Questions and Answers

(Answer to Question 19 revised on 10/7/24)

This document provides answers to questions submitted in response to the:

Request for Quotations: MMRV of Greenhouse Gas Benefits Associated with Grassland Management

The deadline for submitting questions was October 27, 2024. NFWF offers answers in this format to provide all potential applicants with equitable access to the same information. Questions with similar focus have been combined or consolidated in some cases.

General Project Information

1. Can you clarify the specific objectives and expected outcomes of the MMRV plan beyond what is included in the RFQ?

   This RFQ is prospective with a start date and scope of work contingent upon securing sufficient funding. Despite this uncertainty, the current description of MMRV objectives and outcomes in the RFQ are our best understanding of them at this time.

2. What criteria will be used to measure the success of the MMRV activities?

   Success depends on timely and cost-effective delivery of all the MMRV project elements, including but not limited to: coordination and communication with NFWF; development of an MMRV plan; management of rancher agreements/contracts and rancher payments; collection and provision of soil, ranch and herd-management data; adherence to established reporting standards; and regular reporting.

3. Is this RFP part of a larger project, such as a USDA Partnership for Climate Smart Commodities grant?

   No.

4. Is the MMRV plan associated with a specific standard, such as the Climate Action Reserve Soil Enrichment Protocol or SustainCert Value Change Initiative?

   No.

5. Given average agreements with landowners are 2-3 years, has preliminary modelling or analyses for the program shown a noticeable change in soil carbon that could be attributed to the management over that period of time?

We do not expect to see a noticeable change in soil carbon over a 2–3-year period. Rather, re-sampling will occur over 5-10 years to detect more significant changes over a longer period.

6. How is soil carbon permanence associated with the insets factored into the program?

   In addition to long-term sampling, we anticipate that a buffer pool or exclusivity agreements might be used to mitigate reversals.

7. What experimental design is NFWF seeking?

   NFWF is not seeking a specific experimental design from Contractors at this time. However, demonstrated experience in developing complex experimental designs is required and should be clearly communicated. More generally, an appropriate experimental design for this work should have the following guiding principles: (1) Scalability - work may include millions of acres; (2) Flexibility - based on available resources and various levels of accuracy; (3) Cost-effectiveness - relative to broad spatial scale of monitoring; (4) Robustness - sufficient accuracy and precision to meet needs of corporate funding partners; (5) Comprehensiveness - both soil organic carbon and other GHGs; (6) Integration of multiple data sources - field measurements, remote-sensing data, and process-based modeling could all be included; (7) Baseline estimation - capable of establishing either static or dynamic baseline; (8) Adaptability - could be easily adapted to grassland regions outside Great Plains; (9) Alignment with reporting standards (e.g., GHG Protocol); and (10) Long-term monitoring (repeated sampling over a decade or more).

8. Is NFWF's project focused solely on the impact on the grazing lands, or should the MMRV provider also consider approaches to quantifying the enteric GHG emissions of the cows that are consuming that pasture?

   Enteric emission quantification should be a part of the MMRV plan for alignment with emerging GHG Protocol guidance.

9. Is the scope of GHG quantification to model large areas without rancher data and compare the carbon intensity of beef production in those areas to projects that implement regenerative grazing where we have rancher data? If so, is there a list of identified sink sources and reservoirs for this analysis (assuming soil carbon flux, enteric fermentation, others?)

   We are interested in approaches that leverage remote-sensing or biogeochemical process models as a proxy for management effects in cases where detailed ranch data are unavailable. Our goal is to quantify GHG removals that result from improved grazing management when compared with conventional management. Field sampling (i.e., soil cores) may be limited to ranches that are implementing improved grazing management.

Although highly dependent on funding and interest, we prefer sampling at control sites where conventional grazing is being practiced so we can define a dynamic baseline and gain a more rigorous understanding of the changes associated with regenerative grazing practices. Soil organic carbon and enteric fermentation are the two pools of interest.

Scope and Scale

10. What is the anticipated yearly acre enrollment? What is the timeline for enrollment and scaling acres?

    We expect practice implementation will begin in the second half of 2025. We estimate enrollment will average 1 million acres per year, but 2025 enrollments will probably be lower (perhaps 25-50% lower than later years). We expect to see an acceleration in 2026, followed by a stabilization in subsequent years.

11. Page 2, MMRV attribute section - Please provide an estimate of the expected number of individual grants (2–3-year cycles for millions of acres) made in the program over the initial 5 year contract period?

    We estimate making 75–150 grants relevant to this project over the initial 5 years of the contract period.

12. Related to overall project management responsibilities - Who is responsible if NFWF's acre enrollment goal for a given grant agreement (i.e., millions of acres) is not achieved? We assume this would be the implementation partner who interfaces directly with the ranchers in person.

    NFWF's grantee partners are responsible for delivering conservation outcomes on participating ranches. The Contractor would not be responsible for any shortfall in expected number of acres enrolled in this project.

13. Can you provide a sense for the typical grant size, funding cycle and scope of the supported projects expected to leverage this solution?

    Details vary from project to project, but typical grants will have a performance period of 2–3 years, range in size from $200K to more than $1 million, and support grazing improvements on 25,000 to 75,000 acres.

14. Is the proposed solution intended to be fully funded by grants or will it be subsidized on a project-by-project basis by partners such as corporates?

    NFWF grants will support the work of our grantee partners to assist ranchers with developing and implementing improved grazing management practices. This work will be

funded through a combination of government, corporate, and philanthropic sources. We expect the MMRV Contractor may be supported with funds from multiple sources, with the majority of funding to be provided by NFWF corporate partners.

15. Do you have an estimate of the average size of the ranches you plan to enroll in the program?

    Ranch sizes may range from less than 1,000 acres to more than 100,000 acres. We estimate the average size of ranches participating in this project will be between 5,000 and 15,000 acres.

16. Does NFWF expect the contracts to be renewed at the end of the 2-to-3-year period? If so, do you have an estimate of the percent of producers who will not renew their contracts?

    The 2–3-year period mentioned in the RFQ refers to the typical duration of grants that NFWF awards to its grantee partners (e.g., nonprofit conservation organizations); it does not refer to the duration of agreements/contracts with producers. Producer agreements/contracts will have a longer term, potentially up to 10 years. We don't have an estimate of the percent of producers who will not renew their agreements/contracts.

17. Can you give an indication of the anticipated number of producers that will be subject to the MMRV process across the 5-10 million acres?

    NFWF grants will support efforts by our grantee partners to assist an estimated 400–600 ranchers in years 1–5. We estimate another 400–600 ranchers will be assisted by our grantees in years 6–10.

Funding and Budget

18. What is the anticipated budget range for this solicitation?

    We have not set a minimum or maximum value for this contract. We ask each applicant to propose a budget that would allow complete and cost-effective implementation of all project tasks. That said, given the scale of the requested effort, we anticipate proposed budgets to be larger than six figures.

19. Does NFWF allow the inclusion of overhead and fees in proposal budgets?

    NFWF allows inclusion of indirect/overhead in proposal budgets. For this RFQ, applicants may budget for indirect/overhead costs at a rate required to cover an organization's anticipated expenses associated with the proposed scope of work. Overall cost-effectiveness is one criterion NFWF will evaluate during the proposal review process.

20. Will expenses be covered via expense reimbursements, or will funds be provided to the MMRV partner upfront?

    Most project expenses will be paid on a reimbursement basis. However, cash advances may be negotiated in situations involving substantial lump-sum expenses (e.g., rancher payments).

21. Are we allowed to propose budget contingencies in the proposal for unforeseen circumstances? If not, is there any flexibility in the budget based on changes in scope?

    Proposal budgets should direct all funds to specific tasks. Once the contract is active, changes in scope may be negotiated through an amendment process.

22. What is the source of funds for this RFP?

    We expect the Contract may be supported with funds from multiple sources, with the majority of funding provided by NFWF corporate partners.

23. Are you willing to entertain proposals where the budget is based on $ per acre of implementation?

    The budget may be structured to reflect a per-acre cost, but it must specify a dollar amount to indicate the total value of the Contract being requested.

24. Should we budget for a ramp-up in total acreage over time or rather give scenarios for various acreages that are flat over 10 years? Please advise as to the preferred approach based on expected funding and project details.

    We estimate enrollment will average 1 million acres per year, but year 1 enrollments will probably be lower (perhaps 25-50% lower than later years). Year 2 may see an acceleration, followed by a stabilization in subsequent years. The lower monitoring level in year 1 may be offset by a need for more development and coordination activities early in the project.

Soil Sampling

25. Are there any details you can provide related to desired ranges of certainty or suitable ranges of uncertainty for measured/modelled CO_2e? The variability of conditions within the area being monitored and allowable level of uncertainty have a strong impact on the number of samples that would be required.

    For our corporate partners, the suitable ranges of uncertainty will be defined in the corporate guidance documents and likely influenced by standards initiatives like SBTi and GHG Protocol. The allowable level of uncertainty and sample size will also be dependent

upon the amount of funding available to NFWF for this effort. It is possible that the measured changes in SOC will be small and preclude a desired level of statistical significance defined a priori within funding limitations.

26. Will Woodwell be doing stratification and sampling design?

    Stratification and sampling design for soil samples will be designed by the selected Contractor in consultation with NFWF. Our collaboration with the Woodwell Climate Research Center was specifically designed to help us make informed choices on experimental design.

27. Sampling expectations
    a. Where in the US will the sampling occur?
       Great Plains of North America.

    b. How dispersed are sampling locations/ranches likely to be?
       There will be ranches in many states, perhaps with an initial focus in MT, ND, and SD, followed by expansion to the broader Greater Plains and ranches nationwide.

    c. What sample types are expected?
       We are expecting primarily soil cores to evaluate soil organic carbon and bulk density. Other types of samples may be considered if funding and interest are available.

    d. To what depth are samples required?
       30 cm.

    e. Is there a desired sample density/frequency (acres per sample)?
       We do not have a required number of acres per sample, or samples per ranch. Any sampling scheme should be scientifically defensible and cost-effective. The number of samples may scale with ranch size, and they may be dependent upon factors such as the number of strata present at each site. Follow-up sampling will be completed at 5-year intervals following baseline sampling at each site.

    f. Will samples be uni-depth or segmented (e.g., 0-30 cm and 30-100 cm)?
       We expect that two segments (0–10 cm and 10–30 cm) will be sufficient.

    g. Are there sampling equipment specifications?
       No.

    h. Are there specifications for any vegetation samples collected?
       We are not expecting to collect vegetation samples but would consider if funding and interest are available.

28. Will the contractor be responsible for developing the soil sampling strategy for the 10 to 20% of samples taken on the 5 to 10 million acres?

    Yes, but the design will be done in consultation with NFWF.

Rancher Engagement/Interaction

29. Will NFWF provide a targeted list of ranchers?

    The Contractor will receive all relevant information about participating ranchers in accordance with a data sharing and use policy.

30. Does NFWF have access to producers to enroll in the program or are you looking for the Contractor to connect the program to its own producer network?

    The Contractor is not responsible for recruiting ranchers to participate in the program. Participating producers will primarily include those who receive grazing management assistance from NFWF grantee partners. A Contractor with an existing network of partnering operators may be able to help us enroll additional producers, but delivering a cost-effective MMRV approach should be the primary focus of the proposed scope of work and budget.

31. What strategies will be used to effectively engage ranchers and producers in data collection, reporting, and getting feedback from ranchers and partners to continuously improve the MMRV approach?

    NFWF grantees will inform participating ranchers about the needs to collect and report data as a condition for receiving technical and/or financial assistance for implementing grazing management improvements. As a benefit of their participation, ranchers will be able to access and view results for their own ranches. A feedback process to inform MMRV process improvements has not yet been developed.

32. Will the Contractor be expected to do any producer recruitment, or will that be handled by other parties?

    Producer recruitment will be conducted primarily by NFWF's grantee partners. The Contractor will not be responsible for recruiting ranchers to participate in the program. A Contractor with an existing network of partnering operators may be able to help us enroll additional producers, but delivering a cost-effective MMRV approach should be the primary focus of the proposed scope of work and budget.

33. What organization is responsible for writing and/or approving grower contract language?

NFWF will work with its grantee partners and the Contractor to develop rancher agreement/contract language.

34. Page 1, Overview states "Required capabilities include direct interfacing with ranchers to sign agreements" - Please confirm implementation partners are responsible for recruiting ranchers (face to face), making practice recommendations and introducing the rancher to the MMRV system where ranchers execute the contracting process electronically.

    NFWF's grantee partners (implementation partners) will recruit ranchers, assist ranchers with practice design and implementation, and introduce ranchers to the MMRV system. The process of rancher agreement/contract execution is to be determined, but an electronic process is an option.

35. The RFP states that the winning proposal will collect "information from producers including field boundaries, number of animals, and grazing management practices implemented." How do you see the contractor working with producers? How will the contractor work with NFWF in relation to working with producers?

    The Contractor will interact with NFWF grantees and ranchers to collect ranch and herd management data, to coordinate ranch access for soil sampling, and to ensure submission of required documents to make rancher payments. Some of this work may be conducted electronically, perhaps through an online system, but we anticipate a need for direct, personal interaction with a significant number of ranchers. We anticipate data collection will require some level of training for grantees and ranchers. The Contractor will communicate with NFWF about rancher interactions through a series of regular check-ins and reports. NFWF and the Contractor can work together to address emerging issues related to working with ranchers, but NFWF will not interact directly with ranchers.

36. Will the contractor be responsible for negotiating contracts or just obtaining final signatures and tracking and management of agreements?

    NFWF grantees will inform participating ranchers of the need to enter into an agreement/contract prior to receiving grazing management assistance. NFWF, NFWF grantees, and the Contractor will work together to develop standard agreement/contract language. NFWF grantees will assist the Contractor with obtaining final signatures. The Contractor will track and manage the contracts/agreements.

37. Will NFWF or corporate funders be providing/assisting in landowner or tribal engagements or is this a responsibility of the supplier?

    NFWF and corporate funders will not interact directly with ranchers to provide assistance. Under this project, NFWF's grantee partners will interact directly with ranchers to provide

grazing management assistance, and the Contractor will interact directly with ranchers to implement the MMRV approach and make payments.

Grazing Management Practices

38. What grazing practices will be implemented and evaluated under this project? Are there practices that are preferred by NFWF corporate partners?

    Grazing practices will focus on promoting plant growth above and below ground, improving wildlife habitat, and maximizing soil carbon by establishing native grasses and optimizing stocking rates, livestock rotations, utilization rates, and plant rest and recovery. Work will often include managing herd movements and installing fencing and watering systems.

39. How will intervention costs be funded? I.e. fence, virtual fence, water development, labor needs, etc.? Does NFWF intend to provide funding that matches the cost of the intervention?

    NFWF grants will support the work of our grantee partners to assist ranchers with developing and implementing improved grazing management practices. In some cases, grants will support technical assistance. In others, grants will also provide financial assistance for practice implementation. This work will be funded through a combination of government, corporate, and philanthropic sources.

40. The NRCS Grassland Conservation Practices contains 5 practices that could potentially have some impact on carbon below. Does this list capture the practices NFWF is expecting the MMRV provider to support? Are there practices in this list that NFWF would define differently or separate out? Are there other practices NFWF expects the MMRV provider to measure?
    a. Forage Harvest Management: Timely cutting and removal of forages for optimized yield, quality, stand life, controlling insects and other pests, and to maintain wildlife habitat.
    b. Nutrient Management: Proper placement of the correct amount of nutrients at the correct stage of plant growth to increase forage production, reduce loss of nutrients to surface or groundwater sources and to increase production and profits.
    c. Pasture and Hay Planting: Establishing desired native and/or introduced forages to supply forages during normally low production periods, reduce erosion, reduce runoff, improve water quality and increase carbon sequestration.
    d. Prescribed Burning: Prescribed burning is used to increase the quantity, quality and vigor of certain desired plant species. Burning also reduces the competition from undesired species.
    e. Prescribed Grazing: Managing the harvest of vegetation with grazing animals to maintain or improve the desired plant community and ground water quality, reduce erosion, and improve cover for wildlife.

Regenerative grazing is the primary practice for which we will want the Contractor to quantify the carbon flux. Other practices that have a demonstrated benefit for fish and wildlife habitat, such as brush management and prescribed burning, may be included but those are contingent upon funding and interest. NFWF is not interested in any practices that do not have demonstrated positive impacts on fish and wildlife habitat or biodiversity. Other than perhaps regenerative grazing, we do not anticipate there will be sufficient data to partition practices too finely.

41. Please confirm the assumption that all grants under the MMRV contractor scope will adhere to a set of standardized practices and reporting requirements but will differ in the geography, ranching group and implementation partners.

    Implemented practices will vary across sites depending on the specific conditions and needs of each ranch. All practices funded will be in accordance with the currently understood best practices for improving rangeland management and condition. The MMRV activities and reporting requirements will be standardized across sites.

42. Are you providing ranch-by-ranch grazing advisory or just broad-spectrum education?

    Participating ranchers will receive assistance provided by NFWF grantee partners. This assistance will vary from ranch to ranch. In some cases, grantees will provide technical assistance for development of grazing management plans, practice design, and enrollment in cost-share programs. In others, grantees will also offer financial assistance to support installation of grazing infrastructure and other on-the-ground improvements.

43. Are you open to collaborating with (and is their budget for) the contractor to implement grazing advisory assistance?

    Grazing advisory assistance will be provided to ranchers primarily by NFWF grantee partners. Proposals for this RFQ may offer to provide ranchers with grazing management assistance, but delivering a cost-effective MMRV approach should be the primary focus of the proposed scope of work and budget.

Rancher Payments

44. What will be the mechanism and cadence of incentive payments to supply side participants? Will NFWF provide up-front funding for producer payments, or will it be provided after verification?

    The rancher payment schedule is still to be determined.

45. Is the MMRV contractor issuing payments to producers? How is this determined?

We expect the Contractor or a subcontractor acting on its behalf to issue payments to ranchers.

46. Are rancher incentive payments based on practice adoption or carbon outcomes? When does NFWF expect growers to be paid for the first time?

    Rancher incentive payments will be based on practice adoption and data sharing and are not dependent on carbon outcomes. We expect the first rancher payments will be made in the second half of 2025, which is when we anticipate the first enrollments in the program will occur.

Data Collection, Analysis and Reporting

47. Does NFWF desire any additional environmental outcomes aside from soil organic carbon and non-CO_2 GHG fluxes?

    A demonstrated ability or tool/platform to measure other environmental outcomes (water quality or conservation, biodiversity) would be considered a preferred qualification, but the ability to measure carbon flux is the main focus.

48. From page 4, task 3: "Development and maintenance of a comprehensive dataset for participating producers with signed agreements, terms and conditions of agreements (including but not limited to rights to GHG benefits), and expiration dates; timely payment disbursements to participating producers." Are there format requirements (e.g. csv, offline contracts, etc.) for data collected at the time of first communication with on the ground parties is intended [sic] to occur within the first 5 months of the contract start date?

    A Contractor with a structured system of workflows and processes to collect and manage these data is highly preferred. However, we will not require the Contractor to have a full in-house solution for all aspects of the MMRV plan. Partnerships with other companies with strengths in other aspects of the MMRV are expected.

49. What amount of historical practice data is NFWF expecting the MMRV provider to collect?

    We would prefer detailed historical information for every ranch on which soils sampling occurs. Obviously, that will not happen. Any decisions on whether to prioritize or standardize the collection of historical data will depend upon the % of ranches for which such information is available.

50. Is there any need for a PDR (Program Data Review where in a given year a practice is confirmed) as part of the validation process? Who is responsible for validation of practices and what degree of rigor is NFWF looking for that validation? How frequently does NFWF anticipate validation to occur?

The permanence of the practice and the need to track reversals is critical to understanding carbon changes. However, the responsibility, rigor, and frequency of monitoring for reversals will ultimately depend on funder requirements (currently unknown). In general, an ability to rigorously monitor for reversals with remote-sensing data, likely combined with supplemental data on herd size and movements, is highly preferred over field visits due to reduced cost.

51. Is there a need to ingest Ranch boundaries or can Ranch boundaries be assumed as a total of the ingested field boundaries?

    Accurate delineation of grazed pastures and fields is ideal, and probably sufficient to understand ranch boundary. Ranch boundary may be useful additional information, but the primary focus should be locations where regenerative grazing occurs.

52. Analysis expectations - are the following tests sufficient?
    a. Total carbon and total inorganic carbon by direct combustion (total organic carbon obtained using the difference)
    b. Bulk density and coarse fragment mass determination
    c. Are there additional soil attributes that the models require?

    Soil organic carbon and bulk density are the primary attributes we are interested in. Use of spectroscopic methods (e.g., near-infrared or mid-infrared spectroscopy) for rapid, cost-effective estimation of some soil properties, including organic matter fractions, may be considered.

53. On the spectrum between a software as a service (SaaS) solution, at one end, and a hands-on data collection approach with the contractor working routinely with NFWF and producers at the other, which approach would be most attractive to NFWF?

    An approach somewhere in the middle of that spectrum, but leaning toward a more hands-on data collection approach, would likely be most attractive to NFWF. Given the complexity of grassland carbon dynamics and the various factors that need to be considered (soil, climate, management practices, etc.), a purely SaaS solution might not be sophisticated enough to capture all the nuances. However, the ideal approach would likely incorporate some aspects of an SaaS solution, such as a centralized platform for data storage and analysis, automated processing of remote sensing data, and a user-friendly interface for data input and visualization

54. Has NFWF determined the full set of data points it wants to collect, or would it be valuable for the contractor to provide additional data sources (e.g. GPS tags)?

This RFQ is prospective and contingent upon securing funding. Consequently, the prospective on-the-ground work to be performed in relation to this effort has not yet been implemented and participating ranches have not yet been identified. It is unclear if there is a role for past or current NFWF grants with this MMRV opportunity, and same would apply to additional data a contractor may have available.

Woodwell Model

55. Can you provide a list of any specific data inputs for the Woodwell model that the contracted entity will be responsible for providing (i.e., soil organic carbon, bulk density, etc.)? Additionally, does this extend to remote sensing data, and if so, can you provide any specifications on requirements (i.e., types, resolution, etc.)?

    The Contractor will be responsible for collecting on-the-ground soil sampling data (including soil organic carbon and bulk density, ranch/field boundaries, and other ranch-level data. The Contractor will not need to recreate the Woodwell model, integrate the Woodwell model into their workflows, or provide remote-sensing data to the Woodwell model. NFWF requires the selected Contractor to provide the input data from ranches and we may choose to use that data with the Woodwell model to ensure consistent results among our other projects which are less explicitly focused on Scope 3 emissions. Applicants should identify and describe models they prefer to use for this effort, whether proprietary or open-source, available or under development. NFWF is interested in comparisons among different models.

56. Were there any pilot studies completed using the Woodwell model that assessed its predictive performance? If so, could that information be provided (i.e., the area that was studied, the management taking place across that area, the number of samples taken to evaluate model performance with information on the sampling approach, the resulting accuracy of the model, etc.)?

    Descriptions of the development and performance of the Woodwell model can be found in this preprint (pending acceptance with minor revisions): https://essopenarchive.org/doi/full/10.22541/essoar.171269303.34921116.

57. Given the desire to be model agnostic with the data collection, are there other specific models NFWF is aware of and would like to explore under this scope of work?

    We are certainly tracking similar regional-scale models that are also currently under development. Any model that has been evaluated in the peer-reviewed literature can be considered. Widely used modeling platforms or funder interest in a particular model may also influence our modeling choices contingent upon the availability of funding.

58. What are the requirements for a regional scale assessment for carbon flux modeling (e.g., geospatial scale, data outcomes)?

    The overall objective for a regional-scale assessment, and this MMRV in general, is to define a methodological approach to use representative sampling to estimate changes in SOC and methane on a large number of ranches. A representative sample of soil cores should be taken on individual ranches that have started to use regenerative grazing practices, and those results used to predict carbon flux on ranches that have started to use regenerative grazing practices but will not be taking soil cores. NFWF is interested in results on individual ranches but given the scale at which we work in Great Plains (i.e., millions of acres), it is impossible to use a traditional approach of conducting soil sampling on every ranch. The Contractor needs to describe their methodological approach to predicting ranch-level results on ranches without soil sampling in their response. Overall, this MMRV effort is focused on novel approaches to quantify Scope 3 emissions in a cost-effective manner, so there will need to be substantial additional ranch-level data collected, which necessitates those data be managed in a systematic manner on a reliable digital platform.

59. What are the input requirements for the Woodwell model?

    The model inputs are detailed in: https://essopenarchive.org/doi/full/10.22541/essoar.171269303.34921116.

60. How can the Woodwell model be accessed?

    The full description can be found here: https://essopenarchive.org/doi/full/10.22541/essoar.171269303.34921116. The version of the code associated with this publication can be found here: https://github.com/whrc/Rangeland-Carbon

61. What party covers the expense of running the Woodwell model?

    The Woodwell model will be implemented by Woodwell and collaborators as part of an outcomes-based monitoring system independent of this Scope 3 program.

62. Is there a specific data requirement around remote sensed analytics?

    We expect open-source remote-sensing datasets will be used. We do not anticipate any remote-sensing data will need to be purchased from commercial providers. The Contractor will not be required to provide remote sensing data for the Woodwell model.

63. Are there data specifications for Woodwell's model that we should be aware of?

    The model inputs are detailed in: https://essopenarchive.org/doi/full/10.22541/essoar.171269303.34921116.

64. Can you provide clarity on the expectations for the MMRV contractor to develop and/or run the model developed by Woodwell.

    We do not expect the Contractor to develop a duplicate version of any model. We expect the Contractor to provide the input data identified above in a format appropriate for any model of interest to NFWF. The Contractor will not be expected to run the Woodwell model.

65. Can we bring in other quantification tools to generate Carbon removal estimates?

    The models to be run will be determined by NFWF. We are very open to the use of multiple tools and models as long as they are scientifically defensible and cost-effective. However, funding may constrain our choices to a relatively small number.

66. Ensemble modeling - is there a list of preferred biogeochemical models to be run?

    No, any model that has been evaluated in the peer-reviewed literature can be considered.

67. Can the Woodwell model be integrated into 3rd party MMRV platforms or is there a licensing requirement? Are there additional security or other requirements with using this model?

    Yes, but we are expecting a solution a bit independent of the Woodwell model because it is already being implemented as part of a broader outcomes-based monitoring program. The current version of the model is freely available but newer versions may not be.

68. Does NFWF have datasets available to contribute to model calibration?

    Not at this time. Although NFWF supports open-source data and hopes to facilitate sharing among our partners, the collection of grazing data on private property means that data are often subject to restrictive data-sharing agreements. The hope is to generate some repeat soil carbon datasets over the next 3-5 years that may contribute to this effort.

69. From page 2, Related to integration/compatibility with Woodwell model - "The successful MMRV Contractor will need to be model-agnostic and capable of providing ranch-level input data to run the model developed by Woodwell." Is the expectation that a successful proposal results in the integration of the Woodwell model into an MMRV or that data are made available to a 3rd party who may use the Woodwell model outside of the MMRV?

    The expectation is that the Contractor will provide any new data generated through this project to the Woodwell team to support a broader outcomes-based monitoring program. The Contractor will need to provide the input data identified above in the format required by the modeling platform. If an applicant has a specific model they prefer to use (proprietary or open-source, available or under development), then please identify that model in the reply

to the RFQ. NFWF is interested in comparisons among different models and ensemble approaches.

70. What is being remotely sensed, what are flux towers measuring?

    Greenness indices are used as inputs to the Woodwell model. Partitioned CO_2 flux data from towers are used for the Woodwell model calibration/validation.

71. Is the Contractor expected to integrate the Woodwell model into its own system or simply collect data and package it to deliver to Woodwell for them to run the model separately?

    The latter case is the expectation (data sharing to Woodwell). The Woodwell model will be run in a separate program. We do not expect the Contractor to create a duplicate version of any model. The Contractor will need to provide the input data identified above in the format required by the modeling platform.

72. Is the default model capable of providing ranch-level or more granular estimates?

    If the default model means the Woodwell model, then yes, it provides more granular estimates. The model runs at a 30-m spatial resolution wall-to-wall at the ranch scale. These pixel-based estimates can then be combined, considering spatial autocorrelation, to come up with a ranch-level estimate of net benefits.

Corporate Insets/Offsets

73. The RFQ refers to both insets and in some sections offsets. Does NFWF intend to address both options?

    NFWF is focused solely on insets at this time.

74. If NFWF has a desire for carbon offset capability is there a preferred methodology? Is Verra VM0042 an option?

    NFWF is focused solely on insets at this time.

75. Are there permanence and monitoring requirements specific to NFWF outside of the preferred methodology for credit issuance?

    NFWF does not require an approach that meets standards for credit issuance.

76. Do corporate partners have a preferred registry or methodology associated with Scope 3 claims or carbon offset credits?

    No.

77. On page 1, Overview - “Many NFWF corporate partners are committed to adhering to the GHG Protocol and SBTi reporting guidance in relation to Scope 3 insets.” The term insets is generally used to refer to a corporate’s intention to sell reduction / removal claims / outcomes resulting from a specific intervention. Do corporate partners plan to make reduction/removal claims based on the interventions they have invested in, and/or plan to sell reduction/removal credits to other supply chain partners?"

    Corporate partners plan to make removal claims for interventions located in their supply sheds based on emerging Scope 3 insetting guidance. Neither NFWF nor our corporate partners are interested in the sale of credits at this time.

78. Is there an expectation to control for double counting for producer engagement in other programs? Does NFWF have information that can be shared on 3rd party programs the producers may already be committed to?

    To participate in the NFWF program, ranchers cannot enroll acres where there are or will be other claims put on the carbon. An agreement/contract with each rancher will outline that requirement. Potential participants in the NFWF program have not yet been identified, so we don’t have information on whether individual ranchers are engaged in other programs.

Data Delivery, Sharing, and Privacy

79. Is it expected that the contractor will have an online platform already developed that can be expanded for the management and tracking of producer agreements and payments, data management, and reporting, or is there a willingness to co-develop a new platform under this scope of work?

    NFWF prefers the ability to review the capabilities of an existing platform and its potential for expansion as a basis for making the contract award decision. However, a proposal that includes development of a new platform will be considered, provided such a platform can be operational by the second half of 2025 and the expense of development does not prevent the proposal from being cost-competitive.

80. What are the deliverable data requirements from the contractor to NFWF?

    In addition to output data relevant to corporate reporting, the Contractor will need to provide NFWF and partners with all raw data upon request, including but not limited to field and/or ranch boundaries, any practice information gathered, and field-collected data such as soil organic carbon and bulk density. The Contractor will also need to provide NFWF and partners with GHG removal estimates consistent with emerging GHG Protocol and SBTi Scope 3 insetting requirements. The Contractor should also make select results available to

producers and landowners (e.g., producers have expressed interest in soil carbon or primary productivity maps).

81. Does NFWF have a data deliverable template of the desired parameters?

    A data deliverable template is not currently available. NFWF and the Contractor will develop a template based on a list of required data elements to be provided by NFWF.

82. Is there an expectation that soil sample data results be visible in the platform to producers or only used for modeling purposes?

    We would expect that results are shared with landowners in a way that meets their needs.

Reporting

83. Is general programmatic reporting on project status and outcomes of management (CO_2e) suitable for the project or will bi-annual data have to be traced back and attributable to the individual investment of partners?

    Bi-annual data will need to have identifiers that link individual ranches to the NFWF grant(s) that supported grazing management improvements. NFWF or NFWF's grantee partners will provide the Contractor with that information. It is uncertain at this time whether the Contractor will be responsible for relating data to individual partner investments.

84. Please confirm the MMRV provider will deliver carbon and GHG related outcomes only. Please confirm NFWF is not expecting reporting on biodiversity, water use, etc.). Woodwell's model does not provide N_2O outcomes, does NFWF expect the MMRV provider to deliver N_2O outcomes?

    The Contractor will be required to report on carbon and GHG outcomes only. This reporting will include N_2O outcomes. A demonstrated ability or tool/platform to measure other environmental outcomes (water quality or conservation, biodiversity) would be considered a preferred qualification, but the ability to measure carbon flux is the main focus.

85. Page 1, Overview states "compliance [with industry standards] can depend on a company's individual circumstances" and the MMRV provider will not have the opportunity to interview corporates until after the contract is awarded. Please confirm the assumption that the MMRV provider will deliver outcomes and reporting that adheres to rigorous protocol and evolving reporting standards but that the incorporation of those outcomes into an individual organization's GHG inventory is out of scope.

The Contractor will deliver outcomes and reporting consistent with established reporting standards but will not be expected to incorporate those results into a corporation's broader GHG inventory.

86. Page 4, Task 4: "Schedule: Proposal should indicate a best estimate for when data, results and analyses could be first made available through an online data portal. Providing information in this fashion will continue through the life of the Contract." When will practice implementation begin and does NFWF expect data available prior to results quantification? When are first bi-annual reports required?

    We expect practice implementation will begin in the second half of 2025. We do not expect to receive data prior to quantification of results. The first bi-annual report summarizing ranch-level data will be due in December 2025 or January 2026, depending on a schedule to be negotiated with the Contractor.

Proposal Process

87. Are appendices allowed in order to include additional technical details and other reference documentation?

    Proposals can include supporting documentation in appendices, but key elements should be included in the main body of the scope of work.

88. How will submissions be treated with respect to confidentiality – i.e., will they be published? If our submission includes sensitive or proprietary details, do we need an NDA / is it an option?

    Proposals submitted through this RFQ will be reviewed by a small number (12–15) of individuals at NFWF, Woodwell Climate Research Center, and Columbia University. We may also share one or more proposals with potential corporate funders for review. All reviewers will treat submitted proposals as confidential, and proposals will not be published, posted, or otherwise made publicly available. We do not see the need for an NDA.