Public Comment for Draft Grassland Project Protocol

Thanks for the opportunity to comment. I have cut and pasted sections from the protocol and made redline comments.

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2.2 Project Definition

For the purpose of this protocol, the GHG reduction project is defined as the prevention of emissions of GHGs to the atmosphere through conserving grassland carbon stocks and avoiding crop cultivation activities on an eligible project area, as initiated by the recording of a conservation easement or an eligible transfer of ownership, as described in Section 3.2. The project area must be grassland, as defined below, and it must be suitable for conversion to crop cultivation, as defined in Section 3.3.1.2. The project area must have been in continuous grassland cover for at least 10 years prior to the project start date.

For the purposes of this protocol, grassland is defined as an area of land dominated by native or introduced grass species with little to no tree canopy. Other plant species may include woody shrubs, legumes, forbs, and other non-woody vegetation. Tree canopy may not exceed 10% of the land area on a per-acre basis.

There must be common ownership for the entire project area (i.e. the project area may be protected by a single conservation easement). Multiple projects may be managed together as a project cooperative, as described in Section 2.2.2. In addition, the project area must have been privately-owned prior to the project start date, except in the case of non-federal public lands, where:
- The project area is legally able to be converted to cropland without requiring a rulemaking activity; and either
- The public agency in charge of management of the project area must have a legal directive to manage the lands, which include the project area, for profit; or
- A history of such management for profit,[3] including existing conversion, for similarly-situated lands can be documented during the *X* years prior to the start date.

An avoided grassland conversion (AGC) project may involve seeding, application of organic fertilizer (i.e. manure, compost, etc.), moderate haying, and/or moderate livestock grazing as part of the project activity. Projects may not employ synthetic fertilizer additions or irrigation. In Montana, we have a fair amount of flat valley bottom lands along creeks that are grasslands and that are hayed, but also irrigated. How does the practice of irrigation contribute to emissions, thereby disqualifying this practice. In other words, is it possible to allow irrigation as well? If grazing is employed in the project scenario, the livestock manure must not be managed in liquid form (i.e. containing less than 20% dry matter and subject to active management), and grazing activities must meet the criteria in Section 6.3. Other recreational or economic activities incidental to the project activities may also occur on the project area (e.g. hunting, bird-watching, light haying), but only to the extent that the incidental activity does not threaten the integrity of the soil carbon stocks and is otherwise compatible with the maintenance of grassland under conservation. The Reserve maintains the right to determine whether an activity is "incidental" to the project or whether the presence of the activity would cause part or all of the project areas to be considered an entirely different land use, (i.e., not grassland).In such cases, the area used for such activities may not be considered to be part of the project area.

3.3.1.2 Suitability Threshold

The project area must be suitable for conversion to cropland. Suitability is demonstrated by determining the Land Capability Classification[19] (LCC) for the soil map units that are contained within or intersect the project area. At least 90% of the total area contained within the project boundary must be identified as Class I, II, III, or IV soils. While Class IV is identified as the highest class which is still suitable for agriculture, recent trends suggest that grasslands on Class V and VI soils are experiencing a high rate of conversion to cropland (Lark, Salmon, & Gibbs, 2015). Thus, portions of the project area may be identified as Class V or VI soils as long as there are no continuous areas of these classes that exceed 25% of the total project area. The previous sentence appears contradictory with the third sentence above which states at least 90% needs to be Class I-IV. The previous sentence seems to imply that just 75% has to be Class I-IV and up to 25% Class I or VI. By the way I concur with the thought that Class V and Class VI are also being converted to cropland. I have examples of that in the project area we are considering. Determination of the area of each LCC within the project area may be done through the NRCS Web Soil Survey, or other tools.

The project area may contain rock outcrops or significant boulders which would preclude crop cultivation on their footprint, but may not be represented in the soil maps. The area of these rock outcrops should be estimated for each stratum as a percentage of the total area of the stratum. Estimating rock outcrops and boulders seems pretty onerous, unless it already exists as GIS data, which it does not that I am aware of. For example doing some aerial photo interpretation and/or ground truthing on a 10,000 acre project area to look for outcroppings or boulders that may exceed 100 acres would take a lot of resources. If the estimated area covered by rock is 1% or more of the total stratum area, then this percentage shall be deducted from the area of the stratum in order to determine the total eligible area. Alternatively, if the rock outcrops are significant enough to be incorporated into the project map, they may simply be subtracted from the stratum area through the use of polygons added to the project area map.

The Soil Survey Geographic Database (SSURGO) contains LCC for both irrigated and non-irrigated land uses. The Project Developer will refer to the non-irrigated LCC to determine eligibility for the project area. If a Project Developer would like to use the irrigated LCC for a project, they must provide evidence that the project area would have access (both legal and physical) to irrigation in the baseline scenario. This can be demonstrated by one or more of the following methods, subject to the verifier's professional judgment:

▪ Comprehensive assessment of the existence of available groundwater,[20] and the legal and economic feasibility of the Grassland Owner to access it from within the project area
▪ Documentation of the current availability of water rights and/or permits for the project area on or around the project start date
▪ Documentation of installation of new irrigation on lands within the project county within the 24 months prior to the project start date
▪ Evidence of ongoing irrigation practice on other parcels within the county

I presume that current irrigation of the parcels themselves, while demonstrating that the parcels have access to irrigation, would disqualify said parcels per Section 2.2, unless irrigation was added as an allowable practice.

3.5.1 Qualified Conservation Easements

A conservation easement is required for all grassland projects except for those where ownership of the project area is transferred to the federal government. A Qualified Conservation Easement (QCE) is one whose terms prevent the conversion of the project area from grassland to another land use, such that avoidable reversals are sufficiently precluded as long as the easement is enforced. For example, whereas a basic conservation easement may only restrict the subdivision and/or development of the project area, a QCE would also restrict activities such plowing and farming, which could release carbon stored in the soil.

Does the area covered by the conservation easement have to match the "project area". The "Suitability Threshold" criteria are science-based and rlies on soil polygon data with said polygons often having curvy boundaries, donut holes, isolated island and so forth. Conservation easements, on the other hand, are legally binding real estate transactions and rely on real estate law and are not science-based, and tend to follow neat and tidy legal descriptions. The two do not match up very well. Having a neat and tidy conservation easement boundary that encompassed all the lands that met the "Suitability Threshold" seems to make more sense, with credits actually only being available to the acres that met the threshold and not the conservation easement as whole. I have included a map as an example. The map is of an actual area within our potential project area. The area is 6,094 acres in size of which 3,291 acres (54%) meet the Suitability Threshold. As one can see from the map, if we can use a larger area we can create a neat and tidy boundary for conservation easement. If we have to base the conservation easement boundary off of the Suitability Threshold the boundary will be pretty messy. I am a licensed real estate broker and can provide a variety of positives to having a neat and tidy boundary for the conservation easement.

Can the conservation easement allow for uses to support the grazing operations. For example, a ranching type conservation easement that prohibits plowing and farming, may still allow the rancher to build corrals and other livestock handling facilities and water developments for livestock watering. Another example is that the conservation easement allows the rancher to have his house and outbuildings on the ranch. Another example is the ability to maintain and build new roads for ranch operations. These other uses would make up a very small percentage of the overall acreage, but are absolutely necessary to operate the property as a ranch. The language above seems to imply that these uses are not allowed as they have already caused the conversion of grasslands to another land use, or may cause said conversion in the future. On the other hand, if these uses are prohibited it could no longer exist as a ranch. Theoretically, a bunch of donut holes and strips could be carved out of the conservation easement where these uses would occur, but that does not make sense. I suggest adding some language to clarify this matter.
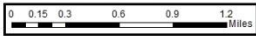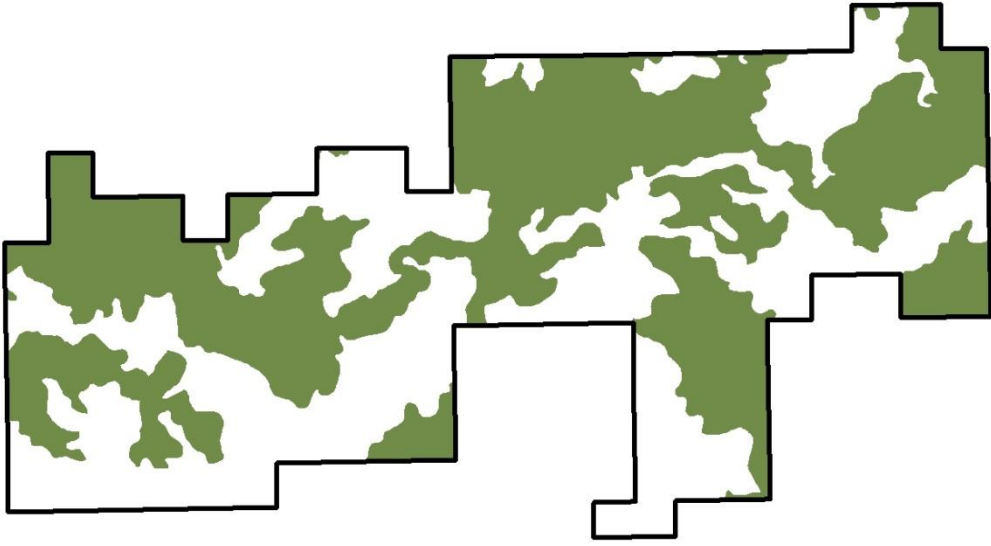
Legend

Conservation Easement Boundary

Suitability Threshold LCC I-IV

0 0.15 0.3   0.6   0.9   1.2
                                    Miles

N

5.1.3 Previous Land Use

Initial carbon pools at project commencement will be significantly influenced by previous land uses. Additionally, soil quality at project initiation influences nutrient inputs and farming practices in the baseline scenario. Because this protocol allows for the avoided conversion of grasslands with somewhat varied histories, the third level of stratification requires grasslands to be delimited by the duration of time it has been in a grassland state. This protocol defines the following two categories for grasslands:

▪ Greater than 10, but less than 30 years continuous grassland or pastureland
▪ Greater than 30 years continuous, long-term permanent grassland or pastureland

Per Section 3.1, all lands enrolled under this protocol must have been in a documented grassland or pastureland state for at least 10 years prior to project commencement. This requirement is necessary to ensure the validity of the baseline soil carbon emission factors. Areas that have exceeded 30 years of pre-project grassland cover are classified in a different stratum.

For pre-project years when the Cropland Data Layer (CDL)[43] data are available (back to 2008 for all states, earlier for a subset of states), this resource is sufficient, and the project area shall be assessed against this resource for each year that data are available to confirm that the land use identified in all prior years is the same as that of the year prior to the project start date. Does CDL have to be used if available, or can we 1-8 below even if CDL is available? I obtained the CDL data back to 2008 and reviewed our potential project area against this data. To be frank, it was a pretty poor comparison. Existing dry cropland in the potential project area showed as grassland for all years in CDL. Moister cropland was better represented by CDL, but even then, one year it would indicate a pixel was cropland and the next year grassland, and the next year cropland, even though land use has not changed. I looked at CDL accuracy for 2014 in Montana and it stated it was 83% accurate for pasture/grasslands. That error is compounded in that "all prior years" have to be observed, so a CDL error in 2008 may disqualify some pixels, and then a CDL error in 2009 may disqualify some additional pixels, and so on and so forth such that by the time one reaches 2014 a lot of pixels are disqualified as they did not meet the "greater than 10" year requirement. I can achieve more accurate information from one or a combination of methods below, so again, just want to confirm if I have to use CDL if available, or use of CDL is optional.

For years when the CDL is not available, projects may demonstrate the pre-project land use through one or more of the following options, subject to acceptance by the project verifier:

1. Contract(s) covering the relevant year(s) whose terms would require that the project area be grassland, but that would not cause the project to fail the Legal Requirement Test (e.g., grazing leases or haying contracts).
2. Time-referenced photos of the project area taken during the relevant year(s)
3. Time-referenced aerial photos taken during the relevant year(s)
4. Tax records that indicate the land use during the relevant year(s)
5. Notarized affidavit(s) from unrelated and unaffiliated parties attesting to the land use in the relevant year(s)
6. Notarized affidavit from the Grassland Owner(s) attesting to the land use in the relevant year(s)
7. Other official records submitted to or generated by a government agency that would indicate the land use or management during the relevant year(s)
8. A combination of the above options that, in aggregate, provide temporal coverage for the entire pre-project time period (either 10 years or 30 years, depending on the assertion)

The above list is not meant to be comprehensive. The Project Developer may employ alternative approaches to monitoring pre-project land use, subject to review by the project verifier. The evidence provided to satisfy this requirement must be sufficient to provide reasonable assurance as to the nature of the land use during the relevant time period.

6.2.1 Administrative Mechanisms to Prevent Overgrazing

Grassland projects must employ a mechanism to prevent overgrazing which is tailored to the specific conditions of their project and its ecosystem. This could be in the form of a prescribed grazing management plan or grazing limitations which are written into the conservation easement.

6.2.1.1 Prescribed Grazing Management Plan

If there are no legal limitations on grazing intensity (Section 6.2.1.2), the Project Developer must develop and implement a prescribed grazing management plan for livestock grazing on the project area during the reporting period. The plan should be developed following the principles of NRCS Conservation Practice Standard 528 for Prescribed Grazing.[61] The plan shall be reviewed and approved by either an agent of the NRCS or a professional with certification from either the Society for Range Management[62] or the American Forage and Grassland Council.[63] The management plan must specifically identify the protection of existing soil carbon pools as a management goal. Adherence to the plan shall be reviewed and confirmed by one of the entities listed above during the first reporting period and at least once every six years following the project start date. In years without a government or professional review of adherence to the prescribed grazing management plan, the verifier will take additional steps to assess the risk of nonconformance. This plan shall be updated to reflect any significant changes to the grazing management practices. Our potential project is unique in that it will involve the grazing of bison, AND in a natural free-roaming type setting. Not sure how that would fit within the standards and review and approval protocols discussed above. Not necessarily asking for any changes to the document, but perhaps a side discussion as to how this would be considered.