

May 18, 2020

Climate Action Reserve
818 W. 7th Street, Suite 710
Los Angeles, CA 90017
Submitted via e-mail

Re: Soil Enrichment Protocol Public Consultation

Dear Climate Action Reserve Staff:

Thank you for the opportunity to provide feedback on *Soil Enrichment Protocol Version 1.0 for Public Comment* (SEP). We laud the ambition of a complex protocol that spans many different on-farm practice changes. The history of the Climate Action Reserve's protocols is one of consistent quality, and it is the intent of our comments is to foster the continuation of this track record.

Natural Capital Partners has more than 20 years' experience helping our clients meet their voluntary climate commitments. For nine years running, we have been voted Best Offset Retailer in the industry-standard Environmental Finance Awards. Our reputation rests in no small part on presenting clients with offsetting solutions that are of only the highest integrity. We would like to connect our clients with agricultural soil carbon projects, subject to the protocol and projects aligning with best-practice quality criteria. Offsets of questionable integrity engender criticism that undermines the offset market. Indeed, sophisticated corporates question and probe to ensure that they are doing right by their climate commitments and stakeholders. Simply put, buyers don't want inferior offsets. With this background, please consider the following comments.

Section 3.3 Project Crediting Period

- The draft protocol proposes a crediting period of 30 years.
- Notwithstanding the behavioral economics discussion in Appendix section A.2, evidence of actual on-the-ground land management changes is acknowledged in A.3 ("For certain crops, in certain regions, certain practices have increased adoption, while other combinations of these have seen flat or decreasing adoption rates.") Because changes happen on much shorter timescales than 30 years, baselines will become inaccurate long before the end of the crediting period. It appears, however, that the time necessary for build-up of soil organic carbon is the Reserve's overriding consideration. In that case, if such a long crediting period is allowed, a stringent measure of additionality at the outset is critical. The draft protocol, however, proposes a liberal additionality threshold, one that considers to be additional any of 40+ soil enrichment practices that were not previously occurring on a particular field, without regard to common practice or regional variation. This risks thirty years of misdirected carbon finance.

Section 3.4.1 The Performance Standard Test

- “In any case, the magnitude of the practice change must be such that a reasonable person, knowing the context of the baseline scenario in the relevant region, would consider it to be a new management practice.”
- Natural Capital Partners supports this position. The draft protocol should be revised to align with this statement. As written, the protocol does not incorporate regional baselines. Rather, the baseline scenario is the pre-existing practice on any given field, anywhere in the country. For an illustration of why regional, forward-looking baselines need to be incorporated, we can look at the practice of no-till farming in South Dakota.¹ No-till, already at 37% of total cropping systems in 2004, reached 50% in 2019. In 20 counties, the figure exceeds 75%. It is a common practice trending towards ubiquity. In the Reserve’s Discussion Paper, *Standardized GHG Accounting for Soil Organic Carbon Accrual on Non-Forest Lands: Challenges and Opportunities*, dated September 23, 2019, the Reserve states the following:

Under a common practice approach, if a practice is undertaken by no more [than] a certain percentage of farmers in a particular region (commonly 5%) it can be treated as additional. A balance typically needs to be made between excluding some early adopters (often seen as unjustly penalizing critical early movers), as they may have implemented the activity without an offset motive, and rewarding laggards (those who “should have” already adopted the GHG-reducing practices, but for some reason have not).

In South Dakota, no-till likely exceeded 5% long before 2004, and we now appear to be at a stage when offsets would reward “laggards.” As written, the protocol will likely reward farmers in certain regions who would have or should have implemented the practice without offset revenue.²

Section 3.5.4 Permanence Period

- “If the grower has been shown to have maintained their adopted practice(s) for 5 years following the opt-out, then permanence monitoring may conclude. As described in Appendix A, growers are generally reluctant to change their land management practices for a variety of reasons. If they have maintained their adopted practice(s) without payment following opting out of the project, we can consider that they will continue to maintain that practice (or practices), and the SOC can be considered effectively permanent.”
- The Reserve would effectively be creating a new definition for Permanence: 100 years or five years, whichever comes first. No informed offset buyer will accept this. Furthermore, this runs counter to section 2.8 of the *Reserve Offset Program Manual*, which clearly describes Permanence as a 100-year span.

¹ See “2019 South Dakota Cropping Systems Inventory,”

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/sd/technical/landuse/cropland/?cid=nrcseprd1516214>

² If meaningful subcategories (e.g. tenant farmers or certain crops) are not seeing adoption of no-till, the protocol could stipulate eligibility criteria. This does not change the point that a performance standard should incorporate a reasonable perspective on common practice that accounts for regional variation.

The notion that five years of maintained soil enrichment practices on a given field is predictive of what happens on that field for the next 95 years strains credulity. Indeed, despite the barriers described in Appendix sections A.1 and A.2, the Reserve acknowledges in the brief section A.3 that practices do change (“For certain crops, in certain regions, certain practices have increased adoption, while other combinations of these have seen flat or decreasing adoption rates.”). The assumption that soil organic carbon will be completely static for 95 years implies that farmers absolutely never change practice. It implies that, when ownership or tenancy changes, the subsequent farmer always maintains the practice of his or her predecessor. It implies that agricultural land is never converted to a residential subdivision.

The suggestion that maintaining practices for five years without offset revenue positively indicates 95 years of voluntary continuation of such practices is to ignore the financial penalty a farmer must pay for discontinuation within the first five years. For such discontinuation, a farmer who is the Project Owner would have to purchase and retire offsets as compensation. If the Project Owner is another party, that party will likely have contractually required the farmer to compensate, directly or via the Project Owner.

3.5.5 Alternative Mechanisms for Ensuring Permanence

- One route to an alternative mechanism for ensuring Permanence is by “providing evidence that the risk of avoidable reversal can be reasonably considered to be de minimis...” An example of an alternative mechanism that would be considered is “demonstration of growers’ long-term adoption of project practices above a certain threshold. For example, if a certain high percentage of Field Managers maintain their SEP practices consistently throughout the crediting period and for at least 5 years following the conclusion of the crediting period, then permanence monitoring may conclude.”
- No alternative mechanism based on de minimus risk should be allowable, for the following reasons:
 - The conditions under which practices will have occurred during the crediting period (offsets revenue) and for the following five years (penalty of having to compensate for 30 years of released carbon) are materially different from the conditions of the next 95 years (no offsets revenue or penalty).
 - Despite the barriers to change outlined in Appendix A, actual USDA data show that farming practices change.
 - After the crediting period and subsequent five years, the next 95 years will see project fields pass to other owners and farmers. Such transitions can reasonably be expected to lead to practice changes, and the Reserve has provided no evidence otherwise.
 - Project fields may be converted to other uses, resulting in release of soil organic carbon. For this type of avoidable reversal, prior farming practices have zero predictive value.
 - The threshold for a de minimus risk determination, the percentage of Field Managers continuing SEP practices, is unknown and too discretionary.

- Percentage of Field Managers is irrelevant since each will manage a different amount of land and, aside from land area, different fields will be storing varying amounts of soil organic carbon.
- Percentage of a Project's total soil organic carbon is the relevant factor, although, for the aforementioned reasons, this still should not be the basis for a de minimus risk determination.

Section 5.3.2.1 Compensating for Avoidable Reversals

- “The surrendered CRTs must be those that were issued to the soil enrichment project, or that were issued to other soil enrichment projects registered with the Reserve. If there is not a sufficient quantity of soil enrichment CRTs available for compensation, as determined by the Reserve, any other CRTs are acceptable.”
- It is not clear why soil enrichment CRTs are preferred. Soil enrichment CRTs used for compensation may themselves be reversed in the future. The Reserve should, instead, consider a preference for CRT's from project types without reversal risk.

Section 6.5 Modeling Guidance

- “The methodology does not mandate the use of any specific model.”
- Staff of the Reserve may encounter models with which they are unfamiliar. This will make oversight difficult, thus undermining the degree to which offset buyers can trust the quantification of emissions reductions. The Reserve should specify which models are acceptable.

Section 8.3.1 Verifying Proper Use of Models

- “If the project employs the use of a third-party expert to undertake validation, parameterization, calibration, and/or running a biogeochemical model in a given reporting period, then there will be no need for the verification team to include an expert in the use of such model or to independently verify such activities have been done appropriately, provided the verification team: confirms that the use of such third-party has been approved by the Reserve, that the party in question has the requisite expertise, that all requisite steps as set out in *Model Calibration, Validation, and Verification Guidance for Soil Enrichment Projects* have been followed, and provided the expert provides the verification team with a sensitivity analysis regarding the requisite data inputs for the given model. In other words, the verifier is simply required to confirm approval from the Reserve, confirm the qualification of the third-party, and confirm the requisite validation steps have been followed, but the verifier does not independently need to run the model themselves to confirm results appear reasonable. The verification team will still be required to confirm the reasonableness of all data input into the given biogeochemical model, following the requirements for baseline modeling in Section 3.4.1.1, and following expert guidance on the sensitivity of the given model to the requisite data inputs.”
- The centrality of modeling to offset quantification necessitates that the verification team include an expert in the use of the model. While it is not necessary for the verifier to repeat the entire modeling exercise, the verifier must have the ability to independently test model sensitivity to

different types of variables. Only then can the verifier credibly confirm that the model results appear reasonable. Oversight and verification activities should nowhere have a “black box.” A situation in which neither the verifier nor Reserve staff can operate the model invites concerns about offset integrity.

Appendix A Development of the Performance Standard

- “We contend it is sufficient for us to demonstrate that providing offset revenues and mandating robust GHG accounting and longevity of SOC impacts—with proper incentives to ensure such longevity—is sufficiently unique to make projects under this protocol additional.”
- This premise of additionality misunderstands the meaning of additionality. *The Reserve Offset Program Manual*, (section 1.2, Reserve Program Principles) provides the following guidance:

*GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. **Business as usual” reductions – i.e., those that would occur in the absence of a GHG reduction market – should not be eligible for registration.** (emphasis added)*

With respect to the soil enrichment practices contemplated in the draft protocol, the Reserve offered valuable direction in section 2.4 of its Discussion Paper, *Standardized GHG Accounting for Soil Organic Carbon Accrual on Non-Forest Lands: Challenges and Opportunities*, dated September 23, 2019: “A SOC accrual protocol needs to ensure that all sequestration is additional, in other words **that the atmospheric carbon removal enhancement would not have occurred in the absence of the project.**” (emphasis added) This statement is consistent with the generally understood meaning within carbon markets: additionality is the reduction or avoidance of GHGs, relative to what would have occurred under business-as-usual (BAU).

The draft protocol’s stated additionality premise cites three foundations, each flawed:

1. “Providing offset revenues” – The act of paying for emissions reductions does not mean that the emissions reductions would not have occurred under BAU.
2. “Mandating robust GHG accounting” – This is not within the meaning of additionality. It falls within the first Reserve Program Principle (section 1.2 of *The Reserve Offset Program Manual*) that all CRTs must be Real: “Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project’s effects.”
3. “Longevity of SOC impacts” - This is not within the meaning of additionality. It falls within the third Reserve Program Principle (section 1.2 of *The Reserve Offset Program Manual*) that all CRTs must be Permanent: “In order to function as offsets to GHG emissions, GHG reductions must effectively be “permanent.” This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions.”

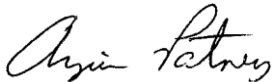
In the opening of Appendix A, the articulated goal of the protocol is to “incentivize multiple practice adoption over time.” If multiple practice adoption is key to achieving additionality, then we offer the following recommendations:

- Require more than one practice to be adopted.
- Quantify GHG benefits against a baseline that includes any non-additional soil enrichment practices (e.g. no-till farming in a region where this occurs on more than 5% of cropping systems).

In its current form, the SEP should not be finalized. As outlined herein, material changes are required to meet generally accepted criteria for offset quality. These criteria are stipulated in *The Reserve Offset Program Manual* and applied to the protocol’s context in the Reserve’s Discussion Paper, *Standardized GHG Accounting for Soil Organic Carbon Accrual on Non-Forest Lands: Challenges and Opportunities*, dated September 23, 2019. Furthermore, without significant revisions, offset buyers committed to high standards cannot be expected to support the protocol’s adoption at scale. Finally, the protocol as written risks diminishing the credibility of offsets and soil carbon solutions, as well as the well-earned reputation of the Reserve.

We appreciate this opportunity to contribute to improving the SEP. Please feel free to get in touch if you would like to further discuss any of our comments.

Kind regards,

A handwritten signature in black ink, appearing to read "Arjun Patney".

Arjun Patney
Vice President, Global Markets