

**FINDING OF NO SIGNIFICANT IMPACT FOR ISSUANCE OF
AN
INCIDENTAL TAKE PERMIT
FOR THE**

**Greater Sage-Grouse Programmatic Candidate Conservation
Agreement with Assurances for
Private Rangelands in Harney County, Oregon**

**Prepared by
U.S. Fish and Wildlife Service**

May 7, 2014

Introduction

Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA), the U.S. Fish and Wildlife Service (Service) has completed an Environmental Assessment (EA) for the proposed issuance of an Enhancement of Survival Permit (EOS permit) to the Harney Soil and Water Conservation District (Harney SWCD) for implementation of the Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon (CCAA). Issuance of the permit would be done under the authority of section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. 1531 et seq.), and would be conditioned upon full and complete compliance with and implementation of the CCAA. The proposed permit would authorize incidental take of up to 1,966 greater sage-grouse (sage-grouse) over the 30-year term of the permit if 100% of the lands in the covered area are enrolled under the CCAA. The covered area consists of approximately 1.2 million acres of privately owned lands within the range of the sage-grouse in Harney County, Oregon. Interested private landowners would be able to apply for a certificate of inclusion under the CCAA and be covered by the permit if they work with Harney SWCD to develop a site-specific plan (SSP) and agree to implement conservation measures that address threats to sage-grouse on their lands.

In the EA, the Service evaluated the potential environmental effects associated with the Proposed Action described above and two additional alternatives: (1) a No Action Alternative; and (2) a Landowner-Specific Alternative. Under the No Action Alternative, the Service would not enter into any CCAAs for the sage-grouse in Harney County, Oregon nor issue any associated section 10(a)(1)(A) EOS permits. Thus, 0% of the covered area would be enrolled under a CCAA, however, existing protections for the species would remain in effect. Under the Landowner-Specific Alternative, the Service would enter into individual CCAAs with interested landowners on a case-by-case basis, and issue an EOS permit directly to the landowner. It is estimated that 25-30% of the covered area would become enrolled under the Landowner-Specific Alternative compared to 40-60% under the Proposed Action due to the efficiencies associated with a programmatic CCAA.

Decision and Rationale

Based on our review of the CCAA, the analyses in the EA, and consideration of public comments, we selected the Proposed Action because it:

- Provides for a landscape scale, long-term conservation strategy that is likely to be effective for the sage-grouse by reducing or removing threats to the species on private lands through proactive ranch and land management that emphasize protection and enhancement of sage-grouse habitat;
- Provides for a well-defined adaptive management process under the CCAA that is informed by habitat quality and effectiveness monitoring conducted on enrolled lands;
- Provides for a programmatic approach that is a more cost-effective and efficient process for conserving the sage-grouse compared to individual landowner CCAAs under the Landowner Specific Alternative; and

- Encourages the highest level of Harney County landowner participation in a sage-grouse CCAA due to the simplified and streamlined enrollment process under the programmatic CCAA. Higher landowner participation is likely to result in more sage-grouse habitat being enrolled under the CCAA and larger landscape scale conservation benefits to the sage grouse.

Finding of No Significant Impact

Based on the information presented in the EA and the CCAA, and consideration of public comments, we find that the proposed issuance of an ESA Section 10(a)(1)(A) EOS permit to the Harney SWCD for incidental take of the sage-grouse caused by implementation of the “Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon” is not likely to significantly affect the quality of the human environment for the following reasons.

1. ESA regulatory assurances conferred to enrollees will provide an incentive for landowners to work proactively with the SWCD and the Service to address the threats to the sage-grouse found on their properties. This effort would benefit sage-grouse populations by maintaining habitat quantity and quality and limiting habitat fragmentation on 40-60% of private lands in the covered area. These benefits to the sage-grouse, while substantial, are not expected to rise to the level of significance when considered in the context of the eleven-state range of the species.
2. The actions under this CCAA are not expected to have any significant effects to public health and safety because activities associated with the permit action, if carried out as prescribed, have a low probability of impacting human health and safety and would occur on private lands where public access is restricted.
3. The implementation of the CCAA is not expected to significantly impact unique characteristics of the geography including but not limited to: parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. We reached this conclusion because the preferred alternative will result in maintenance and enhancement of sage-grouse habitat with little to no new ground disturbance.
4. The majority of public comments supported the concept of a CCAA to improve habitat conditions for the sage-grouse. Although there were recommendations for modifications to the CCAA and the EA, overall, these recommendations do not result in controversy.
5. Implementation of the CCAA is not highly uncertain and does not involve unique or unknown risks on the human environment because the proposed action provides conservation measures (CMs) to maintain and enhance sage-grouse habitat while maintaining the agricultural way of life in Harney County.
6. The Service has concluded that the minor adverse effects of the proposed permit action in the covered area within Harney County are unlikely to result in an appreciable reduction in the likelihood of survival and recovery of the sage-grouse across its entire range (USFWS 2014c).

7. The effects of CMs implemented under the programmatic CCAA are not expected to rise to the level of significance relative to the impacts of the Proposed Action on the human environment. Although these CMs may be included in future CCAAs for the sage-grouse, the above finding does not constitute a precedent because all future applications for other sage-grouse CCAA-related ESA permits will have their own decision process.
8. The short-term economic costs to participating landowners from implementing CMs under the programmatic CCAA are likely to be off-set by long-term, minor socioeconomic benefits associated with improved range conditions and assurances that covered ranching operations can continue without additional restrictions should the sage-grouse be listed under the ESA. Additionally, there will be no impacts to minority or low-income populations caused by the proposed permit action.
9. No impacts to cultural or historic properties are anticipated with implementation of the Proposed Action. If such resources are found on private lands enrolled under the programmatic CCAA, the landowner would be responsible for adhering to all laws regarding protection of cultural and historic properties.
10. The CMs implemented under the programmatic CCAA that address riverine, riparian and wetland habitats are anticipated to provide benefits to the threatened bull trout, Lahontan cutthroat trout, and the Columbia spotted frog, and to the yellow-billed cuckoo, a candidate for listing under the ESA. However, such beneficial effects are not likely to rise to the level of significance relative to the impacts of the Proposed Action on the human environment because there are minimal acres within the covered area under the programmatic CCAA where these species are likely to occur. No adverse impacts are anticipated to any of these species with implementation of the Proposed Action.
11. Under the Proposed Action, issuance of the ESA permit is conditioned upon applicant adherence to all local, state, tribal, and federal laws and regulations. Therefore, implementation of the Proposed Action is not likely to violate these laws and regulations.

Public Involvement and Comments Received

The CCAA was developed with considerable input from, and collaboration with, local private landowners, Federal, State and local government and other non-governmental organizations. The Steering Committee that worked closely with the Service to develop the CCAA includes representatives from: local private landowners, Harney SWCD, Service, Natural Resources Conservation Service, Harney County Court, Oregon Department of Fish and Wildlife, Bureau of Land Management, Oregon State University Extension, The Nature Conservancy, Department of State Lands, and Eastern Oregon Agricultural Research Center. On January 15, 2014, we issued a Notice of Availability in the *Federal Register* (79 FR 2683) for the draft Programmatic CCAA and draft EA for public review. A 30-day public review and comment period was open until February 14, 2014. The draft EA and draft CCAA were available at the Service's Oregon Fish and Wildlife Office website, and were available for review at the Bend Field Office in Bend, Oregon and Harney SWCD in Hines, Oregon.

We received eight comment letters from the following entities: one county government, two SWCD's, two non-governmental organizations, two Harney County landowners, and one from the general public. The majority of commenters supported the proposal. However, some commenters provided recommendations regarding incidental take, conservation measures, cumulative impacts, responsibilities of the parties, and other aspects of the CCAA and EA. None of these comments identified any significant new environmental impacts that had not already been addressed in the draft EA. For a detailed description of substantive comments and Service responses please see Appendix A.

Changes Made Between Draft and Final CCAA and EA

A number of changes were made to both the CCAA and EA to address public comments. These included recalculating and describing incidental take; minor changes to conservation measures; additional best management practices for herbicide use; expanded cumulative effects in the EA and clarification of responsibilities of the parties to the CCAA. For a detailed description of the changes made in response to comments see Appendix A of this document.

Conclusion

Based upon my review and evaluation of the information contained in the EA, Programmatic CCAA and other supporting documents, I have determined that the issuance of the EOS permit and implementation of the CCAA, as proposed, is not a major Federal action that will significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969. Accordingly, preparation of an environmental impact statement on the Proposed Action is not required.

Documents used in preparation of this finding of no significant impact include the EA (USFWS 2014a), Programmatic CCAA (USFWS 2014b), and Intra Service Section 7 Conference Opinion (USFWS 2014c). All documents are incorporated herein by reference, as described in 40 CFR 1508.13. All supporting documents are on file and available for public inspection, by appointment, at: U.S. Fish and Wildlife Service, Bend Field Office, 63095 Deschutes Market Road, Bend, OR 97701; (541) 383-7146.



Richard Hannan
Deputy Regional Director, Region 1
U.S. Fish and Wildlife Service

May 13, 2014

Date

Supporting References

U.S. Fish and Wildlife Service (USFWS). 2014a. Environmental Assessment for the Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon

USFWS. 2014b. Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon.

USFWS. 2014c. Conference Opinion, Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon.

Appendix A – Public Comments and Responses

Comments Related to Regulatory Authority/Certainty, Candidate Conservation Agreement (CCA) Standard, & Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE):

1. **Commenter 1:** It is unclear that the CCA as written will 1) provide an effective means for reducing or removing threats to sagebrush steppe ecosystems or 2) implement effective regulatory mechanisms to protect sage-grouse. This is because the agreement is primarily aimed at preserving status quo land uses that have contributed to the current plight of the sage-grouse through direct impacts and degradation of its habitat, and because the conservation measures that the agreement would rely upon lack certainty both with respect to implementation and enforcement. Thus, the current CCA is not convincing as specific support for avoiding the listing of sage-grouse under the PECE.

FWS Response: The Greater Sage-grouse Programmatic CCA for Private Rangelands in Harney County (Programmatic CCA) provides significant conservation beyond the “status quo” by providing 65 Conservation Measures (CMs) and Changed Circumstance Conservation Measures (CCCM) that private landowners will implement to address applicable impacts on their enrolled property, ranging from landscape level impacts of fragmentation to specific measures to reduce direct mortality such as fence strikes (please see Appendix A and Section 15 of the Programmatic CCA).

We added language to the *Section 13 Expected Benefits* of the Programmatic CCA that clarifies how this agreement helps to address the subset of threats found in Harney County and meet the CCA standard which states:

The standard for issuing an enhancement of survival (EOS) permit is: “When evaluating a potential CCA, the FWS must determine that the benefits of conservation measures to be implemented by a property owner under a CCA, when combined with those benefits that would be achieved if the conservation measures were also to be implemented on other necessary properties, would preclude or remove any need to list the covered species.”(50 CFR 13 & 17)

The Service will evaluate all conservation efforts in place including this Programmatic CCA in accordance with (PECE) during the sage-grouse listing determination as stated in Section 7 of the Programmatic CCA.

2. **Commenter 1:** Who will pay for the extensive ongoing monitoring (which is required annually), compliance evaluations, and general upkeep of the program? Is there secured funding or guaranteed appropriations? See CCA at lines 1277–1281. If not, can the FWS issue an EOS in light of §10’s requirement that “the signatories have shown **capability for and commitment to** implementing all of the terms of the programmatic CCA”?

FWS Response: The Harney SWCD is responsible for collecting and evaluating monitoring data (see Section 9, Responsibilities of the Parties) and has secured funding to begin implementation of the Programmatic CCAA and will continue to pursue additional funding sources. They have already hired personnel to conduct baseline inventory and develop site specific plans. The SWCD funded three part time staff to develop the agreement. The SWCD has secured additional funding for outreach to private landowners, development of SSP's, and to implement conservation measures. Additionally, the Burns NRCS Office has agreed to prioritize funds from the sage-grouse initiative for landowners enrolled in the Programmatic CCAA to help implement conservation measures (juniper treatment, annual grass control, fence marking and grazing systems). The Oregon Watershed Enhancement Board has provided technical assistance and education and outreach funds to the Programmatic CCAA effort. Because they also provide funds for sage-grouse habitat improvement projects, they will likely be a source of funding for implementing CMs. For these reasons the Service believes that SWCD has shown capability for and commitment to implementing the Programmatic CCAA. If the SWCD fails to fulfill its responsibilities, the Service has the authority to suspend or revoke the permit.

3. Commenter 1: Further, the CCAA relies heavily on adaptive management. How does the ability to modify conservation measures in the context of changed circumstances and grazing management, for example, contribute certainty to this conservation effort?

FWS Response: “Adaptive management” is a method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned. Section 6 of the Programmatic CCAA *Inventory and Monitoring, Use of Adaptive Management in the CCAA Process*, describes the need to incorporate new information, monitoring results, and changing conditions to conservation of sage-grouse. Sagebrush rangelands take many years to respond to treatments and in arid systems adaptive management is a necessary part of this effort. Including language in the SSP that allows for a mutually agreed upon approach to address Changed Circumstances provides flexibility to use new information and methods to address threats that may develop during the 30-year term of the Programmatic CCAA. The Programmatic CCAA provides a framework for making objective decisions in the face of uncertainty.

4. Commenter 1: What qualifications and special expertise would be required of SWCD staff conducting an initial assessment of ecological state, or a baseline inventory/collection/summary of ecological data?

FWS Response: The necessary qualifications include but are not limited to knowledge,

expertise, and experience in interpreting ecological site data; rangeland data collection and evaluation experience; and the ability to collect the baseline data, develop site specific plans and complete ongoing monitoring for the SSPs. The SWCD has already hired staff with this expertise.

5. Commenter 1: How involved will FWS be? What will its review/approval process entail? It is crucial to properly establish the ecological baseline, because it will be used to measure habitat quantity and quality as well as changes in both.

FWS Response: The FWS concurs that establishing the ecological baseline for the enrolled site is essential. The Service will be directly involved with the SWCD and landowners in the development of the first 5 SSP's. We will have direct involvement in site visits, completion of baseline inventory, selection of CMs, setting objectives and all other phases of SSP development. This will help to ensure that SWCD staff and FWS have a common understanding of the development of the SSP and that they meet the CCAA standard. Once the first five have been completed, FWS will review every SSP as outlined in FWS Response 7 below, and as outlined in the Section 9 of the Programmatic CCAA "Responsibilities of the Parties", and ensure it is consistent with the Programmatic CCAA and the CCAA standard prior to our written approval.

6. Commenter 2: We strongly agree with the need for USFWS concurrence on site-specific plans ("SSPs"). Under the CCAA, participating parties would sign a site-specific plan with the Harney County Soil and Water Conservation District and be issued a Certificate of Inclusion pursuant to Section 10 of the Endangered Species Act ("ESA"). Without USFWS approval of the SSP, we are concerned that the Conservation District will approve SSPs that do not adequately address site-specific threats to sage grouse through the application of the appropriate CMs needed to minimize such threats. The CCAA must therefore require USFWS approval of all SSPs. If the USFWS is agreeing to waive compliance with Section 9 of the ESA, then at minimum it should receive in return the right to approve (or not approve) SSPs that will result in Certificates of Inclusion under the CCAA.

FWS Response: We provided additional clarity in *Section 9: Responsibilities of the Programmatic CCAA*, the FWS will approve every SSP prior to issuance of a Certificate of Inclusion. The first 5 SSP's will be developed with full involvement from FWS, see FWS Response 5 above.

7. Commenter 1: By what objective standards will FWS approve an SSP?

FWS Response: The FWS will review each SSP to ensure that:

- all threats found on enrolled lands will be addressed with one or more appropriate CM;
- acceptable quantitative and qualitative objectives have been set;
- there is a timeline for implementation of each action;
- the SSP is in compliance with the Programmatic CCAA, and

- the prescribed CM's are adequate to meet the CCAA standard.
8. Commenter 1: How do these concerns (*referring to who will pay, enforceability, adaptive management, measurable standards.*) play into FWS's evaluation of the conservation measures for their adequacy as regulatory mechanisms?

FWS Response: See responses to comment number 2 for who will pay; number 1 for enforceability; number 3 for adaptive management; and number 7 and 17 for measurable standards. We believe that the programmatic CCAA adequately addresses these issues and meets the regulatory requirements for issuance of an EOS permit.

9. Commenter 2: The monitoring provisions for riparian systems appear sound, but one important change is needed to the language. In the following sentence, "If photo monitoring indicates an unstable ecological state then a CM should be applied with further assessment such as Proper Functioning Condition (PFC)", the word "should" must be replaced with "will." The word "should" is discretionary by nature and carries no legal authority; it has no business in a legal instrument such as a CCAA.

FWS Response: We agree. The word "should" has been changed to "will".

Comments Related to Take Assessment:

10. Commenter 1: The level of take authorized is not reasonable based on the invalidity of the threat ranking methodology used by FWS to assign risk to activities that are expected to take sage-grouse. Commenter 1 questions the use of TNC's Action Planning Handbook's alternative threat ranking. In particular, the threat rankings assigned to different activities are arbitrary and contain no explanation for how FWS or TNC assigned a particular value. For example, the irreversibility of rangeland treatments is not "low." Full recovery of many sagebrush communities ranges between 25 and 120 or more years. The overall threat rankings for both rangeland treatments and livestock management should not be low. Livestock grazing can seriously degrade sage-grouse habitat, alter communities and make systems less resilient, and the ability for areas to restore or rehabilitate is highly depended on the specific site. The severe risk to sage-grouse from range treatments was recognized by the COT Report (see below). Finally, it is very unclear from the CCAA how TNC's threat ranking even plays in to the calculation of take.

FWS Response: The FWS has revised our take evaluation, rather than using the threat ranking methodology, we evaluated published and non-published studies on collared and non-collared sage-grouse and used this information to develop "take percentages" to assess projected incidental take from covered activities (refer to Section 12 and Appendix F of the Programmatic CCAA). Additionally, we revised Section 10, Covered Activities of the CCAA to clarify activities that are covered and added new information to Section 11, Anticipated Incidental Take that clarifies the forms of take e.g. Injury or Death, Harm, and Harassment that are anticipated from implementation of covered activities including CMs.

11. Commenter 1: The take calculation should have looked at the specific subpopulations present in Harney County rather than using the estimated sage-grouse population from the entire state.

FWS Response: Initially we considered calculating take based on the number of sage-grouse in Harney County, however ODFW does not calculate populations at the county level. ODFW calculates it annually based at the statewide level. Additionally, in anticipation of the creation of other CCAAs for sage-grouse in Oregon we wanted to remain consistent in our calculations and to be consistent from agreement to agreement, using the statewide average bird density based on PPH and PGH.

12. Commenter 1: In addition, it appears that the 3% annual take that FWS decided would not jeopardize sage-grouse was not reached through actual calculations of expected take, but was chosen for the very fact that FWS believes it is a defensible amount of take. As such, FWS's take calculations are not reasoned and are arbitrary.

FWS Response: We have recalculated take (See FWS Response 10). Based on this information the estimated take for the Programmatic CCAA will be <5%, which is still within acceptable limits of take for sage-grouse populations. (See Section 12 Authorized Take, Impacts of the Taking in the Programmatic CCAA)

13. Commenter 3: I would like an increase in the amount of take allowed through this CCAA. Where did the 3% number come from? If 11% of a sage-grouse population can be taken annually with little or no negative effects, and up to 5% is taken by hunters in Oregon, the CCAA could allow 5-6% take with no negative effects to the population (Sedinger 2010; Connelly 2000; ODFW 2010). It may be unlikely for the take associated with this CCAA to ever reach the 3% (or 5-6%) level, and if that's the case, there is no reason why not to raise the level to 5-6%. The CCAA will do good things for sage-grouse, and raising the take to 5-6% will give an extra layer of insurance to private landowners looking to enroll.

FWS Response: As noted in FWS Response 10 and described in Section 12 of the Programmatic CCAA, we have re-calculated the allowable take for this CCAA, which resulted in a small increase of take, from 3% to <5%. This new quantification of take is based on the best available scientific information and the implementation of CM's and BMP's contained within this document are designed to minimize the levels of take that are occurring on enrolled lands.

Comments related to Conservation Measures:

14. Commenter 2: The "no net loss" of habitat quantity and quality provisions of CM1 (the only required conservation measure) would be adequate if and only if they required both no net loss of habitat quantity and no net loss of habitat quality. See CCAA at 9. However, this conservation measure is substantially undermined by the provision that "Losses in sage-grouse habitat quantity may be offset by increases in sage-grouse habitat quality and vice versa." *Id.* This provision would allow further fragmentation and reduction of available sage

grouse habitat if the habitat that remains increases in quality. There is no scientific basis for such trade-offs. Indeed, sage grouse are a landscape species, requiring large tracts of undisturbed habitat (Manier et al. 2013). This tradeoff language would allow available habitat to be reduced or fragmented below the threshold that sage grouse can still use the land, regardless of the quality of the habitat that remains. The referenced sections allowing and either/or approach to maintaining habitat quantity or quality should therefore be stricken from the CCAA. At minimum, a size threshold of sage grouse habitat blocks should be applied under the CCAA.

FWS Response: We added additional language to CM 1: *“Losses in sage-grouse habitat quantity may be offset by increases in sage-grouse habitat quality and vice versa, as long as the action avoids further fragmentation.”* These actions must be consistent with *Section 10. Covered Activities - development subsection* which states:

Developments

- Existing ranch infrastructure and fences
- New buildings associated with ranch operations (e.g. hay barn, ranch house)
- Facilities such as new fences, roads, and power lines necessary for ranch operations

Stipulations on Developments in this CCAA

- If proposed new buildings and facilities impact existing sage-grouse habitat the proposal will need to include internal mitigation that will ensure enrolled lands will still meet the CCAA standard. These actions must be completed, or funded and scheduled prior to any loss of habitat quality or quantity associated with the new construction. The type of planned development, scale in relation to enrolled acres, and location relative to important areas of sage-grouse use, present habitat condition, and conformance with relevant regulatory policies will be taken into account when developing the SSP.
- Developments that are not associated with the immediate operations of the ranch (e.g. multiple unit residential development or subdivisions, resort developments, energy developments) are not covered activities under this agreement.

15. Commenter 2: All conservation measures described in Appendix A of the CCAA other than CM1 are voluntary, and thus it makes no sense to limit the possible benefit to sage grouse by drafting conservation measures that describe actions that deliver less than what would be optimal for sage grouse habitat improvements.

FWS Response: CCAA’s are voluntary agreements, but to receive coverage under the EOS permit the participating landowner must develop a SSP that adopts and implements CMs that address each threat found on the enrolled land. The CM’s in Appendix A are a “menu” of options that the SWCD, landowner and FWS will choose from to best address the threat. See FWS Response 13-15, 16 for additional information.

16. Commenter 2: In the CCAA, only Conservation Measure (“CM”) 1 is mandatory, the remainder are voluntary. According to USFWS, “By signing a SSP and CI, the landowner would agree to implement selected CMs associated with current or future activities on the enrolled land.” Which selected CMs would be required would presumably vary on a case-by-case basis. The following provision of CCAA policy, “The signatories have shown capability for and commitment to implementing all of the terms of the programmatic CCAA” is rendered moot due to all measures other than CM1 being voluntary in nature. Thus, engagement in any and all other Conservation Measures is voluntary on the part of the participating party, and there is no assurance that any one conservation measure will be adopted under the terms of the CCAA. In order for the CCAA to satisfy USFWS requirements the CCAA must reach the preclusion threshold outlined above.

FWS Response: See Response to Comment 15. Additionally, Section 4 of the Programmatic CCAA states:

*Each participating landowner will work with the SWCD to develop an SSP intended to promote good land stewardship by implementing actions on their enrolled lands that benefit sage-grouse. The landowner and SWCD will **identify threats and select CMs identified in the programmatic CCAA for inclusion in their SSP.** Individual SSPs will be consistent with the activities and CMs identified in the programmatic CCAA and will describe specific conservation practices that will be implemented on the enrolled lands to maintain, rehabilitate, or enhance habitat for the species, and remove or reduce any unfavorable impacts to the species arising from the management of these lands. **Since all appropriate CMs cannot be anticipated, additional CMs can be included in the individual SSPs,** which were not identified in the programmatic CCAA and that support healthy sage-grouse habitat, provided the landowner, SWCD, and FWS mutually agree to the CM. Once the individual SSP has been approved by the landowner, SWCD, and FWS, the SWCD will issue a Certificate of Inclusion (CI) to cover the agreed upon rangeland management practices and provide the landowner with coverage.*

The list of conservation measures in Appendix A will serve as a menu of options for all parties to use when developing SSP’s. Each identified threat will be addressed with one or more CM from the list and additionally, conservation measures not identified on this list may be developed with landowner agreement and with the approval of FWS. (See Section 5 and Appendix A of Programmatic CCAA for complete information). Additionally, we clarified language on page 11 of the EA regarding “selected CMs”, to read as follows: “By signing a SSP and CI, the landowner agrees to implement the agreed upon CMs associated with current or future activities on the enrolled land.”

17. Commenter 1: How many conservation measures is each landowner required to adopt in an SSP?

FWS Response: All enrolled landowners must adopt CM 1 and additional CM’s to address every threat to the species on enrolled lands within their control. See response to comments 15 and 16.

18. Commenter 1: How many threats must each landowner address?

FWS Response: All threats within their control

19. Commenter 2: If a Party to the CCAA elects only to implement CM1, together with CCCMs as described, will the listing preclusion threshold be met?

FWS Response: To meet the criteria of the CCAA standard the landowner must identify and address all threats within their control, see Response to comments 1, 14 - 18.

20. Commenter 1: CM 2: This conservation measure still allows new developments (roads, buildings, power lines). CM 3, 4, and 5: There is no certainty associated with these conservation measures. They only require an enrollee to “consider” doing something, or to do so when “economically feasible” or “where possible.” What are the standards for determining what’s possible and economically feasible? How does language like this ensure real changes on the ground that decrease threats to sage-grouse?

FWS Response: For CM 2, all development actions that are covered under this agreement must conform to the stipulations for Development, presented in *Section 10: Covered Activities, Development sub-section*. For CM 3, conservation easements are one tool available to landowners, that we would like landowners to “consider”. However, it is not the only way to avoid fragmentation and is therefore not required. For CM 5, during SSP development, SWCD will identify potential vertical structures for removal, some may be moved or re-located by the landowner, others may be outside the landowners’ direct control (powerlines) or require further clearances. The standards for “what’s possible and economically feasible” will vary on a case-by-case basis and the degree of threat to sage-grouse. For example, if there is a single pole line going to a water trough in nesting habitat it would be a much higher priority for removal/burial than powerlines servicing a residence not located in nesting habitat.

21. Commenter 1: CM 6: Landowners would be required to “consider” a host of “proactive prevention measures” with respect to fire. Again, the entirety of this CM is unenforceable. A landowner does not have to do anything beyond considering these measures.

FWS Response: The FWS acknowledges that measures available to private landowners to address the adverse impacts of wildfire are limited. CM 6 provides proactive measures that depending upon the site specific conditions of enrolled lands may or may not be effective or desirable. Therefore, it is not required that these be included in the SSP. CM 6 has been modified to read as follows: “*The following proactive prevention measures may apply*” the use of the word “may” is intended to provide for flexibility. The SWCD with the landowner may develop other measures (with FWS approval as specified in the opening paragraph of *Appendix A Conservation Measures*) if the “proactive prevention measures” listed are not adequate.

22. Commenter 2: CM 6(a) should be modified to read as follows: “In years of high fuel load accumulation, strategically utilize livestock grazing to reduce fuel loads while maintaining suitable habitat for sage-grouse with a minimum 18 cm stubble retention in

nesting and brood-rearing habitat, consistent with the livestock management practices section.”

FWS Response: As indicated in FWS Response 5 and 6, FWS will approve all CMs adopted in SSPs based on baseline monitoring information and ecological site conditions and capabilities. Setting utilization thresholds and stubble height requirements at a programmatic level are impractical due to the variety of ecological sites in the covered area. As part of FWS review of any fuels reduction treatment using livestock grazing, FWS will evaluate whether or not the prescribed grazing is at levels that will negatively impact sage-grouse habitat.

23. Commenter 1: Similarly, some “juniper-encroached rangeland” is certain to have been historic woodland. Removing junipers from the landscape will not magically turn land into sage-grouse habitat, where habitat never was.

CMs 9–17: The EA states that “because the CCAA takes an ecological approach, ecological sites that historically supported juniper woodlands will not be targeted and impacts to associated species will be limited to areas that were not historically occupied by juniper.” How does FWS define “historic”? What methods will be used to determine whether areas were woodlands at the time of settlement or first disturbance?

24. **FWS Response:** The Service agrees that not all juniper woodlands are capable of being restored or should be treated at all. By “woodland” we specifically mean juniper expression equal to that described for phase 3 woodlands in Miller et al. (2007). It is critical to determine the vegetation potential for the site in question. Not all ecological sites capable of supporting juniper woodlands are capable of supporting the strong perennial herbaceous and shrub plant communities needed to provide sage-grouse habitat. Such sites are often on rocky soils and topographically may occur near the top of a hill slope. These sites often support what are termed “historic” juniper woodland plant communities. Characteristics used to define historic juniper woodlands have been developed by Miller (Miller et al. 2005) and include age of trees and presence of shrub skeletons (i.e. shrubs killed due to competitive interactions with juniper) that suggest previous abundance of alternate understory vegetation species. These characteristics, along with Ecological Site guidelines will be used in determining historic status of woodlands, and if a juniper woodland is capable of supporting understory plant conditions necessary for sage-grouse habitat. If the juniper woodland is not deemed to be “historic”, then treatments must be carefully thought out because removal of phase 3 juniper, particularly at large scales, can lead to erosion and loss of site potential; particularly if sufficient desired understory plant propagules are not present (Pierson et al. 2007; Miller et al. 2013). Juniper removal within as a CM in the SSP’s will focus on non-historic sites with strong understory potential that are in the early phases of juniper encroachment; post-removal restoration practices are not likely to be needed on such sites and the potential to provide post-removal sage-grouse habitat is high (Baruch-Mordo et al. 2013).

25. Commenter 1: An additional CM should be added to the Exotic Invasive Vegetation section to address the significant negative impacts that crested wheatgrass seedlings have had on sage grouse and grouse habitat, as follows: “Crested wheatgrass seedlings should be restored to native sagebrush steppe vegetation through the planting of sagebrush and native grasses and the suppression of crested wheatgrass.”

Commenter 1: A major goal for ecological trends should be to move out of crested wheatgrass states where seedlings are present. As noted, these areas are unlikely to provide habitat for sage-grouse during the life of SSPs, and thus should not be used to offset loss of sagebrush habitat, but should nonetheless be a focus of restoration as a benefit to the ecosystem as a whole.

FWS Response: Restoration of crested wheatgrass (CWG) to native vegetation communities that lack CWG is difficult, and not desirable in all cases. Recent research suggests that restoring native herbaceous species within existing crested wheatgrass communities has a low probability of success (Rafferty & Young 2002; Monaco et al. 2005). CWG is both difficult to kill, and residual plants are highly competitive with native plant seedlings. Additionally, desired native herbaceous species may be very difficult to establish from seed on lower elevation sites. A second consideration is that large, deep-rooted perennial bunchgrasses including CWG play a key role in helping to prevent invasion by exotic annual grasses on low elevation sites (Chambers et al. 2007; Young & Mangold 2008). Thus, removal of CWG can put plant communities at risk to annual grass invasion if re-establishment of native herbaceous species is not successful. For these reasons, the Harney County CCAA does not emphasize CWG removal followed by herbaceous restoration. Alternatively, restoring sage-brush in CWG communities by planting plugs (juvenile bare root transplants) does show promise as a technique to restore sagebrush (Davies et al. 2013; McAdoo et al. 2013) and the habitat structure needed by sage-grouse and other shrub associated avian species (McAdoo et al. 1989). For this reason, we have added CM 44 under *Vegetation Treatments in Appendix A* within the Programmatic CCAA specifically addressing planting of sagebrush within stands of introduced perennial grasses.

26. Commenter 2: CM 28 should be modified to read as follows: “Avoid construction of new livestock facilities (livestock troughs, fences, corrals, handling facilities, “dusting bags,” etc.) at least 4 miles from leks or other important areas of sage-grouse habitat (i.e., known wintering and brood rearing areas) to avoid concentration of livestock, collision hazards to flying birds, or avian predator perches.

Commenter 1: Direct impacts from grazing should be minimized by avoiding activities and development in the vicinity of sage-grouse leks. The buffer of 0.6 miles recommended by CMs 19, 20, and 28 is not enough. The NTT report recommends a buffer of 4 miles and Knick and Connelly 2011 recognize a correlation between disturbance within 3.1 miles of a lek and decreased lek attendance. These direct impacts to breeding areas should be avoided, not just reduced.

FWS Response: The National Technical Team (NTT) report recommends buffers around mineral, energy and other developments, similar to the following: *“If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section.”* Actions such as these are not covered activities under the Programmatic CCAA. The NTT does not recommend the same buffers around livestock developments. FWS followed recommendations in the ODFW Conservation Strategy to reduce physical disturbance to sage-grouse leks from livestock through managing locations of salt or mineral supplements by placing them greater than 1 km (0.6 mi) from lek locations. (ODFW 2011)

27. Commenter 1: In developing grazing plans, landowners should manage for large livestock-free areas of land during sage-grouse breeding season and minimal winter disturbance.

Grazing plans should implement measurable utilization standards rather than adaptive management.

Rather than promoting more livestock developments, grazing plans should adjust grazing levels or seasons in order to strive to reduce livestock developments in the uplands. Reduction of pressure on riparian areas should be used to meet conservation goals rather than fencing riparian areas so that water developments in the uplands become necessary.

Grazing conservation measures should include sufficient long term or permanent rest in order to recover vegetation (Anderson and Holte 1981; Belsky and Gelbard 2000).

FWS Response: CMs 21 – 26 and 28 contain the necessary information to implement changes to grazing management when the threat of “improperly managed grazing” is identified during SSP development. Please refer to the opening paragraph on page 47 of the Programmatic CCAA, “Threat: Unmanaged and/or Improper Grazing”, for additional modifications to the CCAA to address your comments.

28. Commenter 2: CM 29 should be modified to read as follows: “Refer to the model by Bryan Stevens for identification of areas that may contain fences that pose the highest threat to sage-grouse, remove these fences and if this is not possible then mark these fences with anti-strike markers or other agreed upon visual markers (Stevens 2011).”

FWS Response: CM 29 now reads: *“Refer to the model by Bryan Stevens for identification of areas that may contain fences that pose the highest threat to sage-grouse. In high risk areas, remove unnecessary fences and relocate or mark needed fences with anti-strike markers or other agreed upon visual markers (Stevens 2011).”*

29. Commenter 2: In order to minimize direct mortality of sage grouse from herbicide application pursued with a goal of invasive species eradication, CMs 34, 35, 45, and 46 should be modified by adding an additional provision: “Herbicide application will not occur within one mile of occupied sage grouse habitat during their season of use by sage grouse, unless said application occurs by hand rather than from aerial spraying.”

FWS Response: SWCD and FWS lack specific information on the year-round locations of sage-grouse to enforce a modification of this nature, however we added additional language to BMP 12 in Appendix F of the Programmatic CCAA to further restrict aerial and ground broadcast applications to minimize impacts.

30. Commenter 2: CM 43 should be modified to include an additional measure to prevent destruction of sage grouse habitat due to sagebrush manipulation projects, which has been a pervasive problem in the past. This provision should read: “Sagebrush canopy density shall not be reduced below 25% during the course of vegetation manipulation projects.”

FWS Response: CM 43 states: “Use brush beating in mosaic patterns as a tool to increase production of understory species and to increase diversity to benefit sage-grouse habitat. Current recommendations suggest brush beating (or other appropriate treatment) in strips (or a mosaic pattern) 12 to 50ft wide (with untreated interspaces 3 times the width of the treated strips) in areas with relatively high shrub cover (>25%)...”, this CM in combination with CM 48 will ensure that adequate cover for sage-grouse remains.

31. Commenter 1: Dense sagebrush was a natural part of pre-settlement conditions (Bukowski and Baker 2013). It should not be considered an aberrant state. Connelly et al 2000 and other studies used sage canopy standards averaged from many areas. Sagebrush landscapes are often complexly interspersed with big sage and low sage. To set the appropriate baseline, SWCD needs to look at the sagebrush present in an area as a whole, including a hard look at the entire past disturbance history of the site and its surroundings.

Commenter 1: As an example, conservation objectives for Ecological State D (site dominated by “decadent” sagebrush) include “reestablishment of deep rooted perennial vegetation and experimentation with various methods for reestablishment that might be necessary to cause desirable shift in vegetation.” In other words, based on the CCAA’s vegetation models, landowners may destroy climax sagebrush to bring back grasses, which benefit cows

FWS Response: When SSPs are developed the Conservation Objectives for each “ecological state” found on the property will be incorporated into the plan. For example, the objective for ecological state D in the Low elevation model states: *Maintain a dominant over-story layer of sagebrush and reestablish deep-rooted perennial vegetation.* Habitat disturbance history will be addressed as part of the SSP development (Appendix C). See responses to comments 30 and 37 and CMs 43 and 48 in Appendix A of the Programmatic CCAA for additional information.

32. Commenter 1: Whatever method is chosen to measure habitat quality should be explicit with respect to meeting specific seasonal habitat needs for sage-grouse such as sufficient vegetation height for nesting and providing foraging habitat for early and late-brood rearing, riparian areas and meadows, or habitat associated with sage-grouse wintering grounds. The CCAA as written does not include these measurable standards.

FWS Response: The Programmatic CCAA focuses on the ecological health of the plant community, see Appendix C: “*Ecological States and their relationship to sage-grouse habitat*”. Trend monitoring will be used to assess effectiveness of treatments over time and transition from state to state.

33. Commenter 2: CM 53 and 54 (*Final CM numbers are 54 and 55*): WWP strongly opposes lethal predator control. Rather, landowners should be required to maintain good practices with respect to potential attractants such as carrion, boneyards, livestock waste, afterbirth, water sources and other subsidies in general, not just in the vicinity or a lek or breeding season. Habitat improvement that provides ample cover for nesting should be a primary means of predator control.

FWS Response: CM 54 now reads: “Minimize attractants for corvids, raptors, and coyotes (i.e., dump sites, bone piles, etc.)” We removed the seasonal/site specific nature of this CM. The Service concurs that habitat improvement that provides cover for nesting is the primary approach to minimize the impacts of predation on sage-grouse, their nests, and broods, therefore CM 55 states that: “poor habitat conditions” will be addressed prior to or jointly with lethal predator control. Additionally, one of the three goals of the CCCA is to “Provide an ecological approach to maintain current sage-grouse habitat and to improve habitat that is not meeting conservation objectives, as identified in enrolled landowners’ site specific plans.” By working towards meeting this goal on enrolled lands, cover for concealing sage-grouse and their nests will increase.

34. Commenter 1: For CCCM 2, where shrubs or sagebrush burn, there should be a minimum rest period of several growing seasons in order to make this provision meaningful to promote recovery of sage-grouse habitat. After that, timing could depend on objectives set by SWCD and the landowner.

CM 18: Refer to comments for CCCM 2. Following treatments, there should be mandatory minimum livestock grazing rest periods.

FWS Response: Due to the programmatic nature of this agreement and the variety of ecological sites to be enrolled, setting a minimum rest period is not practical. However, timing of livestock grazing following wildfire will depend on response of desirable vegetation. SWCD and the landowner will identify and set quantifiable objectives for post-fire vegetation recovery based on pre-fire monitoring data, returning livestock grazing once objectives have been met. Additionally, we added language to CM 42 that states “allow adequate rest, generally a minimum of two growing seasons.” The FWS

will approve all CCCM's that are prescribed to respond to wildfire or other disturbance.

- 35. Commenter 2:** Science-based thresholds to determine post-fire recovery of the land (CCCM 2, CCAA at 30) need to be established based on the best available science, and at minimum USFWS needs to participate in the setting of thresholds of recovery post-fire before livestock grazing is re-initiated on burned lands. In the absence of such measures, we are concerned that the SWCD and grazers, working collaboratively, will set restoration thresholds at inappropriately low levels and allow premature return of grazing to burned areas, resulting in increased spread of cheatgrass, medusahead, and other invasive vegetation that is deleterious to sage grouse.

FWS Response: If a wildfire occurs on enrolled lands FWS will review and approve all CCCMs being implemented. As part of FWS review we will look at pre-fire habitat conditions and potentially visit the site if needed to determine if the restoration measures proposed provide the best probability of success for sage-grouse habitat recovery. Clarification was added in *Section 15: Changed Circumstances of the Programmatic CCAA*, about FWS approval process. See Response 33 above as well.

- 36. Commenter 1:** For CCCM 3, and any other time seeding is to be used, landowners should reseed with only local native ecotypes if the area is expected to provide quality habitat for sage-grouse. Favor passive restoration over seeding.

FWS Response: Baseline monitoring that is conducted as part of the Programmatic CCAA will be available to inform restoration (passive or active) post-fire and the FWS will consider all available information when reviewing proposals from the SWCD to respond to changed circumstances.

- 37. Commenter 1:** CCCM 7: there is no certainty for this measure. Adaptive management that could be used to adjust grazing levels *may* include those listed. There should be definitive decreases in livestock numbers required during drought conditions. Drought situations place extra pressure on wildlife including sage-grouse just as drought affects livestock and grazing should yield if the conservation measure is to be meaningful as sage-grouse protection.

FWS Response: Due to the programmatic nature of this agreement it is not feasible to predict the CM or CCCM that will apply in every scenario. The CM's and CCCM's were developed to provide a list for the SWCD and landowners (with FWS approval) to select the most appropriate measure to address threats. The use of the word "may" is intended to provide for flexibility for SWCD and the landowner to develop other measures because new CMs or CCCMs may be developed that better address threats

and can be added with FWS approval. (See Section 5 of the Programmatic CCAA for details on how a new CM may be added).

- 38. Commenter 2:** CCCM 7, regarding drought response and CM 49 should incorporate measurable thresholds of livestock use of vegetation (capped at 25%, per Holechek et al. 2010, Braun 2006) and a minimum 18 cm residual stubble height in nesting and brood-rearing habitats (Connelly et al. 2000, Hagen et al. 2007).

FWS Response: As indicated in FWS Responses 5-7, FWS will approve all CCCM's and CM's adopted in SSP's, setting utilization thresholds and stubble height requirements at a programmatic level are impractical due to the variety of ecological sites in the covered area. If over-utilization is identified as a threat during the SSP development or during a changed circumstance, setting these thresholds may be a necessary component of an SSP.

- 39. Commenter 1:** CCCM 8 and 9: West Nile Virus outbreaks have occurred in sage-grouse habitat in Oregon and will occur again. They are foreseeable and should not be considered a changed circumstance. Conservation measures intended to respond to outbreaks, such as minimizing standing water in stock tanks, should be implemented proactively.

Commenter 2: Measures to minimize the threat of West Nile virus, particularly CCCM 9 (CCAA at 32) must be required to be implemented throughout the life of the CCAA, rather than in response to a West Nile virus outbreak. It makes no sense to wait until a potentially catastrophic disease outbreak to take preventative measures. The time to prevent an outbreak is before it happens, in order to properly address the threat posed by West Nile virus.

FWS Response: West Nile Virus is addressed as both a changed circumstance (See CCCM 8 and 9) and is also covered proactively in CM 55. CM 55 states: *“Minimize unnecessary standing water that could be used as mosquito breeding grounds within sage-grouse habitat. Where new pond construction or water developments are proposed for rangeland management or habitat enhancement purposes, use innovative designs, when possible, to minimize the amount of mosquito habitat that could be created. Work with agency biologists on optimal locations for new water developments.”* Since water facilities (ponds, standing water, etc.) exist as part of normal ranching activities it is anticipated that this CM will be a part of most, if not all SSPs.

- 40. Commenter 1:** CCCM 12 and 13 allow a landowner who is enrolled under the CCAA to develop lands the landowner chose not to enroll in the program, and subsequently adjust CMs for enrolled lands that are affected by the new development. This kind of adaptive management outcome is antithetical to sage-grouse recovery or certainty.

FWS Response: These agreements are voluntary in nature. However, if agreement is not reached on the conservation measures necessary to meet the

CCAA standard, the SWCD must terminate the SSP.

Comments Directed towards the Environmental Assessment:

41. Commenter 1: Further, the EA should have studied the effects to the sage-grouse population generally from geographic areas outside Harney County, including within Idaho and Nevada, where the same sage-grouse population occurs.

FWS Response: Unfortunately, the methods used by each state to calculate population numbers of sage-grouse differ and it is not feasible with the available information to correlate population data across state lines. However, we do expect benefits from the implementation of the CM's to the local populations that cross state-lines to result in an overall benefit to the species.

42. Commenter 1: The EA did not analyze a reasonable range of alternatives. The only two action alternatives looked at the difference between implementing CCAAs individually with landowners, or programmatically through SWCD.

The EA lacked alternatives that considered more restrictive conservation measures that were more certain to protect sage-grouse. For example, the EA should have at least analyzed alternatives that required enrolled landowners to exclude livestock grazing from 25% and 50% of the PPH on their property for the life of the SSP and CI, or to reduce the amount of forage consumed by cattle in sage-grouse habitat on their property by 50%.

Alternatives such as these would have created mechanisms that are more likely to protect sage- grouse, while still meeting the purpose of the **Programmatic** CCAA, which is to preserve rural agricultural lifeways in Harney County.

FWS Response: We included alternatives that would satisfy the CCAA standard and the Enhancement of Survival Permit issuance criteria, while providing an approach that would maximize the level of participation in the Programmatic CCAA by private landowners. We did not include an alternative like your example because excluding livestock grazing arbitrarily at 25% and 50% of the PPH on any property fails to consider the site specific conditions and long-term site potential. Additionally, a rigid approach such as this would likely result in a significant reduction in landowner participation, resulting in less conservation of sage-grouse. We believe that implementation of the CMs will achieve conservation objectives because enrolled landowners will implement multiple measures including grazing at levels and seasons of use that do not negatively impact sage-grouse.

43. Commenter 1: The Cumulative Effects analysis in the EA is deficient. At a minimum, the EA should have considered effects from other CCAAs which are likely to be reached with other counties in Oregon where sage-grouse are present. What will the effects of the CCAA be in the context of additional incidental take authorized in other counties in Oregon? The Cumulative Effects section was also devoid of any actual

analysis. Though the EA did list other expected effects to sage-grouse, such as federal and state efforts, it only listed them and summarily stated that they would result in net beneficial impacts for sage-grouse.

FWS Response: The Service has revised the cumulative effects section of the EA to include additional information regarding the cumulative effects of other sage-grouse CCAAs within other counties in Oregon as well as for other federal and state efforts to protect sage-grouse and their habitats. We have revised our evaluation of take (see response 10) and we expect that those levels of take as described in Section 12 (Authorized Take in the Programmatic CCAA), and conservation benefits will apply proportionally across the seven county-area should they develop their own CCAAs.

44. Commenter 1: There is no discussion of the large fires which have burned through Harney County and surrounding areas in recent years, and which will no doubt occur again within the life of the CCAA.

FWS Response: The Service has revised the cumulative effects section of the EA to include cumulative effects of the large fires that occurred in 2012. The Programmatic CCAA includes “Changed Circumstance Conservation Measures” to address wildfire impacts on their enrolled lands post-fire. (CCCM 1-6) Additionally, the Programmatic CCAA includes CMs 6 – 8, which are designed to reduce the effects of wildfire and increase effectiveness of wildfire response operations.

Other Comments:

45. Commenter 2: In the stratification flowchart, the threshold of 2% slope gradient is used in separating potential habitat from non-habitat. (CCAA at 14). Please provide a scientific justification for setting the threshold at this point. While there are several scientific studies that show sage grouse preference for relatively flat versus steep or jumbled topography, 2% slope is a very shallow slope indeed, and it is doubtful that sage grouse would avoid, for example, a 3% slope. If there will be a slope percent threshold used to define non-habitat (and thus exempt lands from the provisions of the CCAA), it is critically important that this threshold be set in a conservative manner such that there is no possibility that lands presently or potentially used by sage grouse will be excluded from the CCAA’s conservation responsibilities.

FWS Response: We have changed the relevant portions of *Section 6: Inventory and Monitoring* of the Programmatic CCAA, removing references to slope as an indicator of habitat vs. non-habitat, each stream segment on lands to be enrolled will be assessed with a site visit and appropriate inventory methods will be conducted.

46. Commenter 2: Sage grouse abundance is a good barometer over the long-term of the success of conservation measures, but is a poor index for use in an adaptive management framework. *See* CCAA at 19. There is a lag time of several years between habitat degradation (even when catastrophic in nature) and a numerical population response in sage grouse, due to the high degree of philopatry of adult sage grouse to breeding and nesting habitats (Holloran 2005, Walker et al. 2007, Harju et al. 2010). In effect, adult sage grouse will continue to occupy heavily impacted breeding and nesting habitats, incurring fitness penalties such as decreased nest success, while yearling grouse abandon these impacted areas and disperse away (Holloran et al. 2010), ultimately causing population extirpation. For this reason, habitat indicators (which demonstrate an immediate measurable response) rather than sage grouse population numbers or indices, should form the basis for adaptive management monitoring and management changes.

FWS Response: We agree that habitat indicators rather than sage-grouse population should form the basis for adaptive management responses. The Programmatic CCAA uses a habitat based approach. As stated in Section 6 of the Programmatic CCAA: *The overall management goal is to facilitate maintenance of, or transition to, a desired ecological state that can serve the habitat needs of sage-grouse using an ecologically-based model. Monitoring efforts focus on tracking change over time of the ecological conditions in response to the implementation of CMs, not tracking numbers of sage-grouse as a measure of success. However, as ecological conditions are improved with the implementation of CMs on enrolled lands, FWS will track population numbers based on ODFW's Spring Population Estimates to determine if over time there is an increase in the sage-grouse population.*

47. Commenter 2: The CCAA should require that field monitoring periodically occur with participation of federal agency personnel at least every three years in order to provide added assurance that monitoring and reporting are occurring in keeping with the CCAA.

FWS Response: Monitoring will occur annually by the SWCD (see Section 6 of the Programmatic CCAA). FWS will meet annually with SWCD to discuss all enrolled lands and FWS has the authority to conduct site visits on enrolled lands with 48 hours prior notice. Additionally, as outlined in Section 9 of the Programmatic CCAA the FWS can assist in monitoring or other actions as agreed upon in an SSP.

48. Commenter 1: Can the adjustments to grazing levels and seasons that are anticipated as part of this plan substitute for specific measurable standards that would better demonstrate whether grazing levels are appropriate for a given site?

FWS Response: The approach described in the Programmatic CCAA, i.e. determining grazing regimes during developing of SSPs, is effective because this determination will include an assessment of ecological site descriptions, site potential, disturbance regime,

degree of invasion by annuals, juniper cover, drought and other weather variables. Grazing levels will then be adjusted as needed based on monitoring. When site specific plans are created, measurable objectives (See Section K, Appendix B) will be developed.. See also the “Conservation Objectives” associated with the models found in Section 6 of the Programmatic CCAA.

49. Commenter 3: However, the CCAA could be strengthened in two ways. First, I would like the CCAA to use the ODFW Core/Low Density habitat areas instead of the BLM PPH/PGH habitat areas. The ODFW habitat maps were developed through a collaborative process where input was gathered from many stakeholders at Local Implementation Team meetings, and thus, are more relevant for use in an agreement pertaining to private lands. The BLM's addition of Currently Occupied Habitat to Low Density areas included no such collaboration. Further, the BLM, as a public-land management agency does not have the power to make land designations on private land. ODFW, as stewards of the state's wildlife, developed maps pertaining to areas sage-grouse would be likely to use, and thus, included private land.

FWS Response: During the development process, the steering committee decided to adopt PPH and PGH as the categorization of lands to be included within the covered area of this agreement. This categorization was selected because it was the best available information and it included the largest amount of private land that could enroll in the Programmatic CCAA in Harney County. However, this does not preclude SWCD or FWS through the enrollment process for making the determination during the SSP development process to exclude lands within these areas that are currently not habitat and will not become habitat throughout the term of the agreement.

50. Commenter 1: It is important to remember that some lands will never be rehabilitated into usable sage-grouse habitat and especially not within the life of the CCAA (30 years). It is critical that areas that have little or no potential to become habitat are identified as such in the initial baseline inventories rather than being classified as habitat that is capable of restoration. Otherwise, nominal improvements to the quality of such an area over the life of the permit, which would still leave it wholly unsuitable for sage-grouse, could be used to offset degradation or loss of currently viable habitat. Only improvement in lands that have true potential to provide benefits to sage-grouse should be allowed as offsets.

While the agreement does recognize a category of lands as “persistently unsuitable,” the only lands listed in that category are developed lands. Exotic plant-invaded rangeland is listed in the deficient habitat category—meaning the agreement would categorically recognize it as potentially suitable habitat. However, depending on the degree of infestation, these lands may not be capable of ever becoming habitat. This is probably true for many of the lands associated with large scale crested wheatgrass conversion projects in recent decades.

This is **not** to say that restoration of persistently unsuitable lands should not be undertaken based on potential to provide other ecological services and habitat for other species and prevent degraded lands from negatively affecting nearby sage-grouse habitat.

FWS Response: The Service agrees that some lands have little or no potential to become suitable habitat and that any proposed restoration efforts must carefully consider the likelihood of achieving desired outcomes. Areas with little or no potential to become suitable habitat will be identified in the baseline surveys prepared for the SSP and will not be used to offset impacts. We also agree that there may be value in treatment of persistently unsuitable lands to prevent degraded lands from negatively affecting nearby sage-grouse habitat (e.g. treatment and control of invasive plant species such as cheatgrass or medusahead).

51. Commenter 1: It is difficult to understand why these conservation measures' response to the threat of vegetative treatments is more treatments. The COT Report stated:

“The intentional removal or treatment of sagebrush (using prescribed fire, or any mechanical and chemical tools to remove or alter the successional status of the sagebrush ecosystem) contributes to habitat loss and fragmentation, a primary factor in the decline of sage-grouse populations. Removal and manipulation of sagebrush may also increase the opportunities for the incursion of invasive annual grasses, particularly if the soil crust is disturbed (Beck *et al.* 2012). Although many treatments are often presented as improving sage-grouse habitats, data supporting the positive impacts of sagebrush manipulation on sage-grouse populations is limited (Beck *et al.* 2012).”

FWS Response: CM 43 prescribes specific parameters on how vegetation treatments can be conducted while still maintaining sage-grouse habitat. CMs 45-48 provide further parameters to lessen impacts to sage-grouse and their habitats. If these types of activities will occur on enrolled lands, they must be identified in SSPs. FWS will assess the potential effects of proposed vegetation treatments when determining whether SSPs meet the CCAA standard.

Note: Please see the References section of *U.S. Fish and Wildlife Service. 2014. Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Harney County, Oregon* for the literature cited in this appendix.