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STATE OF NEVADA
Sagebrush Ecosystem Program

SAGEBRUSH ECOSYSTEM COUNCIL
STAFF REPORT
MEETING DATE: January 23-24, 2014

DATE: January 21, 2014
TO: Sagebrush Ecosystem Council Members
FROM: Sagebrush Ecosystem Technical Team
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SUBJECT: Definitions and maps of Management Categories and SGMA boundaries

SUMMARY

This agenda item presents proposed definitions and mapping of the four management categories that were identified in the “Avoid Process” developed in the 2013 Revised State Plan (Section 3.1.2. and Table 3-1). The Council directed staff to develop these definitions in coordination with the U.S. Geological Survey (USGS) and Nevada Department of Wildlife (NDOW) staffs at the October 10, 2013 SEC meeting. Dr. Peter Coates, USGS, will present these definitions in concept and spatially on behalf of the Sagebrush Ecosystem Technical Team (SETT). The SETT is also proposing an update to the existing boundaries of the Sage-grouse Management Areas (SGMAs) based on the draft USGS Habitat Suitability Model, which works more appropriately with the proposed management categories, as well as to respond to concerns from the USFWS.

PREVIOUS ACTION

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

July 30, 2013. The Council assigned the SETT to address Council comments, questions, and concerns on the 2013 Proposed State Plan Revision for the following Council meeting.

October 10, 2013. The Council approved revisions to the “avoid process” within Section 3.0 with direction to develop definitions for management categories with the USGS and NDOW.

BACKGROUND

Management Categories

Dr. Coates will present during this agenda item, on behalf of the SETT, the technical definitions and spatial distribution of the management categories identified. The process to define the categories and the categories themselves are defined in general terms below.

On December 5, 2013 the SETT met with USGS, NDOW, BLM, USFS staffs to gather concepts to be used in the development of definitions for the management categories identified in Section 3.1.2. (Table 3-1 of the Revised State Plan). The concepts of estimating areas of high use by sage-grouse and intersecting those with different levels of suitable habitat were agreed to be important by the group. Dr. Peter Coates, USGS, presented examples and indicated that through methods developed in work associated with the Bi-State process, he could model areas of high space use by sage-grouse across Nevada by looking at (1) density of sage-grouse leks coupled with attendance at leks and (2) distance sage-grouse are found from leks based on telemetry data, to develop a “space use index”. These methods are slightly more robust than the Doherty breeding bird densities. In addition, Dr. Coates indicated he would identify a threshold of what is “habitat” from the habitat suitability index derived from the modeling that he is conducting for the SETT for the draft “habitat suitability model for greater sage-grouse in Nevada”.

On January 13, 2014, the SETT met with USGS, NDOW, BLM, USFS, and USFWS staffs to review the models derived by Dr. Coates. Some refinements were suggested by the group, which Dr. Coates implemented. These comments determined that high space use would factor into the top management category and levels of suitability would factor into the remaining management categories. Below are the definitions of the habitat suitability categories and below that are the definitions of space use. Following these definitions, they are merged into new habitat categories and from there the management categories are developed.

Habitat suitability categories – these categories are based on the habitat suitability index presented during Agenda Item 7

High suitability habitat - mean index values minus 0.5 standard deviation
(~70% sage-grouse use)

Moderate suitability habitat - mean index values minus 1.5 standard deviations
(~95% sage-grouse use)

Low suitability habitat- mean index values minus 2 standard deviations
(~97.5% sage-grouse use)

Non-suitable habitat – mean index values minus greater than 2 standard deviations

Space use index - these categories are based on (1) density of sage-grouse leks coupled with attendance at leks and (2) distance sage-grouse are found from leks based on telemetry data

High use areas – greater than or equal to 85th percentile of the space use index

Low use areas– less than 85th percentile of the space use index

Habitat definitions incorporating space use

Core Area – areas of estimated high space use found within low, moderate, or high suitability sage-grouse habitat

Priority Area – high suitability habitat that is found in areas of estimated low space use.

Low to General Area – low to moderate suitability habitat that is found in areas of estimated low space use.

Non-habitat found in proximity to areas of high use areas - areas of estimated high space use that overlap with non-habitat.

Non-habitat – non-suitable habitat that is found in areas of estimated low space use.

From these discussions and assistance with spatial modeling, the SETT developed definitions for the four management categories.

Management categories (in parentheses are the terms used in the Table 3.1)

Core Management Category (best of the best) – Areas of core habitat

Priority Management Category (habitat suitability A) – Areas of priority habitat plus areas of non-habitat found in proximity to areas of high space use***

General Management Category (habitat suitability B) – Areas of low to general habitat

Non-habitat Management Category- Areas of non-habitat

***Non-habitat areas found in proximity to areas of high space use are likely very important areas for sage-grouse. There is limited area defined under this term; however, while the specific footprint may not be modeled as suitable habitat, disturbance effects in these areas would be in close proximity to estimated high use areas and would likely have large negative impacts to important sage-grouse population areas. While these areas are mapped as non-suitable habitat, the SETT recommends they be managed more conservatively due to concern of indirect effects to populations, and thus are included in the priority management category to help maintain integrity of high use areas.

As indicated in the staff report for the habitat suitability model agenda item, this work has not been reviewed by the Expert Review Team, which will meet to review the decisions/thresholds made in early February 2014. Further revisions may be recommended by the Expert Review Team. Revisions to these categories would be brought back to the Council for approval.

Should these management categories be adopted, the SETT will provide revisions to Section 3.0 to incorporate the above definitions. Much of the details of the process to develop them would likely be included as a new appendix to the Revised State Plan.

SGMAs

Dr. Coates' presentation for this agenda item, on behalf of the SETT, will present the mapped proposed revisions to the SGMAs.

The revision to the SGMA expands the boundaries of areas that will fall under management for greater sage-grouse within the state of Nevada. The reasons for the proposed revisions are as follows:

- The September 14, 2012 informal draft comments from the USFWS provided questions and concerns on the SGMAs as defined in the 2012 State Plan. In addition, the USFWS has also indicated concern at several Council meetings that management within the state should encompass all sage-grouse habitat or should provide justification as to why some is not included within management areas. The proposed revisions would meet this need.
- The revised Section 3.0 of the State Plan (approved by the Council December 18, 2013) indicates an objective of no net unmitigated loss of sage-grouse habitat and that any anthropogenic disturbance project within an SGMA will trigger consultation with the SETT. The current wording indicates that projects located outside of SGMAs would not require SETT consultation and thus would not be involved in the Conservation Credit System. In order to meet the objective of no net unmitigated loss through the Conservation Credit System, the SETT would need to be involved in consultation on any sage-grouse habitat within the State. Refining the boundaries of the SGMAs to align with the draft habitat suitability map would meet that end.
- The definitions for the four management categories that are presented in the first part of this agenda item have been developed through an objective, scientifically rigorous process. If the SGMAs are not updated to the same end, and areas of the four management categories are excluded, it renders the process less than objective.
- The 2012 State Plan indicates that the SGMA boundaries should be revised as new or more complete information becomes available and should be updated on a regular basis. The draft habitat suitability map as presented in Agenda Item 7 provides new information, as does the development of new management categories.

FISCAL IMPACT

None

RECOMMENDATION

The Council could make a motion to adopt the proposed management categories with the understanding that another minor round of revisions may occur prior to inclusion into the State Alternative of the EIS before February 28, 2014. Any revisions to the habitat map would be brought to the Council for approval

The Council could make a motion to adopt the proposed revisions to the SGMAs.

POSSIBLE MOTION

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

1. “Motion to adopt the proposed management categories, recognizing that additional refinements may be conducted from feedback from the Expert Review

Team to improve the product for submittal to the BLM/USFS under Nevada’s alternative E before the next SEC meeting.”
2. “Motion to adopt the proposed revisions to the Sage-grouse Management Areas”

Attachments:

Attachment 1: Table 3-1 Avoid Process from the revised Section 3.0 (adopted by the Council December 18, 2013).

Dr. Peter Coates’ presentation on this agenda item, on behalf of the SETT, will contain the draft maps of the management categories and proposed revisions to the SGMAs and will be provided as a separate item for the Council Meeting.

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 in an alternative location; • Demonstrate that the individual and cumulative impacts of the project would not result in habitat fragmentation or other impacts that would cause sage-grouse populations to decline through consultation with the SETT; • Demonstrate that sage-grouse population trends within the SGMA are stable or increasing over a ten-year rolling average; • Demonstrate that project infrastructure will be co-located with existing disturbances to the greatest extent possible; • Develop Site Specific Consultation Based Design Features to minimize impacts through consultation with the SETT; 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 in an alternative location; • Demonstrate that project infrastructure will be co-located 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 through consultation with the SETT; • Develop Site Specific Consultation Based Design Features to minimize impacts through consultation with the SETT; 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 in an alternative location; • Demonstrate that project infrastructure will be co-located with existing disturbances to the greatest extent possible; • Develop Site Specific Consultation Based Design Features to minimize impacts through consultation with the SETT; and • Mitigate for unavoidable impacts through compensatory mitigation via the Conservation Credit System. 	<ul style="list-style-type: none"> • Demonstrate that the project will not have indirect impacts to sage-grouse and their habitat within SGMAs. If it cannot be demonstrated, the project proponent will be required to develop Site Specific Consultation Based Design Features to minimize impacts and compensatory mitigation will be required.

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