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.

Citations

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