



# ADAPTIVE MANAGEMENT

## Improvement Recommendations for the NV Conservation Credit System Planned for Winter 2017/2018

Thursday, November 9, 2017

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# Overview

- Recommended improvements to the CCS are less in number and more subtle than in past years.
- Many recommendations are meant to increase efficiency and/or reduce costs.
- Others capitalize on newly acquired information.
- Further improvements aim to refine previously-determined processes.



# Permanent Disturbance

- **Finding:** Permanent credits in some circumstances may not be a feasible option for either the credit developer or debit producer. This can be due to the small amount of permanent debits generated, the small amount of permanent credits that could be sold per transaction, and the high costs of the financial assurances to be set aside for a credit project aimed at perpetuity.
- **Improvement Recommendation:** This recommendation will provide potential alternatives to permanent credits. One alternative could utilize a multiplier (e.g. 5x) to translate permanent debits into additional term credits



# HSI on Debit Projects

- **Finding:** The current methods for data collection on debit sites requires an extensive area (up to 6km surrounding the site) where vegetative field data collection is required. This requires extensive effort and increased cost to run the HQT.
- **Improvement Recommendation:** The recommendation will focus on alternative methods, including utilizing the HSI in place of data collection, to calculate debits in order to increase efficiency and to ensure net conservation is achieved.



# Identifying Areas of Non-Habitat

- **Finding:** Some Map Units identified within Project Areas contain areas of non-habitat (e.g. cheatgrass monocultures, phase III conifer). These areas and others that are considered non-habitat for sage-grouse should be defined and removed from the HQT analysis when calculating Debits.
- **Improvement Recommendation:** The recommendation will allow the utilization of particular GIS layers to pre-screen Project Areas during map unit development for attributes that when present eliminate or reduce the need for transects in the field. Phase III conifer would be classified as non-habitat. Cheat grass dominated areas would be classified as non-habitat or sampled with reduced effort depending on cover.



# Refinement of Anthro. Removal Process

- **Finding:** Removal of anthropogenic structures is described within the CCS Manual as a means to generate credits, but how it is calculated and accounted for requires further clarification.
- **Improvement Recommendation:** This recommendation will focus on allowing removal of anthropogenic structures to generate credits only for reduced impacts on Federal lands. When removals are additional to Federal requirements, these credits could be available for use by the entity conducting removal to offset similar disturbances in the future.



# Site Specific Performance Measures

- **Finding:** Credit invalidation and remediation process should be defined and based on site-specific measures as opposed to aggregate HQT scores for the site.
- **Improvement Recommendation:** This improvement seeks to ensure long-term credit project compliance is based more on site-specific measures that are within the credit producer's control as opposed to aggregate HQT scores that are informed by habitat attributes exhibiting high interannual variability and may be attributable to recent climatic conditions.



# New Method for Conifer Removal

- **Finding:** The methods initially established to quantify the impacts of conifer removal and the credits awarded from the implementation of such actions are no longer viable due to recent changes in the CCS.
- **Improvement Recommendation:** A new method in development aims to better address quantification of impacts and the credits awarded through conifer removal while maintaining the established credit currency.





# Ancillary Features on Debit Projects

- **Finding:** Anthropogenic disturbance categories do not differentiate ancillary anthropogenic features, which can result in potentially inflated estimates of indirect effects of minor anthropogenic features when required to be located away from the immediate vicinity of the mine.
- **Improvement Recommendation:** The recommendation is in development and will be dependent upon research, analysis, and consultation focused on anthropogenic features that may be less impactful. Ultimately, ancillary features deserving of new subcategories will be determined and recommended along with the weights and distances thought to more precisely describe their impacts.



# Changes to Powerline Subtypes

- **Finding:** Powerlines were split into two subtypes last year due to differences in opportunities for raven nesting. Recently acquired data on raven nesting frequency along distribution lines may enable further classification of this anthropogenic disturbance.
- **Improvement Recommendation:** This improvement is focused on the development of new powerline subtypes to more appropriately address impacts from ravens based on recently acquired data on single and three phase distribution lines.