

**International Civil Aviation Organization (ICAO) Carbon Offsetting and Reduction
Scheme for International Aviation (CORSA)**

**Application Form for Emissions Unit Programmes
seeking eligibility to supply units to
the CORSA first phase (2024 – 2026 compliance period)**

(Version 6, January 2024)

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SECTION I: ABOUT THIS ASSESSMENT

Background

ICAO Member States and the aviation industry are implementing the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA). Together with other mitigation measures, CORSA will help achieve international aviation's aspirational goal of carbon neutral growth from the year 2020. Aeroplane operators will meet their offsetting requirements under CORSA by purchasing and cancelling CORSA eligible emissions units. The ICAO Council determines CORSA eligible emissions units upon recommendations by its Technical Advisory Body (TAB) and consistent with the CORSA Emissions Unit Eligibility Criteria (EUC).

In March 2019, the ICAO Council unanimously approved the ICAO Document *CORSA Emissions Unit Eligibility Criteria* for use by TAB in undertaking its tasks¹. TAB's assessment of emissions units programmes is undertaken annually². ICAO Council decisions that take account of these recommendations are contained in the ICAO Document *CORSA Eligible Emissions Units*³.

ICAO invites emissions unit programmes⁴ interested to apply for the 2024 cycle of assessment by the TAB, to determine eligibility to supply CORSA-Eligible Emissions Unit for the 2024-2026 compliance period (first phase). The assessment process will involve collecting information from each programme through this programme application form and supplementary materials and requested evidence.

Through this assessment, the TAB will develop recommendations on the list of eligible emissions unit programmes (and potentially project types) for use under the CORSA first phase, which will then be considered by the ICAO Council.

This form is accompanied by, and refers to, Appendix A "*Supplementary Information for Assessment of Emissions Unit Programmes*", containing the EUC and *Guidelines for Criteria Interpretation*. These EUC and Guidelines are provided to inform programmes' completion of this application form, in which they are cross-referenced **by paragraph number**.⁵

This form is also accompanied by Appendix B "*Programme Assessment Scope*", and Appendix C "*Programme*

¹ Available on the ICAO CORSA website: <https://www.icao.int/environmental-protection/CORSA/Pages/CORSA-Emissions-Units.aspx>

² Recommendations from 2019 TAB assessment cycle: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB2019.aspx>

Recommendations from 2020 TAB assessment cycle: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB2020.aspx>

Recommendations from 2021 assessment cycle: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB2021.aspx>

Recommendations from 2022 assessment cycle: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB2022.aspx>

Recommendations from 2023 assessment cycle: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB.aspx>

³ Available on the ICAO CORSA website: <https://www.icao.int/environmental-protection/CORSA/Pages/CORSA-Emissions-Units.aspx>

⁴ "Emissions Unit Programme", for the purposes of TAB's assessment, refers to an organization that administers standards and procedures for developing activities that generate offsets, and for verifying and "issuing" offsets created by those activities. For more information, please review the TAB FAQs on the ICAO CORSA website: <https://www.icao.int/environmental-protection/CORSA/Pages/TAB.aspx>

⁵ For further information on how TAB interprets the EUC in light of the *Guidelines*, refer to the document Clarifications of TAB's Criteria Interpretations Contained in TAB Reports available on the ICAO TAB website:

<https://www.icao.int/environmental-protection/CORSA/Documents/TAB/TAB2023/ClarificationsofTABsCriteriaInterpretations.pdf>

Exclusions Scope”, which request all applicants to identify the programme elements⁶ they wish to submit for, or exclude from, TAB’s assessment.

CORSIA Eligible Emissions Units Programmes must also complete Appendix D of this application, “*Emissions Unit Programme Registry Attestation*” in line with the instructions contained in Appendix D. Applicant organizations are strongly encouraged to submit this information by the deadline for submitting all other application materials for the current assessment cycle.

This form also requests *evidence of programme procedures or programme elements*. These evidentiary documents enable TAB to a) confirm that a given procedure or program element is *in place*, b) more fully comprehend the programme’s summary responses, and c) archive the information as a reference for potential future assessments. Programme responses to this application form will serve as the primary basis for the assessment. Such assessment may involve e.g. clarification questions, live interview(s) with TAB, and a completeness check of the application, as further requested.

Translation: The working language of the assessment process is English. Translation services are not available for this process. If the programme documents and information are not published in English, the programme should fully describe in English (*rather than summarize*) this information in the fields provided in this form, and in response to any additional questions. Where this form requests *evidence of programme procedures*, programmes are strongly encouraged to provide these documents in English, to provide for accuracy and comprehension. Where this is not possible due to time constraints or document length, the programme may provide such documents in their original language in a readily translatable format (e.g., Microsoft Word). Those programmes that need to translate documents prior to submission may contact the ICAO Secretariat regarding accommodation.

Disclaimer: The information contained in the application, and any supporting evidence or clarification provided by the applicant including information designated as “business confidential” by the applicant, will be provided to the members of the TAB to properly assess the programme and make recommendations to the ICAO Council. The application and such other evidence or clarification will be made publicly available on the ICAO CORSIA website for the public to provide comments, except for information which the applicant designates as “business confidential”. Public comments received during that period, including commenter names and organizations, are published following the decision by the Council in respect of TAB’s eligibility recommendations for this cycle. All comments are published as received and Programme responses to public comments are not published on the ICAO website. The applicant shall bear all expenses related to the collection of information for the preparation of the application, preparation and submission of the application to the ICAO Secretariat and provision of any subsequent clarification sought by the Secretariat and/or the members of the TAB. Under no circumstances shall ICAO be responsible for the reimbursement of such or any other expenses borne by the applicant in this regard, or any loss or damages that the applicant may incur in relation to the assessment and outcome of this process.

⁶ At the “activity type” level (e.g., sector(s), sub-sector(s), and/or project “type(s)”)

SECTION II: INSTRUCTIONS

Submission and contacts

A programme is invited to complete and submit the form, including accompanying evidence and with required appendices, through the ICAO CORSIA website no later than close of business on **04 March 2024**. Within seven business days of receiving this form, the Secretariat will notify the programme that its form was received.

If the programme has questions regarding the completion of this form, please contact ICAO Secretariat via email: TAB@icao.int. Programmes will be informed, in a timely manner, of clarifications provided by ICAO to any other programme.

Form basis and cross-references

Questions in this form are derived from the CORSIA emissions unit eligibility criteria (EUC) and any *Guidelines for Criteria Interpretation* introduced in Section I (above). To help inform the programme's completion of this form, each question includes the paragraph number for its corresponding criterion or guideline that can be found in [Appendix A “Supplementary Information for Assessment of Emissions Unit Programmes”](#).

Application Form completion

The programme is expected to respond to all questions in this application form at the time of application submission. TAB cannot initiate its assessment of applications in which this information is not provided in full as requested in this section. Failure to provide complete information may result in delays to the application's assessment.

A “complete” response involves three components: 1) a written summary response; 2) supporting evidence; and 3) programme revisions, where an applicant is considering or undertaking revisions to a programme procedure in question.

- 1) **Written summary responses:** The programme is encouraged to construct written summary responses in a manner that provides for general comprehension of the given programme procedure, independent of supporting evidence. TAB will confirm each response in the supplementary evidence provided by the programme. Please note that written summary responses should be provided in all cases—supporting evidence (described in *c*) below) should not be considered as an alternative to a complete summary response.
- 2) **Supporting evidence:** Most questions in this form request *evidence of programme procedures or programme elements*. Such evidence may be found in programme standards, requirements, or guidance documents; templates; programme website or registry contents; or in some cases, in specific methodologies. To help manage file size, the programme should limit supporting documentation to that which directly substantiates the programme's statements in this form.

Regarding such requests for evidence, programmes are expected to substantiate their responses in any of these ways (**in order of preference**):

- a) web links to supporting documentation included along with the written summary response to each given question; with instructions for finding the relevant information within the linked source (i.e. identifying the specific text, paragraph(s), or section(s) where TAB can find evidence of the programme procedure(s) in question);
- b) copying/pasting information directly into this form (no character limits) along with the written summary response;

- c) attaching supporting documentation to this form at the time of submission, with instructions for finding the relevant information within the attached document(s);

EXAMPLE of preferred approach to providing supporting evidence that could meet expectations for complete responses to a question:

“The Programme ensures its consistency with this requirement by requiring / undertaking / etc. the following:

[Paragraph(s) introducing and summarizing specific programme procedures relevant to question, including quotes/excerpts of the relevant provisions in the programme’s procedures]

The full contents of these procedures can be found in [Document title, page X, Section X, paragraphs X-X]. This document is publicly available at this weblink: [weblink].”

3) **Programme revisions:** Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, please provide the following information in response to any and all relevant form question(s):

- a) Proposed revision(s);
- b) Process and proposed timeline to develop and implement the proposed revision(s);
- c) Process and timeline for external communication and implementation of the revision(s).

Application and assessment scope

The programme may elect to submit for TAB assessment all, *or only a subset*, of the activities supported by the programme. The programme is requested to identify, in the following Appendices, the activities that it wishes to submit for, or exclude from, TAB’s assessment:

In **Appendix B “Programme Assessment Scope”**, the programme should clearly identify, at the “activity type” level (e.g., sector(s), sub-sector(s), and/or programme/project “type(s)”), elements that the programme **is submitting for TAB’s assessment** of CORSIA eligibility; as well as the specific methodologies, protocols, and/or framework(s) associated with these programme elements; which *are* described in this form.

In **Appendix C “Programme Exclusions Scope”**, the programme should clearly identify, at the “activity type” level (e.g., sector(s), sub-sector(s), and/or programme/project “type(s)”), any elements the programme **is not submitting for TAB’s assessment** of CORSIA eligibility, which *are not* described in this form; as well as the specific methodologies, protocols, and/or framework(s) associated with these programme elements.

Emissions Unit Programme Registry Attestation

In **Appendix D “Emissions Unit Programme Registry Attestation (version 2, January 2022)”**, the programme should provide the information relating to programme registry functionality that is referred to in the attestation and its attachment. Both the programme representative of an emissions unit programme, and the administrator or authorized representative of the registry designated by the programme, should review and attest to the accuracy of this information and their acceptance of the terms, preferably at the time of application.

Treatment of EUC-relevant programme procedures at the methodology level

Programmes that identify with the following explanations are encouraged to summarize and provide evidence of both their overarching *programme-level* procedure(s) and *methodology-level* procedure(s) wherever relevant:

The CORSIA EUC and TAB assessments typically apply to *programme-level* procedures rather than to individual methodologies or projects. Most programmes’ overarching guidance documents contain a mix of *general/guiding* requirements and *technical* ones. However, some programmes set out general requirements in overarching guidance documents, while reflecting key technical procedures in programme methodologies⁷. **Such methodologies may be relevant to TAB’s assessment.** This could be the case where, e.g., the methodologies are developed directly by the programme (staff or contractors); the programme must refer to a methodology’s requirements when describing its alignment with the EUC; the programme’s general requirements alone are too high-level/non-specific for TAB to assess them as stand-alone procedures.

EXAMPLE: Programme A’s project standard contains its *programme-level* general requirements. The standard requires all activities to pass a programme-approved additionality test. However, Programme A sets out a unique list of approved tests in each of its methodologies—rather than providing a single list or menu in its programme-level standard. These lists vary across different activity types or category(ies). Thus, TAB may ultimately need to assess Programme A’s programme- *and* methodology-level requirements in order to confirm its use of the specific additionality tests called for under the *Must be Additional* criterion.

“Linked” certification schemes

This application form should be completed and submitted exclusively on behalf of the programme that is described in Part I of this form.

Some programmes may supplement their standards by collaborating with other schemes that certify, e.g., the social or ecological “co-benefits” of mitigation. The programme can reflect a linked scheme’s procedures in responses to this form, where this is seen as enhancing—i.e. going “above and beyond”—the programme’s own procedures. For example, the programme may describe how a linked scheme audits sustainable development outcomes; but is not expected to report the linked scheme’s board members or staff persons. Programmes should clearly identify any information provided in this form that pertains to a linked certification scheme and/or only applies when a linked certification scheme is used.

Disclosure of programme application forms and public comments

Applications, including information submitted in Appendices B, C, and D, as well as other information submitted by applicants will be publicly available on the ICAO CORSIA website, except for materials which the applicants designate as business confidential. The public will be invited to submit comments on the information submitted, including regarding consistency with the EUC, through the ICAO CORSIA website, for consideration by the TAB in its assessment. All comments are published as received and Programme responses to public comments are not published on the ICAO website.

⁷ Note that any applicant may use different terminology. For example, a programme may refer to a “methodology” as a protocol or framework.

SECTION III: APPLICATION FORM

PART 1: General information

A. Programme Information

Programme name: Carbon Asset Solutions Soil Carbon Methodology

Administering Organization⁸: Carbon Asset Solutions Ltd

Official mailing address: Level 19, 10 Eagle Street, Brisbane, Queensland 4000 Australia

Telephone #: +61 419 176 590

Official web address: www.carbonassetsolutions.com

B. Programme Administrator Information

Full name and title: Sara Macdonald, Director and Chief Operating Officer

Employer / Company (*if not programme*): Carbon Asset Solutions

E-mail address: sara.macdonald@carbonassetsolutions.com Telephone #: +61 426 820 269

C. Programme Representative Information (if different from Programme Administrator)

Full name and title: [Click or tap here to enter text.](#)

Employer / Company (*if not Programme*): [Click or tap here to enter text.](#)

E-mail address: [Click or tap here to enter text.](#) Telephone #: [Click or tap here to enter text.](#)

D. Programme Senior Staff / Leadership (e.g., President / CEO, board members)

List the names and titles of programme's senior staff / leadership, including board members:

Carbon Asset Solutions Directors & Management Team (www.carbonassetsolutions.com)

Ian Jones, Chairman

Hamish MacDonald, Managing Director

Sara Macdonald, Director and Chief Operating Officer

Jeffrey Underwood, Chief Financial Officer

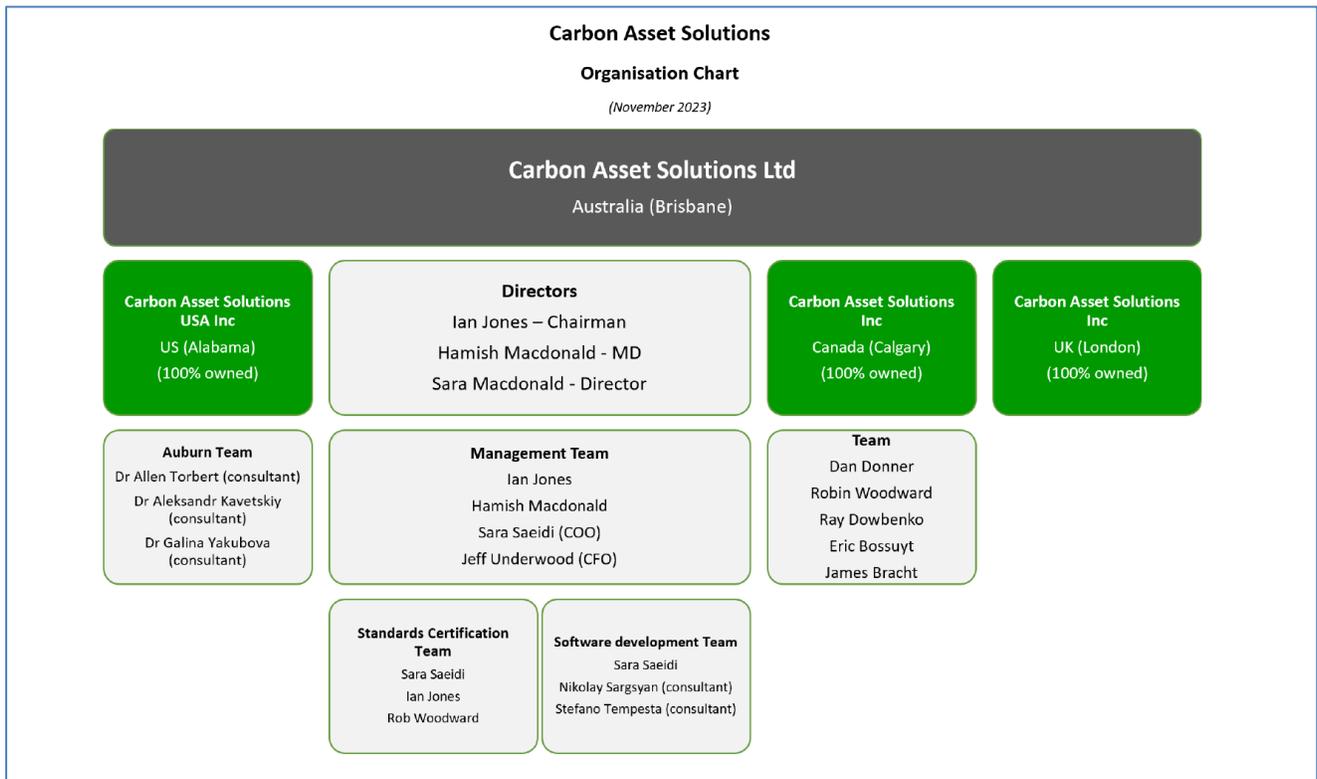
⁸ Name of the business, government agency, organization, or other entity that administers the Emissions Unit Programme, *if different from "Programme Name"*.

Carbon Asset Solutions, North America
 Daniel Donner, Director North America
 Robin Woodward, Director North America

Carbon Asset Solutions – Software Architecture for Soil Carbon Methodology and Registry
 Sara Macdonald, Chief Operating Officer
 Dr. Nikolay Sargsyan, Software Development Lead
 Stefano Tempesta, Blockchain

Scientific Liaison – United States Department of Agriculture, National Soil Dynamics Laboratory
 Dr Allen Torbert, Affiliate Professor, Research Leader, USDA-ARS, National Soil Dynamics Laboratory
 Dr Aleksandr Kavetskiy - Research Physical Scientist, National Soil Dynamics Laboratory
 Dr Galena Yakubova - Research Soil Scientist, National Soil Dynamics Laboratory

Provide an organization chart (in the space below or as an attachment) that illustrates, or otherwise describes, the functional relationship a) between the individuals listed in D; and b) between those individuals and programme staff / employees; and c) the functions of each organizational unit and interlinkages with other units.



Carbon Asset Solutions Ltd (CAS) was established in Australia in 2018 by senior business executives with a track record of building leading edge technology and business solutions in multiple sectors.

Its purpose was to develop a technology solution and methodology that would measure, quantify and verify soil based Carbon Credits with the accuracy, integrity and governance to meet the standards of the financial and regulatory markets and stimulate the flow of capital to transition agriculture into climate solution.

CAS has wholly owned subsidiary entities in the USA, Canada and the United Kingdom. All activities are coordinated through CAS Australia which holds all intellectual property and rights.

In June 2023 the Carbon Asset Solutions Soil Carbon Methodology (CAS-SCM) was accredited by SGS as a new global standard, methodology and registry operating under ISO 14064-2:2019 and ISO 14064-3:2019 principles.

It is the first fully integrated digital Measurement, Reporting and Verification (MRV) platform designed to transition agriculture into a global climate solution. It incorporates patented precision soil carbon mapping technology, secure cloud based data management and an efficient digital audit verification system.

The CAS online Registry is a blockchain tokenized asset management register. The data in the tokenized Carbon Credit is linked to the lifecycle data for that Carbon Credit in the CAS secure data ledgers. The data are in line with the ICVCM Core Carbon Principles. The ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated.

The CAS Board is responsible for overseeing global development, the immutable principles underlying the CAS-SCM, and the integrity of the Carbon Credits generated through the CAS MRV platform.

CAS USA is a holding company used to coordinate ongoing technological development of the patented soil carbon measurement technology via a Cooperative Research Development Agreement with the US Department of Agriculture, holders of the soil carbon measurement patents. The Mobile Inelastic Neutron Scattering (MINS) measurement technology patents have been licensed to CAS on a global exclusive basis. The USDA team, above, provides ongoing technology development, process certification of the MINS equipment and scientific support.

CAS Canada is responsible for commercial deployment in North America. CAS UK is responsible for commercial deployment in the United Kingdom.

Expansion to other countries during 2024 is underway including in central and South America, Asia and Europe.

Software development is led by Sara Macdonald, COO, who is responsible for ongoing development of software that supports the Soil Carbon Methodology.

CAS has strategic alliances with the USDA (technology enhancement), Microsoft (data management and security), Cool Farm Tool (GHG data quantification), and SGS (audit validation and verification).

PART 2: Programme summary

Provide a summary description of your programme.

Carbon Asset Solutions Ltd (CAS) is a climate technology and data company. CAS developed and operates the Carbon Asset Solutions Soil Carbon Methodology v1.0 2023 (CAS-SCM), a new global standard, methodology and registry that operates in accordance with ISO 14064-2:2019 and ISO 14064-3:2019 principles.

It is the world's first precision, integrated digital Measurement, Reporting and Verification (MRV) supply chain for soil-based Carbon Credits. CAS uses patented soil mapping technology developed by the USDA, precise greenhouse gas (GHG) emissions quantification via the Cool Farm tool, data management in collaboration with Microsoft, and digital audit validation and verification with SGS to generate high quality credits that are stored in the blockchain CAS Registry.

The mission of Carbon Asset Solutions is to deliver a precision, cost-effective, and scalable measurement, reporting and verification platform for soil based Carbon Credits and transition agriculture into a climate solution.

The CAS MRV is an operating system that quantifies greenhouse gas changes resulting from regenerative agriculture practices, packages that data into products (Carbon Credits, ESG data, Carbon Intensity Score Certificates) which are certified to ISO and other standards and sold to markets.

The key steps in the CAS-SCM business are:

- enter into participation contracts project owners (with farm/ranch/land operators) who agree to make practice changes and abide by the CAS-SCM rules and requirements;
- measure baseline soil carbon using proprietary MINS scanning technology;
- obtain accurate data on project GHG emissions and calculate baseline and forecasts emissions related to project operations;
- record the data into a cloud based secure ledgers;
- have each new project independently validated before it becomes live in the CAS Registry;
- issue a validation report and forecast of the GHG impact for the project across the reporting period;
- monitor the project activities and data for compliance with the CAS-SCM requirements and GHG impact;
- at the end of the reporting period measure the soil carbon increase, calculate the GHG emissions and emissions reductions and produce a greenhouse gas statement for independent verification;
- upon verification change the forecast Carbon Credits to verified Carbon Credits in the CAS Registry; and
- deliver the certified Carbon Credits, Carbon Intensity Score Certificate, ESG and climate data to buyers.

CAS has the global exclusive rights to patented, precision soil carbon mapping technology developed by the US Department of Agriculture called Mobile Inelastic Neutron Scattering (MINS). The MINS measures and maps soil carbon faster, more cost effectively and with a degree of accuracy far better than any other method. The application of the MINS technology is a quantum leap in ability to measure soil carbon with speed, accuracy, and certainty. The following accuracy statement has been endorsed by the United States Department of Agriculture following extensive field and calibration trials across 2022 in regions in the USA and Canada under the supervision of the USDA, the National Soil Dynamics Laboratory and the Agricultural Research Service:

The MINS soil carbon scanning process will deliver large field level measurement within 4.0 mg C/cm³ at the 95% confidence level, a 49% improvement in accuracy compared to the gold standard traditional soil sampling approach.

The development of MINS Carbon measurement technology represents a fundamental shift to volumetric soil-carbon measurement from previous gravimetric approaches that estimated carbon content. MINS measures total carbon (organic and inorganic) by scanning very large volumes of soil and calculating the weight of resident carbon. This shift delivers significant accuracy and confidence in the results and allows for cost effective carbon measurement on a global basis. By measuring total carbon in the soil - both organic and inorganic – the MINS technology eliminates potential error from loss of inorganic carbon through natural processes as new agriculture practices are implemented. As organic content improves, biologic activity will increase and as a result the associated life-cycle processes may reduce inorganic carbon. The CAS-SCM therefore calculates net sequestered carbon. While inorganic carbon is largely stable, net additionality must also recognise and measure any potential change (loss) of inorganic carbon. The CAS-SCM delivers this.

CAS manages the measurement data in a transparent immutable data management platform developed in collaboration with Microsoft and a blockchain Registry. CAS collects and stores project emission related data

through an API with Cool Farm Tool. The Cool Farm Tool GHG metrics deliver Tier 3 certainty under IPCC 2019. A measure of soil carbon and project emissions establishes a baseline. A follow-up soil measurement in 3 years confirms soil carbon gain; this combined with a recollection of emissions data delivers net additionality for each project enrolled. A proprietary digital audit verification system is delivered under ISO standards with each project independently validated and verified by SGS.

All data and records for each project and the entire Carbon Credit life cycles are stored in the CAS secure digital ledgers and can be viewed at any time by interested parties and intended users.

The CAS online Registry is a blockchain tokenized asset management register. The data in the tokenized Carbon Credit is linked to the lifecycle data for that Carbon Credit in the CAS secure data ledgers. The data are in line with the ICVCM Core Carbon Principles. The ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated.

The CAS Program reduces or eliminates costs, risks and frustrations for farmers needing to transition to sustainable practices and remain within supply chains. The CAS Registry has full transparency and chain of custody reporting for Carbon Credits and ESG data, eliminating the risks of corporations not meeting regulatory reporting standards.

The CAS-SCM has a set of protocols and operating procedures to ensure procedural compliance, data consistency and integrity through the project lifecycle and Carbon Credit creation process. These documents were reviewed and validated by SGS as being consistent with the principles of ISO 14064-2:2010 and ISO 14064-3:2019.

The CAS-SCM outlines a series of immutable principles that both guided development of version 1.0 and will guide future development.

The core CAS-SCM **values** are Precision, Integrity, Transparency and Trust.

The **principles and requirements** built into the CAS-SCM to deliver these values are:

- Additionality
- Static and Dynamic Baselines
- Relevance
- Completeness
- Consistency
- Accuracy
- Conservativeness
- Transparency
- Permanence
- Transparency
- Intended Users/Target groups
- Consultation
- Advisory Committees
- Cost
- Impartiality
- Leakage
- Monitoring
- Recording

- Stratification
- Validation
- Verification
- Independent Review

These core principles are aligned with ISO 14064-2:2019 requirements. The procedures for their management and verification are set out in detail in the Carbon Asset Solutions Soil Carbon Methodology v1.0 2023 section 2, pages 13-25, accessible via the link provided in question 3.1 below.

PART 3: Emissions Unit Programme Design Elements

Note—where “evidence” is requested throughout *Part 3* and *Part 4*, the programme is expected to provide web links to documentation and to identify the specific text, paragraph(s), or section(s) where TAB can find evidence of the programme procedure(s) in question. If that is not possible, then the programme may provide evidence of programme procedures directly in the text boxes provided (by copying/pasting the relevant provisions) and/or by attached supporting documentation, as recommended in “SECTION II: INSTRUCTIONS—**Form Completion: Supporting Evidence**”.

Note—“*Paragraph X.X*” in this form refers to corresponding paragraph(s) in [Appendix A](#) “*Supplementary Information for Assessment of Emissions Unit Programmes*”.

Note—Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, provide the following information in response to any and all relevant form question(s):

- Proposed revision(s);
- Process and proposed timeline to develop and implement the proposed revision(s);
- Process and timeline for external communication and implementation of the revision(s).

Question 3.1. Clear methodologies and protocols, and their development process

Provide *evidence*⁹ that the programme’s qualification and quantification methodologies and protocols are *in place* and *available for use*, including where the programme’s existing methodologies and protocols are publicly disclosed: (*Paragraph 2.1*)

The Carbon Asset Solutions Soil Carbon Methodology meets these requirements by:

1. The Carbon Asset Solutions Soil Carbon Methodology (CAS-SCM) is a publicly available document by submitting an enquiry request through the CAS website.
2. In June 2023 the CAS-SCM was accredited by SGS as a new global standard, methodology and registry operating according to ISO 14064-2:2019 and ISO 14064-3:2019 principles. ISO 14064-2:2019 governs the process for determining baselines, monitoring, quantifying, and reporting greenhouse gas (GHG) emissions and removals under a project, and the basis for projects to be verified and validated. ISO 14064-3:2019 governs the verification and validation of the process under 14064-2 and enables the Carbon Credit buyer to determine the degree of confidence of the project’s compliance with the methodology.

The following CAS-SCM Program Management documents and protocols are available for download or viewing by registered parties through: [CAS-SCM version 1.0](#)

- The CAS Program Project Participation Agreement
- The Carbon Asset Solutions Soil Carbon Methodology 2023v1.0
- Project Interest Note

⁹ For this and subsequent “evidence” requests, evidence should be provided in the text box (e.g., web links to documentation), and/or in attachments, as recommended in “SECTION II: INSTRUCTIONS—*Form Completion*”.

- Project Design and Review Plan
 - Project Review Report
 - Validation Report
 - Verification Report
 - Standard Operating Procedures
3. Once a project is independently validated as eligible for inclusion in the CAS-SCM the project's details including the forecast Carbon Credits, or Future Carbon Removal Units (FCRUs) are visible in the CAS Registry to authorized users. This allows intended users and interested parties to review, assess and track a project and/or enter into forward purchase agreements.
 4. At the end of a reporting/crediting period (approximately 3 years) and once the net GHG reductions and removals have been verified the FCRUs convert to Verified Carbon Removal Units (VCRUs) in the blockchain CAS Registry and are available for sale and retirement. Pre-purchased FCRUs are automatically retired when they convert to VCRUs.
 5. All project details are stored in the CAS secure digital ledgers and can be viewed at any time by interested parties and intended users who register for access to the CAS Portal.

Summarize the programme's process for developing further methodologies and protocols, including the timing and process for revision of existing methodologies: (*Paragraph 2.1*)

In June 2023 the Carbon Asset Solutions Soil Carbon Methodology v1.0 2023 was accredited by SGS as a new global standard, methodology and registry operating according to ISO 14064-2:2019 and ISO 14064-3:2019 principles.

Variations to the CAS-SCM will occur from time to time to accommodate and will be independently validated by SGS. These variations will update the SCM as required to stay relevant to changing certification demands (ISO 14064), emerging standards (eg ISO 14067 and ISO 14068), developments in science related to regenerative agriculture, changes of practices, and technology enhancements.

The current version as of February 2024 is the Carbon Asset Solutions Soil Carbon Methodology v1.0 2023.

Any future variations will be subject to review by SGS, and updated versions released as required. These new versions will be published on the CAS website, the CAS Portal and through media channels.

Provide *evidence of the public availability* of the programme's process for developing further methodologies and protocols: (Paragraph 2.1)

The CAS-SCM ensures its consistency with this requirement by confirming the following:

Variations to the CAS-SCM will occur from time to time to accommodate developments and will be independently validated by SGS. These variations will update the SCM as required to stay relevant to changing certification demands (ISO 14064), emerging standards (eg ISO 14067 and ISO 14068), developments in science related to regenerative agriculture, changes of practices, and technology enhancements.

The current version of the CAS-SCM is Carbon Asset Solutions Soil Carbon Methodology v1.0 2023.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Any future variations will be subject to review by SGS, and updated versions released as required. These new versions will be published on the CAS website (www.carbonassetsolutions.com), the CAS Portal and through media channels including the CAS LinkedIn home page ([Carbon Asset Solutions | LinkedIn](#)).

The CAS-SCM v1.0 was developed after public consultation and analysis of soil carbon sequestration methodologies revealed frustration amongst market participants at the costs, inefficiencies, and lack of precision and transparency within the current systems.

This was a problem for intended users on both the supply side (agriculture, supply chains and landholders) and the buy side (corporates, supply chains and the capital markets).

For supply side intended users comprising project owners including farmers, ranchers, landholders; advisors and services providers to project owners; and project aggregators and proponents, a market survey was conducted of farming and ranch operators in the USA and Canada in 2022 and direct consultations with advisors, aggregators and proponents across 2021 and 2022.

Project owners such as farming operators were found to be motivated by a number of factors regarding a Carbon Credit program: upfront cost, application complexity, ongoing monitoring obligations, risk, return.

The CAS-SCM addresses these by minimising or eliminating the onboarding risk: zero upfront cost; a baseline scan at no cost with a valuable soil carbon map; low complexity and practice change requirements; simplified monitoring obligations; very low or no risk except for deliberate breaches; faster pathway to market and higher returns than other methodologies.

For intended users including corporates; financial services and risk providers; advisors; asset and investment managers; exchanges, brokers and traders; Government institutions and NGOs, the important factors were found to be: precision, integrity, reliability, transparency, liquidity, and co-benefit data. Direct consultations were held across 2021, 2022 and 2023 with this intended user group and CAS team members were participants on the Task Force on Scaling Voluntary Carbon Markets and the EU Taxonomy Agriculture Working Party. The CAS Managing Director is an ongoing member of the EU Taxonomy Agriculture Working Party.

The CAS-SCM MRV has been developed to meet the requirements of both intended user groups.

Question 3.2. Scope considerations

Summarize the level at which activities are allowed under the programme (e.g., project based, programme of activities, jurisdiction-scale): (*Paragraph 2.2*)

The CAS-SCM ensures its consistency with this requirement by stipulating the following:

CAS delivers project level soil-based carbon credits based upon measured change in project (farm/ranch/land) emissions and additional carbon as stored in soil which occur through the implementation of new (additional) practice changes by the project owner.

Each farm/ranch/land is a unique project and subject to its own practice changes, eligibility assessment, GHG quantification, validation, monitoring, review and verification pursuant to the CAS-SCM, ISO 14064-2:2019 and ISO 14064-3:2019.

The CAS-SCM enables small, medium, or large agricultural or land management project activities that improve soil carbon net CO₂e removals/emission reductions (project activities), to be registered into its system with the Carbon Credits allocated to be sold to intended users (i.e. investors, buyers, governments, etc.), once validated and/or verified.

The CAS-SCM hosts single carbon soil projects or cluster projects, from one or multiple regions, different or common biomes and jurisdictions.

The CAS-SCM is also implementing good ESG/SDG practices, while establishing high technology registry and IT systems, including tokenized Carbon Credits, to ensure unique identification to each Carbon Credit generated.

A project is deemed to be feasible if it meets the eligibility criteria, is implementing one or more project activities that are known to deliver positive emissions reductions and removals outcomes and has adequate risk management procedures identified.

For each project, the CAS-SCM will assess the potential to implement practice changes that meet program criteria to sequester additional CO₂ relative to current baseline practice. Globally, these changes of practice have been described as “regenerative agriculture”. There is no universally agreed definition of regenerative agricultural practices. The CAS-SCM accepts practice changes from the following activities:

- Reduce fertiliser (organic or inorganic) application;
- Improve water management/irrigation;
- Reduce tillage;
- Improve residue management;
- Improve crop implementation and harvesting (eg crop rotations, cover crops);
- Improve grazing practices (eg changing stocking rates, duration or intensity of grazing);
- Organic amendments/nutrient management;
- Other regenerative agriculture techniques or technologies which prove positive balance of carbon fixation with the implementation of the project(s) activity's degraded area, by human activity or by natural disasters.

The intention of the CAS-SCM is to support the global transition to regenerative agricultural practices. Regenerative agriculture differentiates itself from other sustainable agriculture practices. In addition to reducing the negative impacts of farming practices, regenerative agriculture aims to ensure that agriculture has a net positive effect on other environmental pressures, ranging from mitigating climate change to improved soil health, biodiversity, and rural economic resilience. It is outcomes based - the changes of practice require implementation as well as measured assessment of net farm emissions (CO₂e) and removals to confirm the benefits on a project basis. The effect is that agriculture becomes a net contributor to mitigate climate change and address other environmental/social factors.

The CAS-SCM identifies, measures, and verifies both the emissions/removals and the co-benefits via ESG data.

The CAS-SCM is a fully integrated digital suite of technologies which means the 3 functions of the MRV engine are connected in one digital system and managed under a single set of measurement standards, data management and security protocols, rules, procedures and audit standards for every project.

The level of certainty for each process in the MRV is at least 95% (the MINS measurement, the data capture and security, the GHG emissions factors and the audit level of assurance). Hence a Carbon Credit created under the CAS-SCM has an equal level of integrity and governance (95%+) no matter where on the planet it comes from or whether it has been developed under an inset or offset program.

For buyers, regulators and stakeholders there is absolute transparency along the entire Carbon Credit lifecycle and certainty that what they are buying or creating and reporting has been verified as meeting the ISO standard for greenhouse gas programs to a reasonable (95%+) level of assurance.

Summarize the eligibility criteria for each type of offset activity (e.g., which sectors, project types, and geographic locations are covered): (*Paragraph 2.2*)

The CAS-SCM ensures its consistency with this requirement by confirming the following:

CAS does not restrict the geography where soil based Carbon Credits are created. The intention of the CAS-SCM is to deploy on a global basis to support the transition of agriculture to sustainability, reduce greenhouse gas emissions from agriculture and remove atmospheric CO₂ at scale through soil carbon sequestration.

Each project owner or project proponent is required to develop a full series of documents that meet the project for compliance with the CAS-SCM and ISO 14064-2:2019 requirements. These documents require the collection of farm related data that prove land title ownership, that CAS is the sole crediting body for that land area, confirm current and future emissions tied to the project, allow the measurement of soil-based carbon over the project lifetime and commit to specific changes of practice (additional) that will reduce GHG emissions and store carbon in soil (regenerative agriculture).

Project documentation is:

- The CAS Program Project Participation Agreement
- The Carbon Asset Solutions Soil Carbon Methodology 2023v1.0
- CAS Program Rules October 2023v1.3
- Project Interest Note
- Project Design and Review Plan
- Project Review Report

- Validation Report
- Verification Report
- Standard Operating Procedures

To be eligible a project must meet the criteria established in the CAS -SCM, from project application, eligibility, GHG quantification, design, monitoring, reporting, validation, verification, issuance, purchase, and ultimately extinguishment. Crucial control and inherent risk mitigating factors are part of a strong data quality management system.

A project is deemed to be feasible if it meets the eligibility criteria in the CAS-SCM, is implementing one or more project activities that are known to deliver positive emissions reductions and removals outcomes and has adequate risk management procedures identified.

CAS assesses each project to ensure they meet program criteria to sequester additional CO₂ relative to baseline activities. These practices are described as “regenerative agriculture”. Each project proponent must submit an application that confirms a new change of practice will be employed, and broadly described as the following:

- Reduce fertiliser (organic or inorganic) application;
- Improve water management/irrigation;
- Reduce tillage;
- Improve residue management;
- Improve crop implementation and harvesting (eg crop rotations, cover crops);
- Improve grazing practices (eg changing stocking rates, duration or intensity of grazing);
- Organic amendments/nutrient management;
- Other regenerative agriculture techniques or technologies which prove positive balance of carbon fixation with the implementation of the project(s) activity’s degraded area, by human activity or by natural disasters. (included to accommodate new agriculture practices not yet contemplated).

The CAS-SCM identifies, measures, and verifies both the emissions/removals and the co-benefits quantified separately through the Cool Farm Tool (CFT).

Provide *evidence* of the Programme information defining a) level at which activities are allowed under the Programme, and b) the eligibility criteria for each type of offset activity, including its availability to the public: (Paragraph 2.2)

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](http://www.carbonassetsolutions.com)

The CAS-SCM ensures its consistency with this requirement by requiring the following:

A Project Participation Agreement (PPA) outlines the accepted activities that both qualify each project into the program and remain them in the program. This PPA binds both the project owner/proponent and CAS to the deliverables identified in the CAS-SCM. The PPAs are standardized according to national legal structure, but the core intent of reducing project-based emissions and storing additional carbon in soil are common across jurisdiction.

The conduct of the project is incorporated into a detailed Project Design and Review Plan (PDRP) which sets out:

- Project details: location, boundaries, ownership, area, eligibility and regulation
- Baseline data and baseline scenario determination
- Risk and barrier assessment
- Financial analysis
- Practice changes
- GHG SSRs (sinks sources and reservoirs) : controlled, affected and related
- GHG quantification for baseline and project practices
- Soil carbon baseline using the MINS data
- GHG forecast statement
- Data quality management plan
- Monitoring and review plan

The PDRP for each project is developed to comply with the CAS-SCM and ISO 14064-2:2019 requirements and is independently reviewed and validated by an accredited auditor pursuant to ISO 14064-3:2019 procedures before it becomes a live project.

Question 3.3. Offset credit issuance and retirement procedures

Are procedures in place defining how offset credits are... (<i>Paragraph 2.3</i>)	
a) issued?	<input checked="" type="checkbox"/> YES
b) retired / cancelled?	<input checked="" type="checkbox"/> YES
c) subject to discounting (<i>if any</i>)?	<input checked="" type="checkbox"/> YES
Are procedures in place defining... (<i>Paragraph 2.3</i>)	
d) the length of crediting period(s)?	<input checked="" type="checkbox"/> YES
e) whether crediting periods are renewable?	<input checked="" type="checkbox"/> YES

Provide evidence of the procedures referred to in a) through e) (if any, in the case of “c”), including their availability to the public:

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](http://www.carbonassetsolutions.com)

The CAS-SCM ensures its consistency with this requirement by confirming the following:

All the above procedures are outlined in detail in the CAS-SCM and the CAS Program Rules. CAS has established a permissioned access blockchain registry, the CAS Registry to record the creation, sale and extinguishment of Carbon Credits. All steps are subject to third-party review; an external audit conducted by SGS validates each project to the CAS SCM and confirms credit eligibility.

The CAS Carbon Credit Registry is a blockchain database which has the highest level of data integrity and immutability. It also allows for the Carbon Credit to be retired upon purchase and retiring as an offset. The process to issue credits is controlled by CAS, as follows:

CAS Credit Creation:

1. A project owner (farmer/rancher/landholder) applies to be part of the CAS Program via the CAS Portal.
2. Once approved it is registered as a project.
3. The project owner enters into a standard agreement to conduct the project by agreeing to implement practice changes that lead to increased carbon sequestration in soil and a reduction of GHG emissions.
4. A Measurement Plan for the project is produced, which meets the scientific criteria and operational procedures of the patented MINS soil carbon mapping technology. The project is scanned by the MINS and the weight of carbon in the soil is calculated. The initial scan is known as the Baseline Measurement.
5. CAS and the project owner develop a Project Design Document that details the activities and processes against which the project will be conducted, monitored, and measured. Data required by the ISO standard is recorded in a secure cloud-based server.
6. Scientific modelling of the potential increase in soil carbon generates a forecast of future Carbon Credits.
7. The result and all supporting data are uploaded and written into the secure Azure database. The Measurement data, scanning logs, audit logs and other data are accessible for independent review and audit by Interested Parties. Carbon credit data is recorded in the blockchain CAS Registry.
8. All the supporting data, baseline measurement and other materials are compiled into a validation report.

Credit Validation:

9. An independent audit body validates the project and issue a validation report following the requirements of CAS SCM methodology and ISO 14064-3.
10. The project status on CAS Registry is updated.
11. CAS and/or interested parties (such as Agribusinesses) develop a Monitoring Plan to record and evaluate the project owner's practice change performance and compliance with the project activity and obligations during the conduct of the project. Periodic monitoring data is recorded in the Azure database and used to assess timing of future scans. Project activity may be varied including the introduction of new practice changes.
12. Depending upon the performance and seasonal factors a new scan may be scheduled for 12, 18 or 24 months after the previous scan.
13. The data is consolidated into a Project Execution Document and the Azure Ledger and CAS Registry are updated.
14. The Project Execution all the supporting data are compiled into a verification report.
15. The verification report is sent to an independent audit body for verification under ISO 14064-3:2019.
16. Once independently verified the CAS Registry is updated to show that the Carbon Credits are certified and may be sold or extinguished.

Credit Extinguishment

17. Forward purchased Carbon Credits are extinguished upon certification.

Three-Year Length of Crediting Period

Core to generating a Carbon Credit is the tenet of additionality, or where a practice change results in more carbon being drawn from the atmosphere than "business as usual" farming methods. CAS creates a future stream of Carbon Credits by entering into a forward contract with farmers or rural landholders who then use regenerative agricultural practices to reduce greenhouse gas emissions and sequester carbon in the soil, which in turn are measured and certified for sale. The reporting period (crediting period) which is the time between a baseline measurement and the next review period is on average 3 years under the CAS-SCM. Project monitoring is conducted annually. The contract period with the project owner is ongoing with no end date specified.

Renewability:

The CAS-SCM process obliges ongoing project management and ongoing sequestration of CO₂ into the soil. Client contact through the life of the contract ensure that practice changes are being implemented and net sequestration is occurring. Repeated scans measure and confirm incremental carbon gain. New credits are issued as additionality is confirmed.

Question 3.4 Identification and Tracking

Does the programme utilize an electronic registry or registries? (Paragraph 2.4.2)	<input checked="" type="checkbox"/> YES
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Provide web link(s) to the programme registry(ies) and indicate whether the registry is administered by the programme or outsourced to a third party (Paragraph 2.4.2):

The CAS-SCM ensures its consistency with this requirement by confirming that CAS has established and maintains a blockchain based registry, the CAS Registry.

The CAS Registry draws data from the secure Azure Database and the Azure Confidential Ledgers where the data for each project and the lifecycle of the Carbon Credit is held and hyperlinked to provide a seamless review system for interested partes.

The CAS Registry can be accessed online by intended users and interested parties who complete standard KYC/AML/KYB requirements. Link to Registry <https://registry.casmrv.com/>

Each tokenised Carbon Credit in the CAS Registry includes project meta data to allow intended users and interested parties to review the project details, location, status, and history of each Carbon Credit. The tokenised Carbon Credit is hyperlinked to the files within the CAS Portal.

For more details refer to **CAS Registry technical document March 2024**. It is accessible in [Carbon Asset Solutions - Technical documents](#)

Please note that CAS Registry can be viewed by approved buyers. Please use the credentials that has been created for your assessment team.

Username: ct0001@casmrv.com

Password: CasRegistry#12

As of the date of this application the CAS Registry is undergoing final software testing with a fully functional release in June. The operational and technical specifications are finalised and will not change from what is set out in this CAS CORSIA application.

Does the programme have procedures in place to ensure that the programme registry or registries...:	
a) have the capability to transparently identify emissions units that are deemed ICAO-eligible, in all account types ? (Paragraph 2.4.3)	<input checked="" type="checkbox"/> YES

b) identify, and facilitate tracking and transfer of, unit ownership/holding from issuance to cancellation/retirement? (<i>Paragraphs 2.4 (a) and (d) and 2.4.4</i>)	<input checked="" type="checkbox"/> YES
c) identify unit status, including retirement / cancellation, and issuance status? (<i>Paragraph 2.4.4</i>)	<input checked="" type="checkbox"/> YES
d) assign unique serial numbers to issued units? (<i>Paragraphs 2.4 (b) and 2.4.5</i>)	<input checked="" type="checkbox"/> YES
e) identify in serialization, or designate on a public platform, each unique unit's country and sector of origin, vintage, and original (and, if relevant, revised) project registration date? (<i>Paragraph 2.4.5</i>)	<input checked="" type="checkbox"/> YES
f) are secure (i.e. that robust security provisions are in place)? (<i>Paragraph 2.4 (c)</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the procedures referred to in a) through f), including the availability to the public of the procedures referred to in b), d), and f):

For more details refer to **CAS Registry technical document March 2024**. It is accessible in [Carbon Asset Solutions - Technical documents](#)

The CAS-SCM ensures its consistency with this requirement by confirming the following:

When a project is approved on CAS platform, it then is listed on the CAS Registry with a unique identifier.

CAS applies multiple layers of encryption to the raw data gathered from each project. The encryption keys for this data are stored in Azure Key Vault while the hashes of project data and computation results are stored in Azure confidential ledger, a technology in Azure confidential computing that provides a decentralized digital ledger and tamper-resistant storage for highly confidential data. Hence, the alteration of the original data can be detected.

The forecasted Carbon Credits (in a validation report) or verified (in a verification report) are shown in the CAS Registry as either Future Carbon Removal Units (FCRUs) or Verified Carbon Removal Units (VCRUs).

FCRUs allow buyers and interested parties to review potential supply of verified Carbon Credits from a project. Once verified at the end of the reporting period the FCRUs change to VCRUs in the blockchain and when purchased can be retired by the holder. The process is fully transparent, automated and completely eliminates any potential double counting or double sale.

Carbon Credits on the CAS Registry is stored as a token in a blockchain ledger. All transactions and settlement process on the CAS Registry will be managed by smart contracts.

The dual Azure Confidential Ledger and blockchain Registry gives the best data handling efficiency and ensures the data is managed securely and in compliance with ISO and financial market standards.

Carbon Credits generated under the CAS-SCM are compliant with the Core Carbon Program principles developed by ICVCM which set out the key principles for high-integrity Carbon Credits. A member of the CAS team was on the working party of the TSCVM which was the precursor to the ICVCM.

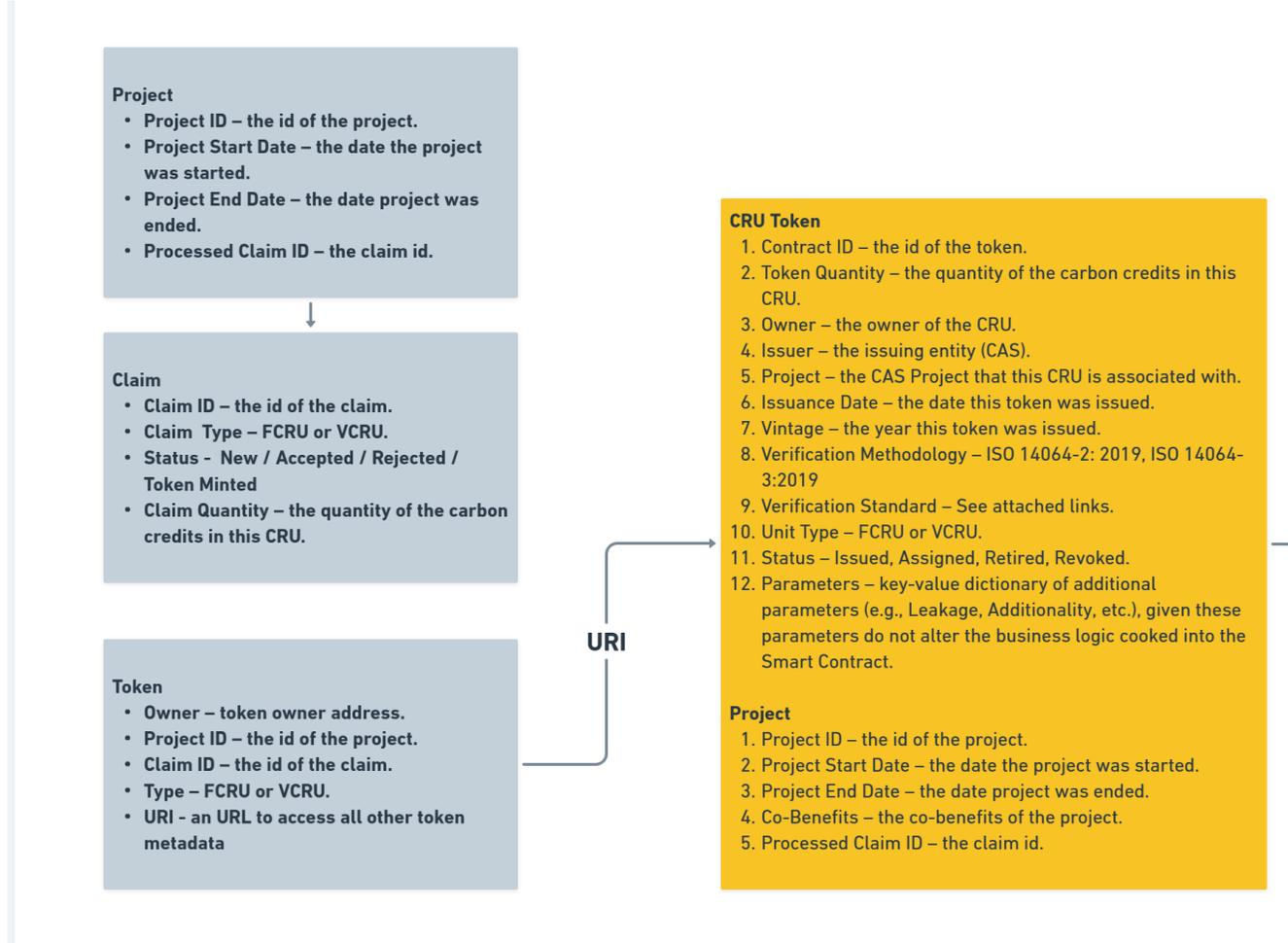
The CAS Registry:

1. Registers carbon credit claims data for the CAS projects.
2. Assigns unique identifier information to track each credit bundle.
3. Authorizes independent validation and verification bodies to audit / verify credits that will be issued according to the CAS SCM standard.

4. Maintains a registration of forward, uncertified, certified, unsold, and sold credits (and other data linked to the project/credit).
5. Tracks ownership and status of each credit bundle.
6. Links to carbon market exchanges as appropriate.

Token metadata

The following diagram shows how the CAS tokenized credit is implemented. Each token has a unique id number, and has capability to identify, and facilitate tracking and transfer of, unit ownership/holding from issuance to cancellation or retirement. Each token has its status, including retirement or cancellation, and issuance status. identify in serialization, or designate on a public platform, each unique credit’s country and sector of origin, vintage, and original project registration date as it is linked to the original project.



If the programme registry has the capability to directly transfer units to/from any other registries that are not operated by the programme, list any/all other registries to which the programme’s registry(ies) are linked: (Paragraph 2.4 (e))

CAS confirms that the CAS Registry is a standalone blockchain registry and secure digital ledger. It does not link to external registries but can connect to exchange or platforms such as the Microsoft Environmental Credit Services platform where it has an API connection to the Microsoft beta version.

List any/all international data exchange standards to which the programme’s registry(ies) conform: (*Paragraph 2.4 (f)*)

The Programme ensures its consistency with this requirement by confirming it meets the following ISO 14064-2:2019 and ISO 14064-3:2019 standards.

Are policies and robust procedures in place to...	
a) prevent the programme registry administrators from having financial, commercial or fiduciary conflicts of interest in the governance or provision of registry services? (<i>Paragraph 2.4.6</i>)	<input checked="" type="checkbox"/> YES
b) ensure that, where such conflicts arise, they are appropriately declared, and addressed and isolated? (<i>Paragraph 2.4.6</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

The CAS-SCM ensures its consistency with this requirement by having developed the following governance documents:

- Policy Manual
- Data Management and Security Procedures
- Conflict of Interest Disclosure and Procedures
- Continual Improvement Policy
- Equity Policy
- Ethics Code of Conduct
- Occupational Health and Safety Policy
- Sustainability Policy
- Complaints Management
- Risk Management and Hazards

In addition there are a series of Standard Operating Procedures for field operations (ie MINS scanning), data onboarding and software inputs.

All Carbon Asset Solutions Board members and staff adhere to the CAS conflict of Interest policy as detailed in the CAS Code of Conduct. Under these policies all Board members and staff must avoid, disclose and ultimately mitigate all conflicts of interest.

All documents can be viewed in the CAS SCM documents Portal. [CAS-SCM version 1.0](#)

Are provisions in place...	
a) ensuring the screening of requests for registry accounts? (<i>Paragraph 2.4.7</i>)	<input checked="" type="checkbox"/> YES

b) restricting the programme registry (or registries) accounts to registered businesses and individuals? (<i>Paragraph 2.4.7</i>)	<input checked="" type="checkbox"/> YES
c) ensuring the periodic audit or evaluation of registry compliance with security provisions? (<i>Paragraph 2.4.8</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the registry security provisions referred to in a) through c):

For more details refer to **CAS Registry technical document March 2024**. It is accessible in [Carbon Asset Solutions - Technical documents](#)

And **Carbon Asset Solutions - CAS Registry KYB,KYC,AML procedure 2024** accessible in [Carbon Asset Solutions Soil Carbon Methodology - Operating Procedures](#)

The CAS-SCM ensures its consistency by requiring all parties that wish to establish a CAS Registry account to complete a standard KYC/KYB assessment.

The Registry accounts are linked directly to the projects where the credits are created. Thus, the application for inclusion in the CAS Registry forms part of the consolidated MRV delivery. Compliance and audit on each account takes place as part of the project certification process.

The immutable blockchain structure of the CAS Registry inherently ensures data integrity. Full detail on project qualification, screening and compliance is outlined in Question 3.1.

The CAS Registry uses a KYC/AML/KYB solution through an API integration.

The KYC solution verifies the name and identity of a customer. verification documents are formal documents obtained for this purpose. Customers will have to provide proof of name, address, and in some cases, income.

This is a mandatory process that takes place to identify and verify the customer's identity at the time of onboarding. These checks confirm the customer is who they say they are and eliminate the potential risk of fraud, money laundering, or other financial crime.

A KYB check enables CAS to confirm a business exists and that they are active and trading. Furthermore, the KYB procedure also confirms the business nature, principal activities, jurisdiction of operations and customer profile. This information is then used to determine the level of financial risk by considering the type of product the business is buying and how they say they will use that product. The solution also uses AI and machine learning, which enables efficient and accurate processing of identity documents from over 190 countries.

To perform a KYB check, CAS collects information about the other business entity. This includes the business name, registration number, address, and contact details.

Next, it is important to ensure the business owners or individuals with control of the business entity are not involved in illegal activity to minimize risk.

Once the initial check has been conducted at the time of onboarding, the business profile will be monitored. This includes monitoring transactions, updated information, and periodic or perpetual reviews.

Question 3.5 Legal nature and transfer of units

Does the programme define and ensure the following:	
a) the underlying attributes of a unit? (Paragraph 2.5)	<input checked="" type="checkbox"/> YES
b) the underlying property aspects of a unit? (Paragraph 2.5)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the processes, policies, and/or procedures referred to in a) and b), including their availability to the public:

For more details refer to **CAS Registry technical document March 2024** accessible in [Carbon Asset Solutions - Technical documents](#)

And **Carbon Asset Solutions - CAS Registry KYB,KYC,AML procedure 2024** accessible in [Carbon Asset Solutions Soil Carbon Methodology - Operating Procedures](#)

The CAS -SCM Ver 1.0 defines the following:

CAS Carbon Credit: a financial services instrument that represents one metric tonne of CO₂e and may be a Future Carbon Removal Unit (FCRU), a Verified Carbon Removal Unit (VCRU) or an emissions reduction Carbon Credit

The process described in Question 3.3 ensures that each credit is linked to a specific project, land base and change of practice.

The process for transfer of a Carbon Credit is set out in the Project Participation Agreement and the Buyer Agreement which are viewable in the link previously given.

Question 3.6 Validation and verification procedures

Are standards, requirements, and procedures in place for... (Paragraph 2.6)	
a) the validation of activities?	<input checked="" type="checkbox"/> YES
b) the verification of emissions reductions?	<input checked="" type="checkbox"/> YES
c) the accreditation of validators?	<input checked="" type="checkbox"/> YES
d) the accreditation of verifiers?	<input checked="" type="checkbox"/> YES

Provide evidence of the standards, requirements, and procedures referred to in a) through d), including their availability to the public:

The CAS-SCM meets this criteria by confirming that all validation and verification reports are available for viewing at any time in the CAS Portal for every project.

The procedures under the CAS-SCM are:

Validation

At the commencement of each reporting period a project validation is conducted. The objective of the validation is to confirm that data, controls, and processes supporting the project eligibility, the emissions reduction or removal calculations and project review as presented in the project data and documentation are in accordance with ISO 14064-2:2019.

The validation follows the procedures as set out in ISO 14064-3:2019. The validation objectives are:

- to reach a conclusion about the accuracy of the GHG statements and the conformity of the statement with criteria
- assess the likelihood that implementation of the GHG-related activities will result in the achievement of GHG outcomes as stated

The validation criteria is:

- to examine whether the project scope and boundaries, GHG sinks, sources and reservoirs (SSRs), quantification methods and disclosure are relevant, complete, reliable and understandable

The validation scope is:

- to review project boundaries, facilities, physical infrastructure, activities, technologies, process, GHG SSRs, types of GHGs, time period, material secondary effects, baseline scenarios

A level of assurance is established:

- to determine the degree of confidence in the GHG statements

Materiality thresholds are set:

- to establish materiality thresholds appropriate to the intended users

The Validation team is required to demonstrate that it has the necessary skills and competences to undertake the validation. An independent review is conducted to determine that the validation has been appropriately conducted pursuant to ISO 14064-3:2109. The validator issues an opinion that the GHG statements and calculations should be unmodified, or modified, and a validation statement and certificate is issued.

*A sample **Project Design and Review Plan (PDRP)** and a **validation report** are provided and attached to the email.*

Verification

Verification is the process for evaluating a statement of historical data and information. The purpose of verification is to reach a conclusion and provide an opinion to the intended users on the accuracy of the greenhouse gas (GHG) statement and the conformity of the statement with criteria.

The CAS-SCM requires a verification report that:

- meets the requirements of ISO14064-3:2019
- includes a signed verification opinion
- is prepared by an independent third-party
- provides details on how conflict of interest management and mitigation
- establishes materiality thresholds
- demonstrates that the verification body is competent to perform the verification of the GHG project that includes the GHG report, GHG statement(s), and the calculations of the GHG emission reductions or removal enhancements
- that the project meets the requirements of ISO 14064-2:2019
- establishes the project to a reasonable level of assurance, including all GHG statement(s) and calculations of GHG emission reductions and/or removal enhancements.

Principles

- that the verifier and the verification plan meet the ISO principles of impartiality, fair representation, and conservativeness
- that the verification will be conducted on an evidence-based approach based on the documentation, data and procedures for the conduct of the project under the CAS-SCM.

Verification Objectives

- undertake a strategic analysis to understand the activities and complexity of the project and to determine the nature and extent of the verification activities
- to reach a conclusion about the accuracy of the GHG statements and the conformity of the statement with the CAS-SCM criteria

Verification Criteria

- to examine whether the project scope and boundaries, GHG sinks, sources and reservoirs (SSRs), quantification methods and disclosure are relevant, complete, reliable and understandable.

Verification Scope

- to review project boundaries, facilities, physical infrastructure, activities, technologies, process, GHG SSRs, types of GHGs time period, material secondary effects, and baselines.

Level of Assurance

- that the level of assurance appropriate for the intended user is reasonable.

Materiality Thresholds

- to establish materiality thresholds appropriate to the intended users.

Verification Team

The verification team must demonstrate that it has the necessary skills and competences to undertake the verification. An independent review is conducted to determine that the verification has been appropriately conducted pursuant to ISO 14064-3:2109. The verification process reviews all project data and records to determine:

- That the project quantifies GHG in a format that is acceptable to intended users. GHG activities are real, quantifiable, monitored, verifiable, permanent and enforceable.
- The responsible party has the right to claim emissions as provided for under the Project Participation Agreement.
- The GHG boundaries for the project are appropriate and contain all relevant SSRs.
- The baseline and baseline scenario selections are appropriate and plausible.
- The data, documentation and processes are considered to produce an accurate, complete and conservative calculation of GHG reductions and removals.
- Appropriate analysis and management of risk in relation to GHG SSRs, boundaries, data management and management controls has been met.
- Potential secondary effects, also known as leakage, beyond the project boundary have been considered and if necessary accounted for
- The quantification methodologies and measurements are acceptable for the intended user, and specifically that:
 - a. the methodologies and measurements are accurate, reliable, conservative and are appropriately applied; and

b. appropriate disclosure is made

- The management information systems and controls are of a high standard and can be relied upon.
- Functional equivalence between the baseline and the project are maintained for both qualitative and quantitative data
- Calculations in the GHG statement are confirmed as correct, use appropriate and authoritative GHG data for the project, and have been performed in accordance with the CAS-SCM criteria.
- Uncertainty is appropriately managed and does not impact upon the projects ability to deliver the GHG outcome.
- There are no assumptions that have potential for change.
- Materiality thresholds have been established appropriate to intended users and the project meets these materiality thresholds.
- An independent review is conducted to determine that the verification has been appropriately conducted
- The verifier issues an opinion that the GHG statements and calculations should be unmodified (or modified) and a greenhouse gas statement and certificate is issued.

Question 3.7 Programme governance

Does the programme publicly disclose who is responsible for the administration of the programme? (<i>Paragraph 2.7</i>)	<input checked="" type="checkbox"/> YES
Does the programme publicly disclose how decisions are made? (<i>Paragraph 2.7</i>)	<input checked="" type="checkbox"/> YES

Provide evidence that this information is available to the public:

The CAS-SCM meets this criteria by confirming that CAS is responsible for the administration of all aspects of the program. This is fully disclosed through the CAS website, contract requirements, and CAS-SCM.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

The CAS-SCM is established to ISO 14064 2:2019 and ISO 14064 3:2019 standard, including program criteria for accepting projects into the program. This is embedded in the Standard Operating Procedures established by CAS to govern project development.

Can the programme demonstrate that it has... (<i>Paragraph 2.7.2</i>)	
a) been continuously governed for at least the last two years?	<input type="checkbox"/> YES
b) been continuously operational for at least the last two years?	<input type="checkbox"/> YES
c) a plan for the long-term administration of multi-decadal programme elements?	<input checked="" type="checkbox"/> YES
d) a plan for possible responses to the dissolution of the programme in its current form?	<input checked="" type="checkbox"/> YES

Provide evidence of the activities, policies, and procedures referred to in a) through d):

Carbon Asset Solutions (CAS) was incorporated in 2018. It was formed by senior business leaders with decades of experience in building global technology companies for the purpose of creating a new, accurate and efficient methodology and standard for soil carbon sequestration and issue of Carbon Credits.

In late 2019 following an extensive global search for accurate soil carbon measurement technology the company entered into commercial discussions with the US Department of Agriculture to license the USDA’s precision patented soil carbon mapping and measurement technology, known as MINS. The USDA granted CAS the global exclusive license to commercialise the technology in July 2021.

From 2021 to mid-2023 CAS built and tested a fully integrated digital Measurement, Reporting and Verification platform (MRV) incorporating the MINS technology into a secure digital management system (in partnership with Microsoft) and an ISO based audit validation and verification methodology.

In June 2023 the CAS Soil Carbon Methodology (CAS-SCM) was accredited by SGS as a new global standard, methodology and registry operating according to ISO 14064-2:2019 and ISO 14064-3:2019 principles.

The CAS-SCM therefore commenced scale up commercial operations mid 2023 in Canada, US and Australia, although development and investment in the SCM platform has been underway for over 2 years. The company has invested over US\$5m in the development of the CAS-SCM and Registry.

In 2023 CAS conducted a commercial trial for the US Department of Defense and has since entered into long term agreements with the US DoD for soil mapping US defence bases across the USA.

In 2023 CAS entered into a cooperative research development agreement with the USDA for further enhancements to the patented MINS technology. New patents co-owned by CAS and the USDA are now being lodged.

In May 2023 Carbon Asset Solutions become a public unlisted company and has a shareholder register of around 100 shareholders.

CAS serves as the operational entity in support of the CAS-SCM’s long term operations. In the unlikely event that the CAS-SCM is discontinued in its current form, CAS is legally responsible for the administration of any ongoing program elements or the appointment of a comparable qualified organization to do so. This includes the management of the Buffer Programs established in support.

CAS stands behind the long-term commitments made in support of the SCM.

Are policies and robust procedures in place to...	
a) prevent the programme staff, board members, and management from having financial, commercial or fiduciary conflicts of interest in the governance or provision of programme services? (<i>Paragraph 2.7.3</i>)	<input checked="" type="checkbox"/> YES
b) ensure that, where such conflicts arise, they are appropriately declared, and addressed and isolated? (<i>Paragraph 2.7.3</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

CAS has developed the following governance documents:

- Policy Manual
- Data Management and Security Procedures

- Conflict of Interest Disclosure and Procedures
- Continual Improvement Policy
- Equity Policy
- Ethics Code of Conduct
- Occupational Health and Safety Policy
- Sustainability Policy
- Complaints Management
- Risk Management and Hazards

All Carbon Asset Solutions Board members and staff are required to adhere to these policies and procedures.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

If the programme is not directly and currently administered by a public agency, can the programme demonstrate up-to-date professional liability insurance policy of at least USD\$5M? (<i>Paragraph 2.7.4</i>)	<input checked="" type="checkbox"/> YES
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Provide evidence of such coverage:

Please refer to policy #360MPM10020013, appended to this document Liability insurance of USD \$20M provided.

Question 3.8 Transparency and public participation provisions

Does the programme publicly disclose... (<i>Paragraph 2.8</i>)	
a) what information is captured and made available to different stakeholders?	<input checked="" type="checkbox"/> YES
b) its local stakeholder consultation requirements (if applicable)?	<input type="checkbox"/> YES
c) its public comments provisions and requirements, and how they are considered (if applicable)?	<input type="checkbox"/> YES

Provide evidence of the public availability of items a) through c):

Full information on the breadth and depth of information required to become part of the CAS SCM program is provided through the ongoing process for each project, and available. These data requirements are laid out in multiple agreements and are available for consideration.

All data derived from the application of this Methodology are securely managed in the CAS Portal using the Azure Database, the Azure Confidential Ledger and the blockchain based CAS Registry. Standard Operating Procedures and Governance and Policies are viewable in the CAS Portal. Data and reports are hyperlinked within the Portal to create an end to end digital chain of custody which is visible to interested parties and intended users.

All CAS-SCM Program Management documents and protocols are available for download or viewing through:

CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Data viewable in the CAS Portal includes the Project Interest Note, the Project Participation Agreement, the Project Design and Review Plan, Validation Report, Project Review Report, Project Execution Document, and the Verification Report. These are recorded in the Microsoft Azure Database. The MINS soil measurement data are in the Azure Confidential Ledger.

The data for each project discloses all sources of information, calculations, types of data and assumptions for the project’s GHG emission reduction calculations. All data and the logs and records are readily accessible by interested parties and intended users (such as Carbon Credit buyers, reviewers, auditors, regulators and other parties) at any time in the project life cycle to make the review and audit process highly transparent, efficient, and cost-effective.

Agreements identify individual contacts’ information of project’s stakeholders including, as appropriate: project owner; project proponent; property owner; project manager; intended users; stakeholders; staff; and regulators. This data entered and maintained in the CAS Azure database.

CAS notes that the CAS-SCM has provision for individual project consultation if applicable. However in most cases it is unlikely that consultation will be required as implementing practice change on individual projects will have minimal or no impact on other parties.

- b) NA
- c) NA

Does the programme conduct public comment periods relating to... (<i>Paragraph 2.8</i>)	
a) methodologies, protocols, or frameworks under development?	<input type="checkbox"/> YES
b) activities seeking registration or approval?	<input type="checkbox"/> YES
c) operational activities (e.g., ongoing stakeholder feedback)	<input type="checkbox"/> YES
d) additions or revisions to programme procedures or rulesets?	<input type="checkbox"/> YES

Summarize and provide evidence of any programme procedures referred to in a) through d):

The CAS-SCM v1.0 was developed after public consultation and analysis of soil carbon sequestration methodologies revealed frustration amongst market participants at the costs, inefficiencies, and lack of precision and transparency within the current systems.

This was a problem for intended users on both the supply side (agriculture, supply chains and landholders) and the buy side (corporates, supply chains and the capital markets)

For supply side intended users comprising project owners including farmers, ranchers, landholders; advisors and services providers to project owners; and project aggregators and proponents, a market survey was conducted of farming and ranch operators in 2022 and direct consultations with advisors, aggregators and proponents across 2021 and 2022.

For buy side intended users including corporates; financial services and risk providers; advisors; asset and investment managers; exchanges, brokers and traders; Government institutions and NGOs, direct consultations

were held across 2021, 2022 and 2023 with this intended user group and CAS team members were participants on the Task Force on Scaling Voluntary Carbon Markets and the EU Taxonomy Agriculture Working Party.

Full detail on establishing advisory process and committees to ensure public, industry and scientific input to the CAS program is outlined in Question 3.1.

Question 3.9 Safeguards system

Are safeguards in place to address... (Paragraph 2.9)	
a) environmental risks?	<input type="checkbox"/> YES
b) social risks?	<input type="checkbox"/> YES

Summarize and provide evidence of the safeguards referred to in a) and b), including their availability to the public:

Environmental Risk Management

CAS requires that program participants commit to an agricultural Change of Practice (COP) that will reduce GHG emissions and sequester net additional carbon in soil. These regenerative agriculture COPS deliver multiple environmental benefits.

When farmers transition to regenerative agriculture, soil organic matter is increased and carbon begins to be stored in quantity. Regenerative agriculture delivers a dual climate action benefit by reducing emissions and removing excess atmospheric CO₂. Implementation of the CAS methodology will incentivise significant carbon sequestration in global soils and across all farm and ranch lands enrolled.

In addition to increased organic matter spin off benefits of regenerative agriculture are expected to deliver increased year-over-year profitability, productivity and health. Regenerative agriculture forms a holistic land management practice that levers the power of plant photosynthesis to close the carbon cycle and increase soil health, crop and livestock resilience and nutrient density. It aims to mitigate climate change through practices that restore degraded soils.

By rebuilding soil organic matter and soil biodiversity there is a significant increase in the amount of carbon that can be drawn down from the atmosphere while greatly improving soil fertility and enhance the water cycle.

CAS defines potential negative environmental impact through its leakage criteria, as the acceptable COPS do not include negative environmental impact on the project itself. Leakage is defined as an increase in GHG emissions outside the project area as a result of project activities. A concern sometimes expressed regarding agricultural projects is that the introduction of alternative farming practices may result in lower yields. As food demand continues to grow, the concern is that projects would displace food production to other areas, potentially leading to increased GHG emissions. In reality, many long-term experiments demonstrate the capacity of improved crop rotations and cover crop adoption for increasing total soil carbon and soil organic matter while maintaining or increasing yields compared to conventional management, without requiring additional nitrogen inputs.

In addition, as sustainable farm practices become more widely adopted the increased production base is expected to compete and displace produce from traditional farm practices. A polarity thus is created where additional benefits from these new practices induce multiple positive knock-on benefits into the global food supply chain and economy.

Social Risk Management

Where applicable, CAS requires submission of the required information relevant for the eligibility of a GHG project under the CAS SCM, including legislative, technical, economic, sectoral, social, environmental, geographic, site-specific, and temporal information. Requisite project documentation identifies legislative, technical, economic, sectoral, social, environmental, geographic, site-specific, and temporal information that is relevant to or may materially affect a project. These data is incorporated for ongoing monitoring.

The CAS SCM includes a full methodology that recognizes social response to changes proposed and prevailing practice bias. The CAS SCM takes social factors into account through the barrier assessment process as a farm/ranch moves from common practice to regenerative agriculture.

Question 3.10 Sustainable development criteria

Does the programme use sustainable development criteria? (<i>Paragraph 2.10</i>)	<input checked="" type="checkbox"/> YES
Does the programme have provisions for monitoring, reporting and verification in accordance with these criteria? (<i>Paragraph 2.10</i>)	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to above:
Yes.

Sustainable Development Goals and ESG Reporting.

The global transition to a net zero carbon economy is accompanied by corporations transitioning towards more robust Environmental, Social and Governance (ESG) cultures that align with stakeholder and consumer expectations. Carbon Markets are differentiating carbon offsets that deliver Sustainable Development Goal (SDG) co-benefits as premium products that are more sought after and attract significantly higher prices.

The CAS-SCM supports the transition to sustainable agricultural practices with a significant climate action benefit as well as:

- increased farm yields and prosperity for food security
- reduced fossil fuel use and chemical inputs in agriculture
- greatly improved water utilisation and conservation
- increased farm income and economic empowerment for rural communities
- biodiversity
- economic and social prosperity for developing countries

The CAS-SCM identifies and collects data with potential direct co-benefit contribution to 9 of the 17 SDGs and indirect contribution to 6 others. Data on quantifiable ESG/SDG benefits relevant to each project are recorded at the time of project onboarding and monitored during the project life cycle. The ESG data collection and output is separately verified as meeting international Sustainability Accounting Standards Board reporting requirements.

Question 3.11 Avoidance of double counting, issuance and claiming

Does the programme use sustainable development criteria? (<i>Paragraph 2.10</i>)	<input type="checkbox"/> YES
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Does the Programme provide information on how it addresses double counting, issuance and claiming in the context of evolving national and international regimes for carbon markets and emissions trading? (<i>Paragraph 2.11</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the information referred to above, including its availability to the public:

The CAS SCM is established as a high technology carbon credit registry. This includes tokenized Carbon Credits to ensure unique identification of each carbon credit.

Prior to program enrolment CAS confirms that the land area is not enrolled in any other carbon scheme. Each project is assigned a unique identifier, as is each field enrolled.

The CAS online Registry is a blockchain tokenized asset management register. The data in the tokenized Carbon Credit is linked to the lifecycle data for that Carbon Credit in the CAS secure data ledgers. The data are in line with the ICVCM Core Carbon Principles. The ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated.

PART 4: Carbon Offset Credit Integrity Assessment Criteria

Note—where “evidence” is requested throughout *Part 3* and *Part 4*, the Programme should provide web links to documentation. If that is not possible, then the programme may provide evidence of programme procedures directly in the text boxes provided (by copying/pasting the relevant provisions) and/or by attached supporting documentation, as recommended in “SECTION II: INSTRUCTIONS—*Form Completion*”.

Note—“*Paragraph X.X*” in this form refers to corresponding paragraph(s) in Appendix A “Supplementary Information for Assessment of Emissions Unit Programmes”.

Note—Where the programme has any plans to revise the programme (e.g., its policies, procedures, measures, tracking systems, governance or legal arrangements), including to enhance consistency with a given criterion or guideline, provide the following information in response to any and all relevant form question(s):

- Proposed revision(s);
- Process and proposed timeline to develop and implement the proposed revision(s);
- Process and timeline for external communication and implementation of the revision(s).

Question 4.1 Are additional

Do the Programme’s carbon offsets... (<i>Paragraph 3.1</i>)	
a) represent greenhouse gas emissions reductions or carbon sequestration or removals that exceed any greenhouse gas reduction or removals required by law, regulation, or legally binding mandate?	<input checked="" type="checkbox"/> YES
b) exceed any greenhouse gas reductions or removals that would otherwise occur in a conservative, business-as-usual scenario?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including their availability

to the public:

Questions above are key criteria to be met as part of the ISO 14064 2:2019 and 14064 3:2019 standards. Please refer to question 3.1 for full program details.

Regulated Removals

In line with ISO 14064-2:2019, CAS confirms that the additional revenue from the project is the contributing factor driving practice changes, rather than other regulatory incentives or government mandate. An analysis is conducted for each project to identify if there are any regulatory incentives, public sector grants, financial instruments for the project region, or whether any other GHG incentives have been applied to the project. If so, the project is not accepted into the program.

More Than Business as Usual – The Carbon Offsets must meet Criteria of Additionality

As fully outlined in Question 3.1, the CAS-SCM requires additionality to be demonstrated by the adoption, at the project start date, of one or more changes in pre-existing agricultural management practices. Practice changes must be additional to business as usual. A practice change constitutes adoption of one or more of the practices covered in the schedule of activities and the categories included in Chapter 4, cessation of a pre-existing practice (e.g. stop tillage or irrigation), adjustment to a pre-existing practice, or some combination thereof.

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Is additionality and baseline-setting... (<i>Paragraph 3.1</i>)	
a) assessed by an accredited and independent third-party verification entity?	<input checked="" type="checkbox"/> YES
b) reviewed by the programme?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including their availability to the public:

Questions above are key criteria to be met as part of the ISO 14064 2:2019 and 14064 3:2019 standards established through the CAS-SCM. Please refer to question 3.1 for program details. A full description is provided in the CAS-SCM, which is viewable at [CAS-SCM version 1.0](#).

Identify one or more of the methods below that the programme has procedures in place to ensure, and to support activities to analyze and demonstrate, that credited mitigation is additional; which can be applied at the project- and/or programme-level: (*Paragraphs 3.1, and 3.1.2 - 3.1.3*)

- Barrier analysis
- Common practice / market penetration analysis
- Investment, cost, or other financial analysis
- Performance standards / benchmarks
- Legal or regulatory additionality analysis (as defined in *Paragraph 3.1*)

Summarize and provide evidence of the policies and procedures referred to in the above list, including describing any/all additionality analyses and test types that are utilized under the programme:

The CAS-SCM ensures its consistency with this requirement by acknowledging the following:

Questions above are key criteria to be met as part of the ISO 14064 2:2019 and 14064 3:2019 standards established through the CAS-SCM. Please refer to question 3.1 for program details. A full description is provided in the CAS-SCM, which is posted to the CAS website. Viewable at [CAS-SCM version 1.0](#)

If the Programme provides for the use of method(s) not listed above, describe the alternative procedures and how they ensure that activities are additional: (*Paragraph 3.1*)

The CAS-SCM utilizes unique soil measurement processes to determine total carbon content. CAS employs a full soil carbon measurement process that accurately measures soil-based carbon. Multiple scans confirm soil carbon gain. Measurement accuracy underpins CAS' ability to identify net soil gain with confidence.

Soil Carbon Measurement – Mobile Inelastic Neutron Scattering (MINS)

CAS has developed the only means to accurately measure total carbon in soil and confirm soil carbon additionality. CAS has the global exclusive rights to patented, precision soil carbon mapping technology developed by the US Department of Agriculture called Mobile Inelastic Neutron Scattering (MINS). MINS measures and maps soil carbon faster, more cost effectively and with a degree of accuracy far better than any other method. The application of the MINS technology is a quantum leap in ability to measure soil carbon with speed, accuracy, and certainty. The following accuracy statement has been endorsed by the United States Department of Agriculture:

The MINS soil carbon scanning process will deliver large field level measurement within 4.0 mg C/cm₃ at the 95% confidence level, a 49% improvement in accuracy compared to the gold standard traditional soil sampling approach.

The development of MINS Carbon measurement technology represents a fundamental shift to volumetric soil-carbon measurement from previous gravimetric approaches that estimated carbon content. MINS measures total carbon (organic and inorganic) by scanning very large volumes of soil and calculating the weight of resident carbon. This shift delivers significant accuracy and confidence in the results and allows for cost effective carbon measurement on a global basis. By measuring total carbon in the soil - both organic and inorganic – the MINS technology eliminates potential error from loss of inorganic carbon through natural process as new agriculture practices are implemented. As organic content improves, biologic activity will increase and as a result the associated life-cycle processes may reduce inorganic carbon. The CAS-SCM therefore calculates net sequestered carbon. While inorganic carbon is largely stable, net additionality must also recognise and measure any potential change (loss) of inorganic carbon. The CAS-SCM delivers this.

If the programme designates certain activities as automatically additional (e.g., through a “positive list” of eligible project types), does the programme provide clear evidence on how the activity was determined to be additional? (<i>Paragraph 3.1</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures for determining the automatic additionality of activities, including a) the criteria used to determine additionality and b) their availability to the public:
NA

Explain how the procedures described under Question 4.1 provide a reasonable assurance that the mitigation would not have occurred in the absence of the offset programme: (*Paragraph 3.1*)

As part of the project approval process, the CAS SCM seeks confirmation from the project owner/proponent that the activities (mitigation) would not have occurred without the CAS program intervention.

Project level GHG reductions are quantified only if the project activity would not have been implemented in its baseline scenario under a business as usual scenario and/or that the project activity GHG removals are greater than the baseline GHG removals.

In line with ISO 14064-2:2019, the CAS SCM confirms that there must be confidence that additional revenue from the project is the contributing factor driving practice changes, rather than other regulatory incentives. An analysis is conducted for each project to identify if there are any regulatory incentives, public sector grants, financial instruments for the project region, or whether any other GHG incentives have been applied to the project.

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Question 4.2 Are based on a realistic and credible baseline

Are procedures in place to... (<i>Paragraph 3.2</i>)	
a) issue emissions units against realistic, defensible, and conservative baseline estimations of emissions?	<input checked="" type="checkbox"/> YES
b) publicly disclose baselines and underlying assumptions?	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including how “*conservativeness*” of baselines and underlying assumptions is defined and ensured:

The CAS-SCM ensures its consistency with this requirement by requiring a full detailing of baseline activities and confirmation of conservativeness for each project, as follows:

Conservativeness

Conservativeness is considered satisfied by ISO 14064-2:2019 through:

- the appropriate choice of the path of technological development and the rate of implementation in the relevant geographic area and time periods in the absence of the project;
- taking into account the impact of the project on the path of development and rate of implementation in the relevant geographic area and time periods;
- the appropriate choice of parameters affecting the project’s GHG emissions, removals and SSRs;
- providing reliable results maintained over a range of probable assumptions.

To meet these requirements, the CAS-SCM:

1. conducts a barrier assessment and risk analysis of the project; and
2. uses minimal regenerative practice implementation assumptions within the transition pathway to estimate realistic level of removals; and
3. focuses only on changes to the soil carbon stock, and GHG emissions resulting from practice changes in the project area; and
4. uses CFT to calculate baseline GHG and project GHG; and
5. uses MINS measurement technology to measure soil carbon; and
6. delivers a more accurate baseline measurement (not an estimation), and thus addresses much of the certainty criteria. Soil carbon is measured, farm practice is catalogued, and current practice emissions are directly correlated.

The accuracy and precision of the MINS soil measurement and mapping technology provides a high level of certainty regarding the increase in sequestered soil carbon of a large volume of the project area and therefore GHG removal. The modelling of GHG sources during the conduct of the project are obtained from authoritative sources.

Further, the verification team for each project must demonstrate that it has the necessary skills and competences to undertake the verification and will review all project data and records to determine that the baseline and baseline scenario selections are appropriate and plausible. And that the data, documentation and processes are considered to produce an accurate, complete and conservative calculation of GHG reductions and removals.

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Are procedures in place to ensure that <i>methods of developing baselines</i> , including modelling, benchmarking or the use of historical data, use assumptions, methodologies, and values do not over-estimate mitigation from an activity? (<i>Paragraph 3.2.2</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM ensures its consistency with this requirement by requiring a full detailing of baseline development activities for each project, as follows:

Baseline Scenario

The CAS-SCM uses a static baseline scenario to model business as usual GHG emissions during the first crediting period, benchmarked as approximately 2-3 years. The baseline scenario for the first crediting period assumes that GHG removals from business as usual is zero. The baseline scenario assumes pre-project agricultural management practices continue.

For each field in the project area, practices in the baseline scenario are established from a 3-year historical perspective to produce an annual schedule of activities (i.e. tillage, planting, harvest, fertilisation events) for each field within the project area. Baseline emissions are then modelled assuming continuation of baseline activities.

At the end of a crediting period soil carbon stock change is directly measured in the project area by the MINS

technology and data on GHG emissions from project activities calculated using the CFT. The baseline is re-evaluated as required by the CAS-SCM and revised to incorporate the new data, and if required, practices. This becomes the new baseline for the subsequent crediting period against which the project is monitored and reported. The use of a dynamic baseline in the CAS-SCM creates a more realistic view of the GHG impact of the project.

The use of dynamic baselines meets conservative requirements as GHG emissions reductions models which may be impacted by favorable or unfavourable periods will smooth out over time. The CAS methodology confirms if a project is a net emitter or a net (or equal) sequesterer of carbon.

The MINS precision soil measurement technology eliminates the need for estimation modelling of soil carbon increases. Data from project records which is quantified by the CFT to determine GHG emissions and the MINS data provide an accurate picture of the GHG profile of the project and eliminates the need for alternative baseline scenario modelling.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Are procedures in place for activities to respond, as appropriate, to changing baseline conditions that were not expected at the time of registration? (<i>Paragraph 3.2.3</i>)	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

Yes. Projects in the CAS-SCM are monitored at least annually during each reporting/crediting period.

If there are changes in data or practices that may have a material impact on the baseline, the project activities or the GHG forecasts CAS may require:

- if the change is due to a breach or default in the conduct of the project pursuant to the Project Participation Agreement or the Project Design and Review Plan, that the project owner/proponent take remedial action
- if the change is due to new practices, that the project owner/proponent submit a variation to the Project Design and Review Plan for that reporting/crediting period which will be subject to validation and a new validation report will be issued

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Question 4.3 Are quantified, monitored, reported, and verified

Are procedures in place to ensure that ...	
a) emissions units are based on accurate measurements and valid quantification methods/protocols? (<i>Paragraph 3.3</i>)	<input checked="" type="checkbox"/> YES

b) validation occurs prior to or in tandem with verification? (<i>Paragraph 3.3.2</i>)	<input checked="" type="checkbox"/> YES
c) the results of validation and verification are made publicly available? (<i>Paragraph 3.3.2</i>)	<input checked="" type="checkbox"/> YES
d) monitoring, measuring, and reporting of both activities and the resulting mitigation is conducted at <i>specified intervals</i> throughout the duration of the crediting period? (<i>Paragraph 3.3</i>)	<input checked="" type="checkbox"/> YES
e) mitigation is measured and verified by an accredited and independent third-party verification entity? (<i>Paragraph 3.3</i>)	<input checked="" type="checkbox"/> YES
f) <i>ex-post</i> verification of mitigation is required in advance of issuance of emissions units? (<i>Paragraph 3.3</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through f):

The CAS-SCM ensures its consistency with this requirement by basing its program design and carbon quantification process on measurement, as follows:

Measurement Accuracy and Precision

The CAS SCM fully describes the process to determine the net carbon gain for each project, including accurate measurement of soil carbon gain. The CAS-SCM minimises risk of misstatement of carbon and carbon gain through measurement. The MINS measurement process establishes a baseline carbon (organic and inorganic) level; subsequent re-measurements at regular intervals (every 2-3 years) confirm additional carbon present. When combined with confirmation of practice change and associated emissions, the net CO₂e removed from the atmosphere is determined.

CAS has developed the only means to accurately measure total carbon in soil and confirm soil carbon additionality. CAS has the global exclusive rights to patented, precision soil carbon mapping technology developed by the US Department of Agriculture called Mobile Inelastic Neutron Scattering (MINS). MINS measures and maps soil carbon faster, more cost effectively and with a degree of accuracy far better than any other method. The application of the MINS technology is a quantum leap in ability to measure soil carbon with speed, accuracy, and certainty. The following accuracy statement has been endorsed by the United States Department of Agriculture:

The MINS soil carbon scanning process will deliver large field level measurement within 4.0 mg C/cm³ at the 95% confidence level, a 49% improvement in accuracy compared to the gold standard traditional soil sampling approach.

The development of MINS Carbon measurement technology represents a fundamental shift to volumetric soil-carbon measurement from previous gravimetric approaches that estimated carbon content. MINS measures total carbon (organic and inorganic) by scanning very large volumes of soil and calculating the weight of resident carbon. This shift delivers significant accuracy and confidence in the results and allows for cost effective carbon measurement on a global basis.

Validation

At the commencement of each reporting period a project validation is conducted. The objective of the validation is to confirm that data, controls, and processes supporting the project eligibility, the emissions reduction or removal calculations and project review as presented in the project data and documentation are in accordance with ISO 14064-2:2019.

The validation follows the procedures as set out in ISO 14064-3:2019. The validation objectives are:

- to reach a conclusion about the accuracy of the GHG statements and the conformity of the statement with criteria
- assess the likelihood that implementation of the GHG-related activities will result in the achievement of GHG outcomes as stated

The validation criteria is:

- to examine whether the project scope and boundaries, GHG sinks, sources and reservoirs (SSRs), quantification methods and disclosure are relevant, complete, reliable and understandable

The validation scope is:

- to review project boundaries, facilities, physical infrastructure, activities, technologies, process, GHG SSRs, types of GHGs, time period, material secondary effects, baseline scenarios

A level of assurance is established:

- to determine the degree of confidence in the GHG statements

Materiality thresholds are set:

- to establish materiality thresholds appropriate to the intended users

The Validation team is required to demonstrate that it has the necessary skills and competences to undertake the validation. An independent review determined that the validation has been appropriately conducted. The validator issues an opinion that the GHG statements and calculations should be unmodified, or modified, and a validation statement and certificate is issued.

Verification

Verification is the process for evaluating a statement of historical data and information. The purpose of verification is to reach a conclusion and provide an opinion to the intended users on the accuracy of the greenhouse gas (GHG) statement and the conformity of the statement with criteria.

The CAS-SCM requires a verification report that:

- meets the requirements of ISO14064-3:2019
- includes a signed verification opinion
- is prepared by an independent third-party
- provides details on how conflict of interest management and mitigation
- establishes materiality thresholds
- demonstrates that the verification body is competent to perform the verification of the GHG project that includes the GHG report, GHG statement(s), and the calculations of the GHG emission reductions or removal enhancements
- that the project meets the requirements of ISO 14064-2:2019
- establishes the project to a reasonable level of assurance, including all GHG statement(s) and calculations of GHG emission reductions and/or removal enhancements.

Principles

- that the verifier and the verification plan meet the ISO principles of impartiality, fair representation, and conservativeness

- that the verification will be conducted on an evidence-based approach based on the documentation, data and procedures for the conduct of the project under the CAS-SCM.

Verification Objectives

- undertake a strategic analysis to understand the activities and complexity of the project and to determine the nature and extent of the verification activities
- to reach a conclusion about the accuracy of the GHG statements and the conformity of the statement with the CAS-SCM criteria

Verification Criteria

- to examine whether the project scope and boundaries, GHG sinks, sources and reservoirs (SSRs), quantification methods and disclosure are relevant, complete, reliable and understandable.

Verification Scope

- to review project boundaries, facilities, physical infrastructure, activities, technologies, process, GHG SSRs, types of GHGs time period, material secondary effects, and baselines.

Level of Assurance

- that the level of assurance appropriate for the intended user is reasonable.

Materiality Thresholds

- to establish materiality thresholds appropriate to the intended users.

Verification Team

The verification team must demonstrate that it has the necessary skills and competences to undertake the verification. The verification process reviews all project data and records to determine:

- That the project quantifies GHG in a format that is acceptable to intended users. GHG activities are real, quantifiable, monitored, verifiable, permanent and enforceable.
- The responsible party has the right to claim emissions as provided for under the Project Participation Agreement.
- The GHG boundaries for the project are appropriate and contain all relevant SSRs.
- The baseline and baseline scenario selections are appropriate and plausible.
- The data, documentation and processes are considered to produce an accurate, complete and conservative calculation of GHG reductions and removals.
- Appropriate analysis and management of risk in relation to GHG SSRs, boundaries, data management and management controls has been met.
- Potential secondary effects, also known as leakage, beyond the project boundary have been considered and if necessary accounted for
- The quantification methodologies and measurements are acceptable for the intended user, and specifically that:
 - a. the methodologies and measurements are accurate, reliable, conservative and are appropriately applied; and
 - b. appropriate disclosure is made
- The management information systems and controls are of a high standard and can be relied upon.
- Functional equivalence between the baseline and the project are maintained for both qualitative and quantitative data

- Calculations in the GHG statement are confirmed as correct, use appropriate and authoritative GHG data for the project, and have been performed in accordance with the CAS-SCM criteria.
- Uncertainty is appropriately managed and does not impact upon the projects ability to deliver the GHG outcome.
- There are no assumptions that have potential for change.
- Materiality thresholds have been established appropriate to intended users and the project meets these materiality thresholds.
- An independent review is conducted to determine that the verification has been appropriately conducted
- The verifier issues an opinion that the GHG statements and calculations should be unmodified (or modified) and a greenhouse gas statement and certificate is issued.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the [Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Are provisions in place... (<i>Paragraph 3.3.3</i>)	
a) to manage and/or prevent conflicts of interest between accredited third-party(ies) performing the validation and/or verification procedures, and the programme and the activities it supports?	<input type="checkbox"/> YES
b) requiring accredited third-party(ies) to disclose whether they or any of their family members are dealing in, promoting, or otherwise have a fiduciary relationship with anyone promoting or dealing in, the offset credits being evaluated?	<input type="checkbox"/> YES
c) to address and isolate such conflicts, should they arise?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c):

The CAS-SCM meets this as each project at the time of onboarding is independently validated and at the end of each reporting period independently verified in accordance with ISO 14064-3:2019.

ISO 14064-3 has detailed provisions requiring the validation and verification team to demonstrate that it has the skills and competencies to undertake the validation/verification, discloses the name of each party and their roles, has developed a plan and there is an independent review before the opinion is issued.

At this stage the CAS-SCM uses SGS as the validation/verification auditors. SGS one of the world's leading testing, inspection and certification companies.

Are procedures in place requiring that... (<i>Paragraph 3.3.4</i>)	
a) the renewal of any activity at the end of its crediting period includes a reevaluation of its baselines, and procedures and assumptions for quantifying, monitoring, and verifying mitigation, including the baseline scenario?	<input checked="" type="checkbox"/> YES
b) the same procedures apply to activities that wish to undergo verification but have not done so within the programme's allowable number of years between verification events?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b), including identifying the

allowable number of years between verification events:

The CAS-SCM meets this criteria through a full remeasurement of soil based carbon at the end of each crediting period, described in detail below. Please refer to Question 3.1 for the description on how baselines are established and the process to confirm net additionality.

The CAS-SCM uses a static baseline scenario to model business as usual GHG emissions during the first crediting period, benchmarked as approximately 2-3 years. The baseline scenario for the first crediting period assumes that GHG removals from business as usual is zero. The baseline scenario assumes pre-project agricultural management practices continue.

For each field in the project area, practices in the baseline scenario are established from a 3-year historical perspective to produce an annual schedule of activities (i.e. tillage, planting, harvest, fertilisation events) for each field within the project area. Baseline emissions are then modelled assuming continuation of baseline activities.

At the end of a crediting period soil carbon stock change is directly measured in the project area by the MINS technology and data on GHG emissions from project activities calculated using the CFT. The baseline is re-evaluated as required by the CAS-SCM and revised to incorporate the new data, and if required, practices. This becomes the new baseline for the subsequent crediting period against which the project is monitored and reported. The use of a dynamic baseline in the CAS-SCM creates a more realistic view of the GHG impact of the project.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Are procedures in place to transparently identify units that are issued <i>ex ante</i> and thus ineligible for use in the CORSIA? (<i>Paragraph 3.3.5</i>)	<input checked="" type="checkbox"/> YES
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Provide evidence of the policies and procedures referred to above:

The CAS-SCM meets this criteria through its program design and the provision to issue both Forward Carbon Removal Units (FCRUs) based upon forecast rates of carbon gain at the beginning of a reporting period which have been validated but not yet verified, and Verified Carbon Removal Units (VCRUs) based upon measured, verified additionality at the end of the reporting period.

CAS recognizes that FCRUs are not qualified under CORSIA. Both FCRUs and VCRUs are clearly visible and distinguishable in the CAS Registry.

Once a project is independently verified, the CAS Registry is updated to show that credits have been certified and may be sold or extinguished. When data are verified, the Registry is updated and FCRUs are extinguished and replaced by VCRUs.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Question 4.4 Have a clear and transparent chain of custody

SECTION III, Part 3.4—*Identification and tracking* includes questions related to this criterion. No additional information is requested here.

Question 4.5 Represent permanent emissions reductions

List all emissions sectors (if possible, activity types) supported by the Programme that present a potential risk of reversal of emissions reductions, avoidance, or carbon sequestration:

The CAS online Registry is a blockchain tokenized asset management register. The data in the tokenized Carbon Credit is linked to the lifecycle data for that Carbon Credit in the CAS secure data ledgers. The data are in line with the ICVCM Core Carbon Principles. The ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated.

CAS delivers soil-based carbon credits. A core component of emissions reductions and removals achieved through each project enrolled in the CAS-SCM is carbon stored in soils through farming practice changes. Therefore, the CAS-SCM ensures that each project take steps to guarantee the permanence of these removals. This is a requirement of the Program Participation Agreement and the CAS Program rules.

CAS manages the potential for reversal as follows:

Non-Permanence Risk & Reversal

For the management of non-permanence risk, CAS follows the establishment of a pooled buffer in line with other Agriculture, Forestry and Other Land Use (AFOLU) projects. The CAS-SCM has two buffers to address permanence. Once an FCRU or VCRU is issued 5% of the CRUs are placed in a volume buffer. When an FCRU or VCRU is sold 10% of the sales proceeds are held in a cash escrow buffer.

CAS monitors the activities of the project through the Project Design and Review Plan and with the more regular and higher precision soil carbon measurement has the ability to detect and address potential permanence risks earlier. The CAS-SCM Project Participation Agreement includes mechanisms to require the project owner or project proponent to take all reasonable steps to avoid any disturbance or reversal of the carbon sequestration achieved through the practices, and to do all things reasonably required by CAS to prevent, minimise, mitigate, or reverse permanence loss.

In the event of default the options are to suspend the agreement until default is rectified (which would in turn suspend any sale of CRUs) and in certain circumstances recover any loss or damage.

What is the minimum scale of reversal for which the Programme provisions or measures require a response? (Quantify if possible)

The CAS-SCM delivers project level carbon credit accounting and credit creation. As such the minimum theoretical reversal that can be recognized in the CAS-SCM is 1 credit or 1 tonne CO₂e equivalent.

For sectors/activity types identified in the first question in this section, are procedures and measures in place to require and support these activities to...	
a) undertake a risk assessment that accounts for, <i>inter alia</i> , any potential causes, relative scale, and relative likelihood of reversals? (<i>Paragraph 3.5.2</i>)	<input checked="" type="checkbox"/> YES
b) monitor identified risks of reversals? (<i>Paragraph 3.5.3</i>)	<input checked="" type="checkbox"/> YES

c) mitigate identified risks of reversals? (<i>Paragraph 3.5.3</i>)	<input checked="" type="checkbox"/> YES
d) ensure full compensation for material reversals of mitigation issued as emissions units and used toward offsetting obligations under the CORSIA? (<i>Paragraph 3.5.4</i>)	<input checked="" type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through d):

The CAS-SCM ensures the programme meets this criteria by confirming that reversal risk is managed through the following:

1. Ongoing project monitoring and contact with the project owner and/or project proponent. The monitoring report assists in identifying potential reversal risk and allows the CAS Program Manager to take action to address the risk with the project owner.
2. Regular measurement and re-mapping of the contracted lands. The CAS-SCM benchmark measurement period is every 2 – 3 years. The precision MINS measurement technology can detect incremental changes in soil carbon stocks and hence detect potential reversal trends early.
3. The CAS-SCM provides the project owner with a soil carbon distribution map of the project area which is a valuable tool to enable project owners to refine and focus activities on areas that may yield better sequestration outcomes.
4. A dual permanence buffer system as outlined in the question below.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](http://www.carbonassetsolutions.com)

Are provisions in place that... (<i>Paragraph 3.5.5</i>)	
a) confer liability on the activity proponent to monitor, mitigate, and respond to reversals in a manner mandated in the programme procedures?	<input type="checkbox"/> YES
b) require activity proponents, upon being made aware of a material reversal event, to notify the programme within a specified number of days?	<input type="checkbox"/> YES
c) confer responsibility to the programme to, upon such notification, ensure and confirm that such reversals are fully compensated in a manner mandated in the programme procedures?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c), including indicating the *number of days within which activity proponents must notify the programme of a material reversal event*:

The CAS-SCM meets this criteria by confirming that CAS as the operational corporate entity responsible assumes liability for non-permanence through the CAS buffer pools. CAS has established a dual permanence buffer system that includes:

1. Volume Buffer – 5% of all FCRUs and VCRUs are held in the blockchain Registry as a volume buffer against potential loss. These credits are not sold.
2. Revenue Buffer – Upon sale of the remaining 95% of credits, 10% of the cash proceeds are transferred into a cash risk buffer. If the volume buffer is insufficient to cover permanence loss for a crediting period funds from the revenue buffer are used, initially, to purchase VCRUs from other projects.

The MINS carbon measurement technology detects incremental change in soil carbon. Thus, CAS is able to confirm to each proponent their rate of gain (or loss) on a regular basis. Negative trends can be identified and corrected early, and beneficial COPS can likewise be well understood in support of more widespread adoption (or application to projects where a reversal is occurring to mitigate the loss).

The buffer pools hold credit purchasers harmless from potential loss of carbon (CO₂e) attributed to any single project.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Does the programme have the capability to ensure that any emissions units which compensate for the material reversal of mitigation issued as emissions units and used toward offsetting obligations under the CORSIA are fully eligible for use under the CORSIA? (<i>Paragraph 3.5.6</i>)	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM meets this criteria as any potential reversal is rectified from one or both of the volume buffer or revenue buffer as set out above. Both these only deliver Carbon Credits that meet the standards of the CAS-SCM and therefore CORSIA credits.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Would the programme be willing and able, upon request, to demonstrate that its permanence provisions can fully compensate for the reversal of mitigation issued as emissions units and used under the CORSIA? (<i>Paragraph 3.5.7</i>)	<input checked="" type="checkbox"/> YES
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Question 4.6 Assess and mitigate against potential increase in emissions elsewhere

List all emissions sectors (if possible, activity types) supported by the programme that present a potential risk of material emissions leakage:

At the time of onboarding a project all the GHG sinks, sources and reservoirs relevant to the project are identified as either controlled, affected or related as defined in the CAS-SCM and ISO 14064-2:2019. These are incorporated into the Project Design and Review Plan which is validated (at project commencement) or verified (at the end of the reporting period).

These are monitored and managed for leakage as set out in the following question.

Are measures in place to assess and mitigate incidences of material leakage of emissions that may result from the implementation of an offset project or programme? (<i>Paragraph 3.6</i>)	<input checked="" type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM ensures its consistency with this requirement by addressing potential increase in emissions at other locations as follows:

Potential Productivity Reductions outside the Project Area

The CAS-SCM considers it prudent to address leakage from potential yield reductions and with the provision to include other leakage factors should they arise in the future. For yield reduction leakage, data is collected for each project as part of the baseline scenario and dynamic baselines on crop types, yields and livestock numbers.

The requirement that the project activity does not result in sustained reduction in productivity ensures that there is no increase in emissions outside of the project area because of intensification production elsewhere to compensate for decreased productivity inside the project area.

In the event that there is a reduction across a minimum of three crediting periods (which under the CAS-SCM is a benchmark 6 – 9 year period) and this reduction cannot be explained by seasonal fluctuations or other variations reasonably considered by the project owner or project proponent as not due to the project activity, CAS will take the leakage into consideration.

The CAS-SCM considers the three crediting period cycle as reasonable. Risks of leakage are low as sustainable farming practices in general lead to yield and efficiency increases. However in the interests of conservativeness leakage is monitored and, if required, accounted for in the overall net abatement for the project.

Increased Project Productivity as a Balance

CAS requires that program participants commit to an agricultural Change of Practice (COP) that will sequester net additional carbon in soil. These regenerative agriculture COPS deliver multiple environmental benefits.

When farmers transition to regenerative agriculture, soil organic matter is increased and carbon begins to be stored in quantity. Regenerative agriculture delivers a dual climate action benefit by reducing emissions and removing excess atmospheric CO2. Implementation of the CAS methodology will incent significant carbon sequestration in global soils and across all farm and ranch lands enrolled.

In addition to increased organic matter spin off benefits of regenerative agriculture are expected to deliver increased year-over-year profitability, productivity and health. Regenerative agriculture forms a holistic land management practice that levers the power of plant photosynthesis to close the carbon cycle and increase soil health, crop and livestock resilience and nutrient density. It aims to mitigate climate change through practices that restore degraded soils.

By rebuilding soil organic matter and soil biodiversity there is a significant increase in the amount of carbon that can be drawn down from the atmosphere while greatly improving soil fertility and enhance the water cycle.

CAS defines potential negative environmental impact through its leakage criteria, as the acceptable COPS do not include negative environmental impact on the project itself. Leakage is defined as an increase in GHG emissions outside the project area as a result of project activities. A concern sometimes expressed regarding agricultural projects is that the introduction of alternative farming practices may result in lower yields. As food demand continues to grow, the concern is that projects would displace food production to other areas, potentially leading

to increased GHG emissions. In reality, many long-term experiments demonstrate the capacity of improved crop rotations and cover crop adoption for increasing total soil carbon and soil organic matter while maintaining or increasing yields compared to conventional management, without requiring additional nitrogen inputs.

In addition, as sustainable farm practices become more widely adopted the increased production base is expected to compete and displace produce from traditional farm practices. A polarity thus is created where additional benefits from these new practices induce multiple positive knock-on benefits into the global food supply chain and economy.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Are provisions in place requiring activities that pose a risk of leakage when implemented at the project level to be implemented at a national level, or on an interim basis on a subnational level, in order to mitigate the risk of leakage? (<i>Paragraph 3.6.2</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

CAS and the CAS SCM have no authority or ongoing relationship to national governments or entities that would effect such implementation.

Are procedures in place requiring and supporting activities to monitor identified leakage? (<i>Paragraph 3.6.3</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM ensures its consistency with this requirement by monitoring for potential leakage as set out in the previous question.

Are procedures in place requiring activities to deduct from their accounting emissions from any identified leakage that reduces the mitigation benefits of the activities? (<i>Paragraph 3.6.4</i>)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

As noted above, in the event that there is a reduction across a minimum of three crediting periods (which under the CAS-SCM is a benchmark 6 – 9-year period) and this reduction cannot be explained by seasonal fluctuations or other variations reasonably considered by the project owner or project proponent as not due to the project activity, CAS will take the leakage into consideration.

The CAS-SCM has algorithms (Equations 15 and 16 pages 67-68) detailing how leakage is quantified and deducted from a project if required.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0. Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website \(www.carbonassetsolutions.com\)](#)

Question 4.7 Are only counted once towards a mitigation obligation

Does the Programme have measures in place for the following...	
a) to ensure the transparent transfer of units between registries; and that only one unit is issued for one tonne of mitigation (<i>Paragraphs 3.7.1 and 3.7.5</i>)	<input checked="" type="checkbox"/> YES
b) to ensure that one unit is issued or transferred to, or owned or cancelled by, only one entity at any given time? (<i>Paragraphs 3.7.2 and 3.7.6</i>)	<input checked="" type="checkbox"/> YES
c) to discourage and prohibit the double-selling of units, which occurs when one or more entities sell the same unit more than once? (<i>Paragraph 3.7.7</i>)	<input checked="" type="checkbox"/> YES
d) to require and demonstrate that host countries of emissions reduction activities agree to account for any offset units issued as a result of those activities such that double claiming does not occur between the airline and the host country of the emissions reduction activity? (<i>Paragraph 3.7.3</i>)	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through d):

The CAS online Registry is a blockchain tokenized asset management register. The data in the tokenized Carbon Credit is linked to the lifecycle data for that Carbon Credit in the CAS secure data ledgers. The data are in line with the ICVCM Core Carbon Principles. The ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated.

The CAS-SCM ensures its consistency with this requirement as follows:

The CAS SCM has enacted measures to eliminate double counting in all of its forms including double issuance, double use and double claiming. CAS utilises blockchain data management which is immutable and cannot be tampered with. It employs a tokenized carbon credit which ensures unique identification to each credit issued. This avoids double issuance (more than one credit issued for a single tonne as stored), double use (double selling of same credit) and double claiming (same credit counted by more than one company).

The legal documents registered to each project also ensures that the land base has not been enrolled in another carbon program and eliminates future potential of same.

For more details refer to **CAS Registry technical document March 2024** accessible in [Carbon Asset Solutions - Technical documents](#)

Does the Programme have procedures in place for the following: (<i>Paragraph 3.7.8</i>)	
a) to obtain, or require activity proponents to obtain and provide to the programme, written attestation from the host country’s national focal point or focal point’s designee?	<input type="checkbox"/> YES
b) for the attestation(s) to specify, and describe any steps taken, to prevent mitigation associated with units used by operators under CORSIA from also being claimed toward a host country’s national mitigation target(s) / pledge(s)?	<input type="checkbox"/> YES
c) for Host country attestations to be obtained and made publicly available prior to the use of units from the host country in the CORSIA?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) through c):

CAS acknowledges that a host Country Attestation to the avoidance of double claiming is required as part of the CORSIA obligations. Further, only emissions units originating in countries that have attested to their intention to properly account for the use of the units toward offsetting obligations under the CORSIA, as specified in paragraph (and sub-paragraphs of) 3.7.9, should be eligible for use in the CORSIA.

The CAS-SCM will ensure its consistency with this requirement as follows:

Carbon Asset Solutions will obtain, as required, written attestation from each host country’s national focal point or focal point’s designee. The attestation will specify, and describe any steps taken, to prevent mitigation associated with units used by operators under CORSIA from also being claimed toward a host country’s national mitigation target(s). This is underway and shall be posted to the CAS website.

Does the Programme have procedures in place requiring... (Paragraph 3.7.9)	
a) that activities take approach(es) described in (any or all of) these sub-paragraphs to prevent double-claiming?	<input checked="" type="checkbox"/> YES
<input checked="" type="checkbox"/> Emissions units are created where mitigation is not also counted toward national target(s) pledge(s) / mitigation contributions / mitigation commitments. (Paragraph 3.7.9.1)	
<input checked="" type="checkbox"/> Mitigation from emissions units used by operators under the CORSIA is appropriately accounted for by the host country when claiming achievement of its target(s) / pledges(s) / mitigation contributions / mitigation commitments, in line with the relevant and applicable international provisions. (Paragraph 3.7.9.2)	
<input checked="" type="checkbox"/> Programme procedures provide for the use of method(s) to avoid double-claiming which are not listed above (Paragraph 3.7.9.3)	
b) that Host Country attestations confirm the use of approach(es) referred to in the list above?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

Please see answer to previous question.

CAS is focused solely on the quantification of agricultural greenhouse gas emissions reductions and removals. CAS currently operates in Canada, USA and Australia and will expand into the UK later in 2024 and from 2025: Indonesia, Brazil, Bolivia and the EU. As countries within which CAS has or will operate refine and implement their NDCs for agriculture CAS will liaise with the relevant authority to ensure that these is no double reporting.

The CAS Register is a blockchain tokenized asset management register and ownership and status of each Carbon Credit is transparent and immutable. As such the potential for double sale, double accounting and greenwashing is eliminated. Nonetheless CAS believes that it is prudent that liaison with the relevant authorities take place at the appropriate time to ensure that authorities do not misreport.

Does the Programme... (Paragraph 3.7.10)	
a) make publicly available any national government decisions related to accounting for units used in ICAO, including the contents of host country attestations described in paragraph 3.7.8?	<input type="checkbox"/> YES
b) update information pertaining to host country attestation as often as necessary to avoid double-claiming?	<input type="checkbox"/> YES

Summarize and provide evidence of the policies and procedures referred to in a) and b):

Not applicable at this stage but it will.

Does the Programme have procedures in place to compare countries’ accounting for emissions units in national emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA which the host country’s national reporting focal point or designee otherwise attested to its intention to not double claim? (Paragraph 3.7.11)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM Carbon Credits are held in an immutable blockchain ledger and can only be used as offsets once, whereupon they are automatically extinguished.

The CAS-SCM manages the issue of Carbon Credits to buyers (on behalf of project owners) pursuant to the standard buyer agreement (or such other agreement as may be suitable for a buyer that is consistent with the requirements of the CAS-SCM). Therefore a Carbon Credit from the CAS Registry can only be claimed by the execution of a buyer agreement which in the opinion of CAS eliminates double counting.

With the evolving nature of the country accounting processes happening should there need to be further policies or procedures in place they will be issued and published.

For more details refer to **CAS Registry technical document March 2024** accessible in [Carbon Asset Solutions - Technical documents](#)

Does the Programme have procedures in place for the programme, or proponents of the activities it supports, to compensate for, replace, or otherwise reconcile double claimed mitigation associated with units used under the CORSIA which the host country’s national accounting focal point or designee otherwise attested to its intention to not double claim? (Paragraph 3.7.13)	<input type="checkbox"/> YES
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Summarize and provide evidence of the policies and procedures referred to above:

Please see previous question.

Would the Programme be willing and able, upon request, to report to ICAO’s relevant bodies, as requested, performance information related to, <i>inter alia</i> , any material instances of and programme responses to country-level double claiming; the nature of, and any changes to, the number, scale, and/or scope of host country attestations; any relevant changes to related programme measures? (Paragraph 3.7.12)	<input checked="" type="checkbox"/> YES
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If that situation arose

Question 4.8 Do no net harm

Are procedures in place to ensure that offset projects do not violate local, state/provincial,	<input checked="" type="checkbox"/> YES
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national or international regulations or obligations? (<i>Paragraph 3.8</i>)	
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Summarize and provide evidence of the policies and procedures referred to above:

The CAS-SCM ensures its consistency with this requirement as follows:

The project owner and/or project proponent are required to supply sufficient and reliable information and evidence to the CAS-SCM, fulfilling all elements of the CAS SCM, including compliance with national/state laws. This includes attestation that activities conducted under the CAS SCM are in compliance with applicable laws and regulations.

Full Project level compliance rigor is described in section 4.4 of the CAS-SCM “Describing the Project” and is summarized as follows:

The project description is set out in the Project Interest Note and the Project Design and Review Plan respectively. Project boundaries are identified as the physical boundaries of the project area, the GHG SSR boundaries that are controlled, affected and related to the project, and leakage. The Project Interest Note and the Project Design and Review Plan describe the project and its context in a GHG project plan for the following criteria:

- a. project title, purpose(s) and objective(s),
- b. type of GHG project, including descriptions of how the project will achieve GHG emission reductions and/or removal enhancements and specific GHGs targeted,
- c. project location, including organisational, geographic, and physical location information, allowing for the unique identification and delineation of the specific extent of the project,
- d. conditions prior to project initiation, (note that a project area is not eligible when it has been wetland during the baseline period, it is a conservation or protected area according to the local regulations, including forests, national parks, in heritage, indigenous protected area, others, and/or it doesn't provide enough and credible evidence to meet the requirements of the S+CAS SCM Methodology),
- e. project technologies, products, services, and the expected level of activity,
- f. aggregated GHG emission reductions and removal enhancements, stated in a unit of measure required by the intended user for reporting, e.g. tonnes of CO₂e, likely to occur from the GHG project,
- g. identification of risks that could substantially affect the project's GHG emission reductions or removal enhancements and, if applicable, any measures to manage those risks,
- h. roles and responsibilities, including contact information of the project proponent and other project participants, including the intended users, and roles and contact information for relevant regulator(s) or administrators from GHG programme to which the GHG project subscribes,

And, to the point considered:

- i. a summary environmental impact assessment when such an assessment related to the project or GHG program is required by applicable legislation or regulation,
- j. a plan or actual dates and justification for the following:
 - the date for initiating project activities;
 - GHG baseline time period; date of termination of the project;
 - frequency of monitoring and reporting and the project period, including relevant project; activities in each step of the GHG project cycle, as applicable; and
 - frequency of verification and validation,
- k. if applicable, required information relevant for the eligibility of a GHG project under the CAS SCM, including legislative, technical, economic, sectoral, social, environmental, geographic, site-specific, and temporal information.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Describe, and provide evidence that demonstrates, how the programme complies with social and environmental safeguards: (*Paragraph 3.8*)

Further to the answer provided immediately above, the CAS-SCM ensures its consistency with environmental and social safeguards as follows:

Environmental Risk Management

CAS requires that program participants commit to an agricultural Change of Practice (COP) that will sequester net additional carbon in soil. These regenerative agriculture COPS deliver multiple environmental benefits.

When farmers transition to regenerative agriculture, soil organic matter is increased and carbon begins to be stored in quantity. Regenerative agriculture delivers a dual climate action benefit by reducing emissions and removing excess atmospheric CO₂. Implementation of the CAS methodology will incentivise significant carbon sequestration in global soils and across all farm and ranch lands enrolled.

In addition to increased organic matter spin off benefits of regenerative agriculture are expected to deliver increased year-over-year profitability, productivity and health. Regenerative agriculture forms a holistic land management practice that leverages the power of plant photosynthesis to close the carbon cycle and increase soil health, crop and livestock resilience and nutrient density. It aims to mitigate climate change through practices that restore degraded soils.

By rebuilding soil organic matter and soil biodiversity there is a significant increase in the amount of carbon that can be drawn down from the atmosphere while greatly improving soil fertility and enhance the water cycle.

CAS defines potential negative environmental impact through its leakage criteria, as the acceptable COPS do not include negative environmental impact on the project itself. Leakage is defined as an increase in GHG emissions outside the project area as a result of project activities. A concern sometimes expressed regarding agricultural projects is that the introduction of alternative farming practices may result in lower yields. As food demand continues to grow, the concern is that projects would displace food production to other areas, potentially leading to increased GHG emissions. In reality, many long-term experiments demonstrate the capacity of improved crop rotations and cover crop adoption for increasing total soil carbon and soil organic matter while maintaining or increasing yields compared to conventional management, without requiring additional nitrogen inputs.

In addition, as sustainable farm practices become more widely adopted the increased production base is expected to compete and displace produce from traditional farm practices. A polarity thus is created where additional benefits from these new practices induce multiple positive knock-on benefits into the global food supply chain and economy.

Social Risk Management

Where applicable, CAS requires submission of the required information relevant for the eligibility of a GHG project under the CAS SCM, including legislative, technical, economic, sectoral, social, environmental, geographic, site-specific, and temporal information. Requisite project documentation identifies legislative, technical, economic, sectoral, social, environmental, geographic, site-specific, and temporal information that is relevant to or may materially affect a project. These data is incorporated for ongoing monitoring.

The CAS SCM includes a full methodology that recognizes social response to changes proposed and prevailing practice bias. The CAS SCM takes social factors into account through the barrier assessment process as a farm/ranch moves from common practice to regenerative agriculture.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

Describe, and provide evidence of the programme's public disclosure of, the institutions, processes, and procedures that are used to implement, monitor, and enforce safeguards to identify, assess and manage environmental and social risks: (*Paragraph 3.8*)

Further to the answer provided immediately above, the CAS-SCM ensures its public disclosure of those entities involved to manage environmental and social risks, as follows:

All project owners/proponents must disclose the institutions, processes, and procedures that are used to implement, monitor, and enforce safeguards to identify, assess and manage environmental and social risks as part of the project approval and ongoing project management process. Requisite information is included in the documentation in support of project registration and future management. These data are validated and verified by independent, third-party validation and verification bodies in accordance with the CAS SCM as per ISO 140642: 2019 and 14064 3:2019 criteria.

All CAS-SCM Program Management documents and protocols are available for download or viewing through: [CAS-SCM version 1.0](#). Public access can be obtained by submitting an enquiry through the Carbon Asset Solutions website (www.carbonassetsolutions.com)

PART 5: Programme comments

Are there any additional comments the programme wishes to make to support the information provided in this form?

1) SGS Methodology Validation Opinion

Sustainability Assurance Solution - GHG Verified



Application of Methodology Validation
Carbon Asset Solutions Ltd
 Level 19, 16 Eagle Street, Brisbane QLD 4000

SGS Methodology Validation Opinion
 SGS Australia has assessed the Carbon Asset Solutions Soil Carbon Methodology Version 1, 2023 (CAS-SCM), methodology for Carbon Capture Assessment and determined that it offers a comprehensive and transparent approach to calculating carbon sequestration. The methodology effectively describes the process for obtaining carbon credits. As a result, SGS Australia recommends the adoption of the proposed "CAS-SCM methodology" document for calculating carbon sequestration and claiming carbon credits for eligible projects within its applicable domain.

The assessment was conducted in accordance with the requirements outlined in ISO 14064-2 and ISO 14064-3.

Validation Outcome
 Validation Criteria: ISO 14064-2:2019 & ISO 14064-3:2019
 Validation Date: 30 June 2023
 Validated by: Mohammad Esteki – Lead Validator

Mohammad Esteki
 Enshadul Quamrui
 Sustainability Assurance Manager
 SGS Australia Pty Ltd

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Page 1 | 1

2) Proof of Insurance; Policy #360MPM10020013



Policy Schedule

This Schedule must be attached to and read as part of the Insurer's Policy Wording.

Issue Date:	28 Feb 2024
Policy Type:	360 Mobile Plant & Machinery
Policy Wording:	360PMPMPD/GV223
Policy Number:	360MPM10020013
Insurer:	Allianz Australia Insurance Limited
Interested Party:	None Advised
Named Insured:	Carbon Asset Solutions
Insured Address:	55 plaza parade MAROOCHYDORE QLD 4558 MAROOCHYDORE QLD 4558
Period of Insurance:	From: 28 Feb 2024 at 4:00pm To: 1 Mar 2025 at 4:00pm Both days inclusive Local Standard Time at the address of the Insured

Cover Details:

Business Description:	Agricultural Contractor (but not harvesting)
Locations:	39 Sunridge Farm Road, CHEVALLUM QLD 4555
SECTION 1 - MATERIAL DAMAGE	Insured
Insured Items:	As listed in the attached "Insured Items Schedule"
Sum Insured:	Total Sum Insured: \$328,454 Limit any one Loss: \$5,000,000
Standard Excess:	1% with a minimum of \$1,000, of the sum of the Sum(s) Insured of Insured Items suffering Insured Damage
Age / Inexperience Excess(es):	Under the age of 21 \$800 each and every event Between the ages of 21 and 25 \$600 each and every event Aged 25 or more but under 5 years experience \$600 each and every event The Age / Inexperience Excess is payable in addition to the Standard Excess.



Policy Schedule

This Schedule must be attached to and read as part of the Insurer's Policy Wording.

Special Theft Excess:	Applies to the following: (i) Sydney Metropolitan Area - being all locations east of south of the Macquarie/Hamshire River (ii) Melbourne Metropolitan Area - being all locations within a 50Km radius of Melbourne City Centre (iii) for items that fall into the category of Mini Excavators, Skid Steer Loaders, and Dingo, and for any attachments applicable to these items: a. where theft is from a locked compound or yard: i. with proof of immobilisation/tracking device; or Nil ii. without proof of immobilisation/tracking device; \$2,500 b. where theft is from the open air: i. with proof of immobilisation/tracking device; or \$2,500 ii. without proof of immobilisation/tracking device; \$5,000 The term "open air" will apply in situations where there are no signs of forcible entry.
Special Excess - Prime Movers and Mobile Cranes:	Section One - Material Damage Standard Excess 2% of the sum insured or \$2,000, whichever is the greater. Any additional Age or Inexperienced driver excess shall also apply (as shown in the schedule)
Special Excess - All Trucks and Trailers (excluding Prime Movers, Mobile Cranes and Bus Trailers):	Section One - Material Damage Standard Excess is 1% of the sum insured or \$2,000, whichever is the greater. Any additional Age or Inexperienced driver excess shall also apply (as shown in the schedule)
Special Excess - Garbage Compactors (Mobile), Garbage Trucks, Skip Bins, Hook Bins:	Section One - Material Damage Standard Excess is 1% of the sum insured or \$2,000, whichever is the greater. Any additional Age or Inexperienced driver excess shall also apply (as shown in the schedule)
SECTION 1 - OPTIONAL EXTENSIONS	Not Insured
SECTION 1 - POLICY ENDORSEMENTS	Not Insured
SECTION 2 - REGISTERED INSURED ITEM LIABILITY INCLUDING CTP GAP COVER	Not Insured
SECTION 3 - BROADFORM LIABILITY	Insured
Business Activities:	Income Generating Business Activity Percentage Agricultural Contractor (but not harvesting) 100% Non-income Generating Business Activity No of Locations Office 0 Yard Motor 0 Yard Non Motor 0 Public Liability: \$20,000,000 any one Occurrence, unlimited any one Policy Period Products Liability: \$20,000,000 any one Occurrence, and in the aggregate any one Policy Period
Limit of Liability:	

360 Plant and Equipment Pty Ltd ABN 62 007 238 827 is a company authorised representative of
 360 Plant and Equipment Pty Ltd ABN 62 007 238 827 is a company authorised representative of

SECTION IV: SIGNATURE

I certify that I am the administrator or authorized representative (“Programme Representative”) of the emissions unit programme (“Programme”) represented in a) this form, b) evidence accompanying this form, and c) any subsequent oral and/or written correspondence (a-c: “Programme Submission”) between the Programme and ICAO; and that I am duly authorized to represent the Programme in all matters related to ICAO’s analysis of this application form; and that ICAO will be promptly informed of any changes to the contact person(s) or contact information listed in this form.

As the Programme Representative, I certify that all information in this form is true, accurate, and complete to the best of my knowledge.

As the Programme Representative, I acknowledge that:

the Programme’s participation in the assessment does not guarantee, equate to, or prejudice future decisions by Council regarding CORSIA-eligible emissions units; and

the ICAO is not responsible for and shall not be liable for any losses, damages, liabilities, or expenses that the Programme may incur arising from or associated with its voluntary participation in the assessment; and

as a condition of participating in the assessment, the Programme will not at any point publicly disseminate, communicate, or otherwise disclose the nature, content, or status of communications between the Programme and ICAO, and of the assessment process generally, unless the Programme has received prior notice from the ICAO Secretariat that such information has been and/or can be publicly disclosed.

Signed:

SARA MACDONALD

Full name of Programme Representative (*Print*)

08/04/2024

Date signed (*Print*)

Sara Macdonald

Programme Representative (*Signature*)

(This signature page may be printed, signed, scanned and submitted as a separate file attachment)



| ICAO

Programme Application Form, Appendix B

Programme Assessment Scope

CONTENTS: With this document, programmes may define which of their activities they are submitting for assessment by the TAB. The two sheets are described below:

- Sheet A) Activities the programme describes in this form, which will be assessed by ICAO's TAB
- Sheet B) List of all methodologies / protocols that support activities described under Sheet A



| ICAO

Programme Application Form, Appendix C

Programme Exclusions Scope

CONTENTS: With this document, programmes may define which of their activities they are **excluding** from TAB's assessment. The two sheets are described below:

- Sheet A) Activities the programme describes in this form will be **excluded** from assessment by ICAO's TAB
- Sheet B) List of all methodologies / protocols that support activities described under Sheet A

Emissions Unit Programme Registry Attestation

(Version 3, January 2023)

PART A. Applicability and Instructions

1. Relevance and definitions:

1.1. These terms are relevant to emissions unit programmes and their designated registries:

1.1.1. **CORSIA Eligible Emissions Unit Programme:** emissions unit programme approved by the ICAO Council as eligible to supply emissions units under the CORSIA.

1.1.2. **CORSIA Eligible Emissions Unit Programme-designated registry:** registry designated by a CORSIA Eligible Emissions Unit Programme to provide its registry services and approved by the ICAO Council as reflected in the programme's listing contained in the ICAO Document titled "*CORSIA Eligible Emissions Units*".

1.1.3. **Material change:** any update to the procedures of an emissions unit programme or its designated registry that would alter the functions that are addressed in the Emissions Unit Criteria (EUC), related guidelines, or the contents of this attestation. This includes changes that would alter responses to questions in the application form that the programme has submitted to the ICAO Secretariat or contradict the confirmation of the registry's adherence to the requirements contained in this attestation.

1.1.4. **Cancel:** the permanent removal and single use of a CORSIA Eligible Emissions Unit within a CORSIA Eligible Emissions Unit Programme designated registry such that the same emissions unit may not be used more than once. This is sometimes also referred to as "retirement", "cancelled", "cancelling" or "cancellation".

1.1.5. **Business day:** defined by the CORSIA Eligible Emissions Unit Programme registry when responding to formal instruction from a duly authorized representative of the owner of an account capable of holding and cancelling CORSIA Eligible Emission Units.

1.2. References to "Annex 16, Volume IV" throughout this document refer to Annex 16 to the Convention on International Civil Aviation — *Environmental Protection*, Volume IV — *Carbon Offsetting and reduction Scheme for International Aviation (CORSIA)*, containing the Standards and Recommended Practices (SARPs) for CORSIA implementation. Reference to "ETM, Volume IV" throughout this document refer to Environmental Technical Manual (Doc 9501), Volume IV — *Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)*, containing the guidance on the process to implement CORSIA SARPs.

2. Programme - registry relationship:

2.1. The ICAO Council's Technical Advisory Body (TAB) conducts its assessment of emissions unit programme eligibility including an assessment of the programme's provisions and procedures governing the programme registry, as represented by the programme. The ICAO Council determines CORSIA eligible emissions units upon recommendations by TAB and

consistent with the EUC. The programme registry is not separately or independently considered throughout this process. The TAB may periodically review and report to the ICAO Council regarding the continued consistency of programme's registry and its administration with terms contained in this document's Part B.

- 2.2.** The provision of registry services under the CORSIA by a CORSIA Eligible Emissions Unit Programme registry is fully subject to the terms, conditions and limitations to the programme's scope of eligibility. Such terms include, *inter alia*, the programme's commitment to administer any and all provisions and procedures governing the programme registry in the manner represented by the programme in the application form and additional information provided to TAB during the assessment process.
 - 2.3.** A CORSIA Eligible Emissions Unit Programme registry can provide registry services to aeroplane operators prior to the programme's and programme registry's demonstration of the registry's consistency with the registry requirements contained in this attestation. However, the programme registry can only claim to support and can only provide for aeroplane operators to fulfill the provisions in Annex 16, Volume IV and ETM, Volume IV involving emissions unit cancellation-, reporting-, and verification-related actions after its consistency with the registry requirements contained in this attestation is demonstrated by the programme in accordance with Part A, Paragraph 3 of this document, and the signed attestation is published on the CORSIA website in addition to the ICAO document "*CORSIA Eligible Emissions Units*".
- 3. Submitting an "*Emissions Unit Programme Registry Attestation*":**
- 3.1.** Both the administrator or authorized representative ("Programme Representative") of an emissions unit programme ("Programme"), and the administrator or authorized representative ("Registry Representative") of the registry designated by the Programme ("Programme Registry") will review and attest to their acceptance (as signed in Section 8 of this attestation) of all terms contained herein.
 - 3.2.** The Programme will electronically submit to the ICAO Secretariat a unique, dual-signed attestation for each and every Programme Registry that will provide its registry services to the Programme under the CORSIA:

 - 3.2.1.** If the Programme is determined to be eligible by a decision of the ICAO Council taken in 2020, the Programme will submit the signed attestation(s) to the ICAO Secretariat no later than one year after the Programme is determined to be eligible by the ICAO Council.
 - 3.2.2.** From 2021, the Programme should submit the signed attestation(s) to the ICAO Secretariat at the time of applying for assessment by the TAB. If the Programme is determined to be eligible by a decision of the ICAO Council after 31 December 2020, the Programme will submit the signed attestation(s) to the ICAO Secretariat no later than 180 days after the Programme is determined to be eligible by the ICAO Council.
 - 3.3.** As soon as possible upon receiving a signed attestation from the Programme, the ICAO Secretariat will:

3.3.1.Forward the signed attestation to the TAB; and

3.3.2.If the Programme is determined to be eligible by a decision of the ICAO Council, publicly post the signed attestation on the CORSIA website in addition to the ICAO document “*CORSIA Eligible Emissions Units*”.

PART B: Emissions Unit Programme Registry Attestation

4. Programme application materials. As the Registry Representative, I certify items 4.1 to 4.4:

4.1. I have read and fully comprehend the following information:

4.1.1.The instructions and terms of this attestation;

4.1.2.The contents of the ICAO document “*CORSIA Emissions Unit Eligibility Criteria*”;

4.1.3.The contents of the most recent version of the application form that the Programme has provided to the ICAO Secretariat; and

4.1.4.The terms, conditions and limitations to the Programme’s scope of eligibility and further action(s) requested to the Programme by the ICAO Council, as presented to the Programme upon relevant decision of the ICAO Council on the Programme’s eligibility¹ for the 2024-2026 compliance period (First Phase).

4.2. The Programme’s representation of its provisions and procedures governing the Programme Registry, and of Programme Registry functionality, as contained in the most recent version of the application form that the Programme has provided to the ICAO Secretariat, is true, accurate, and complete, to the best of my knowledge;

4.3. The Programme Registry will notify the Programme of any material changes to the Programme Registry, to enable the Programme to maintain consistency with relevant criteria and guidelines throughout its assessment by TAB and up to an eligibility decision by the ICAO Council; and, if applicable, continuing on from the effective date of an affirmative eligibility decision by the ICAO Council, the Programme Registry will notify the Programme of any material changes to the Programme Registry, such that the Programme can maintain consistency with relevant criteria and guidelines;

4.4. The Programme Registry and Registry Representative will not publicly disseminate, communicate, or otherwise disclose the nature, content, or status of communications between the Programme, the Programme Registry, and/or the ICAO Secretariat, related to the status of the Programme’s provision of programme and registry services under the CORSIA, unless the Programme has received prior notice from the ICAO Secretariat that such information has been and/or can be publicly disclosed.

5. Scope of Programme responsibilities under the CORSIA. As the Registry Representative, I acknowledge items 5.1 to 5.2:

5.1. The scope of the Programme assessment by the TAB, through which the TAB will develop recommendations on the list of eligible emissions unit programmes (and potentially project types) for use under the CORSIA, which will then be considered by the ICAO Council for an eligibility decision, including the Programme’s responsibilities throughout this process; and

¹ Only applicable when the Programme submits the signed “*Emissions Unit Programme Registry Attestation*” to the ICAO Secretariat after the Programme is determined to be eligible by a decision of the ICAO Council.

- 5.2. The scope and limitations of the ICAO Secretariat's responsibilities related to the assessment process.
6. **Programme - Registry relationship.** As the Registry Representative, I understand and accept items 6.1 to 6.2:
- 6.1. The Programme Registry's provision of registry services under the CORSIA is subject to the terms, conditions and limitations to the Programme's scope of eligibility, as presented to the Programme upon relevant decision of the ICAO Council on the Programme's eligibility; and
- 6.2. Only after the Programme and the ICAO Secretariat have completed all steps in Part A, Section 3 of this attestation, can the Programme Registry facilitate and identify emissions unit cancellations specifically for CORSIA use, and support any related reporting and verification activities. The Programme Registry will not promote itself as being capable of providing registry services for the described purpose until such time.
7. **Scope of Programme Registry responsibilities under the CORSIA.** As the Registry Representative, I certify items 7.1 to 7.12:
- 7.1. The Programme Registry is capable of fully meeting the objectives of any and all Programme provisions and procedures related to the Programme Registry that the Programme is required to have in place:
- 7.1.1. In the manner represented by the Programme in the application form that the Programme has provided to the ICAO Secretariat; and
- 7.1.2. As acknowledged by the Programme in the signed "Programme acceptance to terms of eligibility for inclusion in the ICAO document "*CORSIA Eligible Emissions Units*"².
- 7.2. The Programme Registry will not deny a CORSIA participant's request for a registry account solely on the basis of the country in which the requestor is headquartered or based;
- 7.3. The Programme Registry will identify (in the case of applicants to be assessed to determine their eligibility) / identifies (when the Programme is determined to be eligible by a decision of the ICAO Council) CORSIA Eligible Emissions Units as defined in the ICAO document "*CORSIA Eligible Emissions Units*"³. This will be/is done consistent with the capabilities described by the Programme in its communications with ICAO, and any further requirements decided by the ICAO Council for CORSIA Eligible Emissions Unit Programme-designated Registry.
- 7.4. The Programme Registry will, upon request of the CORSIA participant account holder or participant's designee, designate the participant's cancellation of emissions units for the purpose of reconciling offsetting requirements under the CORSIA, including by compliance cycle;

² Only applicable when the Programme submits the signed "*Emissions Unit Programme Registry Attestation*" to the ICAO Secretariat after the Programme is determined to be eligible by a decision of the ICAO Council.

³ As prescribed in the ICAO Document "*CORSIA Eligible Emissions Units*", the programme must provide for and implement its registry system to identify its CORSIA eligible emissions units as defined in the document.

- 7.5.** The Programme Registry will, within 1 – 3 business days of receipt of formal instruction from a duly authorized representative of the owner of an account capable of holding and cancelling CORSIA Eligible Emission Units within the registry, and barring system downtime that is scheduled in advance or beyond the control of the registry administrator, make visible on the Programme Registry’s public website the account owners cancellations of CORSIA Eligible Emission Units as instructed. Such cancellation information will include all fields that are specified for this purpose in Annex 16, Volume IV, and ETM, Volume IV;
- 7.6.** The Programme Registry will, upon request of the CORSIA participant account holder or participant’s designee, generate report(s) containing the information specified for this purpose in Annex 16, Volume IV, and ETM, Volume IV;
- 7.7.** The Programme Registry will maintain robust security practices that ensure the integrity of, and authenticated and secure access to, the registry data of CORSIA participant account holders or participants’ designees, and transaction events carried out by a user; and disclose documentation of such practices upon request. The Programme Registry will utilize appropriate method(s) to authenticate the identity of each user accessing an account; grant each user access only to the information and functions that a user is entitled to; and utilize appropriate method(s) to ensure that each event initiated by a user (i.e. transfer of units between accounts; cancellation/retirement of a unit, update of data, etc.) is an intentional transaction event confirmed by the user. Such security features will meet and be periodically updated in accordance with industry best practice;
- 7.8.** The Programme Registry will, upon identifying any breach of Programme Registry data security or integrity that affects a CORSIA participant account holder or participant’s designee, notify the CORSIA participant account holder or their designee, and notify the Programme, which will inform and engage with the ICAO Secretariat on the matter in the same manner as required for material deviations from the Programme’s application form;
- 7.9.** The Programme Registry will ensure the irreversibility of emissions unit cancellations and the designation of the purpose of emissions units cancellations, as per the requirements contained in Annex 16, Volume IV, and ETM, Volume IV. Without prejudice to the aforementioned, such requirement would not prevent a Programme Registry from utilizing secure, time-bound and auditable methods for correcting unintentional user-entry errors;
- 7.10.** The Programme Registry will ensure that all cancellation information on its website is presented in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g., .xlsx;
- 7.11.** The Programme Registry will retain documents and data relevant to CORSIA Eligible Emissions Units and cancellations on an ongoing basis and for at least three years beyond the end date of the latest compliance period in which the emissions unit programme is determined to be eligible; and consistent with the Programme’s long-term planning, including plans for possible dissolution;
- 7.12.** The Programme Registry will append a document to the end of the signed attestation describing how it will ensure its ability to implement the requirements of this document. This will include references to existing registry functionalities that already meet the

requirements of this document and/or description of business practices and procedures that ensure the Programme Registry's ability to implement the requirements in this document prior to identifying any emissions unit cancellations specifically for CORSIA use and supporting any related reporting and verification activities.

- 8. Accuracy and completeness of information.** The signatures below certify that the information provided is true and correct in all material respects on the date as of which such information is dated or certified and does not omit any material fact necessary in order to make such information not misleading. Representatives are duly authorized for official correspondence on behalf of their organization.

Sara Macdonald
Programme Representative Signature

Sara Macdonald
Programme Representative Name

CARBON ASSET SOLUTIONS
SOIL CARBON METHODOLOGY
Programme Name

4/03/2024
Date

Sara Macdonald
Registry Representative Signature

Sara Macdonald
Registry Representative Name

CARBON ASSET SOLUTIONS (CAS)
REGISTRY
Registry Name

4/03/2024
Date

Instructions for Registry Representative: Please append a document on the next page of this attestation describing your Registry's ability to implement the requirements of this document, including references to existing registry functionalities that meet the requirements of this document and/or description of business practices and procedures that ensure the Programme Registry's ability to implement the requirements of this document prior to identifying any emissions unit cancellations specifically for CORSIA use and supporting any related reporting and verification activities.

ATTACHMENT A: PROGRAMME REGISTRY ATTESTATION DISCLOSURE FORM

PART 1: INSTRUCTIONS FOR REGISTRY REPRESENTATIVE

The following information request corresponds to the registry representative's certification of its adherence to items 7.1 to 7.11 of the *Emissions Unit Programme Registry Attestation* "Scope of Programme Registry responsibilities under the CORSIA".

In accordance with item 7.12 of the *Emissions Unit Programme Registry Attestation*, registry administrators are to complete and append this form to the signed *Attestation* describing how the Registry will ensure its ability to implement the requirements of the *Attestation*. This includes references to existing registry functionalities that already meet the requirements of the *Attestation* and/or descriptions of business practices and procedures that ensure the Programme Registry's ability to implement the requirements in the *Attestation*.

For further guidance regarding the format and approaches for providing summary information and evidence of system functionalities and/or procedures in this form, refer to instructions for "**Form Completion**" in the *Application Form for Emissions Unit Programmes*⁴.

PART 2: PROGRAMME AND REGISTRY REPRESENTATIVE INFORMATION

1. Programme Representative Information

A. Programme Information

Programme name: Carbon Asset Solutions Soil Carbon Methodology (CAS SCM)

Administering Organization⁵: Carbon Asset Solutions Ltd.

Official mailing address: Level 19, 10 Eagle Street, Brisbane, Queensland 4000 Australia

Telephone #: +61 419 176 590

Official web address: www.carbonassetsolutions.com

B. Programme Administrator Information (i.e., individual contact person)

Full name and title: Sara Macdonald, Director and Chief Operating Officer

Employer / Company (*if not programme*): Carbon Asset Solutions Ltd.

E-mail address: sara.macdonald@carbonassetsolutions.com Telephone #: +61 426 820 269

C. Programme Representative Information (if different from Programme Administrator)

⁴ <https://www.icao.int/environmental-protection/CORSIA/Pages/TAB.aspx>

⁵ **Please complete**, even if the name of the business, government agency, organization, or other entity that administers the Emissions Unit Programme is the same as "*Programme Name*".

Full name and title: [Click or tap here to enter text.](#)

Employer / Company (*if not Programme*): [Click or tap here to enter text.](#)

E-mail address: [Click or tap here to enter text.](#)

Telephone #: [Click or tap here to enter text.](#)

2. Registry Representative Information⁶

A. Registry Information

Registry / system name: [Carbon Asset Solutions \(CAS\) Registry](#)

Administering Organization: [Carbon Asset Solutions Ltd.](#)

Official mailing address: [Level 19, 10 Eagle Street, Brisbane, Queensland 4000 Australia](#)

Telephone #: [+61 419 176 590](#)

Official web address: [www.carbonassetsolutions.com](#)

B. Registry Administrator Information (i.e., individual contact person)

Full name and title: [Sara Macdonald, Director and Chief Operating Officer](#)

Employer / Company (*if not Registry Administering Organization*): [Carbon Asset Solutions Ltd.](#)

E-mail address: [sara.macdonald@carbonassetsolutions.com](#)

Telephone #: [+61 426 820 269](#)

C. Programme Representative Information (if different from Registry Administrator)

Full name and title: [Click or tap here to enter text.](#)

Employer / Company (*if not Registry Administering Organization*): [Click or tap here to enter text.](#)

E-mail address: [Click or tap here to enter text.](#)

Telephone #: [Click or tap here to enter text.](#)

⁶ **Please complete this section**, even if the business, government agency, organization, or other entity that administers the Emissions Unit Programme Registry is the same as the organization described in **Part 2. “1. Programme Representative Information”**.

PART 3: EVIDENCE OF ADHERENCE TO SCOPE OF REGISTRY RESPONSIBILITIES

	<p>Does the Programme Registry fully meet the objectives of any and all Programme provisions and procedures related to the Programme Registry that the Programme is required to have in place in the manner represented by the Programme in the application form that the Programme has provided to the ICAO Secretariat and, if applicable⁷, as acknowledged by the Programme in the signed “Programme acceptance to terms of eligibility for inclusion in the ICAO document “<i>CORSIA Eligible Emissions Units</i>”?”</p>	<p><input checked="" type="checkbox"/> YES</p>
<p>7.1</p>	<p>Describe how the Registry ensures its ability to implement these provisions:</p> <p>The registration platform developed by Carbon Asset Solutions (CAS) is directly administrated by CAS. All provisions and future requirements established by the program were (and will be) included within the Registration Platform by direct request from the Director.</p> <p>The registration platform was designed by CAS and accommodates all requirements described in the Carbon Asset Solutions Soil Carbon Methodology (CAS-SCM), ISO 14064-2:2019 and 14064-3:2019 regarding the governance, standard adherence, verification/validation requirements presented in the CORSIA Application Form. Upon review CAS believes that the Registry meets all criteria described in this application form; any potential improvements will be undertaken upon direction from ICAO/CORSIA.</p> <hr/> <p>In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i>.</p> <p>The CAS Registry is accessed through this link https://registry.casmrv.com/</p> <p>CAS notes that only the administrator and account holders have access to the platform.</p> <p>Public facing data are automatically fed from the information registered through the CAS Registry platform once administrator has reviewed and approved a registration request and KYB assessment through their administrator account.</p> <p>Full details are provided in the attached document - (CAS Registry technical document March 2024)</p>	

<p>7.2</p>	<p>Will the Programme Registry ensure that a CORSIA participant’s request for a registry account will not be denied solely on the basis of the country in which the requestor is headquartered or based?</p>	<p><input checked="" type="checkbox"/> YES</p>
	<p>Describe how the Registry does or will implement this provision:</p> <p>The CAS Registry operates globally. The system can register any country, dependent territories, and special areas of geographical interest listed in the ISO 3166-1 (Codes for the representation</p>	

⁷ Only applicable when the Programme submits the signed “*Emissions Unit Programme Registry Attestation*” to the ICAO Secretariat after the Programme is determined to be eligible by a decision of the ICAO Council.

	of names of countries and their subdivisions – Part 1: Country codes). The CORSIA participant will be assigned an identification that includes the code for the corresponding country, in accordance with codes defined by the ISO 3166-1.
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .
	Functionality and linkages to be established upon CORSIA Approval

7.3	Will the Programme Registry (in the case of applicants to be assessed to determine their eligibility)/Does the Programme Registry (when the Programme is determined to be eligible by a decision of the ICAO Council) identify / label its CORSIA eligible emissions units as defined in the ICAO Document “ <i>CORSIA Eligible Emissions Units</i> ”?	<input checked="" type="checkbox"/> YES
	Describe how the Registry does or will implements this provision:	
	Carbon Asset Solutions has established a single methodology to create Carbon Credits based on the Carbon Asset Solutions Soil Carbon Methodology (CAS-SCM) which operates under ISO 14064-2:2019 and IS) 14064-3:2019 principles. All Carbon Credits created under the CAS-SCM will be CORSIA compliant. Further, it is Carbon Asset Solution’s intent to label said credits as “ <i>CORSIA Eligible Emission Units</i> ” in accordance with ICAO Documentation.	
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .	
	Functionality and linkages to be established upon CORSIA Approval.	

Requirements through credit purchase.	Will the Programme Registry, upon request of the CORSIA participant account holder or participant’s designee, designate the participant’s cancellation of emissions units for the purpose of reconciling offsetting requirements under the CORSIA, including by compliance cycle?	<input checked="" type="checkbox"/> YES
	Describe how the Registry does or will implement these provisions:	
	The blockchain database CAS Registry has the highest level of data integrity and immutability. It allows for each Carbon Credit to be automatically retired (cancelled/extinguished) upon purchase and retiring. Thus, the CORSIA participant is able to apply credits created via the CAS SCM to meet offset requirements; upon purchase the CAS Registry is updated to show that the Carbon Credits are certified and then cancelled.	
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in	

	addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .
	Full details are provided in the attached document - (CAS Registry technical document March 2024)

7.5	a. Will the Programme Registry, within 1 – 3 business days of receipt of formal instruction from a duly authorized representative of the owner of an account capable of holding and cancelling CORSIA Eligible Emission Units within the registry, and barring system downtime that is scheduled in advance or beyond the control of the registry administrator, make visible on the Programme Registry’s public website the account owner’s cancellations of CORSIA Eligible Emission Units as instructed.	<input checked="" type="checkbox"/> YES
	b. Will such cancellation information (row a) include all fields that are specified for this purpose in Annex 16, Volume IV, and ETM, Volume IV?	<input checked="" type="checkbox"/> YES
	Describe how the Registry does or will implement these provisions:	
	<p>a. Yes. The standard CAS-SCM buyer agreement provides for settlement of “up to 5 days” however that can be amended for CORSIA to 1-3 days. As the transfer of title in the blockchain CAS Registry is automated, transactions are instantaneous so the transfer of title is immediately visible as a change in the Carbon Credit from live to extinguished.</p> <p>b. Yes. Once the CAS Carbon Credits are proved as CORSIA eligible all data fields as required to meet Annex 16, Volume IV, and ETM, Volume V, can be coded into the tokenised Carbon Credit on the CAS Registry and extinguished as required.</p>	
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .	
Full details are provided in the attached document - (CAS Registry technical document March 2024)		

7.6	Will the Programme Registry, upon request of the CORSIA participant account holder or participant’s designee, generate report(s) containing the information specified for this purpose in Annex 16, Volume IV, and ETM, Volume IV?	<input checked="" type="checkbox"/> YES
	Describe how the Registry does or will implement this provision:	
	As a blockchain database the CAS Registry has the highest level of data integrity and immutability. It also allows for flexible report designed to meet multiple needs and information requirements. Upon CORSIA confirmation, CAS will develop the report structure & capabilities described above in in Annex 16, Volume IV, and ETM, Volume V to meet participant needs upon their request.	
In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .		

	Full details are provided in the attached document - (CAS Registry technical document March 2024)
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7.7	a. Does the Programme Registry maintain robust security practices that ensure the integrity of, and authenticated and secure access to, the registry data of CORSIA participant account holders or participants’ designees, and transaction events carried out by a user?	<input checked="" type="checkbox"/> YES
	b. Does the Programme Registry disclose documentation of such practices (row a) upon request?	<input checked="" type="checkbox"/> YES
	c. Does the Programme Registry utilize appropriate method(s) to authenticate the identity of each user accessing an account?	<input checked="" type="checkbox"/> YES
	d. Does the Programme Registry grant each user access only to the information and functions that a user is entitled to?	<input checked="" type="checkbox"/> YES
	e. Does the Programme Registry utilize appropriate method(s) to ensure that each event initiated by a user (i.e. transfer of units between accounts; cancellation/retirement of a unit, update of data, etc.) is an intentional transaction event confirmed by the user?	<input checked="" type="checkbox"/> YES
	f. Do such security features (rows a – e) meet and undergo periodic updates in accordance with industry best practice?	<input checked="" type="checkbox"/> YES
	Describe how the Registry implements each provision in rows a – f:	
As a blockchain database the CAS Registry has the highest level of data integrity and immutability. CAS system security framework includes mechanisms for protecting sensitive data, preventing unauthorized access, and maintaining system integrity.		
In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .		
Full details are provided in the attached document - (CAS Registry technical document March 2024)		

7.8	a. Will the Programme Registry, upon identifying any breach of Programme Registry data security or integrity that affects a CORSIA participant account holder or participant’s designee, notify the CORSIA participant account holder or their designee?	<input checked="" type="checkbox"/> YES
	b. Will the Programme Registry, upon identifying any breach of Programme Registry data security or integrity that affects a CORSIA participant account holder or participant’s designee, notify the Programme, which will inform and engage with the ICAO Secretariat on the matter in the same manner as required for material deviations from the Programme’s application form?	<input checked="" type="checkbox"/> YES
	Describe how the Registry does or will implement each provision in rows a and b:	
CAS’s framework for managing security incidents includes		

	<ul style="list-style-type: none"> • Incident detection and analysis • Incident severity categorisation • Containment, eradication, and recovery • Notification • Post incident review process
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry's implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .
	Full details are provided in the attached document - (CAS Registry technical document March 2024)

7.9	Does the Programme Registry ensure the irreversibility of emissions unit cancellations and the designation of the purpose of emissions units cancellations, as per the requirements contained in Annex 16, Volume IV, and ETM, Volume IV ⁸ ?	<input checked="" type="checkbox"/> YES
	Describe how the Registry implements these provisions:	
	When a retirement/cancellation request is submitted to the CAS Registry, a smart contract is triggered and updates the token bundle volume and status which will be reflected on the CAS Registry. This token update flow is not reversible i.e. retired or cancelled token is not reversible	
	In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry's implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i> .	
	Full details are provided in the attached document - (CAS Registry technical document March 2024)	

7.10	a. Does the Programme Registry ensure that all cancellation information on its website is presented in a user-friendly format?	<input checked="" type="checkbox"/> YES
	b. Does the Programme Registry ensure that all cancellation information on its website is available at no cost and with no credentials required?	<input checked="" type="checkbox"/> YES
	c. Does the Programme Registry ensure that all cancellation information on its website is capable of being searched based on data fields?	<input checked="" type="checkbox"/> YES
	d. Does the Programme Registry ensure that all cancellation information on its website can be downloaded in a machine-readable format, e.g., .xlsx?	<input checked="" type="checkbox"/> YES
	Describe how the Registry implements each provision in rows a – d:	

⁸ Without prejudice to the aforementioned, such requirement would not prevent a Programme Registry from utilizing secure, time-bound and auditable methods for correcting unintentional user-entry errors.

	<p>Authorised users and interested parties can search, view and export retired/cancelled credits on CAS Registry</p>
	<p>In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i>.</p>
	<p>Full details are provided in the attached document - (CAS Registry technical document March 2024)</p>

7.11	<p>a. Will the Programme Registry retain documents and data relevant to CORSIA Eligible Emissions Units and cancellations on an ongoing basis and for at least three years beyond the end date of the latest compliance period in which the emissions unit programme is determined to be eligible?</p>	<input checked="" type="checkbox"/> YES
	<p>b. Will the Programme Registry retain documents and data relevant to CORSIA Eligible Emissions Units and cancellations consistent with the Programme’s long-term planning, including plans for possible dissolution?</p>	<input type="checkbox"/> YES
	<p>Describe how the Registry does or will implement each provision in rows a and b:</p>	
	<p>The immutable storage by default set to keep project and credit records for 100 years. As part of CAS Registry backup and recovery, Periodic, encrypted backups of critical data within CAS Registry are conducted using Azure services. The Azure Resource Manager (ARM) templates orchestrate the backup process, ensuring that data is backed up securely and consistently.</p>	
	<p>As part of security mechanism, logs retention period is 3 years to be compliant with ISO 27001 framework. CAS stores logs immutably and offsite, meaning they cannot be changed or deleted.</p>	
	<p>In the field below, provide link(s) to any web-based evidence of existing registry functionalities and/or of documents demonstrating business practices and procedures for the Programme Registry’s implementation of these provisions. Alternatively, or in addition, confirm that such evidence is included as an attachment to this <i>Emissions Unit Programme Registry Attestation</i>.</p>	
<p>Full details are provided in the attached document - (CAS Registry technical document March 2024)</p>		