established wildlife habita. Pyke 2011, discussed rest from grazing and stated that "Although some authors believe that only a minimum of two years of protection is necessary (Stevens 1994), most believe that two years is too short when native plants are being used in the restoration (Stevens 2004, Shaw et al. 2005a). A good rule of thumb is to continue protection until two-thirds of the restored plants become reproductive. Stevens (2004) provides some guidelines for increasing the time of protection depending on the ecosystem and precipitation after seeding. Uses should aim to minimize defoliation and trampling during the most active growing period (from just before reproduction until after seed dispersal)." Some of these recommendations are for post-fire seeding, but considering the amount of ground disturbance that will occur when backfilling the playas the same recommendations should apply. ***– Letter #3***

We recommend that you monitor not only the vegetative response of the playas to the treatments against an un-fenced un-restored playa as a control site, but also whether or not sage-grouse use increases at the restored sites. ***– Letter #3***

All of the Action Alternatives ignore the Adaptive Management Strategy currently required by department policy for resource management programs. ***– Letter #5***

BLM could simultaneously study the dugouts in the Ram Lake Allotment that have already been filled and are no longer used as a water source to determine if filing does provide a benefit

(contrary to existing science). If after further study, the BLM wishes to move forward with filling more dugouts, the BLM should prepare a later EA to address filling in dugouts. Under this alternative, the Roths propose that the BLM develop qualified management objectives for playas and an active, objectives-based monitoring program. As it is presently drafted, the proposed action is not clearly tied to specific BLM management objectives. For example, what is the specific plant species composition desired by 2023? How much bare soil interspace reduction is sought? What compaction changes are desired? These management objectives should be included in the draft EA, which should propose a monitoring plan built around these objectives to measure progress and success. This will enable the Roths and BLM to understand the BLM's desired conditions of playas on these allotments. This alternative would fundamentally address the issues that need to be more thoroughly arialyzed in the draft EA and be consistent with current science, data, and grazing management on these allotments. Further, the Roths' alternative satisfies the BLM's legal requirements and the objectives for sage-grouse habitat. ***– Letter #7***

BLM response:

Several commenters said that since effects of filling dugouts are unknown, BLM should not immediately fill all dugouts, but instead start slow and monitor to make sure the effects are what we expected from the actions.

As mentioned above in response to Summary Statement #27, the BLM doesn't believe the effects on sage-grouse from filling dugouts and removing concentrated grazing on playas are unknown. The BLM has provided evidence for these assumptions. The commenters challenged the assumptions but did not provide information to explain why the assumptions are in error. Since the effects of filling dugouts are not unknown, a strict "adaptive management" approach (as outlined in the Department of Interior Technical Guide on Adaptive Management by Williams et al. 2009) is not appropriate.

Regardless, the BLM agree that a phased incremental approach to implementation that includes monitoring is often a good idea. This can be spelled out in the Decision Record regardless of alternative selected. The EA does not need to be modified to allow this.

Reference: Williams, B. K., R. C. Szaro, and C. D. Shapiro. 2009. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC.

Appendix C. Changes to EA to clarify meaning or intent.

- Chapter 1 proposed action, Chapter 2 Table 1, and Chapter 2 Alternative 2 description: Clarified that the sagebrush mowing would only involve playas dominated by silver sagebrush. This was already in other places in EA, but we wanted to make it very clear.
- Chapter 1 need for action: Deleted reference to failed Rangeland Health Standards in Chapter 1 because this was not the reason we chose this project area. The Ram Lake Allotment did fail to meet all RHS, but that was years ago and changes were already made to address problems.
- Chapter 1 decision factors: Clarified what was meant by "change grazing" so it was consistent with Chapter 1 proposed action and Chapter 2 alternatives.
- Chapter 1 decision factors: Added explanation about proposed grazing decisions and appeal periods. This is not required in an EA but a commenter asked about it.
- Chapter 2 Table 1: Corrected the number of existing troughs that would be retained to account for the up to seven that would be removed in Alternative 3, and added mention of the trough removal to Chapter 2 Alternative 3 dugouts and concentrated livestock grazing. The removal of troughs would only be done where there are enough troughs to continue to serve livestock. This action was already accounted for on the maps and in the analysis. Added reason for this action which is to reduce acres receiving concentrated grazing thereby improving sage-grouse nesting habitat.
- Chapter 2 Table 1: Moved info on number of livestock herds to Chapter 3 grazing economy narrative, and information on grazing system to Chapter 2, since these details are not part of current permit and not appropriate for a "summary" table.
- Chapter 2 Table 1: In response to a public comment, we split out by allotment here, instead of summarizing for all and then splitting out in each alternative description (though we kept the split out in alternatives as well).
- Chapter 2 Table 2: This table replaces text from the original EA to make it easier to view and comprehend. We deleted the display of "percent public land" and instead explained what it is.
- Chapter 2 Alternative 1 terms and conditions on grazing permit: We deleted "The BLM would continue to maintain exclosure fences regardless of alternative selected" because it is not part of the existing permits.
- Chapter 2 Alternative 1 terms and conditions on grazing permit: We mistakenly included two terms/conditions that were not on current permits: "1) This allotment is located within sage-grouse habitat. Public land grazing management may be adjusted if required by future direction and/or other requirements identified through sage-grouse habitat monitoring, and 2) Ensure that livestock grazing use helps achieve the objective of maintaining all acres in good ecological condition and improving all acres in fair or poor ecological condition." These two are now deleted.
- Chapter 2, Alternatives 2-5 PDFs: In response to a public comment on the EA, we clarified that BLM would require contractors (as well as BLM staff) to avoid off-road motor vehicle travel while implementing treatments.
- Chapter 2 Alternative 2: Added overview paragraph to the beginning of each alternative description to match Alternative 1. This is not new information, just a summary.

- Chapter 2 Alternative 2 vegetative treatments: Moved language about resting from grazing after vegetation treatments out of Chapter 2 (which wouldn't have grazing) to Chapter 3.
- Chapter 2 Alternative 2 livestock grazing permits: Expanded the first paragraph to make it clear what happens immediately versus what happens when/if BLM completes a plan amendment that makes the area unavailable for grazing. We added a table like in Alternative 1 to visually display information that was text in the original EA.
- Chapter 2 Alternative 3 dugouts and concentrated livestock grazing: Added mention that storage tanks would be large enough to store water to support livestock for three days. This was mistakenly left out of original EA.
- Chapter 2 Alternative 3 fences: Added mention that BLM would maintain exclosure fences. Initially this was in Alternative 1 grazing permit terms/conditions, and it carried through in all alternatives. Since it was removed from Alternative 1 terms/conditions, it is now added to Alternatives 3-5.
- Chapter 2 Alternative 3 livestock grazing permits: Added text to make it clear the changes in grazing period, grazing system and AUMs (in Table 1 in original EA) would be incorporated into permits. Clarified that changes in AUMs would not be made until BLM has provided alternative water to replace exclosed areas. Mentioned that there may be minor edits to percent public land to reflect more accurate ownership percentages. Expanded explanation of how AUMs put in suspension are calculated, and explained these are the maximum reduction and it may be less in the Decision. Clarified grazing period would begin no earlier than March 1; original EA listed April 1 which was an error.
- Chapter 2 conformance with land use plan and other policy or regulation: Deleted the paragraph that said Alternative 1 would not conform to 43 CFR 4180. It is not applicable because changes were already made years ago to address failure of Ram Lake Allotment to meet rangeland health standards (RHS). Chapter 3 introduction: Added and deleted a few lines in the last two paragraphs to reflect that grazing was changed years ago to address failure of Ram Lake Allotment to meet RHS.
- Chapter 3 economics: Added information on number of pastures and how often they are rested. Made changes to show that effects of revenue from ZX Allotment would be split between Lake County Oregon, Deschutes County Oregon, Elmore County Idaho and Walla Walla County Washington. This did not change the analysis of effects. Added updated county income and farm earnings to reflect more recent info from the US Department of Commerce.
- Chapter 3 economics: Added information to EA on an issue the BLM had considered but eliminated, "How would installation of water developments and cross fencing affect permittees and the local economy?"
- Maps: Re-did the Alternative 3 EA map because it had errors. Early in planning for this project the BLM considered piping water to playas in dry years. This action was abandoned for several reasons; however, we inadvertently left this proposal on the Alternative 3 maps published with the EA. The maps have been corrected and re-posted with the EA on the BLM's public web site.