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STATE OF NEVADA
Sagebrush Ecosystem Program

SAGEBRUSH ECOSYSTEM COUNCIL
STAFF REPORT
MEETING DATE: November 18, 2013

DATE: December 12, 2013
TO: Sagebrush Ecosystem Council Members
FROM: Sagebrush Ecosystem Technical Team
Telephone: 775-684-8600
THROUGH: Tim Rubald, Program Manager
Telephone: 775-684-8600, Email: timrubald@sagebrusheco.nv.gov
SUBJECT: Discussion and possible consideration of proposed revisions to Section 3.0: Goals and Objectives of the 2012 State Plan.

SUMMARY

This item presents revisions to Section 3.0: Goals and Objectives of the 2012 State Plan. This item was originally presented at the July 30, 2013 SEC meeting. The SEC provided direction to the SETT on how to proceed with this item at the September 12, October 10, and November 12, 2013 SEC meetings, which has been incorporated into this document. The purpose of this item is to update the 2012 State Plan in order to address concerns expressed by the USFWS and provide sufficient detail for BLM to analyze it as an alternative in their EIS.

PREVIOUS ACTION

March 27, 2013. The Council directed the SETT to meet with USFWS and NDOW staffs 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.

July 30, 2013. The Council adopted the Sagebrush Ecosystem Strategic Detailed Timeline, which included revision of the State Plan/ EIS Alternative.

July 30, 2013. The SETT presented proposed revisions to the 2012 State Plan. The Council assigned the SETT to address Council comments, questions, and concerns on the revisions for the following Council meeting.

September 12, 2013. The Council approved a definition for “avoid”, to include no new mandatory set-aside areas or exclusion zones and directed the SETT to develop a proposal for the “avoid process.”

October 10, 2013. The Council approved the following items related to the proposed revisions to the 2012 State Plan: any proposed anthropogenic disturbance within SGMAs will trigger SETT consultation; the proposed “avoid process”; revisions to the “Acts of Nature” objectives section; and indirect impacts should be evaluated for all disturbances within SGMAs.

October 10, 2013. The Council directed the SETT to work with the Science Work Group on questions related to maximum allowable disturbance (MAD) and directed the SETT to develop Best Management Practices (BMPs) for the “minimize” policy for Council consideration.

November 18, 2013. The Council further discussed revisions to the 2012 State Plan and provided direction to the SETT on revisions.

DISCUSSION

At the direction of the SEC, the SETT first presented proposed revisions to Section 3.0 of the 2012 State Plan at the July 30, 2013 SEC meeting to address USFWS’ concerns and provide sufficient detail for the BLM to analyze as an alternative in their EIS. The SEC continued to discuss and consider the proposed revisions at their successive September, October, and November meetings and provided direction to the SETT on how to proceed with the revisions.

This revision of Section 3.0 compiles all revisions that the SETT has made following direction from the SEC since it was originally presented at the July 30, 2012 SEC meeting. In the Proposed Revisions to Section 3.0 of the 2012 State Plan (Attachment 1), additional revisions since the November 18, 2013 meeting are highlighted as comments with a specific explanation to assist the Council’s review of the document. The following revisions were made by the SETT since the November meeting and are being presented for SEC consideration and possible approval:

- The section on cumulative impacts has been withdrawn. The proposed policy triggers a “soft cap” of an increased mitigation rate, instead of a “hard cap” of disallowing further development. Since the contract with Environmental Incentives, LLC to develop the Conservation Credit System (CCS) is underway; the SETT recommends that the SEC direct the SETT to work with the CCS contractor to consider cumulative impacts on sage-grouse habitat at the population level in the development of the CCS metrics.
- Proposed detail on the structure of CCS has also been withdrawn for the reasons stated in the previous bullet. Instead, the SETT recommends that the SEC direct the SETT to work with the CCS contractor to consider proposed CCS structure and policies in the development of the CCS.
- Conservation policies specific to the invasive species threat have been developed by the SETT to address the concerns expressed by Council Member Koch. In addition, the threat of “fire and invasive species” has been re-categorized to “invasive species and fire” to more accurately depict the primary threat to sage-grouse habitat in the state of Nevada.

- The term “Site Specific Consultation-Based Design Features” has replaced the terms “Required Design Features” and “Best Management Practices” as directed by the SEC at the November 18, 2013 meeting.

The following revisions were already presented at the November 18, 2013 meeting, but are provided again for reiteration and are still presented as track changes in Attachment 1:

- A definition of “anthropogenic disturbances” is proposed, as well as a list of “projects” that will trigger SETT consultation.
- In order to address USFWS concerns regarding how sage-grouse habitat outside of SGMAs will be managed, a voluntary SETT consultation is proposed.
- Incorporation of the SEC approved “avoid process”. Definitions for management categories still need to be developed.
- Inclusion of the revisions to the “Acts of Nature” section approved by the SEC at the October 10, 2013 SEC meeting. In addition, edits provided by Council Member McAdoo are included.

Note that definitions for management categories for the avoid process are still outstanding. The SETT met with the USGS and NDOW to define the management categories, but additional meetings will be had in early January 2014 to flesh out the definitions. The SETT will bring these definitions to the SEC when drafted.

FISCAL IMPACT

There is no fiscal impact at this time.

RECOMMENDATION

Staff recommends the SEC:

1. approves the proposed revisions to Section 3.0 of the 2012 State Plan or provides direction to staff on how to revise it further;
2. direct the SETT to work with the CCS contractor to consider cumulative impacts on sage-grouse habitat at the population level in the development of the CCS metrics; and
3. direct the SETT to work with the CCS contractor to consider proposed CCS structure and policies in the development of the CCS.

POSSIBLE MOTION

Should the Council agree with the staff recommendations, possible motions would be:

1. “Motion to approve the proposed revisions to Section 3.0 of the 2012 State Plan.”
or
“Motion to approve the proposed revisions to Section 3.0 of the 2012 State Plan on condition of specific revisions.”
2. “Motion to direct the SETT to work with the CCS contractor to consider cumulative impacts on sage-grouse habitat at the population level in the development of the CCS metrics”

3. “Motion to direct the SETT to work with the CCS contractor to consider proposed CCS structure and policies in the development of the CCS”

Attachments:

1. Proposed Revisions to Section 3.0 of the 2012 State Plan

mf: TR

**Attachment 1: Proposed Revisions to
Section 3.0 of the 2012 State Plan**

3.0 CONSERVATION GOALS AND OBJECTIVES STRATEGIES

The State’s goal for the conservation of sage-grouse in the state of Nevada is to provide for the long-term conservation of sage-grouse by protecting the sagebrush ecosystem upon which the species depends. Redundant, representative, and resilient populations of sage-grouse will be maintained through amelioration of threats; *enhancement and/ or* protection of key habitats; mitigation for loss of habitat due to anthropogenic disturbances; and restoration or rehabilitation of habitat degraded or lost due to Acts of Nature.

The State’s goal for the conservation of sage-grouse will provide benefits for the sagebrush ecosystem and for many other sagebrush obligate species. Sage-grouse are known to be an “umbrella species” for many sagebrush obligate and associated species. The enhancement and restoration measures that bring resiliency and restore ecological functions to sagebrush ecosystems will also serve to ensure quality habitat for sage thrasher, sage sparrow, Brewer’s sparrow, sagebrush vole, pygmy rabbit, pronghorn antelope, mule deer, and many other species.

The State’s goal will be met through ~~the~~ conservation objectives *for anthropogenic disturbances and Acts of Nature of 1) no net unmitigated loss of habitat due to anthropogenic disturbances and 2) reducing the rate of loss of habitat due to Acts of Nature*, principally *large acreage wildland fires and subsequent invasion by non-natives species following large acreage wildland fires*. This combined strategy creates the regulatory framework through which sage-grouse habitat can be conserved and the decline of sage-grouse populations can be stopped in the state of Nevada. This section of the Plan details related polices and an adaptive management approach that will provide guidance to achieve these ~~two~~ objectives.

Comment [MF1]: Modified to address the concerns of Council Member Koch.

The guiding principles that create the balanced foundation and vision for a coordinated, management approach for conservation of sage-grouse and the sagebrush ecosystem in Nevada are as follows:

- Conserve sage-grouse and their habitat in Nevada while maintaining the economic vitality of the State.
- Due to the broad reach of sage-grouse habitat, effective management and implementation of sage-grouse conservation actions must be conducted through a collaborative, interagency approach that engages private, non-governmental, local, state, Tribal and federal stakeholders to achieve sufficient conservation of the sage-grouse and their habitat.
- Adaptive management will be employed at all levels of management in order to acknowledge potential uncertainty upfront and establish a sequential framework in which decision making will occur in order to learn from previous management actions.

3.1 Anthropogenic Disturbances

3.1.1 Conservation Objective – No net unmitigated loss due to anthropogenic disturbances

The overarching objective of Nevada’s plan is to achieve conservation through no net unmitigated loss of sage-grouse habitat due to anthropogenic disturbances within Sage-Grouse Management Areas (SGMAs) in order to stop the decline of sage-grouse populations. No net unmitigated loss is defined as the State’s objective to maintain the current quantity of quality of sage-grouse habitat within SGMAs at

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1 the state-wide level by protecting existing sage-grouse habitat or by mitigating for loss due to
2 anthropogenic disturbances. ~~Quality Mitigation requirements are of sage-grouse habitat is~~ determined
3 by the Conservation Credit System. This objective will be measured by the credit to debit ratio.
4

5 *Anthropogenic disturbance is defined here as any human-caused activity or action and/ or human-*
6 *created physical structures that may have adverse impacts on sage-grouse and/ or their habitat. The*
7 *term anthropogenic disturbance and its associated conservation policies will include, but not limited to*
8 *the following project categories: mineral development and exploration and its associated infrastructure;*
9 *renewable and non-renewable energy production, transmission, and distribution and its associated*
10 *infrastructure; paved and unpaved roads and highways; cell phone towers; landfills; pipelines; residential*
11 *and commercial subdivisions; special use permits; right-of-way applications; and other large-scale*
12 *infrastructure development. Livestock operations and agricultural activities and infrastructure related to*
13 *small-scale ranch and farm businesses (e.g. water troughs, fences, etc.) are not included in this*
14 *definition, though Section 6.5 and Appendix A address how to minimize impacts to sage-grouse and their*
15 *habitat from these activities.*

16
17 **3.1.2 Conservation Policies – “Avoid, Minimize, Mitigate”**

18
19 **The state of Nevada’s overriding policy for all management actions in SGMA’s is to “avoid, minimize,**
20 **and mitigate” impacts to sage-grouse habitat.**

21
22 This is a fundamental hierarchical decision process that seeks to:

23
24 **Avoid** – Eliminate conflicts by relocating disturbance activities outside of sage-grouse habitat in
25 order to conserve sage-grouse and their habitat. Avoidance of a disturbance within
26 sage-grouse habitat is the preferred option.
27

28 **Minimize** –If impacts are not avoided, the adverse effects will need to be both minimized and
29 mitigated. Impacts will be minimized by modifying proposed actions and/ or developing
30 permit conditions to include measures that lessen the adverse effects to sage-grouse
31 and their habitat. This will be accomplished through Site Specific Consultation-Based
32 Design Features (DFs), such as reducing the disturbance footprint, seasonal use
33 limitations, co-location of structures, etc. Minimization does not preclude the need for
34 mitigation of a disturbance. Any disturbance in habitat within a SGMA will require both
35 minimization and mitigation.
36

37 **Mitigate** – If impacts are not avoided, after required minimization measures are specified,
38 residual adverse effects on designated sage-grouse habitat are required to be offset by
39 implementing mitigation actions that will result in replacement or enhancement of the
40 sage-grouse habitat to balance the loss of habitat from the disturbance activity. This
41 will be accomplished through the Conservation Credit System.
42

43 ~~Any Proposed action~~ *anthropogenic disturbances* within ~~an~~ SGMA will trigger consultation with the
44 SETT for assessment of impacts to sage-grouse and their habitat and compliance with SEC and other
45 relevant agency policies. *Project proponents considering projects in sage-grouse habitat not located*
46 *within SGMA’s are encouraged to contact the SETT for voluntary project planning guidance to avoid,*
47 *minimize, and mitigate potential disturbances. Specifics of the SETT consultation are detailed in a*
48 *Memorandum of Understanding (MOU) in **Appendix XX**. SETT consultation is designed to provide a*

Comment [MF2]: As directed by the SEC at the 11/18/13 meeting

1 *regulatory mechanism to ensure that sage-grouse conservation policies are applied consistently*
2 *throughout the State and streamline the federal permitting process.*

3
4 Determination of sage-grouse habitat will be based on the USGS Habitat Suitability Map (Figure XX). At
5 the onset of a proposed project, *habitat evaluations or “ground-truthing” of the SETT or its designee*
6 ~~shall ground truth~~ the project site and its surrounding areas *shall be conducted by a qualified biologist*
7 *with sage-grouse experience* using methods as defined in Stiver et al (2010) to confirm habitat type.
8 *Evaluations can be conducted by the SETT or NDOW at the request of the project proponent.*

9
10 The specific steps for the implementation of the “avoid, minimize, mitigate” policy are as follows:

11
12 **Avoid**

13 Project proponents must first seek to avoid disturbance in sage-grouse habitat within SGMA. If the
14 project is located entirely outside of habitat, *but within a SGMA* it will still be analyzed for indirect
15 effects, such as noise and visual impacts. A project will only be considered to have avoided impacts if it
16 is physically located in non-habitat and it is determined to have no indirect impacts effecting designated
17 habitat *within SGMA*s. If this is determined, no further consultation with the SETT is required.

18
19 It is important to note that the avoid step is not an “all or nothing” concept. If the entirety of a project
20 cannot be relocated to non-habitat, alternatives ~~should will~~ be explored to relocate portions of the
21 project to non-habitat. (For example, if a mine cannot be relocated into non-habitat, power distribution
22 lines associated with the project may be relocated to non-habitat.) This may reduce minimization and
23 mitigation requirements for the project proponent.

24
25 *Anthropogenic disturbances should be avoided within SGMA*s. If avoidance is not possible, the project
26 proponent must demonstrate why it is not possible in order for the SETT to consider minimization and
27 mitigation alternatives. *The process to demonstrate that avoidance is not possible (the “avoid process”)*
28 *is determined by four management categories, which consider both sage-grouse breeding population*
29 *density and habitat suitability within SGMA*s. *This approach was taken in order to conserve large and*
30 *functioning sage-grouse populations, as well as the habitat needed to support sage-grouse survival.*

Comment [MF3]: Changed from management areas to categories at the recommendation of Council Member Drew.

31
32 The burden of proof ~~for this to demonstrate that avoidance is not possible within SGMA~~s will be on the
33 project proponent and will require the project proponent to demonstrate *the specified criteria listed in*
34 *Table 3-1 as determined by the management categories the proposed project is located in. Exemptions*
35 *to the avoid policy will be granted if all the criteria in Table 3-1 is met. A higher burden of proof is set for*
36 *project proponents to demonstrate that avoidance is not possible in areas that have higher densities of*
37 *sage-grouse populations and highly suitable habitat.* ~~both that the 1) purpose and need of the project~~
38 ~~could not be accomplished outside of an SGMA or within non-habitat in an SGMA and 2) that the project~~
39 ~~would not be economically feasible to complete in an alternate location.~~

Comment [MF4]: Changed from management areas to categories at the recommendation of Council Member Drew.

40
41 **“High Population Density” Management Areas¹**

42 *The “High Population Density” Management Areas support the highest breeding densities of sage-grouse*
43 *in the State of Nevada. These areas include approximately 8% of the breeding male sage-grouse counted*
44 *during lek surveys and encompass approximately 9% of the known leks in the State of Nevada. These*
45 *areas represent the strongholds (or “the best of the best”) for sage-grouse populations in the State of*

¹ Exact terminology to be defined with input from USGS and NDOW.

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1 Nevada and support the highest density of breeding populations. Thus, the management strategy is to
2 conserve these areas by avoidance of anthropogenic disturbances in order to maintain or improve
3 current sage-grouse population levels.

4
5 Project proponents must seek to avoid disturbances within SGMAs. If the project proponent wishes to
6 demonstrate that avoidance is not possible within these areas, exemptions will be granted to this
7 restriction as part of the SETT consultation. The project proponent must demonstrate that all of the
8 following criteria listed below (also see Table 3-1) are met as part of the SETT consultation process in
9 order to be granted an exemption:

- 11 • Demonstrate that the project cannot be reasonably accomplished elsewhere – the purpose and
12 need of the project could not be accomplished in an alternative location;
- 13 • Demonstrate that the individual and cumulative impacts of the project would not result in
14 habitat fragmentation or other impacts that would cause sage-grouse populations to decline
15 through consultation with the SETT;
- 16 • Demonstrate that sage-grouse population trends within the SGMA are stable or increasing over
17 a 10-year rolling average;
- 18 • Demonstrate that project infrastructure will be co-located with existing disturbances to the
19 greatest extent possible;
- 20 • Develop Site Specific Consultation-Based Design Features to minimize impacts through
21 consultation with the SETT; and
- 22 • Mitigate unavoidable impacts through compensatory mitigation via the Conservation Credit
23 System. Mitigation rates will be higher for disturbances within this category.

Comment [MF5]: As directed by the SEC at the
11/18/13 meeting

24
25 “Habitat Suitability Category A” Management Areas¹

26 “Habitat Suitability Category A” Management Areas are areas that are determined to be highly suitable
27 habitat for sage-grouse by the USGS Habitat Suitability Model, but are not contained within the “High
28 Population Density” Management Areas.

29 Management in these areas provide more flexibility to project proponents, though avoidance in these
30 areas is still the preferred option and project proponents are encouraged to develop outside of these
31 areas whenever possible. Anthropogenic disturbances will be permitted in these areas if the criteria
32 listed below (also see Table 3-1) are met as part of the SETT consultation process:

- 33 • Demonstrate that the project cannot be reasonably or feasibly accomplished elsewhere – the
34 purpose and need of the project could not be accomplished in an alternative location;
- 35 • Demonstrate that project infrastructure will be co-located with existing disturbances to the
36 greatest extent possible. If co-location is not possible, siting should reduce individual and
37 cumulative impacts to sage-grouse and their habitat;
- 38 • Demonstrate that the project should not result in unnecessary and undue habitat fragmentation
39 that may cause declines in sage-grouse populations within the SGMA through consultation with
40 the SETT;

¹ Exact terminology to be defined with input from USGS and NDOW.

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- 1 • Develop Site Specific Consultation-Based Design Features to minimize impacts through
2 consultation with the SETT; and
- 3 • Mitigate for unavoidable impacts through compensatory mitigation via the Conservation Credit
4 System.

Comment [MF6]: As directed by the SEC at the 11/18/13 meeting

5 **"Habitat Suitability Category B" Management Areas¹**

6 "Habitat Suitability Category B" Management Areas are areas determined to be suitable habitat for
7 sage-grouse, though less suitable than "Habitat Suitability Category A" Management Areas and are not
8 contained within the "High Population Density" Management Areas. Management of these areas
9 provides the greatest flexibility to project proponents. Anthropogenic disturbances will be permitted in if
10 the criteria listed below (also see Table 3-1) are met as part of the SETT consultation process:

- 11 • Demonstrate that the project cannot be reasonably or feasibly accomplished elsewhere – the
12 purpose and need of the project could not be accomplished in an alternative location;
- 13 • Demonstrate that project infrastructure will be co-located with existing disturbances to the
14 greatest extent possible;
- 15 • Develop Site Specific Consultation-Based Design Features to minimize impacts through
16 consultation with the SETT; and
- 17 • Mitigate for unavoidable impacts through compensatory mitigation via the Conservation Credit
18 System.

Comment [MF7]: As directed by the SEC at the 11/18/13 meeting

19 **Non-Habitat Management Areas**

20 Non-Habitat Management Areas are areas determined to be unsuitable for sage-grouse by the USGS
21 Habitat Suitability Model. As specified above, all proposed projects within SGMA, including in non-
22 habitat within SGMA must conduct habitat evaluation or ground-truthing to confirm presence or
23 absence of sage-grouse habitat. If areas are confirmed by habitat evaluations to be non-habitat, an
24 analysis for indirect impacts on sage-grouse within their habitat ~~with~~in SGMA will be required to
25 determine if Site Specific Consultation-Based Design Features to minimize impacts and compensatory
26 mitigation are necessary as part of the SETT consultation process (also see Table 3-1).
27

Comment [MF8]: As directed by the SEC at the 11/18/13 meeting

28 **Minimize**

29 If a project cannot avoid adverse effects (direct or indirect) to sage-grouse habitat within SGMA, the
30 project proponent will be required to implement Site Specific Consultation-Based Design Features ~~DFs~~
31 that minimize the project's adverse effects to sage-grouse habitat.

Comment [MF9]: As directed by the SEC at the 11/18/13 meeting

32
33 Minimization will include consultation with the SETT to determine which Site Specific Consultation-Based
34 Design Features ~~specified DFs~~ would be most applicable to the project when considering site conditions,
35 types of disturbance, etc. Some general examples ~~of DFs~~ could include: reducing the footprint of the
36 project, siting infrastructure in previously disturbed locations with low habitat values, noise restrictions
37 near leks during breeding season, and washing vehicles and equipment to reduce the spread of invasive
38 species. Land use specific Site Specific Consultation-Based Design Features ~~DFs~~ are included in Appendix
39 ~~XXA~~.

Comment [MF10]: As directed by the SEC at the 11/18/13 meeting

Comment [MF11]: As directed by the SEC at the 11/18/13 meeting

¹ Exact terminology to be defined with input from USGS and NDOW.

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1
2 A list of *Site Specific Consultation-Based Design Features* ~~required DFs~~ for the project must be specified
3 and agreed upon by the SETT and project proponent prior to the start of the project and will become
4 part of the permit/ contract requirements issued for the project. The project proponent will be required
5 to implement, maintain, and monitor the required DFs in good working order throughout the duration
6 of the project.

Comment [MF12]: As directed by the SEC at the 11/18/13 meeting

7
8 ~~The SETT or its designee will conduct unannounced site visits during the duration of the project to~~
9 ~~ensure that required DFs are being properly implemented and maintained.~~

10
11 **Mitigate**

12 Mitigation involves the successful restoration or enhancement of sage-grouse habitat and is designed to
13 offset the negative impacts caused by an anthropogenic disturbance. Mitigation will be required for all
14 anthropogenic disturbances impacting sage-grouse habitat within SGMAs. Mitigation requirements will
15 be determined by the State's Conservation Credit System (Section 8.0).

16
17 ~~Under the Conservation Credit System, specific mitigation will not be identified to offset a specific~~
18 ~~anthropogenic disturbance. Instead, once the cost of mitigation as determined by scientifically based~~
19 ~~metrics in the Conservation Credit System is paid, the project proponent will be permitted to proceed~~
20 ~~with their project, which will include minimization requirements. The State believes that this policy will~~
21 ~~achieve the objective of no net unmitigated loss because the State will be able to track the "debits" and~~
22 ~~"credits" accrued as a "common currency", as defined by the Conservation Credit System, at a state-~~
23 ~~wide scale. The funds produced through the Conservation Credit System will be multiplied in value by~~
24 ~~leveraging funds from grants and partner agencies. Over time, the State believes this will lead to a~~
25 ~~positive credit to debit ratio.~~

Comment [MF13]: The SETT recommends that the SEC provides direction to the SETT to work with the CCS contractor to consider this policy in the development of the CCS.

26
27 Options for mitigation will be identified in the State's Strategic Action Plan for Mitigation. The State's
28 Strategic Action Plan for Mitigation will identify prioritized areas on public and private lands to
29 implement a landscape scale restoration effort. This will *spatially identify where the primary threats to*
30 *sage-grouse habitat are located throughout the State and provide management guidance for how to*
31 *ameliorate these based on local area conditions and ecological site descriptions* ~~include specific locations~~
32 ~~and actions to be completed.~~ The prioritization includes efforts to use mitigation funding in areas where
33 sage-grouse will derive the most benefit, even if those areas are not adjacent to or in the vicinity of
34 impacted populations. ~~While research will not be considered a mitigation option, the SETT will~~
35 ~~emphasize collaboration with academic institutions around the Great Basin to conduct research on~~
36 ~~mitigation projects.~~ This Strategic Action Plan for Mitigation will be updated at least every five years to
37 reflect improvements in understanding and technology for mitigation activities.

Comment [MF14]: The SETT recommends that the SEC provides direction to the SETT to work with the CCS contractor to consider this policy in the development of the CCS.

38
39 **Maximum Allowable Disturbance**

40 ~~While this plan does not identify maximum disturbance thresholds, thus allowing for greater land use~~
41 ~~flexibility, it does require a higher mitigation rate, as determined by the Conservation Credit System, in~~
42 ~~areas with five percent or greater total disturbance within a "project area of influence". Mapped~~
43 ~~habitat will be determined by the USGS habitat suitability map. The reason for higher mitigation rates in~~
44 ~~areas with five percent or greater total disturbance is to provide a regulatory mechanism to account for~~
45 ~~additive impacts to sage-grouse that result from cumulative habitat degradation and fragmentation~~
46 ~~from both anthropogenic disturbances and Acts of Nature at the landscape scale.~~

Comment [MF15]: The SETT recommends the SEC provides direction to the SETT to work with the CCS contractor to consider the concept of cumulative impacts in the development of the CCS.

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1 ~~The process for determining the project area of influence (hereafter referred to as “DDCT examination~~
2 ~~area”) and the percent of disturbance will use the Density/ Disturbance Calculation Tool (DDCT)~~
3 ~~developed by the state of Wyoming (<https://ddctwygisc.org>). The detailed DDCT process will be~~
4 ~~outlined in the State of Nevada’s DDCT Manual, still to be developed. The DDCT general process is as~~
5 ~~follows:~~

6
7 ~~Determine all leks within a SGMA that may be affected by the project by placing a four-mile~~
8 ~~buffer around the project boundary, as defined by the proposed area of disturbance related to~~
9 ~~the project. All active, pending active and inactive leks located within the four-mile buffer and~~
10 ~~within a SGMA will be identified as “affected” by the project for the purpose of the tool.~~

11
12 ~~A four-mile buffer will then be placed around the perimeter of each affected lek. The buffers~~
13 ~~surrounding identified leks will be added to the four-mile buffer around the project boundary,~~
14 ~~which creates the DDCT examination area for each individual project. Disturbance will be~~
15 ~~examined for the DDCT examination area as a whole and for each individual affected lek within~~
16 ~~the DDCT examination area. Any portion of the DDCT examination area occurring outside of~~
17 ~~SGMA will be removed from the examination area.~~

18
19 ~~If there are no affected leks within the four-mile buffer around the project boundary, the DDCT~~
20 ~~examination area will be just that portion of the four-mile buffer around the project boundary~~
21 ~~within the SGMA.~~

22
23 ~~Total disturbance acres within the DDCT examination area will be calculated through an evaluation of:~~
24 ~~existing disturbance; approved permits, which have approval for on the ground activity, but have not yet~~
25 ~~been implemented; and the proposed disturbance. Existing disturbance includes sage-grouse habitat~~
26 ~~that is disturbed due to anthropogenic activity and wildfire. Following wildfire, lands shall be considered~~
27 ~~“disturbed” pending an implemented management plan with trend data showing the area returning to~~
28 ~~functional sage-grouse habitat.~~

29
30 ~~If the total disturbance is determined to be five percent or greater of sage-grouse habitat within the~~
31 ~~DDCT examination area, then a higher mitigation rate will be assessed.~~

32
33
34
35
36 *Exemption*

37 ~~While the State Plan outlines “avoid” and “minimize” guidelines for livestock grazing, it is exempt for the~~
38 ~~“mitigate” policy. Proper livestock grazing guidelines provided will ensure that grazing permits maintain~~
39 ~~or enhance sage-grouse habitat within SGMAs.~~

40
41 3.1.3 Adaptive Management

42
43 The SETT, in close coordination with applicable federal and state agencies will evaluate and assess the
44 effectiveness of these policies at achieving the objective of no net unmitigated loss and will provide a
45 report to the SEC annually. The objective will be considered to have been met if there is a positive credit
46 to debit ratio within the Conservation Credit System on an annual basis. The State acknowledges that
47 this may be difficult to achieve within the first five years of the Conservation Credit System due to an
48 initial lag in the start of the program, but by leveraging funds, credits should outweigh debits over time.

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1 If the State falls short of its objective, the SEC will reassess and update policies and management actions
2 based on recommendations from the SETT using the best available science to adaptively manage sage-
3 grouse habitat.

6 **3.2 Acts of Nature – ~~Fire and Invasive Species~~ Invasive Species and Fire**

Comment [MF16]: Added to address the concerns of Council Member Koch.

8 **3.2.1 Conservation Objectives –**

9
10 *The overarching objectives of Nevada’s plan is to achieve conservation through the following short and
11 long term objectives for Acts of Nature in order to stop the decline of sage-grouse populations and
12 restore and maintain a functioning sagebrush ecosystem:*

Comment [MF17]: As amended by the SEC at the 11/18/13 SEC meeting.

14 **Short Term:**

- 15 • Reduce the amount of sage-grouse habitat loss due to *invasion by non-native species and large*
16 *acreage wildfires* ~~and invasion by non-native species.~~

Comment [MF18]: Modified to address the concerns of Council Member Koch.

18 **Long Term:**

- 19 • Maintain an ecologically healthy and intact sagebrush ecosystem that is resistant to the invasion
20 of non-native species and resilient after disturbances, such as wildfire.
- 21 • Restore ~~naturally-occurring~~ wildfire return intervals to within a *healthy* spatial and temporal
22 range of variability that supports sustainable populations of sage-grouse *and other sagebrush*
23 *obligate species.*

26 The Greater Sage-grouse Advisory Committee, using the best available science, identified *invasive*
27 *species, principally cheatgrass, and* ~~fire and invasive species, principally cheatgrass,~~ as the primary
28 threat to sage-grouse and their habitat in the state of Nevada. The State acknowledges these threats
29 must be adequately addressed in order to achieve the conservation goal for sage-grouse within the state
30 of Nevada; however, it is not economically or ecologically feasible to restore all fire damaged or invasive
31 species dominated landscapes at this point, nor is it possible to prevent all fires. The State will put forth
32 a best faith effort to reduce the rate of sage-grouse habitat loss due to ~~fire and~~ *invasive species and fire.*
33 This objective will be measured by evaluating the *amount* ~~rate~~ of habitat lost due to ~~fire and~~
34 ~~subsequently invaded~~ by non-native species *following fire* over a five year period.

Comment [MF19]: Modified to address the concerns of Council Member Koch.

Comment [MF20]: Modified to address the concerns of Council Member Koch.

Comment [MF21]: Changed to be more congruous with objective

Comment [MF22]: Modified to address the concerns of Council Member Koch.

Comment [MF23]: Modified to address the concerns of Council Member Koch.

36 **3.2.2a Conservation Policies – Invasive Species: Prevent, Control, Restore, and Monitor**

37
38 *While wildfire is commonly the vector for the spread of invasive species, such as cheatgrass, invasive*
39 *species are currently widespread throughout the Great Basin and can spread without the aid of wildfire.*
40 *In order to address the general threat of invasive species, the State proposes a policy of Prevent, Control,*
41 *Restore, and Monitor. These policies include:*

- 42 1. **Prevent** the establishment of invasive species into uninvaded sage-grouse habitat. *This will be*
43 *achieved by conducting systematic and strategic detection surveys, data collection, and mapping*
44 *of these areas and engaging in early response efforts if invasion occurs. This will be achieved by*
45 *further developing federal and state partnerships and working with local groups, such as Weed*
46 *Control Districts, Cooperative Weed Management Areas, and Conservation Districts. This is the*
47 *highest priority for the state of Nevada.*

- 1 2. **Control** invasive species infestations in sage-grouse habitat already compromised by invasion. Control techniques may include: biomass removal by means such as strategic and targeted grazing, mowing, or using herbicides. In addition, the State will continue to support research in the development of biological control agents and deploy emerging technologies in Nevada as they become available.
- 2
- 3
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- 5
- 6 3. **Restore** ecologically functioning sagebrush ecosystems in sage-grouse habitat already compromised by invasion. Restoration may include revegetating sites with native plants cultivated locally or locally adapted, non-native plant species where appropriate. **Control of invasives must be accompanied by ecosystem restoration.**
- 7
- 8
- 9
- 10 a. Ecological site descriptions and associated state and transition models will be used to identify target areas for resiliency enhancement and/or restoration. Maintaining and/or enhancing resilience should be given top priority. In the Great Basin sagebrush-bunchgrass communities, invasion resistance and successional resilience following disturbance are functions of a healthy perennial bunchgrass component. Therefore a combination of active and passive management will be required to ensure this functionality. Areas that are in an invaded state that will likely transition to an annual grass monoculture if a disturbance occurs and are located within or near sage-grouse habitat should be prioritized for restoration efforts to increase resistance and resilience.
- 11
- 12
- 13
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- 19 4. **Monitor** and adaptively manage to ensure effectiveness of efforts to prevent, control and restore.
- 20
- 21

22 3.2.2b ~~Conservation Policies – Fire and Invasive Species Management:~~ Paradigm Shift

23
 24 In order to address the threat of **invasive species and fire and invasive species**, which has long
 25 challenged land managers throughout the western United States, the State proposes a paradigm shift.
 26 This would entail a more proactive, rather than reactive approach, to stop the dominance of invasive
 27 species and restore fire to within ~~a its natural~~ range of variability **to support sustainable populations of**
 28 **sage-grouse**. These policies include:

- 29 1. A shift in focus and funding from wildland fire suppression to pre-suppression.
 - 30 a. Dedicate federal, state, and local funding for pre-suppression activities separate from
 - 31 funding for suppression and post-fire rehabilitation activities. Post fire
 - 32 rehabilitation/restoration funding should be available for up to three years following
 - 33 each incident in order to monitor effectiveness and to accommodate for poor initial
 - 34 success.
 - 35 b. "Hold the line" against **invasive species and fire and invasive species** near priority sage-
 - 36 grouse habitat. Develop a prioritized pre-suppression plan that focuses on priority sage-
 - 37 grouse habitat, similar to the Wildland Urban Interface planning analysis.
 - 38 c. Emphasize "Strategic Fuels Management". Location of fuels management projects
 - 39 should be identified at the broad landscape level to provide protections to areas of
 - 40 sage-grouse habitat that have compromised resilience, resistance, and heterogeneity.
 - 41 They should also be implemented to protect against catastrophically large wildfires and
 - 42 allow for repeated attempts to suppress active fires. Provide consistent funding for
 - 43 maintenance of fuels management projects. Establish effective monitoring plans to
 - 44 learn from implementation of these tools and subsequent effectiveness during

Comment [MF24]: Added to address the concerns of Council Member Koch.

Comment [MF25]: Organizational change

Comment [MF26]: Modified to address the concerns of Council Member Koch.

Comment [MF27]: Modified for consistency with the second long term objective.

Comment [MF28]: Modified to address the concerns of Council Member Koch.

Revised Section 3.0

1 suppression. Fuels management tools may include: fuels reduction treatments,
2 including proper livestock grazing; greenstripping; brownstripping; and maintaining
3 riparian areas as natural fuels breaks by managing for Proper Functioning Condition
4 (PFC).

Comment [MF29]: As amended by the SEC at the 11/18/13 SEC meeting.

- 5 2. Wildland fire should be used strategically and should not be suppressed in all instances. Allow
6 fires to burn naturally if ~~they occur~~ located in areas that may benefit sage-grouse habitat and
7 would not risk the spread of invasive species, but only if human lives and property are not at
8 risk. Continue to suppress wildland fires that may cause the spread of invasive species into
9 sage-grouse habitat. Use ecological site descriptions and associated state and transition models
10 to identify such areas.
- 11 3. Manage wildland fires in sage-grouse habitat to retain as much habitat as possible. Interior
12 islands of vegetation in areas of habitat should be protected through follow-up mop-up of the
13 island's perimeter and interior, when fire crew safety and welfare are not at risk.
- 14 4. Post-fire rehabilitation efforts should be collaborative and strategic in approach. A wide variety
15 of agencies, representing multiple disciplines should be involved in order to leverage funding
16 opportunities and provide knowledge on appropriate site-specific treatments. Rehabilitation
17 efforts should focus on preventing the spread of invasive species, particularly in or near sage-
18 grouse habitat.

19 ~~5. Subsequent shrub seeding or live plantings may need to occur once native or locally adapted
20 grasses and forbs species are established initially. This will encourage more significant and
21 timely recruitment and transition into a grass-shrub community.~~

Comment [MF30]: This is addressed in point 1c.

22 ~~6. Ecological site descriptions and associated state and transition models will be used to identify
23 target areas for resiliency enhancement and/or restoration. Maintaining and/or enhancing
24 resiliency should be given top priority. In Great Basin sagebrush-bunchgrass communities,
25 invasion resistance and successional resiliency following disturbance are functions of a healthy
26 perennial bunchgrass component. Therefore a combination of active and passive management
27 will be required to ensure this functionality. Areas that are in an invaded state that will likely
28 transition to a cheatgrass monoculture if a disturbance occurs and are located within or near
29 sage-grouse habitat should be prioritized for restoration efforts to increase resistance and
30 resiliency.~~

Comment [MF31]: Moved above

31 ~~7.5. Emphasize continued research and provide funding to enhance knowledge and understanding of
32 how to prevent catastrophic wildfire, the invasion of cheatgrass, and reclamation/ restoration
33 techniques.~~

34
35 3.2.3 Adaptive Management

36
37 Fire and the subsequent reestablishment of plant species (native or not) is a natural process, and
38 consequently this threat is extremely challenging across the western United States as humans are still
39 limited in our ability to directly control this cycle. However, scientific understanding of ecological
40 processes and resource management techniques continue to improve. A commitment by the State to
41 address this issue through adaptive management will lead to a greater understanding of the ecological
42 mechanisms that drive these processes and will subsequently lead to improvements in resource
43 management practices that prevent the invasion of cheatgrass following catastrophic wildfires and the
44 subsequent invasion of cheatgrass.

Comment [MF32]: Modified to address the concerns of Council Member Koch.

45
46 The SETT will evaluate and assess the effectiveness of these policies at achieving the stated short and
47 long term objectives of reducing the rate of loss of sage-grouse habitat due to fire and invasive species

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1 and will provide a report to the SEC annually. The objectives will be met if there is a decrease or leveling
2 off of the ~~rate amount~~ of habitat loss due to ~~fire and subsequent~~ invasion by annual grasses following
3 wildfire over a five year period. If the State and federal agencies fall short of this objective, the SEC will
4 reassess and update polices and management actions based on recommendations from the SETT using
5 the best available science to adaptively manage sage-grouse habitat.
6
7

Comment [MF34]: Modified to address the concerns of Council Member Koch.

8 **Citations**

9 Stiver, S.J., E.T Rinkes, and D.E. Naugle. 2010. Sage-grouse Habitat Assessment Framework. U.S.
10 Bureau of Land Management. Unpublished Report. U.S. Bureau of Land Management, Idaho State
11 Office, Boise, Idaho.

DRAFT

Table 3-1. The "Avoid Process" for Proposed Anthropogenic Disturbances within SGMAs

Anthropogenic disturbances should be avoided within SGMAs. If project proponents wish to demonstrate that a disturbance cannot be avoided, exemptions will be granted if the criteria listed in the table can be met for the applicable management category.

<i>Management Category*</i>	High Population Density ("best of the best")	Habitat Suitability Category A	Habitat Suitability Category B	Non-habitat (within SGMAs)
<i>Required Avoid Criteria</i>	<ul style="list-style-type: none"> • Demonstrate that the project cannot be reasonably accomplished elsewhere – the purpose and need of the project could not be accomplished and/or it would not be economically feasible to complete in an alternative location; • Demonstrate that the individual and cumulative impacts <i>of the project</i> would not result in habitat fragmentation or other impacts that would cause sage-grouse populations to decline <i>through consultation with the SETT</i> ; • Demonstrate that sage-grouse population trends within the SGMA are stable or increasing over a five-year period <i>ten-year rolling average</i> ; • <i>Demonstrate that project infrastructure will be</i> co-located <i>co-located</i> with existing disturbances to the greatest extent possible; • Develop BMPs to minimize impacts <i>through consultation with the SETT</i> ; and • Mitigate unavoidable impacts through compensatory mitigation via the Conservation Credit System. Mitigation rates will be higher for disturbances within this category. 	<ul style="list-style-type: none"> • Demonstrate that the project cannot be reasonably accomplished elsewhere – the purpose and need of the project could not be accomplished and/or it would not be economically feasible to complete in an alternative location; • <i>Demonstrate that project infrastructure will be</i> co-located <i>co-located</i> the project with existing disturbances to the greatest extent possible. If co-location is not possible, siting should reduce individual and cumulative impact to sage-grouse and their habitat; • Demonstrate that the project should not result in unnecessary and undue habitat fragmentation that may cause declines in sage-grouse populations within the SGMA <i>through consultation with the SETT</i> ; • Develop BMPs to minimize impacts <i>through consultation with the SETT</i> ; and • Mitigate for unavoidable impacts through compensatory mitigation via the Conservation Credit System. 	<ul style="list-style-type: none"> • Demonstrate that the project cannot be reasonably accomplished elsewhere – the purpose and need of the project could not be accomplished and/or it would not be economically feasible to complete in an alternative location; • <i>Demonstrate that project infrastructure will be</i> co-located <i>co-located</i> with existing disturbances to the greatest extent possible; • Develop BMPs to minimize impacts <i>through consultation with the SETT</i> ; and • Mitigate for unavoidable impacts through compensatory mitigation via the Conservation Credit System. 	<ul style="list-style-type: none"> • <i>Demonstrate that the project will not have</i> An analysis for indirect impacts to sage-grouse and their habitat within SGMAs. <i>If it cannot be demonstrated, the project proponent</i> will be required to determine if develop <i>develop</i> BMPs to minimize impacts and compensatory mitigation will be required.

* Exact terminology to be defined with input from USGS and NDOW upon Council direction