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STATE OF NEVADA
Sagebrush Ecosystem Program

SAGEBRUSH ECOSYSTEM COUNCIL
STAFF REPORT
MEETING DATE: February 13, 2014

DATE: February 7, 2014

TO: Sagebrush Ecosystem Council Members

FROM: Sagebrush Ecosystem Technical Team
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THROUGH: Tim Rubald, Program Manager
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SUBJECT: Proposed revisions to the State's Alternative E of the Livestock Grazing section within the Sub-Regional BLM/USFS DEIS.

SUMMARY

The current livestock grazing section of the State alternative within the DEIS has been reviewed and revised by the SETT with guidance from Science Work Group meetings (See Attachment 1). These changes reflect a more robust version that frequently references the "Habitat Objectives" described in Table 2.6 (of the DEIS) that the SEC adopted at their December 18, 2013 meeting. This table is incorporated into the State's revised plan in section 4 as Table 4-1(See Attachment 2).

PREVIOUS ACTION

March 27, 2013. The Council directed the SETT to meet with USFWS and NDOW staff to discuss the USFWS comments on the Nevada State Plan and report back to the Council.

April 22, 2013. The Council directed the SETT to further develop the Nevada State Plan and the EIS Alternative to incorporate the concerns expressed by the USFWS.

December 18, 2013. The Council directed the SETT to work with the Science Work Group in order to further develop sections within the State Plan and State Alternative on livestock grazing.

December 18, 2013. The Council approved the addition of Section 4 and the habitat objectives described in Table 4-1 of the revised State Plan.

January 8, 2013. The Council approved the withdrawal of Section 7.0 within the State Plan that referred to De Minimis activities, in part due to the approved revisions within Section 3 of the State Plan and the understanding that the State's Alternative

(E) within the BLM/USFS DEIS and future revision to Section 6.5 Improper Livestock Grazing would be further developed and revised to address the USFWS' concerns.

BACKGROUND

At the December 18, 2013 meeting, the Council further directed staff to review, through the Science Work Group, Section 6.5 Improper Livestock Grazing as well as the livestock grazing section of the State Alternative (E) within the BLM/USFS DEIS.

SETT staff met with the SWG on two different occasions to further develop an alternative for Livestock Grazing Goals, Objectives, and Management Actions for incorporation into the BLM/USFS DEIS.

The SETT incorporated new and existing language for consideration of adoption by the SEC for immediate inclusion into the State's Alternative (E) within the BLM/USFS DEIS and future revision to Section 6.5 of the State Plan. The intent was to adequately address the shortfalls cited in the USFWS' September 14, 2012 comment letter (See Attachment 3).

FISCAL IMPACT

None

RECOMMENDATION

Staff recommends the adoption of these revisions or as they may be amended by the Council. If there are items that the Council believes are not adequately addressed, the Council might choose to provide direction to the SETT to further address any outstanding items, while realizing to be included in the Final EIS time is of the essence.

POSSIBLE MOTION

Should the Council agree with the staff recommendation, a possible motion would be, "Motion to accept (with amendments) the proposed revisions to language addressing livestock grazing in the State's Alternative (E) within the BLM/USFS DEIS and for future incorporation into the State Plan, Section 6.5 Improper Livestock Grazing".

Attachments:

1. Revised language addressing livestock grazing in the State Alternative (E) within the BLM/USFS DEIS and for future incorporation into Section 6.5 Improper Livestock Grazing of the State Plan.
2. Nevada State Plan – Section 4 – Habitat Objectives
3. USFWS Informal Draft Comments on Nevada Strategic Plan for Conservation of Greater Sage-Grouse, September 14, 2012.

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Goals and Objectives:
Livestock Grazing Excerpts for the revised State of Nevada Alternative

Point of Clarification – At their January 23, 2014 meeting, the SEC adopted a new boundary for their SGMA and also four management categories within that boundary based upon the habitat suitability model developed by the USGS for the State of Nevada. In this document, the term "GRSG habitat" will refer to all areas within the Core, Priority, and General Management Categories within the SGMAs.

Alternative E – State of Nevada Alternative (Revised by the SETT with guidance from the SWG January 2014)

- Ensure that existing grazing permits maintain or enhance Greater Sage-grouse (GRSG) habitat. Utilize livestock grazing when appropriate as a management tool to improve GRSG habitat quantity, quality, or to reduce wildfire threats. Based on a comprehensive understanding of seasonal GRSG habitat requirements, and in conjunction with the need for flexibility in livestock operations, cooperatively make timely, seasonal range management decisions to meet vegetation management objectives, including fuels reduction.

- In GRSG habitat, manage for vegetation composition and structure that achieves GRSG seasonal habitat objectives (see Table 2.6), enhancing resilience and resistance based upon the ability of the ecological site to respond to management. This objective recognizes spatial and temporal variations across seral stages.

Management Actions: Livestock Grazing Excerpt for the revised State of Nevada Alternative

Alternative E – State of Nevada Alternative (Revised January 2014)

- Within GRSG habitat, incorporate GRSG habitat objectives (see Table 2.6) and management considerations into all BLM and Forest Service grazing allotments through allotment management plans (AMPs), multiple use decisions, or permit renewals and/or Forest Service Annual Operating Instructions.

  Implement appropriate prescribed grazing conservation actions at scales sufficient to influence a positive population response in GRSG habitat, such as NRCS conservation Practice Standard 528 for prescribed grazing (NRCS 2011).

- In GRSG habitat, work cooperatively on integrated ranch planning within GRSG habitat so operations with deeded land, and BLM and/or Forest Service allotments, can be planned as single units.

- Continue land health assessments on BLM public lands or other monitoring methods on Forest Service-administered lands in GRSG habitat to evaluate current conditions as compared to GRSG habitat objectives described in Table 2-6. Incorporate the results of BLM and Forest Service monitoring and land health assessments into future management applications to ensure progress toward meeting GRSG habitat objectives. Incorporate terms and conditions into grazing permits and adjust these as needed through monitoring and adaptive management to meet GRSG habitat objectives.

- Implement management actions (grazing decisions, Annual Operating Instructions [Forest Service only], AMP/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal GRSG habitat objectives as defined in table 2-6 where livestock grazing is identified as the primary cause of not meeting those objectives. Consider singly, or in combination, changes in:
  1. Season, timing (duration) and/or rotation of use;
  2. Distribution of livestock use;
  3. Intensity of use;
  4. Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats; Briske et al. 2011); and

5. Numbers/ AUMs of livestock and other ungulates (includes temporary nonrenewable use, nonuse or livestock removal).

- Grazing management strategies for riparian areas and wet meadows should, at a minimum, maintain or achieve riparian Proper Functioning Condition (PFC) and promote brood rearing/summer habitat objectives, as described in Table 2-6, within GRSG habitat. Within GRSG habitat, manage wet meadows to maintain a component of available perennial forbs with diverse species richness to facilitate brood rearing and stabilizing riparian species (Burton et al. 2011) near where water flows to achieve or maintain PFC. Use Ecological Site Descriptions (ESDs) or locally relevant information about soils, hydrology, soil moisture, and site potential to set realistic objectives and evaluate assessments and monitoring data (Swanson et al. 2006). Also conserve or enhance wet meadow complexes to maintain or increase amount of edge and cover near that edge to minimize elevated mortality during the late brood rearing period (Hagen et al. 2007; Kolada et al. 2009a; Atamian et al. 2010).

- Authorize new water development for diversion from spring or seep sources only when GRSG habitat would not be net negatively affected by the development. This includes developing new water sources for livestock as part of an AMP/conservation plan to improve GRSG habitat.

- Analyze springs, seeps and associated pipelines to find mutually beneficial opportunities to restore functionality to riparian areas within GRSG habitat, and allow those opportunities to be developed.

- In GRSG habitat, encourage and only allow vegetation treatments that conserve, enhance or adaptively restore resilience and resistance within GRSG habitat. This includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve GRSG habitat.

- Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to GRSG habitat to determine if additional efforts should be made to restore sagebrush or habitat of a higher quality for GRSG. If these seedings are part of an AMP/Conservation Plan or if they provide value in conserving, enhancing, or protecting the rest of the GRSG habitat, then no restoration may be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments (Davies et al. 2011) (or other analyses such as the Humboldt-Toiyabe Resource Implementation Protocol for Rapid Assessment Matrices (USDAFS - HTNF 2007)

- In GRSG habitat, design any new structural range improvements and plan the location of supplements (salt or protein blocks) to conserve, enhance, or restore GRSG habitat to meet GRSG objectives (see Table 2.6). Structural range improvements, in this context, include but are not limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or their increase following construction must be considered in the project plan and then monitored, treated, and rehabilitated post-construction.

- Salting and supplemental feeding locations, temporary and/or mobile watering and new handling facilities (corrals, chutes, etc.) would be located at least 1/2-mile from riparian zones, springs, meadows, or 1 mile from active leks in GRSG habitat, unless the pasture is too small or another location offers equal or better habitat benefits. The distance should be based on local conditions.

- To reduce GRSG strikes and mortality, remove, modify or mark fences in high risk areas within GRSG habitat based on proximity to lek, lek size, and topography (Christiansen 2009; Stevens 2011). Consideration of the utility of the fence should also be taken into consideration to ensure that its removal does not promote degradation of the overall management for habitat or other objectives (Swanson et al. 2006).

- In GRSG habitat, monitor, treat and if necessary, rehabilitate sites with invasive species associated with existing range improvements (Gelbard and Belnap 2003; Bergquist et al. 2007). State listed noxious weeds (NRS 555) should be given the highest priority. In general, monitor, map, treat (using IPM and associated tools), and rehabilitate sites with invasive and noxious weed species, especially those associated with disturbance activities.

- On all voluntary relinquishments in GRSG habitat, prior to permanent retirement of grazing, every option to allow responsible management of livestock grazing on permitted land should be considered.

- Prior to implementation, establish project monitoring sites where vegetation treatment is planned and monitor at least annually during the recovery period. To ensure effective recovery, monitoring should continue for a number of years immediately following the livestock exclusion period, depending on local site conditions.

- Grazing permit transfers would not be approved without review of GRSG habitat conditions. Where GRSG objectives (See Table 2-6) are not being met in an allotment and causal factors are attributable to livestock grazing or lack of grazing, adjust the

annual grazing authorization or operating instructions. The Habitat Assessment Framework (Stiver et al. 2010) will be the tool to determine the level to which standards are or are not being met.

- Under appropriate conditions, implement Drought Policy (BLM 2011c) to protect GRSG habitat. Implement post-drought management to allow for vegetation recovery that meets resistance, resilience, and GRSG life cycle needs in GRSG habitat.

- During the annual grazing application, work with permittees to avoid consistent concentrated turn-out locations for livestock within approximately 3 miles of known lek areas during the March 1 to May 15 period. During the March 1 to May 15 period, avoid domestic sheep use, bedding areas, and herder camps within at least 1.24 miles (2 kilometers) of known lek locations. Utilize land features and roads on maps provided to the permittee to help demarcate livestock use avoidance areas. Require terms and conditions language for affected livestock grazing permits regarding livestock use during the lekking period.

- Expand the promotion of proper livestock grazing practices that promote the health of perennial grass communities as this condition has been found to suppress the establishment of cheatgrass (Blank and Morgan 2012). Field research has demonstrated that moderate levels of livestock grazing can increase the resiliency of sagebrush communities, reduce the risk and severity of wildfire, and decrease the risk of exotic weed invasion (Davies et al. 2009 and Davies et al. 2010).

- Identify and apply appropriate habitat management (e.g. livestock management and vegetation treatments), and nonlethal practices (e.g. control of artificial nest and roost sites) that decrease the effectiveness of predators.

- To reduce the risk of fire and enhance restoration in large contiguous blocks of cheatgrass-dominated sagebrush or sage grouse habitats that are next to highly flammable cheatgrass dominated lands, create local NEPA documented plans to use dormant season temporary nonrenewable (TNR) AUM authorizations and stewardship contracted grazing to reduce fuels in areas dominated by invasive plants.

- To aid in planning adaptive management for the purpose of maintaining health of important forage plants (perennials needed for resilience and resistance), cooperatively strategize how various areas in GRSG habitat allotments can be managed differently each year to achieve positive grazing response index scores (Perryman et al 2006; Reed et al. 1999; Wyman et al. 2006; and USDA USFS 1996) and meet resource objectives.

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4.0 Habitat Objectives for Greater Sage-grouse in Nevada

The purpose of the habitat objectives for sage-grouse is to describe what is generally considered to be the highest quality seasonal habitat for greater sage-grouse, specific to Nevada. The objectives do not outline what is and what is not habitat, but depict the characteristics of seasonal habitats that sage-grouse in Nevada are using most successfully, based on research in Nevada. The objectives are appropriate at the site-scale and do not address landscape-scale patterns and characteristics.

The State of Nevada will work to maintain and manage sage-grouse habitat to meet these objectives across the sagebrush ecosystem in the state. The habitat objectives will be used to evaluate management actions that are proposed in sage-grouse habitat to ensure that 1) habitat conditions are maintained if currently meeting objectives, or 2) habitat conditions move toward these objectives if the current conditions do not meet these objectives. All proposed sage-grouse habitat mitigation, restoration, reclamation, or enhancement projects will incorporate these characteristics as project habitat objectives and will be the basis for determining success of these projects through long-term monitoring and adaptive management. When habitat within the state is identified as not meeting these objectives, the State will work with land managers to recommend adjustments in management to work towards these objectives, including an assessment of the causal factors. The proposed habitat objectives themselves are not regulatory, but are intended to help guide planning and adaptive management.

These objectives were developed by a team consisting of representatives from the USFWS, NDOW, USFS, USGS and BLM. The team reviewed and the Connelly et al. (2000) guidelines adding considerable detail and making adjustments based on regionally and locally derived data and analysis by the USGS. The State of Nevada's Science Work Group also reviewed these objectives before they were included in the State Plan. These habitat objectives are specific to Nevada and based on research conducted within the State. Additional information on the development of these objectives in provided in Appendix B.

The State of Nevada recognizes that a resilient and resistant sagebrush ecosystem should be heterogeneous across the landscape and that achievement of these objectives resulting in a large-scale homogenous landscape is not desirable within the State of Nevada. These objectives are intended to be used as guidelines at the site-level and do not apply as objectives at the landscape-level.

Table 4-1. Habitat Objectives for Greater Sage-Grouse

Life Requisite	Habitat Indicator	Objective	Citations
GENERAL			
All life stages	Rangeland Health Indicator Assessment	Meeting all standards[1]	
LEK			
Cover	Availability of sagebrush cover	Has adjacent sagebrush cover	Connelly et al. 2000 Blomberg et al. 2012

Life Requisite	Habitat Indicator	Objective	Citations
Security	Proximity of trees > 1 meter above shrub canopy	Within 1.86 miles (3 km): • none within line of sight of the lek	Connelly et al. 2000 (modified)
	Tree cover	Within 1.86 miles (3 km): • <3.5% conifer land cover	
NESTING			
Cover	Sagebrush canopy cover (%)	≥20	Kolada et al. 2009a Kolada et al. 2009b
	Sagebrush species present	Includes *Artemesia tridentata* subspecies	Coates et al. 2011 Kolada et al. 2009a Kolada et al. 2009b
	Residual and live perennial grass cover (%)	≥10 if shrub cover <25[2]	Coates et al. 2011 Coates and Delehanty 2010
	Annual grass (%)	<5	Blomberg et al. 2012
	Total shrub cover (%)	≥30	Coates and Delehanty 2010 Kolada et al. 2009a Lockyer et al. In review
	Conifer encroachment (%)	<5	Casazza et al. 2011 Coates et al. In prep (A)
Security	Proximity of tall structures	None within 3 miles (5km)	Coates et al. 2011
BROOD-REARING/SUMMER			
Cover	Sagebrush canopy cover (%)	≥10	Connelly et al. 2000
Cover and Food	Perennial forb canopy cover (%)	>5 arid >15 mesic	Casazza et al. 2011 Lockyer et al. In review
Food	Riparian Areas/Meadows	Manage for PFC	
	Perennial forb availability (riparian areas/meadows)	≥ 5 plant species present[3]	Casazza et al. 2011
Security	Conifer encroachment (%)	<3 phase I (>0% to <25% cover) No phase II (25 – 50% cover) No phase III (>50% cover) within 0.53-mile (850-meter) buffer of microhabitat plot	Casazza et al. 2011 Coates et al. In prep (A)

Life Requisite	Habitat Indicator	Objective	Citations
	Riparian Area/Meadow Interspersion with adjacent sagebrush	Perimeter to area ratio of 0.15 within 522-foot (159-meter) buffer of the microhabitat plot	Casazza et al. 2011
WINTER			
Cover and Food	Sagebrush canopy cover (%)	≥10	Connelly et al. 2000
	Sagebrush height in centimeters(cm)	≥25	Connelly et al. 2000
	Conifer encroachment (%)	<5 phase I (>0% to <25% cover) No phase II (25 – 50% cover) No phase III (>50% cover) within 0.53-mile (850-meter) buffer of microhabitat plot	Coates et al. In prep (A) Coates et al. In prep (B)
	Sagebrush extent (%)	>85% sagebrush land cover within 0.53-mile (850-meter) buffer of the microhabitat plot	Coates et al. In prep (B)
	Sagebrush species comp (%)	*A. t. tridentata* sites >50% *A. arbuscula* sites >25% *A. t. vaseyana* sites >25%	Coates et al. In prep (B)

[1]Upland standards are based on indicators for canopy and ground cover, including litter, live vegetation, and rock, appropriate to the ecological potential of the site. The Rangeland Health Indicator Assessment is already implemented on BLM lands. The assessment process will not trigger specific land use decisions, but instead will provide information to determine if further action is necessary.

[2]Assumes upland rangeland health standards are being met.

[3]Standard considered in addition to PFC. Measured ESD/Daubenmire (25cm x 50cm frame). Includes all mesic plant species, not only perennial forbs.

U.S. Fish and Wildlife Service Informal Draft Comments on Nevada Strategic Plan for Conservation of Greater Sage-Grouse
September 14, 2012

General Comments

- We encourage greater deference be afforded to the Nevada Department of Wildlife's (NDOW) Habitat Categorization Map. We consider this approach scientifically defensible and it affords great utility at understanding current bird distribution. Also, this product and its associated components help target areas of restoration.
- We request quantification on the amount of acreage identified through the NDOW mapping process (Categories 1-4) that was captured/excluded from the Nevada Plan mapping effort in order to better understand our baseline or starting place.
- It will be impossible for the Service to consider this Plan an adequate regulatory mechanism without identification of specifics with regard to the 'how' and 'when' an action is denied or altered (thresholds, triggers).
- The concept of No Net Loss needs additional clarification as it pertains to 5% per 640 acre disturbance discussion and 20% Potential Habitat disturbance discussion.
- The avoid, minimize, and mitigate approach is generally the structure adhered to on federal lands under the National Environmental Policy Act (NEPA). The Service determined in 2010 this was inadequate.
- Habitat loss due to Acts of God (Fire and Invasive species) will occur. This loss needs to be taken into consideration and adaptive management principles need to be built into the regulatory process to deal with these events.
- Funding and mechanism for implementation needs to be identified.

Specific Comments

1.0 Introduction – p.1, 3rd paragraph

The standard or rationale for developing the Nevada Plan was to address the Service determination of inadequate regulatory mechanisms in our 2010 12-month Finding.

Mapping – p.2

We would submit that the final mapping product appears generally reasonable but we would appreciate clarification. Specifically, we would be interested in a comparison with NDOWs Habitat Categorization Map to ascertain how much Habitat Category 1, 2, and 3 is captured within the SGMA and how much is excluded. Further, we consider the NDOW mapping effort to be a defensible product and consider deviation based on rationale other than sage-grouse ecology to be challenging in light of our 2010 Finding.

2.0 Definitions – p.4

- **Sage-grouse Management Areas** – *"Delineation of the SGMA does not imply any degree of regulatory control or impose land-use restrictions for land-use management decisions for these lands."* This statement is contrary to the rationale for developing this plan (see Introduction) and certainly affords the Service no reason for changing our 2010 opinion on the inadequacy of regulatory mechanisms.
- **Occupied Habitat** – There needs to be clarification on the burden of proof, scale, and rationale associated with the phrase "*last five years*". Important corridors connecting basins with ridge-tops are likely used briefly and as such will have limited documentable sign of use. On a number of occasions, the Service has engaged in conversations with stakeholders that dismiss bird occurrence in some specific locale, when ultimately more intensive study demonstrates occurrence.
- **Suitable Habitat** – Definition needs clarification. This seems to be the same as Occupied Habitat.
- **Potential Habitat** – Definition needs clarification. We believe the intent is to identify habitat that is not suitable but could be if logistically reasonable restoration action is undertaken (i.e., PJ thinning). However, as worded it appears some Potential Habitat could be Occupied Habitat.
- **Last paragraph** – Our comments on this statement links to mapping and rationale for utilizing 85% Core, as defined by Doherty (2010). Policies outlined in Nevada Plan are not applicable to sage-grouse and suitable habitat outside the SGMA's. Our concern is that, if we start with 85% and this is further segregated in to various habitat classification (Occupied, Suitable, etc.), which presumably influences degree of concern by future Committee/Technical Team, the map extent appears to move in one direction – toward less. Further, there may be indirect or direct effect to populations within SGMA's due to activity immediately outside SGMA's, especially if these habitats are occupied by sage-grouse.

3.0 NV Conservation Goals and Strategies – p. 5

1. The plan appears to aspire to "no net loss" of sage grouse habitat from development - this is good. The sentence as written, however, is slightly confusing. We interpret it mean no net loss of sage-grouse/habitat but the use of "for" instead of "from" in front of the word "activities" could be interpreted to mean no net loss of activities. Thus, we would appreciate clarification of this statement.

2. The plan states that Nevada should be "held harmless" for habitat loss due to fire and invasive species. Assuming this, it is difficult to credit the State Plan with addressing the biggest threat to sage grouse - fire and invasive species - even though there are several pages of the plan dedicated to this topic. We agree that federal lands fire issues are difficult for the state to control, but we would encourage articulating a clear vision for addressing this threat that federal agencies could evaluate. Specifically, disturbance by fire should be considered when evaluating the appropriateness of additional disturbance created through authorized activities.

"Avoid, Minimize Mitigate" - p. 5.

This approach is current policy under NEPA and Service determined this was inadequate. There needs to be identified specific thresholds and or triggers for the determination and application of each of these.

3. **Avoid** – "*Where ever possible*" – This definition needs further refinement with associated thresholds or Service is challenged to alter from 2010 Finding determination.

4. **Minimize** – "*Furthest extent practical*" – This definition needs further refinement with associated thresholds or Service is challenged to alter from 2010 Finding determination. These are Best Management Practices that are typically applied today. Some may have utility (although there is uncertainty here), but there are generally not silver bullets to these complex problems.

5. **Mitigate** – "*After all appropriate and practicable*" – This definition needs further refinement with associated thresholds or Service is challenged to alter from 2010 Finding determination.

There are fundamental challenges to AMM approach.

- Nevada has a substantial stewardship responsibility for sage-grouse across the West.
- Loss habitat will occur due to factors outside of our control – Acts of God.
- Habitat restoration in the southern Great Basin is difficult.
- Reestablishment of sage-grouse, either actively or passively, into locations following extirpations is not easily accomplished.
- Measuring and accounting for the cumulative effect of this approach will be essential.
- If the AMM approach, without associated thresholds, is adopted, we will continue to reduce extant habitat and sage-grouse populations will be mitigated in a negative direction.

Three general conservation policies – p. 5.

1. "*Conserve greater sage-grouse ...consistent with economic vitality...*" – We request clarification of this statement. What will be the economic and conservation thresholds that determine vitality?
2. We request additional clarification of this statement. Namely, "*all means*" but additionally do you foresee instances where activities will be incompatible with sag-grouse conservation. Further, this ties back to mapping effort - While avoid, minimize, and mitigate will proceed within SGMA, will known sage-grouse habitats outside of SGMA receive this same "degree" of protection. If not, this will actually diminish the current standard on federally managed lands under NEPA, which the Service determined inadequate.
3. A broad coalition – This is great.

p. 5, last paragraph – We are unsure what is meant for sage grouse by, "best possible outcome," here.

3.1 Management Strategy in Occupied Habitat – p. 6

Suitable Habitat should be included under this category.

1. P. 5 of Plan states a goal of "no net loss" and this bullet seems to contradict this goal. While the Service will temporarily defer our opinion on the adequacy of a 5% disturbance standard per 640 acres, we contend that simply triggering an evaluation is not adequate and needs additional clarification. We submit that if a specific percent standard were to be adopted, the regulatory process would need to be able to enforce this cap. To be clear, we anticipate all activities that would disturb sage grouse and their habitat (including from invasive species encroachment) would be included in this cap.
2. While we recognize that a significant amount of winter habitat has been impacted by wildfire, we are unclear as to why winter range alone was identified specifically? You could also include nesting habitat in this sentence as quality is influenced significantly by shrub cover and, additionally, you could add a bullet that restricts treatments in brood-rearing habitat to those that maintain or expand current extent or quality of mesic or meadow habitat available in the summer.
3. Great
4. Great

3.2 Management Strategy in Potential Habitat – p. 6

1. Great
2. Not entirely clear on this bullet. As written, it states that habitat disturbance (from any number of human activities?) could occur in potential habitat but not exceed 20% per year per SGMA. If potential habitat represents those sites that are unoccupied but logistically feasible to bring back to suitable habitat – 20 percent seems excessively high as you are dismissing areas that can offer future "lift". This implies that in 5 years, all potential habitats could be converted to non habitat (mine, wind, geothermal, etc.). On the other hand, it is not clear why we would limit the amount of restoration activities that could occur per year in potential habitat, unless potential habitat was actually occupied habitat. I believe you are misusing Connelly *et. al.* 2000. He is referring to occupied habitat and additionally his time frame is not annually but 2-3 decades, depending on habitat?
3. Great

3.3 Management Strategy in Non-Habitat – p. 6

1. Need to remain cognizant of potential impacts caused by indirect effects of activities occurring outside of suitable habitat (such as noise or predator subsidy) and scale at which non-habitat is mapped. Also can these activities be encouraged to be sighted outside SGMA's? This, of course, would further depend on the rationale underlying the adopted map.

3.4 Interim Strategy - p. 7

Until such time the regulatory process (criteria, thresholds, triggers, etc) of this Plan are established, we submit that adoption of this Plan (#s 1, 5, 7) would undermine current BLM and

USFS direction and would run counter to the determination made by the Service in our 2010 Finding with respect to inadequate regulatory mechanisms. Further, we contend the "grandfathering" clause (#2) (as of July 31, 2012) runs counter to over a decade of efforts towards recognizing the need and working toward sage-grouse conservation. While it is reasonable that ongoing, non-expanding, projects should have no additional obligations, activities that have yet to receive a decision under NEPA should be evaluated.

4.0 Implementation Responsibilities

We are unclear what impacts of listing the sage grouse would include that are "well documented," – please document – or what, "significant negative impacts" would occur. We understand the perceptions here, and if we specifically can say what it is we'd like to avoid, we may be more successful in doing so in the event sage grouse are listed. Also, we believe that if this state plan is to be effective, then the effects of a decision to list sage grouse should not be much different than the effects of this plan.

4.1 Sage-grouse Advisory Council – p. 8

The individual topics addressed in this section are each important. The Service offers comments on selected topics, identified by bulleted number contained within the Plan. We have no comments on the topics not identified.

3. This topic is incredibly important and will establish the ground work from which the Service can assess the regulatory adequacy of this Plan.
5. Again, funding is a critical topic, which will facilitate the Service in forecasting potential for conservation.
10. We submit that the Council's activities should be adaptive. Thus, some degree or form of latitude should be granted.

5.0 Sage-Grouse Management Area Map Recommendations – p. 11

- We would submit the best available science initiated the mapping efforts but after refinements based on an unclarified rational, the SGMA Map was derived. While we appreciate the Committee's effort toward mapping, we would encourage the adoption of the NDOW's Habitat Categorization map and then pursuing refinements as new data are collected.
- Can the SGMAs be altered to include additional habitat or do these areas only get smaller?
- #5 – We are not clear as to what "exempt from additional regulations" implies?
- Last Paragraph – I am not sure what is implied by this statement. How will areas of known development be considered going forward. If these activities are to be "grandfathered in", the area should not be excluded from the map and this existing disturbance should be considered when evaluating new developments.

6.0 Threat Assessment and Recommended Actions

Our comments on individual threats contained in this section are generally captured under the Avoid, Minimize, and Mitigate section above. As worded, several sections lead us to believe the

adopted standard for burden of proof is 'demonstrate harm' and not 'demonstrate no harm.' This may be important in the perception or reality of perpetuating 'business as usual.' We anticipate thresholds, standards and actions would need to be identified and established.

7.0 De Minimis Activities

In general, the Service considers ranching operations and many ranching practices, when conducted in a sustainable manner, to generally be not incompatible with sage-grouse conservation. However, we encourage the review of individual practices and adoption of alternative approaches when they afford a positive influence on the species. There may be straightforward, practical, proven ideas that have not caught on within the agricultural and ranching communities.

We are recently becoming aware of concerns over a potential relationship between livestock grazing and the spread of invasive species such as cheatgrass. If such a relationship exists, then we would perceive livestock grazing to be of significantly greater concern to sagebrush ecosystem conservation. We encourage further exploration of this topic.

1. Timing of husbandry practices should be taken into consideration. We have witnessed sheep bands bedded down on leks sites during the leking season.
2. We are not sure what all is covered under "existing farming practices" but there may be practices that could be altered to afford a little more deference for the species without being overly burdensome on the producer. For example, cutting alfalfa or other pasture grass, starting from the inside of the field and working out, outfitting equipment with "flushing bars" when feasible, or altering livestock access to riparian areas in order to maintain stream and associated meadow integrity.
3. We assume all allotments have an associated Federal management plan. Thus, we infer from this bullet that all operations with allotments would be immune from any regulation adopted through this Plan. We contend that while an allotment plan may be appropriate, meaning it represents a sustainable prescription, implementation is a separate issue and one that requires follow-through. Some allotments remain degraded regardless of prescription or language contained in the management plan. Thus, we do not consider all operations that have existing management plans to be a de minimus activity but only those that actively and effectively implement prescriptive grazing plans, which are compatible with sage-grouse habitat requirements.
4. We would encourage as little infrastructure development as possible within four miles of a lek regardless of construction timing. Most hens nest in proximity to lek sites (this is what informs Doherty's model). Concentrating cattle through tank development or installing windmill structures, which are often used as nesting substrates by ravens within this four mile lek buffer would not be ideal.
5. We would strongly encourage limiting new aboveground transmission lines within four miles of lek sites.
6. No comment
7. We would discourage new fences within 1.25 miles of a lek or other sites where seasonal congregations of sage-grouse occur. Also, we would encourage exploring other fencing

options such as electric or let down in lieu of traditional, three or four strand wire designs.

8. No comment
9. Mesic sites are incredible important to sage-grouse in Nevada. When considering how much is "enough water", we would encourage deference be afforded to sage-grouse.
10. We are not familiar with the RAAT protocol. Grasshopper's do, however, represent an important dietary item for developing chicks. Thus, we would encourage limiting herbicide application intended to reduce insect numbers.
11. No comment
12. No comment
13. No comment