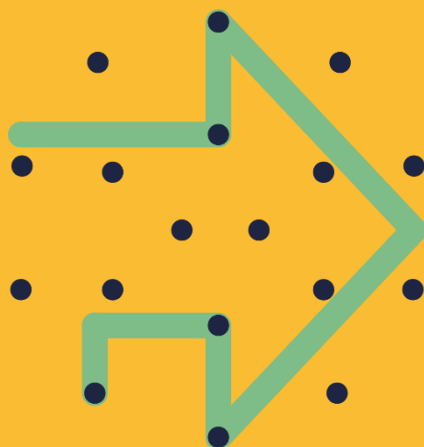




Department of Climate Change,
Energy, the Environment and Water

Consultation on Proposed Changes
to the Soil Organic Carbon Method
2021 Supplement

submission

August 2026



**Carbon
Market
Institute**



DCCEEW: Strengthening the Integrity of the Soil Organic Carbon Method 2021

submission

The Carbon Market Institute (CMI) welcomes this opportunity to provide feedback on the proposed changes to the Supplement to the *Carbon Credits (Carbon Farming Initiative – Estimation of Soil Organic Carbon Sequestration using Measurement and Models) Methodology Determination 2021* (Soil Organic Carbon Method 2021).

CMI is an independent, member-based institute that promotes the use of market-based solutions and supports best practice in decarbonisation to limit warming to 1.5°C. Our membership includes 130 primary producers, carbon service providers, First Nations organisations, legal and financial institutions, technology firms, emissions-intensive companies and nature & conservation organisations in Australia and Asia Pacific. Our members have direct experience developing, investing in, measuring and participating in carbon farming projects, including projects using the Soil Organic Carbon Method 2021. The CMI Board updates CMI's Policy Positions annually, which draw on practical insights from—but are ultimately independent of—members.¹ CMI also established the Australian Carbon Industry Code of Conduct (ACI Code) in 2018 to steward consumer protection, market integrity and best practice across Australia's carbon market. The ACI Code is now administered through a dedicated entity to strengthen governance independence, oversight and confidence in the integrity of the market.²

CMI supports the objective of maintaining confidence in the integrity of the Australian Carbon Credit Unit (ACCU) Scheme and recognises that periodic, independent review and continual improvement are important features of a credible carbon crediting system.

We support the Government responding to the findings of the Emissions Reduction Assurance Committee (ERAC) and taking proportionate steps to ensure crediting under the Soil Organic Carbon Method remains conservative. At the same time, changes should be technically robust, proportionate to the evidence, practical to implement and designed to avoid unintended consequences for projects generating genuine and measurable soil carbon outcomes.

Strategic Outlook

CMI supports the Government's objective of strengthening the integrity and conservativeness of the Soil Organic Carbon Method 2021 in response to the findings of the ERAC periodic review. The proposed 3 t C/ha/yr crediting cap is a reasonable and pragmatic immediate risk-management response to the identified potential risk of over-crediting.

However, CMI considers it important that the cap is treated as a conservative, reviewable crediting safeguard rather than a permanent biological threshold. The evidence available to date does not necessarily establish that all SOC accrual above 3 t C/ha/yr is non-credible. Further work is needed to distinguish between genuine high SOC outcomes and potential sources of over-estimation arising from sampling, stratification, measurement or other methodological factors.

¹ CMI 2023, 'CMI Policy Positions', https://carbonmarketinstitute.org/app/uploads/2023/11/CMI-Policy-Advocacy-Positions_FINAL-2023.pdf.

² CMI 2024, 'Australian Carbon Industry Code of Conduct', <https://carbonmarketinstitute.org/code/>.



The immediate priority should therefore be to manage the integrity risk while improving the quality of the evidence base. This includes strengthening sampling and stratification guidance, improving measurement and laboratory consistency, retaining and reporting actual measured SOC outcomes above the cap, and increasing transparency around aggregate method performance. These measures will enable the cap and broader method settings to be reviewed and refined as Australian project data and scientific evidence develop.

CMI also considers that the lessons from the ERAC review should inform the development of the proposed soil carbon module for the Integrated Farm and Land Management (IFLM) method. The issues identified through the review provide an opportunity to strengthen the existing method while progressing its integration into IFLM, rather than delaying development of a soil carbon module until 2027.

Summary of feedback and recommendations

Responses to the specific feedback questions in the DCCEEW consultation document are included Annex A. CMI recommends that the Government:

Recommendations

1: Support the proposed 3 t C/ha/yr cap as an immediate risk-management measure

CMI supports the proposed amendment to the Supplement to introduce a cap on creditable soil organic carbon (SOC) accrual as an immediate risk-management response to ERAC's findings, subject to the safeguards and review mechanisms outlined in this submission. The cap should be explicitly characterised as a risk-management measure rather than a conclusion that all SOC accrual above 3 t C/ha/year is not biologically credible. DCCEEW should continue to distinguish between measurement uncertainty, sampling and stratification issues, climatic variability and genuine biological outcomes.

2: Make the cap explicitly reviewable

DCCEEW should commit to reassess the level and operation of the cap as additional Australian project data, scientific evidence and measurement experience become available. The cap should be capable of being recalibrated where the evidence supports a different threshold or a more risk-based approach. To help build underlying evidence, measurement and reporting of any actual SOC outcomes above the cap should be retained.

3: Strengthen sampling and stratification guidance

DCCEEW should strengthen sampling and stratification guidance to support fit-for-purpose, risk-based approaches, with sampling requirements informed by the characteristics of individual projects and statistical considerations including soil variability and type, CEA size, land-use history, climatic variability, expected SOC change, statistical power and the cost of additional sampling, rather than relying on a single prescribed sampling intensity.

4: Improve measurement and laboratory consistency

To ensure greater consistency in laboratory results and improvements in measurements DCCEEW should provide clearer guidance on sample collection, handling, analytical procedures and quality assurance/quality control

5: Provide clear transitional arrangements for existing projects

DCCEEW should provide clear transitional arrangements for existing projects, including confirmation that changes will not retrospectively affect ACCUs already issued or undermine investment decisions made in good faith under the existing method. Transitional arrangements should recognise registered projects, established baselines and investment decisions made in good faith, while ensuring that the integrity objectives of the revised settings are maintained.

**6: Increase transparency of method performance**

DCCEEW and the Clean Energy Regulator (CER) should publish aggregate project performance data, including sufficient information on measured SOC outcomes, sampling and project characteristics to support independent analysis and continual improvement of the method while protecting commercially sensitive information.

7: Fasttrack an IFLM soil carbon module

The Government should use the findings from the ERAC review to accelerate integration of a soil carbon activity module into the first iteration of the Integrated Farm and Land Management (IFLM) method, rather than unnecessarily delaying this work until a separate method development process in 2027.

8: Continue engagement with technical experts and practitioners

Practitioner and technical expert data and experience should be drawn on in refining the Supplement, sampling guidance and future method development to ensure the settings are scientifically robust and practical to implement.

CMI feedback and recommendations are elaborated in greater detail over the page. Should you have questions or wish to discuss CMI's submission in further detail, please contact Janet Hallows, Director Climate Programs and Nature-based Solutions janet.hallows@carbonmarketinstitute.org.

Yours sincerely

Janet Hallows

Janet Hallows

Director, Climate Program and Nature-based Climate Solutions



Proposed Changes to the Soil Organic Carbon Method Supplement

Soil carbon projects have the potential to provide multiple benefits alongside emissions reductions, including improved soil condition, water retention, resilience and farm productivity.

The ACCU Scheme can provide an important mechanism for supporting landholders to undertake land management practice changes that generate these outcomes while contributing to Australia's emissions reduction objectives and building biodiversity. Participation, however, depends on confidence that the rules are scientifically credible, practically implementable and sufficiently stable to support long-term investment. Policy certainty is critical in maintaining confidence and participation and proposed changes must consider any potential unintended consequences and impacts that may discourage investment.

CMI supports the Government's objective of maintaining conservative crediting under the Soil Organic Carbon Method 2021. The ERAC periodic review and subsequent DCCEEW consultation demonstrate the value of having an independent assurance process that can identify emerging risks and enable targeted improvements to methodologies. CMI considers this process an important contributor to confidence in the ACCU Scheme.

CMI therefore supports the Government taking action in response to ERAC's finding that the method no longer meets the Conservative Offsets Integrity Standard and supports the Government's proposed targeted amendments to the Soil Carbon Method Supplement as a pragmatic response to the ERAC review, while emphasising that improved measurement, sampling and stratification are the key longer-term integrity measures. CMI therefore advocates for a framework that allows the crediting cap and technical requirements to evolve as the evidence base develops, while maintaining confidence and certainty for existing projects. CMI members consulted during the review process stressed that sampling and stratification improvements are critical and should be treated as the key long-term integrity intervention rather than relying solely on the cap.

Proposed 3 t C/ha/year crediting cap

CMI supports the proposed cap as an immediate and pragmatic integrity safeguard, while recommending that it be subject to ongoing review and refinement as additional evidence becomes available. The cap should be capable of evolving as evidence and scientific understanding develops. The proposed approach would cap credited SOC accrual at 3 t C/ha/year after the applicable method-prescribed discounts for projects with a 25-year permanence period. The proposal would also result in a higher effective cap for 100-year projects because the 20 per cent permanence discount does not apply. DCCEEW proposes to implement the cap through a variable/calibrated alpha while continuing to allow projects to measure and report actual SOC accrual and allowing previously uncredited accrual to be credited later where the SOC increase persists. CMI considers these features important. In particular, retaining the underlying measured SOC result is preferable to artificially altering the measured stock. It preserves valuable information about actual project performance and allows subsequent evidence to inform future crediting. Similarly, allowing uncredited SOC accrual to be recognised in later reporting periods where it persists provides an important safeguard against unnecessarily discarding genuine sequestration outcomes.

CMI recommends that DCCEEW explicitly commit to reviewing the cap as evidence accumulates. The cap should not be construed as a permanent biological ceiling. Whilst the current evidence supports a



conservative intervention, an appropriate long-term threshold should be informed by a growing body of Australian project data, peer-reviewed research and improved understanding of measurement uncertainty. A universal national threshold may not adequately reflect differences between soil types, climatic conditions, rainfall regimes, land management systems, baseline SOC stocks, land-use history, vegetation and pasture systems; and measurement and sampling approaches.

CMI therefore recommends that DCCEEW establish a scheduled review point for the cap, with the potential to recalibrate it based on evidence.

This could include consideration of whether:

- the 3 t C/ha/year threshold remains appropriate;
- different risk categories or project characteristics warrant differentiated treatment;
- improved sampling and stratification materially reduce uncertainty;
- project-level evidence can provide a stronger basis for crediting above the threshold; and
- a statistically derived approach could ultimately provide a more scientifically robust safeguard.

This approach would allow the Government to address the immediate integrity concern identified by ERAC while avoiding the risk that an interim risk-management measure becomes embedded as a permanent methodological assumption.

Measurement, sampling and stratification

CMI strongly supports further work to improve sampling and stratification guidance. The consultation appropriately identifies minimum sampling density and suboptimal stratification as potential contributors to uncertainty in measured SOC outcomes. The current method establishes minimum sampling requirements, but CMI considers there is an opportunity to provide more sophisticated guidance that better reflects the characteristics of individual projects.

In particular, sampling requirements should be informed by factors including the size of the Carbon Estimation Area (CEA); spatial variability in soil characteristics; soil type; land-use and management history; climatic variability; expected magnitude of SOC change; statistical power and confidence requirements; and the costs and practical feasibility of additional sampling.

CMI supports DCCEEW providing greater guidance on statistical approaches, including approaches such as the Economic Optimum Number of Samples and Minimum Detectable Difference, where these can improve representativeness and measurement reliability.

CMI does not consider a simple increase in the minimum number of samples per stratum to be sufficient in itself. The appropriate number of samples should be linked to the variability and statistical characteristics of the project. A requirement for a fixed number of samples may result in unnecessary costs in relatively homogeneous areas while still providing inadequate statistical confidence in highly heterogeneous areas. The objective should therefore be fit-for-purpose sampling that provides sufficient statistical confidence in the measured change, rather than simply increasing a universal minimum.

CMI recommends that DCCEEW work with technical experts, project proponents, laboratories and other practitioners to develop practical guidance that can be applied consistently across different project contexts.



Measurement and laboratory consistency

The integrity of soil carbon method outcomes depends not only on field sampling and stratification, but also on consistent sample handling, preparation and laboratory analysis. CMI members identified laboratory variability and lack of consistency as an important and material issue during consultation. There is a therefore a need for stronger consideration of improving laboratory consistency and sample-processing protocols.

CMI recommends that DCCEEW consider whether further guidance or standards are required to improve consistency across sample handling and preparation, laboratory analytical procedures, quality assurance and quality control, laboratory accreditation and proficiency, treatment of anomalous results and reporting of analytical uncertainty. CMI members have expressed particular concern around approaches to breaking up soil aggregates and the potential need for guidelines specifying the specific equipment that should be used for crushing into appropriate size fractions.

Any additional requirements should be proportionate and should not unnecessarily increase barriers to participation, particularly for agricultural producers for whom soil carbon measurement is already a significant project cost. CMI encourages DCCEEW to engage with relevant technical and laboratory experts before introducing detailed requirements.

Existing projects and transitional arrangements

CMI considers transitional arrangements particularly important given that the proposed changes are intended to apply to future offsets reports. Many existing projects have made significant investments in project development, land management, sampling, measurement and verification based on the rules and assumptions applying when their projects were established.

The ACCU Scheme depends on regulatory certainty to support investment and participation.

CMI therefore recommends that DCCEEW:

1. confirm that the amendments will not retrospectively alter ACCUs already issued;
2. provide clear guidance on how the new cap will apply to projects already registered under the method;
3. clarify treatment of projects that have established baselines under the existing settings;
4. ensure that previously measured and reported SOC outcomes are retained;
5. provide certainty for proponents that have made investment decisions in good faith under the existing method; and
6. clearly communicate how withheld or previously uncredited SOC will be treated in subsequent reporting periods.

CMI supports the proposed mechanism whereby actual SOC accrual continues to be measured and reported and previously uncredited accrual may be credited in later periods if the SOC increase persists. This is an important feature because it maintains an evidence base of actual project performance while applying a conservative approach to credit issuance. CMI considers this preferable to permanently disregarding measured SOC outcomes above the cap.



Transparency and annual reporting

CMI supports greater transparency around the performance of the Soil Organic Carbon Method. ERAC's review provides an important opportunity to improve the evidence base available to Government, researchers, project proponents, investors and other market participants.

CMI supports the CER publishing annual aggregate reporting on the suite of projects operating under the method, consistent with ERAC's recommendation to enable independent assessment of how the method is performing in practice. Greater transparency could include, subject to appropriate protection of commercially sensitive information: the number and geographic distribution of projects; project characteristics; aggregate measured SOC changes; distribution of reported SOC accrual rates; sampling and stratification characteristics; measurement methodologies; reporting periods; ACCUs issued; and instances where SOC accrual is withheld, reduced or subsequently credited.

As additional project data become available, this evidence should inform future reviews of the method, including assessment of the proposed crediting cap and sampling requirements. CMI considers this particularly important given the relatively limited project history currently available for a methodology that is intended to operate over long permanence periods.

Soil carbon and the Integrated Farm and Land Management method

CMI strongly encourages the Government to use this process as an opportunity to progress the integration of a soil carbon module into the first iteration on the IFLM method. The consultation confirms that the Government intends to incorporate a SOC sequestration activity module into IFLM, but that the initial IFLM method will proceed without a soil carbon activity module, with this work now expected to commence in 2027.

CMI recognises the need to ensure that any soil carbon activity incorporated into IFLM meets the Offsets Integrity Standards. The ERAC review identified a risk of non-compliance with one of the six Offsets Integrity Standards, but the Government's proposed response indicates that this risk can be addressed through the targeted amendments to the Supplement. Importantly, no changes to the underlying Methodology Determination are proposed or required. The issues identified through the ERAC review therefore do not justify delaying integration of soil carbon into IFLM.

In this context, CMI considers there is a clear and practical pathway to incorporate soil carbon into the first iteration of IFLM, rather than deferring its inclusion to a separate development process in 2027. The existing Soil Organic Carbon Method can be mirrored into IFLM as an activity module and measurement schedule, with the same updated Supplement applying to both the standalone soil carbon method and the IFLM soil module. Minor amendments would be required to accommodate net accounting alongside other IFLM modules, but these do not warrant delaying inclusion.

CMI therefore recommends that:

- the existing Soil Organic Carbon Method form the basis for the IFLM soil carbon activity module with the same updated Supplement underpinning both the standalone method and IFLM module;
- relevant ERAC recommendations and improvements identified through the current review be incorporated into that module. CMI considers that, as a general principle, corresponding IFLM modules and standalone methods should mirror each other wherever possible, with only those differences necessary to accommodate integrated net accounting. This approach reduces regulatory



complexity, avoids unnecessary methodological divergence and provides greater certainty for proponents.;

- Government resource the work necessary to progress the module concurrently with IFLM development. Soil carbon is critical to ensuring that IFLM can achieve its intended role as a broad-based framework for carbon farming across Australia's agricultural landscapes. Deferring the module would significantly constrain the reach of the initial method, particularly for smaller farms and higher-rainfall agricultural regions where soil carbon opportunities may be particularly relevant. The opportunity cost of delay is therefore significant. A further year without access to a soil carbon pathway within IFLM means another year in which landholders may miss potential supplementary income opportunities, regional communities may miss associated investment, and Australia loses opportunities to support additional emissions reductions and removals.
- development involve technical experts, project proponents, landholders and other practitioners with direct experience of soil carbon measurement and project implementation.

CMI's member consultation identified a preference for a "lift and mirror" approach for an IFLM soil module, subject to technical validation, rather than creating a wholly separate proponent-led development process that could result in divergence between the existing SOC method and the eventual IFLM module. There is significant value in maintaining continuity between the existing method and IFLM, while using the current review process to address known weaknesses and incorporate improved measurement and sampling practices.

Conclusion

CMI supports the objective of maintaining a high-integrity Soil Organic Carbon Method and welcomes the Government's response to the ERAC periodic review. The proposed changes provide an opportunity to strengthen confidence in the method while preserving its ability to support genuine soil carbon outcomes and investment in improved land management.

CMI supports the proposed 3 t C/ha/year cap as an immediate conservative safeguard, provided it is accompanied by a commitment to review and recalibrate the cap as the evidence base improves; stronger, risk-based sampling and stratification guidance; continued measurement and reporting of actual SOC outcomes; appropriate transitional arrangements for existing projects; greater transparency around aggregate method performance; and continued investment in soil carbon science, measurement and methodological development.

CMI also encourages the Government to use the current process to accelerate integration of soil carbon into the IFLM method now, using the existing SOC method as the starting point while incorporating improvements identified through the ERAC review.

CMI and its members stand ready to work with DCCEEW, ERAC, the CER, researchers, landholders and technical experts to support the continued improvement of the Soil Organic Carbon Method and the development of a robust soil carbon activity module under IFLM.



ANNEX A

Response to consultation questions

CMI's direct response to the consultation questions is summarised below. CMI supports the objective of strengthening confidence in the integrity of the Soil Organic Carbon Method and considers the proposed changes a reasonable opportunity to address the risks identified through the ERAC periodic review. CMI considers that any intervention should be proportionate to the evidence, technically robust and practical for proponents, while preserving the capacity of the method to recognise genuine soil carbon outcomes.

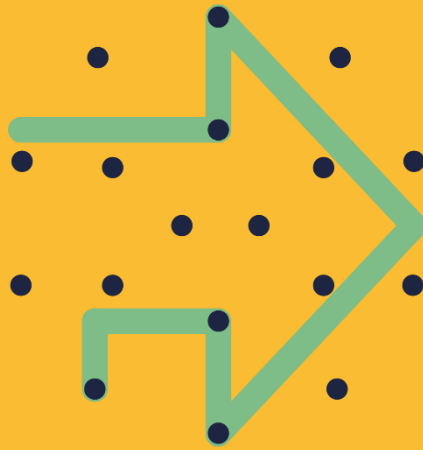
Consultation question	CMI response
1. Will the proposed approach to implementing the 3 t C/ha/yr crediting cap effectively manage the risk of over-crediting?	CMI broadly supports the proposed cap as an immediate risk-management measure, noting ERAC's finding that the method no longer meets the Conservative Offsets Integrity Standard. A cap on creditable accrual provides a practical mechanism to reduce the risk of over-crediting while further evidence is collected. However, the cap should be understood as a conservative crediting safeguard rather than a determination that SOC accrual above 3 t C/ha/yr is necessarily non-credible. The proposed approach appropriately retains measurement and reporting of actual SOC outcomes and provides for previously uncredited accrual to potentially be recognised if persistence is subsequently demonstrated. CMI considers these features important to maintaining the integrity and evidentiary value of the method.
2. Are there other risks or considerations that should be factored into the approach?	The principal consideration is ensuring that the cap does not become an inflexible or permanent biological threshold without further evidence. High reported SOC accrual may reflect a range of factors, including genuine biological outcomes, soil and climatic conditions, land management, spatial variability, sampling design, measurement uncertainty or interactions between these factors. The response should therefore distinguish the risk of over-crediting from the question of whether high measured accrual is scientifically implausible. CMI also considers that the impacts on existing projects, prior investment, established baselines and proponents who have acted in good faith should be considered, including appropriate transitional arrangements.
3. Are there better ways to implement the cap using the method's supporting Supplement?	CMI supports implementation through the Supplement, as this provides a mechanism to introduce an immediate and targeted risk-management measure without fundamentally altering the underlying method or preventing continued collection of empirical evidence. CMI recommends that the Supplement



Consultation question	CMI response
	make clear that the 3 t C/ha/yr cap is reviewable and subject to recalibration as evidence develops. The Supplement should also preserve the requirement to measure and report actual SOC outcomes above the cap, rather than treating the cap as the maximum measurable or biologically achievable rate. Consideration could also be given to a staged or risk-based approach if further evidence demonstrates that a universal cap is unnecessarily restrictive for particular soil, climatic or management contexts.
4. What sampling guidance could the Supplement most usefully provide?	The Supplement should provide practical, risk-based guidance on sampling density and stratification, rather than prescribing a single sampling intensity that applies equally to all projects. Guidance should address factors such as project area/CEA size, soil variability, soil type, land-use history, climatic variability, expected magnitude of SOC change and the statistical power required to detect that change. It should also provide practical examples of appropriate stratification approaches and sampling designs, including circumstances where additional sampling may be warranted. The guidance should help proponents understand the relationship between sampling intensity, uncertainty, statistical confidence and project cost.
5. What information would most assist in helping proponents to select the optimal sampling density and stratification approach?	CMI considers that proponents would benefit from clear decision-making criteria and worked examples showing how sampling requirements change according to project characteristics. This could include guidance on the minimum information required to assess spatial variability; examples of stratification using soil, land-use, management and landscape characteristics; approaches for determining whether existing information is sufficient to define strata; and methods for assessing the statistical power and uncertainty associated with different sampling intensities. Guidance should also explain how proponents can balance improved precision against sampling costs. Importantly, the guidance should be sufficiently flexible to accommodate the substantial diversity of Australian agricultural landscapes.
6. What are other established methods for stratification and sampling that would be appropriate?	CMI supports consideration of established statistical and soil-science approaches where they can improve the representativeness and efficiency of sampling. The objective should be to enable fit-for-purpose sampling designs that reflect spatial variability and project-specific risk, rather than requiring a single prescribed approach. CMI encourages DCCEEW to draw on established Australian and international



Consultation question	CMI response
	soil sampling practice and relevant scientific expertise in developing the guidance, and to test proposed approaches with practitioners before finalising the Supplement. Any alternative approach should remain practical for proponents and produce results that are sufficiently robust, transparent and reproducible for scheme integrity purposes.



for more information please contact

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The Carbon Market Institute is at the centre of climate change policy and business in Australia. Independent and non-partisan, we bring business, policy makers and thought leaders together to drive the evolution of carbon markets towards a significant and positive impact on climate change.

Engaging leaders, shaping policy and driving action, we're helping business to seize opportunities in the transition to a low carbon economy.

