



CLIMATE ACTION RESERVE **SUMMARY OF COMMENTS & RESPONSES**
DRAFT GRASSLAND PROJECT PROTOCOL VERSION 1.0
DRAFT GRASSLAND PROJECT IMPLEMENTATION AGREEMENT

Five sets of comments were received during the public comment period for the Climate Action Reserve (Reserve) draft Grassland Project Protocol Version 1.0. Staff from the Reserve provides responses to the comments below. Public comments for the draft protocol were received between April 16 – May 18, 2015. Public comments for the draft Project Implementation Agreement were received between June 12 – 26, 2015.

The comment letters can be viewed on Reserve's website at <http://www.climateactionreserve.org/how/protocols/grassland/>.

COMMENTS RECEIVED BY:

1. American Prairie Reserve
2. Environmental Defense Fund
3. SCS Global Services
4. The Nature Conservancy
5. The Climate Trust

General Comments

1. **Require projects employ best management practices to avoid adverse environmental impacts.** TNC commends the environmental safeguards provided for in CAR's Forest Protocol, including the requirement to "promote and maintain a diversity of native species and utilize management practices that promote and maintain native forests". We encourage CAR to include similar safeguards in the grassland protocol to avoid adverse impacts to grassland ecosystems. This can be achieved by requiring implementation of beneficial management practices, as outlined by the USDA in *Conservation Benefits of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps*,¹ in the project easement/contract terms. **(The Nature Conservancy)**

RESPONSE: Additional requirements for "natural grassland management" were discussed at-length during the workgroup process. There was broad agreement among the workgroup that this protocol should focus on GHG reductions and refrain from requiring additional environmental benefits for which credits are not issued. One key point raised in this discussion is that there is very little native grassland remaining in the US, so such rules would effectively be requiring restoration activities on top of the required conservation activities. However, allowable management practices were limited in an effort to ensure that the project area is at least closer to a natural state than a fully cultivated state. For example, projects are not eligible if they employ irrigation or synthetic fertilizers. We have added Section 2.4, which provides specific recommendations for environmental best management practices. In addition, if the protocol were to require specific enhancement practices, this could present additionality concerns if additional payments were sought specifically to support those activities (depending on the rules of the other program).

2. While this protocol is very straightforward and easy to use, additional outreach to the ranching community will be necessary for its success and adoption. Feedback we received from a prominent cattleman was that it seems "seems pretty complicated" and that ranchers are still skeptical about climate change. **(Environmental Defense Fund)**

RESPONSE: Agreed. The Reserve is seeking funding to carry out extensive outreach and education, along with pilot projects. Unfortunately, standardized carbon offset protocols will always be "pretty complicated," but we hope to be able to provide sufficient tools and assistance to lower the barriers to project implementation.

3. We suggest checking all of the Section references and update them as necessary. For instance, Section 2.2 references grazing activities criteria listed in 6.3, when they are actually listed in 6.2 and Section 2.3.2 states that the project implementation agreement is explained in Section 3.5.1, when it is actually in 3.5.2. **(Environmental Defense Fund)**

RESPONSE: Thank you for your close review. These errors have been corrected.

4. We suggest including a table that outlines all of the time periods of the protocol, which can vary depending on specific project characteristics.
 - Project period

¹Briske, D.D., editor. {2011}. *Conservation Benefits of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps*. United States Department of Agriculture, Natural Resources Conservation Service. Available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/pub/?cid=stelprdb1045811>

- CRT calculation period
- Crediting period
- Reporting period
- Verification period
 - Clarify the difference between the requirement that “Project developers must submit verified emission reduction reports to the Reserve annually at a minimum” (Section 7 p.64) and “project verification occur at least every six years during a project’s crediting period” (Section 7.3, page 65).
- Baseline value validity period
 - Clarify the different between “baseline for any grassland project registered under this protocol is valid for 50 years” (Section 3.4, page 21) and the baseline emission factors validity (Appendix B).
- Monitoring periods
 - Distinguish the circumstances for no monitoring report requirements, yearly reporting and verification, reporting and verification every six years, and reporting every 3 years, but verification every fifteen years (Section 7, pages 66-67)
- Easement period
- Permanence period

(Environmental Defense Fund)

RESPONSE: Thank you for the suggestion. We agree that such a table would support greater understanding of the timelines relevant to Grassland projects. Please see Table 7.1 in the final protocol.

5. Clarify how often credits can be created and issued. **(Environmental Defense Fund)**

RESPONSE: CRTs may be issued each time that a project is registered, which occurs upon approval of a verification report by the Reserve. The frequency of CRT issuance depends upon the frequency at which the Project Developer decides to conduct project verification, which, for a grassland project, must occur at least every 6 years.

6. On page 5 (Section 2.2.2) and page 10 (Section 3.1), there is an extra period at the end of the sentence. **(Environmental Defense Fund)**

RESPONSE: Thank you for your close review. This typo has been corrected.

7. On page 46, Equation 5.12, GWP CH₄ = Global Warming Potential of Methane is missing. **(Environmental Defense Fund)**

RESPONSE: Thank you for your close review. This omission has been corrected.

8. On page 49, Equation 5.9, s = stratum is missing. **(Environmental Defense Fund)**

RESPONSE: Thank you for your close review. This omission has been corrected.

2 The GHG Reduction Project

9. As requested in the Note to Commenters box on page 4, EDF believes that ten (10) years is a reasonable length of time to show management for profit for similarly situated lands. This is consistent with the evidence required to show that the project areas has been in continuous grassland (Section 2.2, pages 3- 4 and Section 5.1.3, page 33). **(Environmental Defense Fund)**

RESPONSE: Thank you for your feedback regarding this issue. The Reserve concurs with your suggestion and has implemented this policy.

2.2 Project Definition

10. 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? **(American Prairie Reserve)**

RESPONSE: The prohibition on irrigation is a basic step toward encouraging “natural” grassland management (see also Comment 1, above). Without irrigation, the project area is likely to end up resembling an ecosystem closer to one which would exist without human interventions.

2.3 Project Ownership Structures and Terminology

11. **Distinguish between emission reduction rights and carbon rights and define these terms in the glossary/appendix.** While the protocol references “carbon rights” (pages 6-7), it does not distinguish them from emission reduction rights or credits. The protocol should provide for this distinction and define these terms in the glossary/appendix. Doing so will allow for more consistent use of terms and associated rights and help minimize transaction and enforcement disputes. **(The Nature Conservancy)**

RESPONSE: The intent of the protocol is to focus on GHG reduction rights in regards to defining the Project Developer. Additional terms have been added to Section 9, and the language has been clarified throughout the protocol.

3 Eligibility Rules

12. In the Eligibility Rules table on page 10, Eligibility Rule V states that for permanence the project must “Employ a Qualified Conservation Easement or PIA to legally agree to permanence requirements.” Section 3.5 on page 23 states that “to ensure that the permanence obligations are guaranteed for the duration of the minimum time commitment, projects are required to employ a Qualified Conservation Easement (QCE) and a Project Implementation Agreement (PIA).” Finally, Table 8.1 on page 70 states that “If the project does not employ a Qualified Conservation Easement, the Grassland Owner must execute a PIA with the Reserve prior to the initial registration.” Based on our knowledge of the protocol through the Workgroup, we believe that the “and” should be an “or” in Section 3.5. **(Environmental Defense Fund)**

RESPONSE: In this case, the typo is in the table at the beginning of Section 3. The “or” has now been corrected to read “and.” The QCE is required unless the project area is owned by the federal government. The PIA is required for all projects.

3.1 Location

13. What percentage of grasslands are continuous grasslands that don’t include wetlands? The Prairie Pothole region is a patchwork of wetlands and grasslands. Has the Reserve investigated how difficult stratification will be (Section 3.1, page 10). **(Environmental Defense Fund)**

RESPONSE: We have not investigated the difficulty of stratification for this region. We do understand that the protocol rules will result in potentially complex stratification for certain sites. On the other hand, this procedure is only carried out once, at the project’s initiation, and then does not change in subsequent years. In addition, the baseline quantification is not equipped to handle wetland soils, so those areas must necessarily be excluded.

3.2 Project Start Date

14. It would be helpful for Project Developers if the Project Submittal Form were an online submission form (Section 3.2, page 11). **(Environmental Defense Fund)**

RESPONSE: The Reserve’s submittal process currently relies on certain steps in the registry software (operated by APX), including the uploading of the PDF submittal form and the submittal of that form for review. However, we are exploring options for updating the process to allow for the project submittal to be carried out through the online registry without the need to upload a separate document. If such a change is made, notification will be sent to all Reserve account holders.

3.3 Additionality

15. **Create an accurate BAU by screening out projects where BAU is actually development, not conversion to cropland.** Additionality is an essential requirement in protocols. Projects must yield surplus greenhouse gas emission reductions and removals that are additional to

what would have occurred in the absence of a carbon offset market (i.e. under “Business As Usual” (BAU)). Grasslands are threatened by conversion to development as well as croplands and by not including the development scenario in the additionality analysis, there is a risk that the analysis is based on an incorrect BAU.

We acknowledge the challenges in including conversion to develop in this protocol and while we urge its inclusion in future versions, at a minimum, we encourage a filter be used to screen out projects were the BAU would actually result in conversion to development. This filter could screen out counties or zones where the risk of conversion to development is greater by identifying areas where developed property is significantly more valuable than the value of cropland and/or the project is immediately adjacent to already developed lands. This would help provide a more accurate BAU for cropland conversion projects, thus ensuring the emission reductions are truly additional. **(The Nature Conservancy)**

RESPONSE: There are two areas to consider related to the correct determination of the counterfactual baseline scenario for avoided grassland conversion projects: additionality and quantification. In regards to additionality, if the project area passes the eligibility screens in the protocol, then it is threatened by conversion to cropland. However, you are correct that these screens would not identify lands where there is an even greater pressure for conversion to development. Regardless, the project activity (the avoided conversion) is additional to what would happen otherwise. Quantification is not so simple. There are certain land use change scenarios where the baseline emissions would be lower than those quantified by the GPP, and other scenarios where the baseline emissions would be higher. Overall there is a wide variety of possible baseline scenarios and no straightforward way to identify and exclude those which lead to a risk of over-crediting. Additionally, it would be very easy for such exclusion rules to lead to unintended consequences that could harm “good” projects. There is also no reason to believe that there will be any bias toward the higher or lower baseline scenarios. Thus, for the program as a whole, the Reserve believes the risk is low and that the potential quantification inaccuracies would not trend toward over-crediting.

3.3.1.1 Financial Threshold

16. If an appraisal is already necessary for a conservation easement and a Qualified Conservation Easement, would there be an incentive for a project to demonstrate passing the financial threshold this way? (Section 3.3.1.1, page 14) **(Environmental Defense Fund)**

RESPONSE: If the appraisal for the conservation easement meets the requirements of Section 3.3.1.1, then by all means the project may go that route. However, if the project location already passes the 100% cropland premium threshold, then there is no reason to take extra steps to ensure that the easement appraisal meets the appraisal requirements in the protocol.

17. A great deal of care must be taken when setting the appropriate value of the ‘Financial Threshold’ (Section 3.3.1.1) for eligibility in the protocol. The economic analysis conducted as part of EDF’s Rangeland CIG, as well as a forthcoming peer-reviewed publication from the authors has shown that this may well be the most sensitive parameter affecting the environmental and economic outcomes of such an offset protocol. Preliminary results show that this value should be carefully determined in order to maximize avoided emissions while reducing overall program costs. In general, there is a tendency for average cost of abatement (program costs per ton of avoided emissions) to decrease as the additionality threshold

increases; a trend found up to levels of 100% or higher. There also appears to be evidence that setting regional thresholds (at the state level or other) could be of value, especially in the context of high carbon prices. For the reasons stated above, we believe the Reserve should review the manuscript in development and incorporate the research into updating the 'Financial Threshold' parameters within this protocol. **(Environmental Defense Fund)**

RESPONSE: Thank you for your comment, and for the follow-up information and discussion with EDF and your contractor. The Reserve appreciates the opportunity to engage with this research effort. Before altering the current performance standard, the Reserve would need to conduct a similar analysis, but carried out at a national level, and focused on the economic thresholds where conversion activity is occurring in the absence of a carbon price. At this time the performance standard for grassland projects will not change, but the Reserve looks forward to continuing this discussion with the possibility of a future protocol update.

3.3.1.2 Suitability Threshold

18. The fourth sentence appears contradictory with the third sentence which states at least 90% needs to be Class I-IV. The fourth 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. **(American Prairie Reserve)**

RESPONSE: Thank you for your close review. As we discussed in the public workshop on April 28th, there is a typo in the third sentence of the first paragraph of Section 3.3.1.2. This error has been corrected (specifically, "90%" has been changed to "75%").

19. 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. **(American Prairie Reserve)**

RESPONSE: The second paragraph of Section 3.3.1.2 has been removed. Upon further review, we have concluded that the risk posed by rock outcrops is already controlled by the determination of the LCC. If the stones are significant enough that they would not reasonably be removed for crop cultivation, this is factored into the Land Capability Classification, and thus the area would receive a higher (poorer) rating. If the stones could reasonably be removed for conversion to cropland, then they are ignored in the LCC, but also pose no risk to the eligibility of the grassland project.

20. 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. **(American Prairie Reserve)**

RESPONSE: You are correct that continued irrigation during the project would disqualify the parcels.

21. The economics of grassland projects need to be evaluated. In particular, the expense of groundwater assessments and conservation easements? At what carbon price are grassland projects economical? (Section 3.3.1.2, page 16 and 3.3.2, page 17) **(Environmental Defense Fund)**

Fund)

RESPONSE: While the project economics will be situation-dependent, it remains to be seen the range of potential carbon prices which would support grassland projects. This protocol was designed to be as streamlined and cost-effective as possible without jeopardizing the environmental integrity of the credits. With this protocol we have strived to address complexities and uncertainties which would raise the costs of project development and verification, so we believe that this protocol results in more attractive project economics. However, it will be project-dependent, and we cannot know for sure until the protocol is implemented. The Reserve is currently seeking funding to continue to explore these questions more deeply.

3.3.2 The Legal Requirement Test

22. EDF recommends the inclusion of language relative to temporary emergency laws or regulations that can be implemented in times of drought or other short-term impacts. Example language can be found in Section 5.2.2.1 (o) of the California Air Resources Board's Compliance Offset Protocol for Rice Cultivation Projects. (Section 3.3.2, page 17)
(Environmental Defense Fund)

RESPONSE: Where there is a temporary regulatory requirement during a project's reporting period, that requirement will be included in the assessment of regulatory compliance. Where there is a temporary law or regulation which would cause a project to fail the legal requirement test, the project would be unable to commence until such time as the project could pass the legal requirement test. Additional language has been added to Section 3.3.2 to clarify these points.

3.5.1 Qualified Conservation Easements

23. Does the area covered by the conservation easement have to match the "project area"? The "Suitability Threshold" criteria are science-based and rely 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. **(American Prairie Reserve)**

RESPONSE: The area of the Qualified Conservation Easement (QCE) does not need to match the project area. However, the project area must be contained by the area of the QCE. The QCE could allow for other uses, as long as they are on land outside of the project area. If these other uses will result in disturbance of the soil, or would constitute land use that does not meet the definition of “grassland,” then those areas should be identified prior to project initiation and excluded from the project area. In addition, the QCE should specify that any land use that is not “grassland” must occur outside of the project area. The protocol has been updated to make these answers more clear. Note that the project area may be amended at a later date if land needs to be removed. This would constitute an avoidable reversal on that portion of the project.

3.5.2 Project Implementation Agreement

24. Prior to final approval, it would be helpful to include a draft Project Implementation Agreement (PIA) for Grassland Projects. While it is possible to review the PIA for the Forest Protocol, we believe significant changes will be necessary for the Grassland Project Protocol. (Section 3.5.2, page 24). **(Environmental Defense Fund)**

RESPONSE: Agreed. The PIA was released for its own public comment period following the comment period of the full protocol.

4 The GHG Assessment Boundary

25. We recommend making clear from the very beginning and reiterating throughout the Protocol that the baseline scenario is the projection of emissions from converting grasslands to cropland and comparing the baseline to the project scenario, which is avoiding conversion. **(Environmental Defense Fund)**

RESPONSE: Additional language has been added to reinforce this concept.

5 Quantifying GHG Emission Reductions

26. Please include a note on whether Table 5.1 (Section 5, page 30) will be periodically updated and whether or not those updates will impact the Equations (pages 38, 43, 45, 46). Also, will the emissions factors in these equations be updated as well? **(Environmental Defense Fund)**

RESPONSE: The paragraph preceding Table 5.1 states that these GWP values are to be used “unless and until the Reserve issues written guidance to the contrary.” Thus, if the Reserve decides to update the GWP values, the GPP has the flexibility to allow for use of those values. We have, however, expanding this paragraph to include a note that any future change would not impact projects which have already been listed under this version of the protocol. Unless otherwise specified, emission factors in the protocol will not change without the issuance of a new version of the protocol.

Regarding the emission factors in the companion tables (baseline organic carbon, baseline N₂O, baseline CO₂, project dry matter), the Reserve will seek to update these figures in the future through a new modeling effort, and those updates would apply to new (not yet submitted) projects, as well as submitted projects which have not been registered who would prefer to use the updated values. Language has been added to Appendix B to indicate the potential for future updates. This would also result in an update to Table 5.3 (Discount for the Uncertainty of Modeling Future Practices and Climate), so we have moved Table 5.3 to the companion tables spreadsheet.

5.1.3 Previous Land Use

27. 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. Moisture 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. **(American Prairie Reserve)**

RESPONSE: Thank you for your detailed feedback on this requirement. The intent behind requiring use of the Cropland Data Layer (CDL) was for ease of use and efficiency. However, the most important aspect of documenting land use is accuracy. The protocol has been updated to reduce reliance on the CDL. Section 5.1.3 has been updated with a table of types of evidence, identifying which types are sufficient on their own (e.g. a site visit by a verifier) and which types must be corroborated with evidence of another type from the same time period (e.g. satellite data products, such as the CDL). The Reserve believes that this approach strikes the correct balance between flexibility and rigor.

28. Section 5.1.3 states that “For pre-project years when the CDL data are available... 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 state date.” Who does this assessment? Is this verification and project developers? Or is it the Reserve? (Section 5.1.3, page 33) **(Environmental Defense Fund)**

RESPONSE: This assessment is conducted by the Project Developer. The Reserve is seeking funding to provide assistance, however. Also, please see the answer to comment 27.

29. Section 5.1.3 also states that “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).” Could the Reserve provide examples of the types of contracts that might cause projects to fail the Legal Requirement Test? (Section 5.1.3, page 34) **(Environmental Defense Fund)**

RESPONSE: A contract would cause the project to fail the legal requirement test if that contract was not able to be cancelled prior to the project start date. For example, Section 3.3.2 identifies Habitat Conservation Plans and Safe Harbor Agreements as contracts whose existence prior to the project start date would cause a project to fail the Legal Requirement Test, due to the nature of the consequences of breaking such contracts.

5.1.4 Stratum Identification and Measurement

30. EDF recommends that since the buffer restrictions haven’t been explained yet, the Reserve should include a reference to the section where they will be discussed (Section 5.1.4, page 35). **(Environmental Defense Fund)**

RESPONSE: A footnote has been added to Section 5.1.4 to provide examples of when a project may need to exclude mandatory buffers from the project area.

5.2 Quantifying Baseline Emissions

31. If a project area has livestock grazing in the baseline, why are those emission not included? In other words, why are emissions from livestock only included in the project scenario? (Sections 5.2 and 5.3.4) **(Environmental Defense Fund)**

RESPONSE: The baseline for every project is crop cultivation. If the baseline for an area were for it to be left open for grazing, then it would not be eligible. Grazing that happens prior to the project start date is not relevant to the counterfactual baseline scenario of conversion to cropland. In addition, if there did happen to be grazing (perhaps during the winter) in the baseline, it is conservative to exclude it.

5.3.4 Project Emissions from Grazing

32. Make note of the source of the data in Box 5.3 (page 47). **(Environmental Defense Fund)**

RESPONSE: The numbers included in Box 5.3 are purely fictional and are used only to illustrate the procedure for determining Animal Grazing Days. A note has been added to this effect.

5.4.3 Contributing to the Risk Buffer Pool

33. Please explain the source of the .02 value for the default risk of unavoidable reversals (Equation 5.15, Section 5.4.3, page 51). **(Environmental Defense Fund)**

RESPONSE: This value was determined through discussion, both internally and externally, regarding the risks of unavoidable reversals to grassland projects. Such risks were determined to be low, but also not zero.

34. Since two of the Risk_{rev} values are repeated, there are four distinct values of the Risk_{rev}, not six (Table 5.4, Section 5.4.3 page 51). We believe the text should be updated to clarify those values. **(Environmental Defense Fund)**

RESPONSE: While it is true that the six different scenarios only result in four distinct values for Risk_{rev}, we believe the table is easier to read with six scenarios than it would be otherwise. The phrasing of the paragraph preceding the table has been updated to make it clear that there are six possible scenarios and four possible values.

6.2.1.1 Prescribed Grazing Management Plan

35. 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 here. Not necessarily asking for any changes to the document, but perhaps a side discussion as to how this would be considered. **(American Prairie Reserve)**

RESPONSE: The Reserve believes that, as the protocol is currently written, there would be no problem with your proposed grazing scenario. There are project emission factors for American Bison and the requirements for grazing monitoring should be flexible enough to be feasible for this management scenario.

36. We recommend that the sentence “The plan should be developed following the principles of NRCS Conservation Practice Standard 528 for Prescribed Grazing” be amended to include the phrase “to NRCS recommended moderate stocking rates or lower.” There are situations where the NRCS allows ranchers to exceed the moderate stocking rate which could result in increased grazing and depletion of soil carbon stocks. **(Environmental Defense Fund)**

RESPONSE: Agreed. The suggested language has been added to Section 6.2.1.1.

6.3 Monitoring Woody Biomass

37. In relation to the optional quantification of non-tree woody biomass (shrubs), were ground-based methods considered for monitoring changes in shrub cover? In our experience using Landsat imagery to monitor changes in shrub cover Introduces a great deal of uncertainty into the monitoring process. **(SCS Global Services)**

RESPONSE: The protocol focuses on remote sensing as a cost-containment measure. Since

the monitoring of woody biomass is only to identify reversals, we don't necessarily need the high degree of accuracy related to inter-annual changes that would be required of a forest project.

6.4 Monitoring Project Emission Sources

38. "For projects that employ additions of fertilizer (beyond the manure from grazing livestock), it is strongly encouraged that the project develop a nutrient management plan," however, in Section 2.2 on page 4 it states, "Projects may not employ synthetic fertilizer additions." What fertilizer beyond manure can be applied and how does that fit with the requirements in Section 2.2? It should be made clear on page 55 that projects may not employ additions of synthetic fertilizer, if that is the case (Section 6.4, page 55). **(Environmental Defense Fund)**

RESPONSE: Other options for organic soil amendments include compost, plant meal, or manure from off-site (i.e. not from on-site livestock grazing). Additional language has been added to Section 6.4 for clarity.

A.1.1 Location-Based Emission Reductions Threshold

39. With regard to stratification methods for the location-based emission reductions threshold, was the Universal Soil Loss Equation (USLE) considered as one of the variables used for stratification? As a tool commonly used to estimate average annual soil loss by accounting for soil erodibility, rainfall, runoff, slope, cover, and management factors, it is highly relevant to soil organic carbon dynamics as well as land productivity. Factoring the USLE into the stratification process would improve the quantification of the baseline and project emissions estimates and the resulting model accuracy. **(SCS Global Services)**

RESPONSE: The USLE was not considered for stratification of grassland projects. There are two main reasons for this. The first is that the USLE incorporates slope, which is not accounted for in the DAYCENT model. This model treats the world as flat, and would not be sensitive to differences in slope between difference strata. In addition, according to our contractors, even if the soil eroded it would not be immediately clear how this would impact GHG emissions, depending on the fate and transport of the eroded soil. The second reason is that aspects such as slope and erodibility are incorporated into the Land Capability Classification system, which is used in the Suitability Threshold (Section 3.3.1.2). While this does not impact the quantification, it does screen out lands where these characteristics lead to a LCC greater than IV.

Appendix B Development of Standardized Parameters and Emission Factors

40. **Update stratification table every 10 years, corresponding with the timeline update of NRI data.** We appreciate CAR's efforts to streamline the project development process by relying on the National Resource Inventory (NRI) and quantifying emissions by stratum. It is important the underlying data and stratification table are both revisited over time to ensure accuracy. The NRI data is updated every 10 years and the stratification table, including the emission coefficients, should be updated accordingly. **(The Nature Conservancy)**

RESPONSE: Agreed. The Reserve will endeavor to make sure this is possible.

Project Implementation Agreement

41. **The GHG Reduction Rights Contract should not be made public through the process of executing the PIA, as this could discourage participation by third-party project developers.** Overall the PIA is well done and, as a document built off of the Forestry PIA, has the potential to provide a lot of certainty for those entities that wish to use the Protocol to create Climate Reserve Tonnes. The Climate Trust's comments on the PIA are intended to seek clarification on the disclosure of the GHG Reduction Rights Contract. The Climate Trust agrees with the Climate Action Reserve that project developers must demonstrate proof of title for the term of the protocol, but requiring to share and publicly disclose the entire contract creates a host of challenges. The disclosure of proprietary financial and legal terms between project developers and landowners could distort the market and impede adoption of the protocol and generation of grasslands project CRTs. There are alternatives to disclosing entire GHG Reduction Rights Contracts while ensuring the project developer has unambiguous ownership of grasslands emission reductions. To this end, The Climate Trust recommends the Climate Action Reserve develop a short form that is signed by the landowner, easement holder, if applicable, and project developer conveying title to the offsets during the term of the PIA. Such a form could be incorporated as an exhibit to the contract between the landowner thereby referencing the main agreement between the two parties as a signal that a larger contract around the overall project is in place. Additionally, a standard form would create transparency for every actor in the market thereby making it clear what is the expectation for satisfying the Climate Action Reserve's standard for unambiguous ownership of grassland emission reductions. **(The Climate Trust)**

RESPONSE: The Contract PIA, which is not recorded on the deed to the property, is not a public document. The Recorded PIA is a public document, insofar as it is available in the records office of the county in which the deed is recorded. The Reserve understands your concerns and has amended the PIA to include a short form which will clarify the ownership of the GHG reductions and refer to a separate contract which contains other details not relevant to the PIA.