Cascade Climate

U.S. DEPARTMENT OF AGRICULTURE
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Greenhouse Gas Technical Assistance Provider and Third Party Verifier Program
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Response from Cascade Climate
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Cascade Climate works to accelerate progress in climate interventions that leverage Earth's natural systems—from soils to oceans to glaciers—to stabilize our climate. As a philanthropically-backed nonprofit, we work across science, industry, and policy to overcome the bottlenecks that are holding back the most promising open-system climate interventions.

Our initial focus is advancing the development of Enhanced Rock Weathering (ERW) as an uncommonly promising climate-smart agriculture and durable carbon dioxide removal (CDR) solution. To date, we have orchestrated a methodical process to develop the foundations for an industry-wide standard that ensures rigor and consistency in the measurement, reporting, and verification (MRV) of ERW. This "foundations" document will be publicly released in fall 2024 and could be very beneficial in USDA's evaluation of ERW protocols.

At Cascade, we believe in the role of high-functioning, responsible voluntary markets as a way to incentivize climate action, including the deployment of CDR at scale. According to the Intergovernmental Panel on Climate Change's Sixth Assessment Report, "the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO2 or GHG emissions are to be achieved". We encourage efforts that steer voluntary markets towards integrity, quality, and rigorous accounting across climate solutions and CDR pathways.

We appreciate the continued efforts of the U.S. Department of Agriculture (USDA) to advance climate-smart agriculture and forestry practices and support farm and forest operators interested in participating in voluntary carbon markets. We are pleased to submit for your consideration responses to the request for information regarding the Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Program (hereafter referred to as the "Program").

Please see our responses below to select questions outlined in the RFI. In addition to these responses, we encourage USDA to:

1. **Assess new protocols on a regular basis in addition to those with a history of credit generation**. Although new protocols may lack evidence from application, they are typically developed using the best available MRV science. This is particularly true for promising approaches to carbon dioxide removal such as enhanced rock weathering and biochar.
2. **Align the Program's evaluation criteria with the Principles for Responsible Participation in Voluntary Carbon Markets (VCMs) released jointly by the USDA, the Department of Energy, the Department of Treasury, and the White House to**

ensure consistency across government programs. We also encourage continued engagement between USDA, DOE, other federal agencies, and non-governmental market integrity enhancing efforts on MRV for carbon dioxide removal.

3. **Provide clarity to farm and forest operators on the stackability of benefits for climate-smart agriculture and forestry practices.** For the same climate-smart practice, operators can access funding through the voluntary carbon market, USDA conservation programs, state-level conservation programs, and private sector pay for practice programs. However, it is currently unclear if and how operators can stack these benefits while maintaining the integrity and additionality of the climate benefit provided.

Question 1: **How should USDA define the terms "consistency," "reliability," "effectiveness," "efficiency," and "transparency" (see 7 U.S.C. 6712(c)(1)(A)) for use in protocol evaluation?**

In defining **consistency** for use in protocol evaluation, USDA should use common metrics across carbon removal pathways. For example, biochar, no-till for soil organic carbon, and ERW should all be assessed on their durability, additionality, and uncertainty. Protocols should also operate at a consistent level of specificity and freedom given to projects to make design and MRV choices, which will ensure a reasonably consistent confidence bar on carbon removal claims being made across projects, irrespective of protocol. Protocols should be required to use common–but not overly rigid–rules to account for site-specific characteristics and field conditions.

USDA should define the **reliability** of protocols based on the integrity of the estimated climate outcome and the needs of the farm and forest operators that are making significant practice and operational changes. A carbon credit certified through the protocol should represent one ton of carbon dioxide removed or averted with considerations for additionality, durability, and uncertainty. Further, the USDA should encourage project developers to provide enough specificity about how farm and forest operators are compensated and protected over the course of potentially long-term programs and commitments. USDA should also assess conflicts of interest under reliability. The protocol developer should have no significant conflicts of interest or financial stake based on the outcomes of projects certified using their protocol.

USDA should define the **effectiveness** of a protocol based on whether it can be clearly and repeatedly followed by project developers and used for project evaluation by verifiers. Two projects following the same protocol on the same field should arrive at similar results, and two verifiers evaluating the same project site against the protocol would arrive at same or very similar assessments and quantifications of the project's climate impact.

Efficiency can be defined based on the level of clarity of operator requirements that allow farm and forest operators and their technical assistance providers to implement the project and verifiers to evaluate the project once implemented.

In defining **transparency**, USDA should assess the protocol's level of public accessibility. Protocols that are on easy-to-find websites with worked examples and case studies build

understanding of and trust in what approaches are working. USDA should encourage data related to project safety, public and ecological health, and community well-being to be fully public. Program terms for operator compensation should be clearly defined.

Question 2: **What metrics or standards should USDA use to evaluate a protocol's alignment with each of the five criteria to be defined in Question 1? What should USDA consider as minimum criteria for a protocol to qualify for listing under the Program?**

In evaluating a protocol's **consistency**, USDA should consider how the protocol defines durability of carbon removal (e.g., number of years), what additionality checks the protocol uses, and how the protocol requires uncertainty to be quantified.

USDA should evaluate a protocol's **efficiency** based on the level of clarity provided on data requirements. USDA should encourage protocols to clearly list out, in table format, all data that will be required to be collected by the farm or forest operator. Protocols should include measurement and reporting requirements, including the frequency of reporting and who this information will be shared with. This would allow operators to quickly evaluate how programs differ on the amount of data they will be required to supply and/or consent to sharing with third parties. For example, USDA could require all protocols to fill out a table like:

Variable	**Method of measurement**	**Frequency of measurement**	**Who is the data shared with (select all that apply)**
Yield	Farmer reported via online link	Annually	Project developer, registry, verifier, academic institution, government agency, non-profit organization, other (specify)
Soil Samples	Project developer visits field and takes soil sample	2x per season	Project developer, registry, verifier, etc.
Nitrogen Fertilizer: Lbs N / acre	Farmer reports via online link. Supporting documentation (e.g. invoices) required	End of season	Project developer, registry, verifier, etc.

In evaluating the **transparency** of a protocol, USDA should consider how easily accessible the protocol is for the public. Further, USDA should encourage protocols to require data related to project safety, human and ecological health, and community well-being to be listed publicly by the registry or project developer. Ideally, projects registered to a protocol should have easy-to-find and publicly available safety data.

In evaluating both **transparency and reliability** USDA should consider whether protocols require carbon payments to be listed in standardized units in Operator-Carbon contracts. USDA should encourage that all project developers provide farm and forest operators more certainty and predictability around payments, ideally with an estimated $ / acre / year payment. If the

payment in contract is based on a different unit (e.g. per ton CO2 sequestered, per practice-acre), USDA could consider requiring the program to provide a 75% confidence interval of potential payments and clearly explain how the $ / acre / year estimated payment was calculated, including all assumptions made. USDA should also consider requiring the contract to clearly state whether this payment makes the operator ineligible for any other payments (including government-related programs).

To further evaluate the **reliability** of a protocol, USDA should assess the MRV science behind the carbon dioxide aversion or removal estimate with considerations for how the protocol accounts for additionality, durability, and uncertainties.

Question 3: **In general, after a new protocol is published, how long does it take for a project to use the protocol and be issued credits (*i.e.,* what is the lag time between protocol publication and first credit generation)?**

Historically, there has been a significant time lag (sometimes multiple years) between protocols being finalized and initial credit issuance, which can vary depending on the registry/credit issuer in question, whether legacy projects can be credited under the protocol, and how prepared external verifiers are to conduct a full project-level verification process. It is reasonable to expect that there will continue to be time lags both as existing protocols expand their reach and new protocols come online. New protocols should be considered and included based on their scientific merit (as defined under “reliability” above), which will encourage more widespread adoption, rather than potential delays in their initial credit issuance that is reliant on the upskilling of voluntary market actors.

Both established and emerging protocols should provide transparent expectations related to how regularly (and by what process) their protocols will be updated. Particularly when there are time lags in issuance, processes need to be in place to ensure new scientific understandings are integrated into protocols on a regular basis.

Question 4: **Which protocol(s) for generating voluntary carbon credits from agriculture and forestry projects should USDA evaluate for listing through the Greenhouse Gas Technical Assistance Provider and Third-Party Verifier Program?**

USDA should only consider the inclusion of protocols that have been developed through a scientifically rigorous and transparent process, and ideally those that have gone through a public comment and/or peer review process.

Specific to newer project types, in particular ERW, both Isometric’s Protocol for Enhanced Rock Weathering and Puro.Earth’s Enhanced Rock Weathering methodology are recently released protocols that are in the process of issuing credits and are working to conform with the best available science related to quantification. Both are worth evaluation from the USDA for potential listing under the Program.

Question 6: **How should USDA evaluate technical assistance providers (TAP)? What should be the minimum qualifications, certifications, and/or expertise for a TAP to qualify for listing under the Program?**

USDA should evaluate TAPs based on their ability to reliably and effectively support farm and forest operators in accessing and participating in the voluntary carbon market. The evaluation process should consider formal certifications, qualifications, and years of applicable experience. Ideally, TAPs should have formal education in a relevant field such as agriculture or environmental science, have direct experience working with carbon markets or climate-smart agriculture and forestry practices, and have working knowledge of the protocols certified by USDA under this program. Formal certifications that would be advantageous include Certified Crop Adviser or Society of American Foresters Certified Forester certifications. The USDA should also consider what relationship, if any, that TAPs should have with organizations that are accredited for relevant ISO certifications (such as the ISO 14000 set of standards) by the American National Standards Institute (ANSI) National Accreditation Board (ANAB) or similar accreditation bodies.

Question 7: **Should the qualifications and/or registration process be different for entities and individuals that seek to register as a TAP?**

Yes, TAPs should be required to describe their experience across protocols and registries in both the compliance and voluntary carbon markets. They should be required to identify conflict of interests and methods to prevent future conflict of interests.

Question 8: **What should be the minimum qualifications and expertise for a third-party verifier to qualify for registration under the Program?**

The minimum qualifications and expertise for a third-party verifier to qualify for registration should ensure that verifiers are capable of conducting scientifically sound and unbiased assessments of carbon credit projects. USDA should consider evaluating existing validation and verification bodies already certified through the California Air Resources Board or registries in the voluntary carbon market, such as Verra's accredited VVB list.