CCS ADMINISTRATION OF CREDITS ON PUBLIC LANDS

Finding

Current guidance and frameworks regarding credit development are largely focused on private lands. While many project requirements and provisions remain the same for credits that may be developed on public lands[1], several elements need to be updated to account for differences due to federal land management. These differences need to be addressed in the CCS manual to allow development of credits on public land. Credit development on public land is needed in the immediate future in anticipation of additional debits resulting from the regulation requiring mitigation. 175 projects are currently being assessed by the SETT for relevance to possible mitigation. Projects requiring mitigation typically generate large amounts of credits, and the possibility exists for projects to be held up by the lack of available credits. This improvement aims to alleviate that possibility. This pertains only to debit project proponents who choose proponent driven mitigation on public lands. The case for entities interested in developing credits on public lands for open sale may be available at a future point, however an option involving third parties is not available at this time.

Improvement Recommendation

Summary

Two aspects of federal land management provide challenges for meeting the durability and additionality provisions of the CCS when credits are developed on public lands. First, the multiple use mandate through federal legislation results in the inability for federal agencies to commit to a lack of future impacts from proposed activities on credit sites in the same way that is expected on private lands. Private lands enrolled in the CCS are expected to limit activities in the landowner's control that could have negative effects on credits or face intentional reversal for those credits. Federal land managers have very few options to limit proposed activities on public land that could have impacts on existing credit sites. The second aspect of federal land management which makes credit development different is the concept that federal agencies are the stewards of public lands and are required to maintain a certain level of habitat quality. Therefore, in order to meet additionality requirements of the CCS and expectations of public land managers, only uplift credits will be available for development on public land. Uplift credits represent habitat that has been created above and beyond the current conditions.

The process for developing credits on public land will be as similar as possible to the process on private lands with the following changes:

1. The Sagebrush Ecosystem Council currently does not approve transactions that purchase credits wholly from private land. If a proposed transaction involves credit generation on public land, the Sagebrush Ecosystem Council will review and approve an associated Credit Establishment Plan (CEP) that outlines the process for fulfilling a credit obligation consistent with the CCS requirements and provisions.

[1] "Public land" in this document refers to land owned by governments and managed for public benefit. The SETT anticipates that a majority of credit development on public land will occur on BLM and Forest Service managed land, and the document is written to reflect such. Credit projects on other public lands (e.g., state, county, etc.) may be possible depending on authorizations.

2. Credit projects on public land will only be eligible for uplift credits. This is intended to reflect the fact that the responsibility for stewardship rests with the land management agency, not with a credit developer. However, maintenance and monitoring of any uplift will rest with the credit developer.

3. Credit projects on public land will be subject to an increased public lands reserve account contribution.

4. While extensive efforts will be made to locate public land credit sites in areas with low potential for development, if existing credit sites are impacted by new anthropogenic disturbances, the impacted credits will be prorated for the remaining term and assigned to the new disturbance. This will mean that the debit obligation assumed by the new disturbance will have the additional amount of the prorated credits added to the original obligation that is required to be offset.

5. Pinyon-Juniper (PJ) removal projects will utilize the Habitat Suitability Index for uplift calculations in lieu of field collected data.

A proposed framework and details for credit development on public lands are provided below.

Specific Improvement Recommendation

The specific improvement recommendation will be described in several parts and pertains to proponent driven mitigation on public lands only. Section 1 will discuss the general process proposed whereby debit project proponents will develop a CEP that follows with all aspects of the CCS on public lands. Section 2 will detail the process for both uplift opportunities. Initially, credit development on public lands will be limited to meadow improvements and PJ removal.

Section 1.

If a debit project proponent desires to generate credits on public land to offset an anthropogenic impact, a detailed plan will be developed that must be approved by the Sagebrush Ecosystem Council. This plan will be developed in coordination with federal land management agencies and will include the following elements:

1 Administrative Project Overview
- Proponent, location, type of project, anticipated timeline

2 Current Land Status
- Proposed treatment areas, NEPA status (i.e., complete vs. incomplete), existing rights and management, potential and existing land uses, and current or planned conservation activities

3 Mitigation action summary
- Project purpose and offset summary, detailed treatment proposal, anticipated credit result, credit term/project life, credit release schedule, and reserve account summary

4 Project management/monitoring
- Tables detailing specific project actions and frequency, locations, action goals, timeline, monitoring efforts, anticipated costs, and financial assurances

5 Management plan terms
- Credit developer responsibilities, permittee cooperative agreement, land management agency role, remedial action

Initially, actions on public land will be limited to PJ removal projects, and meadow enhancement projects. This is due to the complexity, uncertainty, and difficulty of actions targeting other restoration actions in upland environments. PJ treatments in phase 1 and 2 generally have immediate, measurable uplift success. Meadow habitats are a limiting factor for sage grouse regardless of land ownership, and thus meadow uplift will be specifically encouraged on public lands in the same way they are encouraged on private lands. Meadow projects

will be heavily screened in collaboration with state and federal partners for probability of success. Future improvements to the CCS targeting wildfire restoration are under development.

The SETT anticipates coordinating with federal agencies on the authorization process for proposed projects at the initial stages of project planning. However, the responsibility for obtaining federal authorization for an SEC approved credit project on public land rests solely on the project proponent. The CCS will not give credit for NEPA costs. The SETT and the authorizing agency will work together to ensure that the two authorizing documents (the relevant NEPA documents and the SETT required documents) include the same actions which will accomplish the same mitigation offset as measured by the HQT. Project implementation may commence when the SEC approved CEP has been signed, and the federal authorization has been issued.

Section 2.

Public Land Credit Development Option 1: Pinyon-Juniper Removal

Pinyon-Juniper encroachment represents both a direct and indirect threat to greater sage grouse populations (Commons et al. 1999; Doherty et al. 2008; Atamian et al. 2010; Casazza et al. 2011; Knick et al. 2013: Coates et al. 2017). Direct threats include the removal of predation opportunities by a wide variety of predators, and the loss of understory habitat (Hartzler, J.E. 1974; Blomberg et al. 2013; Coates et al. 2014; Howe et al. 2014; Prochazka et al. 2017). Indirect threats include decreased water availability, a change in wildfire dynamics, and behavioral changes in sage grouse leading to population declines (Bates et al. 2005; Miller et al. 2005).

The CCS uses PJ layers derived from USGS products (see section 3.2.3: *Conifer Removal* in the *HQT Scientific Methods Document*), and mandates the removal of all PJ from stewardship projects where appropriate. The CCS has provided an incentive structure to accomplish that goal. This incentive structure takes the form of PJ removal factors. These factors are 1.2 and 1.5 for phase 1 and phase 2, respectively. These factors are multiplied against the credit project's current local scale habitat function to calculate the project's projected local scale habitat function, which is then multiplied with site scale data and results in functional acres of initial uplift due to PJ removal. PJ removal on private lands makes credits available both from removal actions and from stewardship of the underlying habitat value. On public land however, only the uplift credits from the removal effort will be available, which will likely result in larger acreage projects necessary to generate the same number of credits as a similar project on private lands. For proponents who choose PJ removal projects on public land, this assumed increased project size would more likely result in landscape scale habitat improvements and population survival rates (Baruch-Mordo et al. 2013; Coates et al. 2017) than a similarly credited project on private lands that includes stewardship credits. In order to more appropriately quantify the uplift goals and landscape effect of tree removal, the Habitat Suitability Index (which specifically models landscape variability) will be used in lieu of field data for the site scale value. The conifer removal factors will then be applied to this site scale value. A fuller discussion on the utility of this method can be found in the rationale section of this document. When PJ removal projects are proposed on public lands, a desktop analysis will be performed to determine credits generated. Similar to PJ removal on private lands, the project proposal will include a plan for treatment maintenance. On public land PJ removal project inspection and re-treatment will occur every subsequent 10 year period prior to the project end. For example, if a PJ removal project has a 30 year term, then re-treatment must occur in year 10 and in year 20. This re-treatment cost will be covered in the financial assurances. In addition to re-treatment costs all removal projects occurring in phase 2 will require a prophylactic invasive weed treatment, if the land management agencies and the SETT conclude the treatment is warranted. This will be required based on an assumption that a more degraded and at-risk understory will be associated with phase 2 removal and that a pre-emergent herbicide applied to the treatment area will prevent a greater spread of invasive weeds than might otherwise be expected. This will only be expected to be applied with the initial treatment, not with subsequent re-treatments.

Public Land Credit Development Option 2: Meadow Restoration

Meadow systems on public lands may represent a small percentage of the total area, but meadow systems have an outsized impact on sage grouse life history requirements, and within the CCS are considered to be a limiting habitat. To this end meadow improvements are incentivized by the CCS with an 8X factor multiplied to meadow functional acres. The process for meadow improvements will remain the same as with private land with respect to quantification, credit release, maintenance, and monitoring. Within the project proposal the SETT will ensure increased emphasis on coordination with federal agencies and permittees to ensure that new infrastructure or operational changes will be maintained throughout the life of the credit term. The CCS will not be prescriptive in the actions required for meadow improvements, however it is expected that the following actions will be most effective in generating maintainable credits.

- Invasive weed control. Invasive weeds, especially winter annual grasses, represents a major path to reduced functionality of sage grouse habitat. Treatment and reduction of invasive weeds (especially winter annual grasses) with associated maintenance can be an action which can significantly improve the functionality of sage grouse habitat.
- Erosion control structures. Degradation can be caused by erosive processes that may lower water tables removing the wetland function of a meadow or riparian area, and possibly removing meadow and riparian area/vegetation available for credit generation. Well planned erosion control structures designed to halt erosive forces and restore natural functions may result in an expansion of meadow systems to historic extents. Due to the uncertainty of success in these types of projects, the SETT anticipates most actions implemented to be of low-moderate intensity, and not typically large, engineered projects. Material obtained through PJ removal may be of particular interest to credit developers. Maintenance of the resulting uplift credits will be required.
- Seeding. Depending on historic use, selective pressures, and invasive weeds, meadow vegetation may become less diverse and less functional over time. Re-seeding efforts to increase grass and forb diversity can result in large amounts of available uplift credits. In order to be confident in persistence of these types of credits, the SETT anticipates that seeding efforts to re-establish meadow vegetative communities will be done in conjunction with addressing the issues that may have caused the reduction in diversity and cover (e.g., erosion control).

The previous three examples represent the most common anticipated actions, but are not exclusive of other planned actions that may demonstrate a potential for uplift. All uplift credits will need to be maintained for the time period used for offsetting disturbance, thus compatibility with authorized uses (e.g., grazing permits) will be a necessary component of public land credit development plans. This compatibility will be detailed in the management plan, and agreed upon by the permittee in a cooperative management agreement. While recognizing that grazing permittees do not have decision authority for actions on federal land, without sufficient coordination and a management agreement of the permittee(s), the SEP will not approve a project. While credit development may be limited to entities performing actions that require mitigation, plan development, materials, work implementation, and maintenance/monitoring may be provided by third parties.

Public Land Credit Development Details:

Stewardship responsibilities are mandated to the land management agencies on public lands, thus all credits developed on public land will be restricted to functional acres resulting from uplift activities. Initially, the SETT will focus on PJ removal and meadow improvement projects. The SETT is engaged in working with biologists and land managers to identify priority areas and further frameworks are being developed that may include wildfire restoration and rehabilitation activities.

For PJ removal, maintenance and monitoring will be restricted to returning in 10 year intervals and treating subsequent re-growth. Likewise, reporting will be restricted to reports documenting the re-treatment efforts. Credit projects involving meadow improvements will remain as outlined in the manual. Intentional and unintentional reversals will be handled as currently outlined in the CCS manual (CCS Manual 2.1.9: *Use of Reserve Account and Financial Assurances*).

Additionality requirements (CCS Manual 2.3.3: *Additionality*) will apply to all credit development across the board, regardless of location. Uplift credits must demonstrate habitat benefit beyond improvements that are planned or would happen regardless of mitigation obligations.

Rationale Supporting Recommendation Details

Credits developed on public lands have always been intended to be a large part of the CCS because approximately 80% of sage grouse Habitat Management Areas are located on Bureau of Land Management and U.S. Forest Service Land. There has also existed a strong desire from all stakeholders to have proponent driven mitigation available on public lands. With the passage of permanent regulations requiring mitigation from anthropogenic disturbance on public land, the SETT anticipates that demand for credits may outpace the availability of credits generated on private lands. The SETT is currently examining 175 anthropogenic disturbance related NEPA actions in counties with sage grouse habitat. When projects are analyzed for disturbance with the HQT they typically generate debits from large acreages, making the resulting credit obligation large in some cases. It is possible that the potential demand for credits could outstrip the supply and cause anthropogenic disturbance projects to be delayed. Therefore an alternative method of credit generation is likely to be necessary. Credits on public land however may have decreased durability due to the fact that the management of public land is intended to be multiple-use, and cannot completely protect credit sites. Any credits invalidated on public lands will be required to be replaced by the project that has caused the invalidation. While these invalidated credits can be accounted for in the CCS, if credits are impacted, moved, and created elsewhere multiple times this will cause an indeterminate loss to the sage grouse. Credits on private lands are better positioned to be protected from direct anthropogenic impacts, and have a maximum of a 14% reserve account contribution possible. The SETT anticipates an additional 11% contribution to the reserve account, to equal a total of 25%, may be sufficient to incorporate the risks involved in proponent driven mitigation on public lands. The 25% contribution to the public land reserve account contribution is meant to anticipate the increased risk of project invalidation due to multiple use of federal lands (less assurance of durability), losses from force majeure events, as well as the risk of private land credits being invalidated by actions on public land, and the possibility of indeterminate losses if credit sites continue to be invalidated and moved around the landscape. As with reserve account contributions for credits developed on private land, the contribution may be adjusted in the future if the Sagebrush Ecosystem Council finds that the reserve account is not adequately covering these risks.

Many options for habitat improvements exist on all sage grouse habitat. Because projects on public land will inherently carry more risk of invalidation, mitigation projects should be limited to actions that have a high degree of confidence in the success of the proposed actions. PJ removal presents a clear opportunity for successful landscape scale habitat improvement for a species with large scale habitat use patterns and landscape scale population declines (Coates et al. 2017). The CCS will not require the maintenance of understory habitat values within PJ removal projects. Only uplift is required to be maintained. The uplift value which comes from PJ removal is found more in the removal of predation opportunities, and in the avoidance of future understory degradation. Thus, using the HSI as a measure of large areas of habitat being restored to sage grouse use seems most appropriate. The SETT also anticipates that the use of the HSI in lieu of field data will allow proponent driven mitigation to locate, plan, and place improvement projects in areas of the highest value for the species. The SETT intends for this type of project to be less focused on site-scale, understory improvements and be more focused on landscape scale improvements for sage grouse related to decreased predation, decreased erratic behavior associated with trees, and

preventing understory degradation in future years (Svejcar et al. 2005; Blomberg et al. 2013; Prochazka et al. 2017). Invasive weed treatments applied as a prophylactic treatment in phase 2 PJ projects are intended to help any invasive weed introductions by machinery associated with the project in more at-risk areas. PJ removal projects on private lands are expected to maintain the understory condition as measured by the HQT, supported by the stewardship credits. Where those expectations are different on public land, only a preventative measure will be required when projects are completed in phase 2 PJ. Future improvements relating to the siting of credit sites may be incorporated as new and improved scientific products are made available. Similar to PJ projects, meadow improvements are needed in Nevada. Dissimilar to PJ projects however, meadow projects will probably be complex in practice. The SETT believes these projects are incentivized sufficiently through the limiting factor multiplier, but that planning and implementation continue to be large challenges.

All projects submitted to the SEC will demonstrate a high degree of confidence that they will be maintained in cooperation with authorized uses, compliance with land use plans, and anticipated infrastructure.

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Appendix A: suggested CCS Manual Changes

CCS MANUAL SECTION	REVISION TYPE	GUIDANCE/REQUIREMENT REVISION
Throughout Document	Additional language	For each reference of "management plan" add "or credit establishment plan."
Throughout Document	Additional language	For each reference of "conifer" add "Pinyon-Juniper" or "PJ"
2.1.9	Additional Language and Subsection	**Reserve Account Management** *Private land credit reserve account management:* The Administrator manages the reserve account and uses credits in this reserve account to temporarily cover credits invalidated due to intentional or unintentional causes as described in this section. Credits in the reserve account are not intended to ~~ever used to~~ offset debit projects, and may only be done so in extreme circumstances with the approval of the Sagebrush Ecosystem Council. Reserve credits withdrawn ~~from the reserve account~~ to ~~temporarily~~ cover invalidated credits on private land by unintentional reversals may ~~are transferred~~ be transferred back into the reserve account after financial assurances associated with the credit project are used to replace the credits. ~~the invalidated credits that they were withdrawn to temporarily cover are remediated or replaced using financial assurances associated to the invalidated credits.~~ Term credits in the reserve account are removed ~~permanently withdrawn~~ from the reserve account when the term of the credits has expired. *Public land credit reserve account management:* The Administrator manages the reserve account and uses credits in this reserve account to temporarily cover credits invalidated due to unintentional causes as described in this section. Credits on private land which have a signed management plan and are awaiting sale on an open market will be guaranteed and protected from adjacent anthropogenic disturbances occurring on public lands by this reserve account. Credit projects invalidated by unintentional reversals by actions on public lands are withdrawn from this reserve account at the time of the sale of those credits, and the prorating concept will be used to match credit terms if necessary. Reserve credits withdrawn to cover invalidated credits on public land by unintentional reversals (i.e., force majeure) may be transferred back into the reserve account after financial assurances associated with the credit project are used to replace the credits. Term credits in the reserve account are removed from the reserve account when the term of the credits has expired. The Administrator reviews the balance of the reserve credits at least annually. The Administrator at any time may propose adjustments to the required reserve account allocation to be approved by the Oversight Committee as part of the CCS adaptive management process. The Administrator can propose the required contributions be adjusted upward or downward as needed to account for insufficient or excessive amounts of reserve credits.

2.2.3 Credit and Debit Calculation	new subsections	**Debit Projects that Impact Existing Credit Project** Through the credit site validation checklist, extensive efforts will be made to locate public land credit sites in areas with low potential for development. A debit project that directly or indirectly impacts an existing credit project on public or private land generates debits for both the habitat loss from the debit project as well as the invalidation of existing credits already used to offset impacts from a previous debit project. The debits representing the habitat loss from the proposed debit project is calculated based on the functional acre loss from the proposed debit project within the boundary of the existing credit project. The debits representing the invalided credits are calculated by taking the functional acre loss from the proposed debit project within the boundary of the existing credit project and the pro-rating the functional acre loss by the remaining life of those credits. For example, if the credits from the existing credit project had a duration of 30 years and the remaining life of those credits is 10 years, then the invalidated credits are multiplied by 10/30. If the credits from the existing credit project were permanent credits, then there is no pro-rating and credits for the full credit loss must be replaced. The prorating formula used is as follows: Equation 1: $C_p = \frac{T_c}{T_d} * C$ Where: Cp = Number of prorated credits required to be replaced Tc = Term remaining on original contract Td = Term of original credit project C = Number of credits impacted **Public Land Credits** On public lands, only uplift credits are available in compliance with approval from the appropriate land management agencies. Credits will not be awarded for stewardship of habitat on public lands, as these do not meet the additionality standard. Guidance for determining baseline functional acres for credit projects on public lands is provided in Section 2.3.4: Calculating Credit Baseline Habitat Function.
2.3.2 Credit Project Area and Management Action Types	new subsection	**Public Land Credits** On public lands, credits are only awarded for uplift activities implemented and maintained according to approval by the appropriate land management agencies. Credits will not be awarded for stewardship of habitat on public lands. Guidance for determining baseline functional acres for credit projects on public lands is provided in Section 2.3.4: Calculating Credit Baseline Habitat Function.
2.3.3 Credit Site Eligibility	additional language to existing subsections	**Ownership & Stewardship** On public lands, authorization to perform and maintain habitat improvements must be attained from the appropriate land management agencies. The clearance

		required will be project specific and may come in many forms (e.g., performing actions in areas with already existing NEPA clearance may only require a Determination of NEPA adequacy). Authorization for activities on public land may be obtained at any point by a project proponent, however credit establishment plans which include credit generation through the CCS must be approved by the Sagebrush Ecosystem Council in order for credits to be available for offset.
2.3.3 Credit Site Eligibility	modify existing language	**No Imminent Threat** However, in order to develop credits on public land within a grazing allotment, the Credit Project Proponent ~~must either be the permittee or~~ must have a cooperative agreement with the permittee ~~that are necessary~~ to ensure grazing practices are compatible with the ~~performance standards~~ uplift actions defined in the management plan associated with the credit project.
2.3.3 Credit Site Eligibility	new language in existing section	**Site Protection** Circumstances relating to site protection on public land is less clear as compared to private lands due to the mandate for multiple use. The SEP recognizes that site protection is limited, and information on credit invalidation on public lands can be found in section 2.2.3: credit and debit calculation, and the reserve account contribution for public land can be found in section 2.3.4: Reserve Account Contribution.
2.3.4 Calculating Credit Baseline Habitat Function	Modify council-approved subsection	**Credit Baseline for Uplift** Credits generated from stewardship projects will be subject to the regional standard baseline, however credits generated subsequent to the signing of a management plan (uplift credits) will use the ~~stewardship projects's~~ pre-project condition at the time of initial verification as baseline. Calculating uplift credits in this manner will allow for the possibility of credits generated from 0 function up to any function measured by the HQT for any appropriate seasonal type. Uplift credits on public lands which are not associated with stewardship actions will use pre-project conditions as the baseline for credit calculations.
2.3.5 Developing Credits on Public Lands and Other Designations	Edit second paragraph and add additional subsections	In order to generate credits on public lands, the debit project proponents must have a credit establishment plan that follows the CCS and is ~~submitted and~~ approved by the Sagebrush Ecosystem Council and approval for all proposed action from the relevant public land management agencies. The project proponent is not required to own all grazing permits; however, a cooperative plan including grazing permittees must be submitted with the credit establishment plan approved by the council to reduce the risk of not meeting performance standards established for the credit project and thus invalidation of the credits due to incompatible practices. Before credits are issued a participant contract must be signed that **NEPA Authorization** The CCS will not give credit for NEPA costs. The responsibility for federal authorization of a proposed project rests solely on the credit developer. The SETT and the authorizing agency will work together to ensure that the two authorizing documents accomplish the same mitigation offset as measured by the HQT. Project implementation may commence when the SEC credit establishment plan has been approved, and the federal authorization has been issued. Project

		proponents are encouraged to include the analysis of any proposed proponent driven mitigation projects in the authorization of the initial project requiring mitigation. The use of existing NEPA cleared projects and areas is encouraged, however coordination with the SETT will be crucial as some aspects of existing NEPA cleared areas may conflict with sage grouse conservation values (e.g., extremely poor surrounding habitat, surrounding and future land uses, existing rights, wildfire risk, etc.). **Project Types** The CCS will initially focus on improvements related to PJ removal and meadow/riparian habitat. Further project types may be approved as quantification and administrative methods are developed. *Pinyon-Juniper Removal (PJ)* For credit projects that remove pinyon juniper on public lands, the calculation of credits will be similar to PJ removal on private lands with the exception that the resulting credits will be calculated using a desktop analysis using the Habitat Suitability Index in lieu of field data collection. See section 2.2.2: Pinyon-Juniper Removal Factors and section 3.2.3: *Conifer Removal* in the *HQT Scientific Methods Document* for additional information. Credits resulting from the desktop analysis will be subject to the HQT version control, and may be released subsequent to the credit establishment plan being approved by the SEC and when all treatments outlined in the plan have been completed. The credit establishment plan may include phased work plans and will include a credit release schedule. PJ removal projects will include a re-treatment in 10 year intervals with a re-treatment 10 years prior to the term end as the final treatment. For example, a removal project with a 30 year term will include the initial treatment, and re-treatments in years 10 and 20. For removal projects occurring in phase 2 juniper, a one-time prophylactic herbicide treatment for invasive weed establishment will be required if the land management agency and SETT conclude a treatment is warranted. *Meadow Improvements* Meadow habitat improvement credits will not be calculated differently on public lands. Approved projects will need to demonstrate a high degree of confidence that they will be maintained in cooperation with authorized uses, compliance with land use plans, and anticipated infrastructure.
2.4.1 Credit Site Protection	new subsection	**Developing Credits on Public Lands** Circumstances relating to site protection on public land is less clear as compared to private lands due to the mandate for multiple use. The SEP recognizes that site protection is limited, and information on credit invalidation on public lands can be found in section 2.2.3: *Credit and Debit Calculation*, and the reserve account contribution for public land can be found in section 2.4.3: *Reserve Account Contribution*.
2.4.3 Reserve Account Contribution	additional subsection	**Reserve Account Contribution for Developing Credits on Public Lands** The reserve account contribution for credits on public land will be set at a flat rate of 25%. This includes the standard base rate, the maximum competing land use score (due to the multiple use mandate on public lands), a maximum score for the probability of adverse impacts from wildfire, and an additional 11% contribution due to a reduced ability to protect credit sites on public land. The

		additional 11% may be adjusted in the future based on the frequency of withdrawals.
2.4.4 Credit Release	additional language for subsection "Restoration Management Actions"	**Credit Release for Projects on Public Land** The release of credits for projects implemented on public land will be detailed in the credit establishment plan approved by the SEC, and will conform to the above guidelines. Credits being issued in advance of quantification as described above will trigger a more in-depth review by the SETT which will involve using outside professional judgement from federal, state, and local partners (e.g., NDOW, BLM, USFS, UNR, NDA, NACO, local CDs, permittees, etc.) in order to develop a recommendation to the SEC for approval.
Section 3.1 Generating Credits	Additional Language	This section will be updated to reflect processes and suggestions for coordinating with federal agencies for project proposals, development, NEPA authorizations, and subsequent monitoring requirements.

PHASING IN CREDIT PURCHASING FOR DEBIT PROJECTS

Finding

The CCS Manual currently says in Section 2.5.3 "Pursuant to Nevada Administrative Code, debit projects permitted through federal and state agencies will use the CCS to purchase credits that fulfill their compensatory mitigation obligations prior to development of the debit project." However, Regulation LCB File No. R024-19 allows for the development of a mitigation plan which may include phasing credits over time under certain conditions.

Improvement Recommendation

Specific Improvement Recommendation

The SETT recommends allowing the possibility of credit phasing for debit projects, but there will be a credit phasing factor of 1.05 applied to any balance remaining following the initial offset to the credit obligation. Prior to breaking ground, one-third of the total term debits (rounded up) and all of the permanent debits are required to be purchased or transferred (Phase 1), which follows the same guidelines as credit phasing for uplift projects. No more than two additional phases of credit acquisition will be allowed (Phase 2 and Phase 3), and all credits acquired must cover the entire term of the project, regardless of when they become effective. The remaining amount of credits must be acquired within 10 years of the first transaction. For project terms under 30 years (e.g., exploration) the remaining credits must be acquired by 1/3 of the term length. The project proponents will be required to comply with a Phased Credit Purchasing Agreement. The intent of this improvement is to allow flexibility for compliance with the new regulations. The SEC may revise this phasing methodology periodically, but it is anticipated to be discontinued in 2029.

Table 1. Example of Credit Phasing for a project term length of greater than 30 years.

Hot Stuff Geothermal Plant	
Debit Project Length	45 years
Debit Amount	900 term debits/12 permanent debits
Final Debit Amount with Credit Phasing Factor	930 term debits/12 permanent debits
Phase 1 (purchased before breaking ground, covers 15 years of a debit project)	300 debits/12 permanent debits /45 year term
Phase 2 (purchased 5 years post-start)	315 debits/45 year term
Phase 3[2] (purchased 10 years post-start)	315 debits/45 year term

Table 2. Example of Credit Phasing for a project term length of less than 30 years.

Peek-a-Boo Exploration	
Debit Project Length	10 years
Debit Amount	15 term debits/0 permanent debits

[2] Optional

Final Debit Amount with Credit Phasing Factor[3]	16 term debits/0 permanent debits
Phase 1 (purchased before breaking ground, covers 3.33 years of a debit project)	5 debits/10 year term
Phase 2 (purchased 1 years post-start)	5 debits/10 year term
Phase 3[4] (purchased 3 years post-start)	6 debits/10 year term

Manual Updates

The manual will be updated in the following sections:

- 2.5.3 Mitigation Hierarchy and Permit Requirements
- 2.2.2 Mitigation and Proximity Ratios
- Where else is necessary should the public lands improvement be adopted

[3] Partial credits always rounded up

[4] Optional

QUANTIFYING EXPLORATION WITHIN THE HQT

Finding

Methodology to quantify impacts from mineral exploration for CCS identified anthropogenic disturbance categories using the Habitat Quantification Tool (HQT) is not defined.

Improvement Recommendation

Summary

The SETT recommends mitigation for mineral exploration be assessed using the HQT to quantify the direct impacts for a minimum of 10 years. Indirect impacts will not be assessed. Mineral exploration (as defined in NRS 120A.096)) includes exploration activities associated with CCS identified anthropogenic disturbances including geothermal, oil and gas, and mining. Exploration of five acres or less will not require consultation or mitigation through the CCS using the HQT. Two alternatives will be available to the project proponent: 1) a desktop analysis using 100% site scale habitat function in place of data collection, or 2) full HQT desktop and field data collection using standard CCS protocols. Both options would analyze the Plan of Operations (PoO) project area, or equivalent, rather than the proposed disturbance acreage due to the uncertainty in location of proposed roads, drill pads, etc.

Specific Improvement Recommendation

The SETT recommends that mineral exploration (hereafter referred to as exploration) be quantified using the HQT for direct impacts only. Exploration of five acres or less will not require mitigation using the CCS. Due to the uncertainty of indirect impacts from exploration, they will not be assessed. Exploration project timelines can be highly variable (e.g., several months to several years), but project sites must be reclaimed; therefore, the SETT recommends that the minimum time frame for credit obligation of an exploration project will be 10 years. This will account for the exploration activity plus time for reclamation.

The SETT recommends two options following an initial desktop analysis to analyze impacts using the CCS:

Option 1: The proponent may choose to use 100% site scale habitat function in place of conducting field work

Option 2: The proponent may choose to conduct field work and use field data to quantify the site scale habitat score

Although the total acreage for the proposed disturbance may be known, due to the uncertainty in where exploration roads, drill pads, and other surface disturbance will occur, the SETT recommends using the Plan of Operations project area, or equivalent, to quantify average current local scale habitat functional scores. The average habitat functional scores for the PoO project area will be applied to the total acreage of the proposed disturbance, which can be in its entirety or phased. The PoO project area will generally be of a greater extent than the proposed surface disturbance, which allows for greater flexibility when analyzing a proposed disturbance that may not be spatially explicit. However, this area

should encompass the smallest extent possible of where proposed disturbance is expected and authorized to occur to minimize the analysis area.

Transects would be selected randomly by the SETT according to CCS protocol within the PoO project area and based on the PoO project area acreage.

Rationale Supporting Recommendation Details

The CCS Manual and State Plan identify "mineral development and exploration and its associated infrastructure" as anthropogenic disturbances. Vegetation removal associated with exploration typically results in disturbed or bare soil, fragmentation of habitat, and may act as a vector for noxious and invasive plants within sage-grouse habitat. Exploration however, is not assigned any quantifiable impact within the HQT. As a comparison, mining is assigned 100% weight and a distance of 6km; oil and gas is assigned 100% weight and a distance of 3km; low use roads are 25% weight and 1km (all weights and distances are found in Table 2 of the Scientific Methods Document).

Exploration presents several issues that make this disturbance type different from other CCS defined disturbance categories. Exploration is typically of shorter duration and can be seasonal. Drilling is expected to occur within a defined area, but drill pads will have activity for fairly short periods of time before moving on to the next drill site. Given the shorter duration of exploration, science is not available to justify a 30-year term. CCS identified anthropogenic disturbances have a 30-year minimum term; the minimum term for prorated uplift credit projects has been set at 10 years to account for the conservation action and expected measurable uplift of that action. While it is possible that exploration activities and reclamation time could be less than 10 years, the SETT proposes a minimum 10-year term to account for vegetative treatments or re-treatments that will allow sufficient time for reclamation actions to be considered adequately rehabilitated.

Option 1: If option 1 is selected, 100% site scale habitat function will replace the Habitat Suitability Indices in the Calculator; this assumes 100% functionality and will yield the most conservative estimate. This option is already an alternative approach for debit project proponents in the CCS who choose to forgo field data collection. This option allows a proponent to complete the full HQT at any time during the year in a short period of time.

Option 2: If option 2 is selected, certified verifiers will collect the site scale information by delineating map units and running habitat transects within each map unit using standard CCS policy and guidelines. The map unit acreages will be area weighted and applied to the total acreage of proposed surface disturbance. If the exact disturbance footprint is known, the SETT will work with the proponent to define a large enough and acceptable area to allow transects to be placed within the project area. Transects will be run through all map units.

Currently active exploration that requires reclamation bonding will be analyzed as an existing exploration disturbance, receiving no habitat value for the direct footprint, as analyzed according to HQT protocol. To address exploration prior to when reclamation bonding was required in 1989, these areas will require documentation (e.g. evidence of permits, photo documentation) in order to be classified as existing disturbance. If option 1 is selected, the proportion of historically disturbed habitat in the PoO will be applied to the proposed disturbance within the PoO. For example, if 100 acres of proposed disturbance within a 1,000-acre PoO boundary contained 50 acres of previously disturbed

habitat from mining, then 5 acres will be removed from the proposed disturbance of 100 acres. So, 95 acres in total will be analyzed for the proposed exploration. If option 2 is selected, the area identified as historical exploration will be its own map unit, where transects will be sampled according to HQT protocol.