CHESTNUT CARBON CONSERVATION PROJECT

Document Prepared by AENOR INTERNACIONAL S.A.U.

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Summary:

Chestnut Carbon, LLC is a US-based company that seeks to conserve and restore functional forestland throughout the United States for the primary purpose of increasing carbon sequestration. By the year 2030, Chestnut Carbon anticipates acquiring or leasing 200,000 hectares of land to be locked into durable agreements for 60-125 years of permanent carbon storage. The Chestnut Carbon Conservation Project ("the Project") is a grouped project whose potential geographic area encompasses the contiguous United States and southern Alaska.

The Project contrasts with regional common practice among the sellers of these lands prior to project implementation: extractive timber harvesting to compensate for decreasing revenues from adjacent agricultural and ranching operations over time due to soil compaction and degradation. To reduce GHG emissions across the project area, the project technologies and measures include transitioning the management of forestland to silvicultural systems that include group selection, patch cuts and continuous thinning, where appropriate. In these transition activities, practices include the application of special silvicultural treatments that accelerate the recruitment of trees into standing dead wood, among other treatments. By extending rotation ages through the implementation of uneven-aged silviculture of these commercially harvestable forests, the project increases carbon storage relative to the baseline case, as well as increases biodiversity and diversity in forest structure.

The purpose of the validation and verification was the independent evaluation of the project's compliance with the VCS Standard v4.4 and the assessment of the ex-post monitored anthropogenic GHG removals that have occurred as a result of the project's activities. The process was performed through a combination of document revision, interviews with relevant personnel and onsite inspections. During the validation and verification 14 CARs and 13 CLs were reported. All these issues where appropriately closed by means of corrections, more clear explanations and other supported documents. No FARs were raised for the next verification event.

AENOR carried out a final joint validation and verification report and deems with reasonable level of assurance that the project complies with all of the validation and verification criteria for VCS. The assessment team has no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria. Hence, the audit team concludes that the GHG removals for the lands included in the project boundary have been quantified in accordance with VCS rules.

AENOR can confirm that the estimated gross GHG removals are 6,954,685 tCO2e for the whole crediting period (25 years, 5 July 2022 – 4 July 2047), for an estimation of 200,000 hectares acquired or leased, with an annual average of 278,187 tCO2e, while the project longevity period is at least 60 years. Currently, this grouped project includes seven instances in the United States state of Arkansas, and one in Alabama (648.8 hectares). The estimated gross GHG removals for the monitoring period (5 July 2022 - 31 January 2023) are 2,192 tCO2e; of which 1,864 tCO2e correspond to VCUs considering a 15% non-permanence risk deduction. AENOR considers these estimations are accurate and free of material errors and AENOR holds no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria.

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1. INTRODUCTION

1.1. Objective

The purpose of the validation and verification audit activity was to conduct an independent assessment of the project in order to determine whether the project complies with the validation and verification criteria as set out in the guidance documents listed in Section 1.2 of this report, including the monitoring procedures; and that the GHG removals reported in the monitoring report are materially accurate.

In accordance with the VCS Standard (see section 1.2), AENOR conducted an independent assessment of the project to determine whether the project complies with the VCS Program rules. In accordance with the VCS Validation & Verification Manual, the objectives of the validation engagement were to assess:

- The project's conformance to the VCS rules.
- The project's conformance to the applied methodology, including the procedure for the demonstration of additionality specified in the methodology.
- The likelihood that the methods and procedures set out in the Project Description will generate verifiable GHG data and information when implemented.

In accordance with VCS Standard, AENOR carried out an ex-post independent assessment of the GHG emission reductions and removals that have occurred as a result of the project during the verification period, conducted in accordance with the VCS Program rules. In accordance with the VCS Validation & Verification Manual, the objectives of the verification engagement were to evaluate the monitoring report and assess:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated Project Description (this included assessing conformance with the monitoring plan).
- The extent to which GHG emission reductions and removals reported in the monitoring report are materially accurate.

The other objective of the validation and verification was to assess the non-permanence risk analysis.

1.2. Scope and Criteria

The scope of the validation and verification audit is to validate and verify the GHG removals of the proposed Project against the Verified Carbon Standard, the identified methodology and associated tools

and modules, for the crediting period from 5-July-2022 – 4-July-2047; and the first monitoring period from 5-July-2022 to 31-January-2023.

The objectives of this audit included a validation of the projects estimated ex ante removals and the verification of the ex post achieved removals with the Verified Carbon Standard requirements and any additional requirements of VCS AFOLU projects, besides the assessment of the additionality and the non-permanence risk assessment report.

The scope was defined as follows:

- The project and its baseline scenarios.
- The physical infrastructure, activities, technologies and processes of the project.
- The GHG sources, sinks and/or reservoirs those are applicable to the project.
- The types of GHGs applicable to the project.
- The project crediting period.
- The project first monitoring period.

In accordance with Section 4.1.8 of the VCS Standard, the criterion for validation and verification was the VCS Version 4, including the following documents:

- VCS Standard v4.4 issued 17 January 2023
- VCS Program Guide v4.3 issued 17 January 2023
- Program Definitions v4.3 issued 21 December 2022
- AFOLU Non-Permanence Risk Tool v4.0 issued 19 September 2019
- VT0001 Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities v3.0, issued 1 February 2012.
- VM0003 Methodology for Improved Forest Management Through Extension of Rotation Age v1.3, issued 16 May 2023.

Unless otherwise indicated, the assessment was performed against the most recent version of the relevant VCS documents.

1.3. Reasonableness of Assumptions and Level of Assurance

The validation was conducted to assess the reasonableness of assumptions, limitations, and methods that support Project Proponent' statement about the outcome of the Project' activities. The verification was conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertions are materially correct and is a fair representation of the GHG data and information.

All the versions of the validation and verification report were subjected to an independent internal technical review before being submitted to the client to confirm that all validation and verification

activities had been completed according to the pertinent AENOR instructions required. The technical review was performed by a technical reviewer qualified in accordance with AENOR's qualification scheme for VCS validation and verification.

1.4. Summary Description of the Project

Chestnut Carbon, LLC is a US-based company that seeks to conserve and restore functional forestland throughout the United States for the primary purpose of increasing carbon sequestration. By the year 2030, Chestnut Carbon anticipates acquiring or leasing 200,000 hectares of land to be locked into durable agreements for 60-125 years of permanent carbon storage. The Project is a grouped project whose potential geographic area encompasses the contiguous United States and southern Alaska.

The Project contrasts with regional common practice among the sellers of these lands prior to project implementation: extractive timber harvesting to compensate for decreasing revenues from adjacent agricultural and ranching operations over time due to soil compaction and degradation. To reduce GHG emissions across the project area, the project technologies and measures include transitioning the management of forestland to silvicultural systems that include group selection, patch cuts and continuous thinning, where appropriate. In these transition activities, practices include the application of special silvicultural treatments that accelerate the recruitment of trees into standing dead wood, among other treatments.

Sponsored by Chestnut Carbon in relation to this project, university research indicates that the promotion of standing deadwood through these treatments significantly increases total carbon storage over time, as compared to no treatment or extractive timber harvesting. By extending rotation ages through the implementation of uneven-aged silviculture of these commercially harvestable forests, the project increases carbon storage relative to the baseline case, as well as increases biodiversity and diversity in forest structure. Diverse forest age classes and heterogeneity across landscapes are proven to increase forest resiliency to disturbances such as wildfire, landslides, and insect or disease outbreak.

The estimated gross GHG removals are 6,954,685 tCO2e for the whole crediting period (25 years, 5 July 2022 – 4 July 2047), for an estimation of 200,000 hectares acquired or leased, with an annual average of 278,187 tCO2e, while the project longevity period is at least 60 years. Currently, this grouped project includes seven instances in the United States state of Arkansas, and one in Alabama (648.8 hectares). The estimated gross GHG removals for the monitoring period (5 July 2022 - 31 January 2023) are 2,192 tCO2e; of which 1,864 tCO2e correspond to VCUs considering a 15% non-permanence risk deduction.

2. VALIDATION AND VERIFICATION PROCESS

2.1. Method and Criteria

The validation and verification was performed through a combination of document review, interviews with relevant project personnel and stakeholders and remote inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, the project was assessed for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5, findings were issued to ensure that the project was in full conformance to all requirements.

A project specific sampling plan was developed to guide the validation and verification auditing process to ensure efficiency and effectiveness. The purpose of the sampling plan was to present a risk assessment for determining the nature and extent of the validation and verification procedures necessary to ensure the risk of auditing error was reduced to a reasonable level. The validation and verification sampling plan methodology was derived from all items in our auditing process stated above. Specifically, the sampling plan utilized the VCS guidance documents and ISO 14064-3:2019.

Based on these analyses and considering the requirements of the GHG program used, the sampling plan considered the following topics:

- Project proponent, developers/management team, local team onsite.
- Baseline scenario
- Project activities conducted during the monitoring period (reporting, results, concordance with plan as per PD, etc.)
- Monitoring procedures. Monitoring team and equipment
- Review of operation and measurement records. Controls established to detect and correct any error or omission in monitoring parameters.
- Carbon calculations. Estimates and assumptions for determining GHG data. Remote sensing.
- Project rights and legal requirements.
- Financial issues, financial sustainability.
- Stakeholders consultation process
- Project conflicts, barriers, or difficulties.
- Project Communication & Grievance Mechanism
- Benefit permanence (mid and long term) and non-permanence risks.
- Eligibility conditions and compliance of validated instances.

The sample methods assessed the project components that match with key characteristics in the entire documentation to be examined and the requirements of the VCS. In addition, sampling was designed to yield insights and observation that closely align with the real context onsite, the current project status

and its alignment with the validated project documentation. The sampling included to check the quantity and type of evidence below:

- To carefully review the Monitoring Report and supporting documentation for conformance to the verification criteria and consistency with the Project Description.
- To examine the baseline data gathered from the determined baseline for Project's region, spreadsheets used to enter, and compile information required by the methodology.
- To reproduce 100% of sheets in the MR and the other spreadsheets for the monitoring period for the project area crosschecking with used methodology requirements.
- To reproduce the GHG emissions reductions calculations presented in the spreadsheet and crosscheck with the Monitoring Report.
- To check 100% the project boundary and land cover changes in the project area for the monitoring period using the GIS database.
- Verify 100% and crosschecked with validated values the carbon stock changes, and the land used classes in the project area.
- To carefully review the NPRR and supporting documentation for conformance to the verification criteria and consistency with the Project Description.
- 100% verify Non-Permanent Risk Report results using the NPRR tool and considering the standard requirements and validated Project Description.

Any modifications applied to the validation and verification sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy.

The validation activities in which risks were assessed were the evaluations of the applicability, baseline scenario, additionality, leakage, non-permanence risk analysis, monitoring system, safeguards, etc.

The verification activities in which risks were assessed were the evaluations of the monitoring system (data flow, data control procedures, etc.) but mainly the quality of raw data as well as sources and the spreadsheet calculations. AENOR reproduced and verified 100% of workbooks for the crediting period (5 July 2022 – 4 July 2047) and the monitoring period (5-July-2022 - 31-January-2023). The project boundaries for the monitoring period were 100% checked using the GIS database.

The carbon stock changes, and the land used classes in the project area were also 100% verified and crosschecked with validated values. For data provided for the reference region, AENOR requested onsite samples of data.

AENOR carried out a deep and meticulous review of the spreadsheets in order to verify the correct application of the methodology (formulae, equations, etc.) and checked that data required calculating the GHG removals were appropriately provided. Based on the assessment carried out, AENOR confirms

with a reasonable level of assurance that the claimed removals are free from material errors, omissions, or misstatements.

AENOR confirms that sufficient evidence was presented for the reported net anthropogenic GHG removals and that there is a clear audit trail that contains the evidence and records that validate the stated figure in this validation and verification report since:

- Sufficient evidence available: The project participant has provided the 100% of data used in the calculations to achieve the final amount of GHG removals reported.
- Nature of evidence: The raw data were collected from reliable sources. They are detailed in the project documents and have been provided to the audit team and were checked during the interviews.
- Cross-checked evidence: AENOR cross-checked the collected information through interviews with stakeholders and reproducing calculations.

Hence, AENOR confirms that the stated figures in joint Project Description and Monitoring Report (PD/MR) are correct and confirms that is able to certify net anthropogenic GHG removals based on verifiable and reliable evidence.

The validation and verification schedule was as follows:

Activity	Date
Kick off meeting	18 January 2023
Audit plan and completeness check to verify all the information requested was provided.	13 February 2023
Onsite audit inspection	28 February to 03 March 2023
Three rounds of findings, with corrective action requests or clarification requests raised	20 March to 17 Mayo 2023
Technical internal review (AENOR) and delivery of VCS validation and verification report to PP for its revision	12 July 2023. Final version on 14 July 2023.
Delivery of response to Verra accuracy review	25 September 2023 Second round: 03 Nov 2023 Third round: 13 Dic 2023

2.2. Document Review

The joint PD/MR submitted by the Project Proponent (PP) was reviewed against the approved methodology and against VCS requirements. Additional background documents related to the project design, baseline, ownership, project start date and additionality were also made available before and

during the onsite visit, along with the non-permanence risk report. Other documents reviewed included data from monitoring, carbon rights contracts, management agreements, maps and GIS database, monitoring and grievance SOPs, biomass and carbon calculation spread sheets, etc. All documents were provided digitally to the audit team.

To address the corrective actions and clarification requests that arose from the desk review and onsite visit, the PP revised the project PD/MR version 1.1 (dated on 03 February 2023) and developed a final version 1.9 dated on 28 November 2023.

The list of all documents reviewed from the client for this validation/verification is the following. Note that along this report, supporting evidences (documents, interviews, on site visit activities) are referred by its Reference number in the first column of the lists in sections 2.3 and 2.4, as well as the onsite visit activities carried out and reported in section 2.5.

Reference	File name (last version provided)
PD/MR	Chestnut Conservation Project Joint PD-MIR v1.9
Annex A	Comparable Forest Management Plans Examples: - 2021 management plan update.pdf - JHHC 2022 Management Plan 20220427.pptx
Annex C	The Arkansas Timber Price Report
Annex D	Chestnut Signed Forest Management Lease Agreement's: - FCW_MLA CCA_Black_River.pdf - FCW_MLA CCA_Dickson_Farm.pdf - FCW_MLA CCA_El_Ranchos.pdf - FCW_MLA CCA_Fourche_La_Fave.pdf - FCW_MLA CCA_Harding_Freed.pdf - FCW_MLA CCA_Hickls.pdf - FCW_MLA CCA_Rooks_Ranch.pdf - FCW_MLA CCA_Saline_Bluff.pdf
Annex G	- Chestnut Conserve – Sample Size (2022 MP1) v1.1.xlsx - Carbon Balance Manage (2021) 16:17. Hoover and Smith.
Annex H	FVSsn_Overview. Keyser, Chad E., comp. 2008 (revised November 2, 2015). Southern (SN) Variant Overview – Forest Vegetation Simulator. Internal Rep. Fort Collins, CO: U. S. Department of Agriculture, Forest Service, Forest Management Service Center. 80p.
Annex J	- 2022 Forest Cruiser Training v1.1.pptx - Nephos Digitization Manual.pdf by Forest Carbon Works
Annex L	Pdf and shapes: - PAI Carbon Accounting Areas - PAI Exclusions
Annex M	- Chestnut VCS Certification Model.xlsx (Financial model) - Kimmeridge Carbon Solutions, L.P. and Chestnut Carbon LLC Proof of Funds.pdf

Annex N	Snags—recruitment, longevity, management and carbon storage. UMN - FCW Research Statement 2022.
Annex Q	Fire as Management Tool Policy v0.1.docx. Sent under Annex Q on March 31st
Annex S	Planting Southern Pines: A Guide to Species Selection and Planting Techniques. 2022 by Mississippi State University.
Annex T	NC State Thinning Pine Stands
Annex U	Timber Management: Thinning Pine Stands. Texas Forest Service.
Annex V	Managing Loblolly Pine Stands, From A to Z. University of Arkansas.
Annex W	Harvesting Constraints v1.0.docx
Annex X	Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Neosho Mucket and Rabbitsfoot. Department Of The Interior. Fish and Wildlife Service.
Annex Y	Arkansas Best Management Practices
Annex Z	Alabama Best Management Practices
Annex AA	Forest Harvests and Wood Products Sources and Sink
Annex AB	Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States.
Annex AC	Annual 2020 National Climate Report - National Centers for Environmental Information (NCEI)
Annex AD	Conserve PD Additionality NPV 1.1 (NPV in baseline and project scenario).
Annex AE	Chestnut Conserve Monitoring Protocol v2.0
Annex AF	Chestnut Conserve Implementation Plan v0.2
Annex AG	Conserve Model Results v1.6
Annex P	Chestnut Conserve Model Results v1.6 - No URS
Annex AH	Uncertainty calculation v0.2
Annex AI	Chestnut Conserve Non-Permanence Risk Report v2.0.docx
Annex AJ	Chestnut Conserve Risk Report Calculation Tool v2.1.xls
Annex AK	Stakeholder List
Annex AL	VM0003 Ex-Post Accounting Model v0.23.xlsm
Annex AY	VM0003 Ex-Post Accounting Model v0.23 - No URS
Annex AM	PD-Table 4.4 v1.5.xlsx
Annex AN	Civil Rights Act of 1964 (Public Law 88-352, 78 Statute 241)
Annex AO	FSC-US Forest Management Standard v1.0 with FF indicators

Annex AP	Talley, J. L., J. Schneider, and E. Lindquist. 2016. A simplified approach to stakeholder engagement in natural resource management: the Five-Feature Framework. Ecology and Society 21(4):38.
Annex AQ	Americans with Disabilities Act (42 U.S.C. § 12101 et seq.).
Annex AR	Fair Labor Standards Act (29 U.S.C. § 201 et seq.)
Annex AS	Occupational Health and Safety Act (29 U.S.C. § 651 et seq.)
Annex AT	Federal Water Pollution Control Act (33 U.S.C § 1251 et seq.)
Annex AU	Endangered Species Act (16 U.S.C. § 1531 et seq.)
Annex AV	National Environmental Policy Act (42 U.S.C. § 4321 et seq.)
Annex AW	Ecosphere - 2016 - Stephens - US Federal Fire and Forest Policy Emphasizing Resilience in Dry Forests.
Annex AX	Forest Harvests and Wood Products: Sources and Sinks of Atmospheric Carbon Dioxide. Jack K. Winjum, Sandra Brown, and Bernhard Schlamadinger. 1998.
Annex AZ	FVS Model Files
Annex BA	FSC Forest Management Audit Report FSC Full Evaluation FCW 091922
Annex BB	Chestnut Signed License Agreements: - FCW-License-Agreement_Black-River_Signed.pdf - FCW-License-Agreement_Fourche-La-Fave_Signed.pdf - FCW-License-Agreement_Hickls_Signed.pdf - FCW-License-Agreement-Dickson_Signed.pdf - FCW-License-Agreement-El-Ranchos_Signed.pdf - FCW-License-Agreement-Harding-Freed_Signed.pdf - FCW-License-Agreement-Rooks-Ranch_Signed.pdf - FCW-License-Agreement-Saline-Bluff_Signed.pdf
Annex BC	FSC Forest Management Plans: - Black River - Dickson Farm - El Ranchos - Fourche La Fave - Harding Freed - Hickls - Rooks Ranch - Saline Bluff
Annex BD	Chestnut Conserve Project Forester Attestation Signed Ray Galloway Bio.pdf
Annex BE	Chesnut Conserve Treelist v2.18
Annex O	Chestnut Conserve TL v2.18 - No URS
Annex BF	Guidelines for Measurements of Woody Detritus in Forest Ecosystems
Annex BG	QAQC Reference V1.0

Annex BH	PAI Soil Properties for Peat and Organic Matter Identification
Annex BI	U.S. Forest Projects (June 25, 2015)Volume and Biomass Equations for Forest Offset Projects in All States Except Alaska, California, Oregon, and Washington
Annex BJ	The Fire and Fuels Extension to the Forest Vegetation Simulator: Updated Model Documentation Lying Dead Reference Table, USDA FS, pp295-296.png
Annex BK	Chestnut Conserve Lying Dead Quantification by Forest Type Workbook
Annex BL	ARB Compliance Offset Protocol U.S. Forest Projects. Adopted: June 25, 2015.
Annex BM	Kazemian, Sina. (2017). Organic Soils and Peats. 10.1007/978-3-319-12127-7_214-1.
Annex BN	Chestnut Conservation PAIs' Surveys: - Black River Randolph_954_Survey.Pdf - Dickson 40 Acres 2.Pdf - Dickson 160 Acres Survey.Pdf - El Ranchos Survey.Pdf - Fourche La Fave.Pdf - Harding Nw 200 Acres.Pdf - Harding Se 1265 Acres.Pdf - Hickls.Pdf - Rooks Ranch Survey (2).Pdf - Saline Bluff28-8-29-Chestnut Carbon.Pdf
Annex BO	PAI Maps: - PAI_Map.pdf - BlackRiver_Instance_20221216.pdf - ElRanchos_Instance_20221216.pdf - FourcheLaFave_Instance_20230202.pdf - HardingFreed_Dickson_Instances_20221216.pdf - Hickls_Instance_20221216.pdf - RooksRanch_Instance_20221216.pdf - SalineBluff_Instance_20221216.pdf
Annex BP	2006 IPCC Guidelines for National Greenhouse Gas Inventories - Ch4 Forest Land
Annex BQ	Harmon, Mark E.; Woodall, Christopher W.; Fasth, Becky; Sexton, Jay; Yatkov, Misha. 2011. Differences between standing and downed dead tree wood density reduction factors: A comparison across decay classes and tree species. Res. Pap. NRS-15. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 40 p.
Annex BR	Chestnut Conserve Baseline Wood Products v1.2.xlsm
Annex BS	No Public Comments Evidence from Verra.pdf
Annex BT	Project verified PAIs.kml
Annex BU	Chesnut Conserve Harvest Policy
Annex I	SIG data base (shape): - Properties boundaries - Properties land use - Monitoring inventory plots location

Annex II	Project Ownership Evidence - Chestnut Carbon Property Deeds: - Black River Property Deed - Dickson Farm Property Deed - El Ranchos Property Deed - Fourche La Fave Property Deed - Harding Freed Property Deed - Hickls Property Deed - Rooks Ranch Property Deeds - Saline Bluff Property Deed
Annex III	Chestnut Conserve Adaptive Management Plan v1.0
Annex IV	Relevant forestry laws, statutes and other regulatory frameworks in Arkansas and Alabama

2.3. Interviews

AENOR validation and verification team conducted interviews with project proponents and associates regarding the work products provided to the audit team in support of the PD, MR and NPRR; actions undertaken to ensure conformance with various requirements; and project activities as planned and implemented. The following personnel associated with the project proponent and/or implementing partner were interviewed:

Reference	Name	Affiliation	Role	Date(s) Interviewed
Interview #1	Julian Bauer	Forest Carbon Works	Director	28 Feb – 03 March 2023
Interview #2	Alani Worden	Forest Carbon Works	Carbon Analyst - Tree List Workbook	27 February 2023
Interview #3	Forest Swaciak	Forest Carbon Works	Carbon Analyst - Model Unit Creation	27 February 2023
Interview #4	Galen Maennicke	Forest Carbon Works	Carbon Analyst - Model Results Workbook	27 February 2023
Interview #5	Sam Larson	Forest Carbon Works	Carbon Analyst - Ex-Post Accounting Model	27 February 2023
Interview #6	Laura St. Peter	Forest Carbon Works	Verification Manager	27 February 2023
Interview #7	Ana Elisa Davila	Forest Carbon Works	Verification Coordinator	27 February 2023
Interview #8	Sarah Ford	Forest Carbon Works	Chief Forestry Officer	28 Feb – 03 March 2023
Interview #9	Jake	Forest Carbon Works	Southeastern Regional	28 Feb – 03 March

	Blackstock		Forester	2023
Interview #10	Jason Bidwell	DDK (contractor)	Local technician	28 Feb – 03 March 2023
Interview #11	Cory Easley	DDK (contractor)	Local technician	28 Feb – 03 March 2023
Interview #12	Michael Marter	DDK (contractor)	Local technician	28 Feb – 03 March 2023
Interview #13	Joseph Byrnes	Chestnut Carbon, LLC	Vice president	03 March 2023
Interview #14	Ray Galloway	Senior forester	Local technician	13 June 2023

A sample of 25% of the stakeholders was contacted by mail by the VVB, according to the stakeholder list in Annex AK. The stakeholders consulted (16) comprised: National NGOs (2), local NGOs (5), Local Governments (2), Federal Governments with local office (2), University (2), local Landowners (3); considering that some stakeholders may belong to more than one group. Their identification is not indicated in the validation and verification report to preserve your privacy and confidentiality. In any case, no comments of any kind were obtained by the VVB.

It is important to clarify that the PP identified the stakeholders that could potentially be affected in the future at a time of project expansion, but today, with the PAIs that have been included, they may not yet be represented for consultations if at the moment they have no relation to the project and are not affected. On the other hand, AENOR confirmed that given the nature of the project (private properties with private management, where the project activity will be passive -non-intervention- and that does not request any specific permission from the Government, in a context of current PAIs dispersed in a vastly agricultural-cattle ranching landscape) the number of stakeholders is limited. For example, in practice, for the current PAIs, no local policy makers, groups of women or minorities, or third parties with any rights over the project properties that have or potentially could have any affectation by the project have been identified; and this, according to the onsite visit and rest of the interviews is consistent. The list of stakeholders is expected to be constantly updated.

2.4. Site Visits

The objectives of the on-site inspections performed were mainly to cross check the description provided in the PD/MR, particularly:

Reference	Onsite activity
Activity #1	Ensure that the geographic area of the project, as reported in the PD/MR and the accompanying geodatabase base is in conformance with Section 3.11.2 of the

<table>
<tr><td></td><td>VCS Standard. For this, 4 of the 8 current PAIs were visited, where the limits of the properties and land uses and identified strata were reviewed in accordance with the defined carbon accounting areas, being in accordance with what was reported in the PD/MR and the recalculation done by the audit team with the data provided.</td></tr>
<tr><td>Activity #2</td><td>Select samples of data and information for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the project, as required by VCS Standard, including the measurement of at least 5% of the inventory plots. 12 inventory plots were randomly surveyed out of the 90 plots carried out by FCW (13%) which covered the two identified measurement stratum types (native hardwood forest and loblolly pine plantations) in 4 of the 8 current PAIs (5 out of the 9 total measurement strata). In the measurement, no significant difference was obtained with the values used in the verified inventory.

Plots measured (see section 3.4.6 in this report regarding the two-level stratification process):
<table>
<tr><th>PAI</th><th>Plot measured</th><th>Stratum type</th><th>Measurement Stratum</th></tr>
<tr><td>Saline Bluff</td><td>1: 34° 0'57.23"; N 94° 5'50.94"0
2: 34° 0'32.51"; N 94° 4'26.07"0
3: 34° 0'52.19"; N 94° 5'45.40"0</td><td rowspan="6">Native hardwood forest</td><td>1</td></tr>
<tr><td>Hickls</td><td>13: 34°50'40.36"N; 93°44'44.30"0
16: 34°50'40.25"N; 93°44'22.11"0</td><td>3</td></tr>
<tr><td>Harding/Freed</td><td>5: 35° 4'33.71"N; 92°42'28.10"0
6: 35° 5'59.27"N; 92°40'36.87"0
7: 35° 4'38.19"N; 92°41'21.93"0
8: 35° 4'42.35"N; 92°42'35.84"0</td><td>6</td></tr>
<tr><td>El Ranchos</td><td>9: 34° 1'55.56"N; 91°59'12.54"0</td><td>8</td></tr>
<tr><td rowspan="2"></td><td>10: 34° 0'45.98"N; 92° 0'14.00"0</td><td rowspan="2">Loblolly pine plantations</td><td rowspan="2">9</td></tr>
<tr><td>12: 34° 1'34.51"N; 92°</td></tr>
</table>
</td></tr>
</table>

	<table><tr><td></td><td>1'28.46"0</td><td></td><td></td></tr></table>
Activity #3	Observe the PP's evidence and collect and record data in order to assess whether data collection techniques conform to the monitoring plan and related documentation and to evaluate data quality control systems. During the measurement of plots, it was observed that the staff was correctly trained and followed the monitoring procedures reported in the FCW protocol.
Activity #4	Assess the implementation of the project activities reported. However, the only activity implemented in the monitoring period is the conservation of forest areas, confirming that no commercial harvesting activity has been carried out so far, nor has any maintenance activity (clear cuts, patch cuts, seed tree, continuous thinning or group selection practices).
Activity #5	Carry out interview with stakeholders in order to cross check the documentary information provided. Given the nature of the project, the stakeholders involved are limited, so the technical team, the field contractor and the owner were interviewed.
Activity #6	Perform a risk-based review of the project area to ensure that the project conforms to all other requirements of the VCS rules and the methodology.
Activity #7	Walkthrough of project calculations in order to give audit team a chance to follow the process and where to find key information in the documents provided, from the GIS and inventory design and data collection to the final VCUs issued (baseline, removals, emissions, leakage, uncertainty), through the methodology, associated tools and SOPs.

In fulfillment of the above objectives, the audit team performed an on-site inspection of the project area from 28 Feb – 03 March 2023 (4 days x audit team member) observing the project area and vicinity to assess whether conditions are as described in the joint PD/MR.

2.5. Resolution of Findings

All documentation provided by the PP was assessed against the applicable version of the relevant VCS guidance documents listed in section 1.2 of this report. Several clarification requests (CL) and corrective action requests (CAR) were raised and submitted to the PP, which addressed them either by providing to the audit team with the requested information or by making the appropriate corrections. Updated versions of the documentation were submitted by the PP and the audit team reassessed them against the guidance documentation. This process was repeated iteratively until all CL and CAR were fully closed. Specifically, 14 CARs and 13 CLs were raised and properly closed.

All findings issued by the AENOR audit team during the validation process have been closed. In accordance with Section 4.1.13 and 4.1.14 of the VCS Standard, all findings issued during the validation and verification process, and the inputs for their closure, are described in Appendix II of this report.

2.6. Forward Action Requests

No Forward Action Requests were raised to the PP during this process.

3. VALIDATION FINDINGS

3.1. Project Details

3.1.1 Project type, technologies and measures implemented, and eligibility of the project

The audit team has the following conclusions regarding the project type and technologies and measures that constitute the project activities:

- The project falls under Sectoral Scope 14 - Agriculture, Forestry and Other Land Use (AFOLU). The project category is Improved Forest Management, activity is Extended Rotation Age (IFM ERA)
- The project area was previously managed using even-aged harvesting techniques such as clear cuts with no extension of rotation age. The project technologies and measures include extension of rotation age using group selection, patch cuts and continuous thinning to promote uneven-aged management. Thus, the technologies and measures implemented, as described in Section 3 of the PD/MR, are likewise eligible under the VCS Program.
- Discussion regarding the project's eligibility under the VM0003 methodology can be found in Section 3.4.2 below.

The audit team finds that the project meets the eligibility requirements of the VCS Program because it meets the additionality test (as discussed in Section 3.4.5 below) and complies with all applicability conditions of the selected methodology (as discussed in Section 3.4.2 below). The project is not located in a jurisdiction covered by the REDD+ program.

3.1.2 Project design, including eligibility criteria for grouped project

This project is a grouped project that will consist of multiple Project Activity Instances (PAIs) within the geographic area of the contiguous United States and southern Alaska. Addition of PAIs shall meet all eligibility criteria defined in Section 1.4.1 of the PD/MR.

AENOR validated that the eligibility criteria include compliance with methodology applicability conditions, same baseline scenario and additionality proof, among others, as the Methodology VM0003

v1.3 (section 4) and the VCS standard 4.4 (sections 3.6.16 and 3.6.17) requests, therefore that the eligibility conditions defined by the PP for the addition of PAIs are adequate.

The eligibility criteria also include the compliance with the baseline scenario and the project scenario (whose harvesting techniques are defined in VM0003 v1.3 applicability condition #1, assessed in section 3.4.2 of this report), considering the silvicultural system and harvesting techniques as follows:

	Silvicultural system	Harvesting techniques	Means of verification by VVB
Baseline scenario	Even-aged	- Clear cuts - Seed-tree - Shelterwood - Other even-aged techniques	- Compliance with Eligibility criterion 6 (Annex D) – Interview with independent forester and his attestation (Interview #14) - Interview with PP, technical team and local contractor (Interview #1, 8-12). - Onsite visit (Activity #2, 4).
Project scenario	Uneven-aged	- Continuous Thinning - Group Selection - Patch Cuts - Other uneven-aged techniques	- Compliance with Eligibility criterion 5 (Annex D) – Interview with independent forester and his attestation (Interview #14) - Interview with PP, technical team and local contractor (Interview #1, 8-12). - Onsite visit (Activity #2, 4).

It is important to note that, as treatments in the project scenario will be uneven-aged, the concept of 'rotation age' in the project scenario is not applicable, as intermediate treatments serve to delay the rotation age indefinitely. Uneven-age treatments inherently extend the rotation age beyond the lifetime of the project because they are not even-aged rotations. On the other hand, the rotation age in the baseline scenario is not known.

The initial project activity instances are 8 (7 in Arkansas State and 1 in Alabama State, in the United States of America). AENOR verified compliance of these PAIs with the eligibility criteria for grouped project defined by the PP.

3.1.3 Project proponent and other entities involved in the project

The audit team has the following conclusions regarding the project proponent and other entities involved in the project:

- The Project Proponent (PP) is Forest Carbon Works, PBC (FCW) who has been identified in section 1.5 of the PD/MR.

- The only other entity involved in the project is Chestnut Carbon, LLC, the PAIs owner (the ones already within the projects and the ones that will be acquired or leased to get an estimation of 200,000 hectares), who have been identified in section 1.6 of the PD.

The audit team agrees with the identification of FCW as the PP as it is the entity that has been granted control and rights of emission reductions generated through each project activity instance. FCW is tasked with management and oversight of the project activity and has overall control and responsibility for the project. The audit team confirmed this information during interviews #1 and 13#, and revision of the Forest Management Lease Agreement's in Annex D for each of the 8 PAIs included. The audit team finds that contact and entity information provided in the joint PD/MR conforms to the VCS requirements.

3.1.4 Ownership

Carbon rights are owned in fee and the right to claim GHG emissions reductions or removals is assigned to the PP (Forest Carbon Works, PBC), which is also an Eligibility Criterion (2b) to join the Project as a PAI.

AENOR confirmed this through the individual agreements between the PP and property owner (Forest Management Lease Agreements) in Annex D for the 8 current PAIs, as well as the Chestnut Carbon, LLC property deeds in Annex II. AENOR confirmed that the Membership Lease Agreements comply with Section 3.7.1 of the VCS Standard v4.4 by providing "an enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions or removals which vests project ownership in the project proponent", then the ownership was proved.

3.1.5 Project start date

The project start date of an AFOLU project is the date on which activities that led to the generation of GHG emission reductions or removals are implemented. The project start date is 5th July 2022, which corresponds to the date in which the first PAI license agreement by the landowner was signed and then date on which emissions reduction and removals first occurred: the license agreement is legally enforceable and demonstrates divergence from the common practice baseline to the ERA project activity as of its effective date.

AENOR checked with the submitted records (Annex BB: Chestnut Signed License Agreement for PAI Saline Bluff -FCW-License-Agreement-Saline-Bluff_Signed.pdf- signed on July 5th 2022; confirmed also during interviews #1 and 13#) that established date is appropriate and consistent. Then, in opinion of AENOR Project start date is considered reasonable and correct based on the VCS requirements for start date established in Section 3.8 of the VCS Standard v4.4.

3.1.6 Project crediting period

The crediting period of the grouped project is 25 years-long, from 5 July 2022 (Project start date) to 4 July 2047. The crediting period can be renewed as may be allowed under VCS.

According to Section 3.9.3 of the VCS standard v4.4, the crediting period of AFOLU projects will have a minimum of 20 years and a maximum of 100 years. Therefore, the project activity is in line with the length of the crediting period.

In this regard, AENOR can confirm that PP have developed credible and robust plan for managing and implementing the project over the crediting period in compliance with Section 3.9.4 of the VCS Standard, as described in the forest management plans (Annex BC).

3.1.7 Project scale and estimated GHG emission reductions or removals

The project is classified as "project" according to its scale (less than or equal to 300,000 tonnes of CO_2e per year), since it will remove an average of 278,187 tCO_2e per year during the 25 years of crediting period. The ex-ante estimate considers an increase in the PAIs from the initial 648.8 ha to 40,469 ha (corresponding to 100,000 forested acres of a total of 200,000 ha owned) from 2030 onwards.

3.1.8 Project location

The audit team has the following conclusions regarding the project location:

- The project is a grouped project whose potential geographic area encompasses the contiguous United States and southern Alaska, as described in section 1.12 of the PD/MR.
- The current 8 PAIs are located in in Arkansas State (7) and in Alabama State (1). AENOR confirmed its location through the GIS data base provided (Annexes L, BN, BO, I), as well as during the onsite visit (Activity #1). A KML file of the project area has been provided and is also available on the Verra registry (Annex BT).

Thus, AENOR confirms that the Project location complies with requests in section 3.11 of the VCS Standard v4.4.

3.1.9 Conditions prior to project initiation

The audit team has the following conclusions regarding the conditions existing prior to project initiation:

- The audit team confirmed that the baseline land-use conditions prior to project initiation are documented in section 1.13 of the PD/MR and are the same as the baseline conditions, which were confirmed as part of the additionality check described in section 3.4.4 and 3.4.5 of this report.
- The baseline scenario refers to a business-as-usual forestry even-aged management that includes extractive timber harvesting to compensate for decreasing revenues from adjacent agricultural and ranching operations over time due to soil compaction and degradation, in contrast to the project scenario: silvicultural systems with extended rotation ages through the implementation of uneven-aged silviculture of these commercially harvestable forests.
- The audit team confirmed these conditions during interviews with project personnel and document revision (see findings in section 3.4.4 and 3.4.5 of this report).

3.1.10 Project compliance with applicable laws, statutes and other regulatory frameworks

The audit team has the following conclusions regarding the compliance of the project with all applicable laws, statutes, and other regulatory frameworks:

- The project activities, as described in section 1.11 of the PD/MR comply with relevant laws, statues, and other regulatory frameworks in USA and States where the current PAIs are located.
- The audit team confirmed through interviews (#1, #8-13) with project team members, and through the review of the relevant national and local laws described in section 1.14 of the PD/MR that the PP provides sufficient assurance that the project compliances with these applicable laws, statutes and other regulatory frameworks (Annexes AQ, AR, AS, AT, AU, AV).

3.1.11 Participation under other GHG programs

The project only pursues registration under the VCS program. According to the revision of other program registries, it is confirmed the Project does not present any overlap with any other initiative in the territory.

AENOR confirms that the project has not been registered nor is seeking registration under other GHG program, nor has it been rejected by other GHG program, as confirmed through a risk-based internet review in other program registries, interview with PP (Interviews #1 and 13#) and description in PD/MR (section 1.15.1 and 1.15.2).

3.1.12 Other forms of credit and supply chain (Scope 3) emissions

The audit team confirmed that the Project is not currently participating in any emission trading or other binding limit program or mechanism, as confirmed through discussion with project personnel (Interviews #1 and 13#), and review of section 1.16.1 of the PD/MR.

The audit team confirmed that the project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates, as confirmed through discussion with project personnel (Interviews #1 and 13#), and review of section 1.16.2 of the PD/MR.

Chestnut Carbon Conservation Project is enrolled under sectoral scope 14; Agriculture, Forestry and Other Land Use (AFOLU). Inventory emissions are not considered under sectoral scope 14. Thus, no issuance of public statements or email notification proceeds.

3.1.13 Additional information relevant to the project, including:

<u>Leakage management for AFOLU projects</u>

The audit team has the following conclusions regarding the project's leakage management strategy:

- As per the applicability conditions, leakage due to activity shifting is not permitted. No activity-shifting leakage will occur in the project per Eligibility Criteria (2d, 5): it is required all forested lands to be enrolled in the project (checked by the VVB in Annex D: Forest Management Lease

Agreement of each PAI in Sections 6.5, 8.3, and 8.4 and Exhibit A); and it is prohibited harvesting on any forested lands, whether or not enrolled in the project (checked by the VVB with the signature of the legally binding agreement required in the Annex D: Forest Management Lease Agreement of each PAI).

- Market effects leakage are monitored per Section 5.3 of the PD/MR according to VM0003 v1.3 (see sections 3.4.6 and 4.1 in this report).

The audit team concludes that leakages values have been applied appropriately by the project proponent.

Commercially sensitive information

The audit team confirmed through a series of interviews with the PP staff and the revision of the project's commercially sensitive documents that the information disclosed below as commercially sensitive is in conformance with the requirements in VCS Standard v4.4 and VCS Registration and Issuance Process v4.3.

The following list of information was provided to the audit team upon request, and has been excluded from the public access of the PD/MR, although properly provided to the VVB for its assessment:

Annex	Justification for its confidentiality
Annex M. Chestnut VCS Certification Model.xlsx	It contains proprietary financial information. Either way, its conclusions are indicated in the PD/MR.
Annex M. Kimmeridge Carbon Solutions, L.P. and Chestnut Carbon LLC Proof of Funds.pdf	
Annex AD. Conserve PD Additionality NPV 1.1	It contains proprietary financial information. Either way, its conclusions are indicated in the PD/MR.
Annex AE. Chestnut Conserve Monitoring Protocol v2.0	Confidential due to disclosures of proprietary and patent-pending methods. Summary of procedure is provided in Section 6.3 of the PD/MR.

Sustainable development contributions:

The audit team has the following conclusions regarding the project's sustainable development contributions:

- The project proponent has aimed to contribute to the following three SDGs: 6 (Clean Water & Sanitation), 13 (Climate Action), and 15 (Life on Land), related to the following activities: 1) 648.8 ha (with an area to reach 40,469 ha) of forest areas protected by FSC sustainable forest management (evidenced in Annexes BA and BC) regarding FSC certification and in Annexes D and BB) regarding legally-binding long-term agreements), 2) GHG removals due to the implementation of extended rotation age (evidenced in the PD/MR and this report, since it is the main objective).

The PP has demonstrated its contribution to the SDGs, their monitoring and reporting, and their alignment with the achievement of the national SDGs for the USA.

Overall conclusion regarding the description of the project in the PD/MR:

It is considered by AENOR that the project description elements described in the PD/MR are accurate, complete, and provide an understanding of the nature of the project, and they are implemented as described in the PD/MR. Although the project is likely to achieve estimated GHG emission reduction or removals, actual results may vary since the estimates are based on assumptions that are subject to change.

3.2. Participation under Other GHG Programs

Not applicable. The project only pursues registration under the VCS program. According to the revision of other program registries, it is confirmed the Project doesn't present any overlap with any other initiative in the territory.

AENOR confirms that the project has not been registered nor is seeking registration under other GHG program, nor has it been rejected by other GHG program, as confirmed through a risk-based internet review in other program registries, interview with PP (Interviews #1 and 13#) and description in PD/MR (section 1.15.1 and 1.15.2).

3.3. Safeguards

3.3.1 No Net Harm

The PP did not identify potential negative environmental and socio-economic impacts, and then no steps to mitigate them are needed. AENOR verified during the onsite visit:

- Because the project activity limits commercial harvesting and any commercial harvesting requires FSC certification, the project will have positive outcomes for both climate change mitigation. These include increased carbon storage and sequestration, as well as biodiversity impacts through the preservation of key habitats.
- Community-focused project activities are aimed at increasing economic growth in the area while keeping a specific focus on improving the lives of the community members to the extent possible, given the characteristics of the project (private properties with private management, where the project activity will be passive: principle of non-intervention).

Besides the onsite visit, the audit team conducted interviews with the PP, who has already been participating in the project and confirmed that no negative environmental or socioeconomic impacts have been experienced thus far. Either way, if at some point any stakeholder identify any negative impact, FCW has developed a grievance structure should community members have complaints or comments (see Section 3.5 below).

3.3.2 Local Stakeholder Consultation

The audit team obtained the following conclusions regarding the local Stakeholder Consultation in relation to what is required by VCS Standard v4.4 (3.18.3 – 3.18.5):

- The PP has identified the relevant stakeholders for the project. AENOR confirmed that given the nature of the project (private properties with private management, where the project activity will be passive -non-intervention- and that does not request any specific permission from the Government) the number of stakeholders is limited. The list of stakeholders is expected to be constantly updated.
- The PP held a socialization event on 02 December 2022 (verified in Annex AK by the VVB) for stakeholders in Little Rock, Arkansas. A second virtual stakeholder consultation meeting on 2 February 2023 was carried out. Identified stakeholders were invited, including: Local people, communities and/or representatives who are expected to be directly or indirectly affected or may have an interest in the project, stakeholders with land-tenure rights within or adjacent to the project, local policymakers and representatives of local authorities, national government officials, local non-governmental organizations (NGOs) working on topics relevant to the project. AENOR verified that the communication included information about the project design and implementation, risks, costs and benefits, relevant laws and regulations and the process of VCS Program validation. This information is also included on the FCW website (https://forestcarbonworks.org/).
- According to the documentary evidence presented, the comments were positive, and beyond the impacts of the project, they focused on the interest of private owners for their participation. Only two potential negative impacts were reported:

  - The first potential risk to local stakeholders is an increase in property prices and rents for the general public, due to competition and scarcity for land, and value creation by the project. The PP plans to pay no more than market price for land as informed by comparable sales data and avoid concentrating acquisitions in a single area.

  - The second potential risk to local stakeholders is a continued limitation of public land use. The PP is committed to working with public agencies to transfer ownership of lands for permanent public benefit by leveraging Clear Water State Revolving Funds (CWSRF) and public conservation easement programs. Protective and/or conservation easements placed on Chestnut Properties in future monitoring periods following inclusion to the grouped project will be considered a component of the project scenario rather than the baseline scenario.

  A sample of 25% of the stakeholders were contacted by mail by the VVB, however, no comments of any kind were obtained. So, in the opinion of AENOR, the project proponent has taken due account of all and any input, has provided an adequate response, however these comments did not imply changes in the project design.
- The two consultations where carried out in a culturally appropriate manner: in person or remotely and in English, as requested by VCS Standard v4.4 3.18.20.
- The project proponent has established mechanisms for ongoing communication with local stakeholders to allow them to raise concerns about potential negative impacts during project implementation: 1) FCW website (https://forestcarbonworks.org/) allows for comments to be submitted at any time, 2) and this website also includes a formal grievance process. Future

stakeholder meetings are planned to occur at least annually, with different key locations in mind as well as virtual and in-person formats in order to maximize participation.

The audit team concludes, overall, that sufficient and effective stakeholder input was received for the design and development of this project and was taken into account appropriately.

3.3.3 Environmental Impact

An environmental impact assessment is not legally required for the Project. In any case, the PP plans to assess the environmental impact according to small and low intensity managed forest guidance required by the FSC Forest Management Standard v1.0 Indicator 6.1.a (verified by VVB in Annex AO) since the properties are FSC certified. Since the objective is the conservation of the forest area (versus the productive use in the baseline scenario), environmental impacts are not expected. If harvesting is approved for specific PAIs, forest management plans will follow the FSC guidelines, and then mitigation measures would be implemented.

In conclusion, in AENOR's opinion, conservation activities do not have environmental impacts and in the case of forestry activities, these would be sufficiently mitigated by the FSC forest management plan and its annual audit.

3.3.4 Public Comments

The project summary was exposed to public consultation on Verra's website from 07 December 2022 to 06 January 2023. During the period no public comments were received. The audit team reviewed the email sent by Verra to confirm this fact (Annex BS).

3.3.5 AFOLU-Specific Safeguards

The steps taken to assess against the requirements of Sections 3.18.11-3.18.20 of the VCS Standard are as follows:

Element	Element assessment by the VVB
The local stakeholder identification process and the description of results.	The PP has identified the relevant stakeholders for the project (confirmed in Annex AK). AENOR confirmed that given the nature of the project (private properties with private management, where the project activity will be passive -non-intervention- and that does not request any specific permission from the Government) the number of stakeholders is limited. Identified stakeholders include: Local people, communities and/or representatives who are expected to be directly or indirectly affected or may have an interest in the project, stakeholders with land-tenure rights within or adjacent to the project, local policymakers and representatives of local

	authorities, national government officials, local non-governmental organizations (NGOs) working on topics relevant to the project The list of stakeholders is expected to be constantly updated.
Risks to local stakeholders due to project implementation and how the project will mitigate such risks.	Only two potential negative impacts were reported at the socialization events (see section 2.2): 1) the potential of the project to increase property prices and rents, 2) and the continued limitation of public land use. To mitigate these risks, Chestnut Carbon plans to spread the acquisition of properties over the entire United States to avoid concentrating risk to a single community, leverage public access programs, and pay no more than market price for these acquisitions (see section 2.2 above). A sample of 25% of the stakeholders were contacted by mail by the VVB, however, no comments of any kind were obtained.
Risks to local stakeholder resources due to project implementation and how the project will mitigate such risks, including plans to ensure the project will not impact local stakeholders' property rights without the free, prior and informed consent.	The project is only implemented on private properties acquired or leased by FCW, therefore it does not affect the rights of third parties over their properties (neither in possession nor in rights of use) and in this context an FPIC does not apply. Confirmed during the interviews (Interviews #1 and 13#).
Processes to ensure ongoing communication and consultation, including a grievance redress procedure to resolve any conflicts that may arise between the project proponent and local stakeholders.	The PP has established mechanisms for ongoing communication with local stakeholders to allow them to raise concerns about potential negative impacts during project implementation: 1) FCW website (https://forestcarbonworks.org/) allows for comments to be submitted at any time, 2) and this website also includes a formal grievance process, as confirmed by AENOR (https://forestcarbonworks.org/grievence-procedure). The VVB confirmed that the grievance redress procedure complies with 3.18.19 of the VCS Standard v4.4 by considering the steps requested, as well as it considers communications in a culturally appropriate manner, confirmation of the reception of the grievances and PP assessment of its eligibility. Until now, no grievances have been received according to the interviews. Future stakeholder meetings are planned to occur at least

	annually, with different key locations in mind as well as virtual and in-person formats in order to maximize participation, as confirmed with the PP (Interviews #1 and #8).

The audit team concludes, overall, that the project has been designed and, as appropriate, is implementing, plans and processes to ensure the project will not create any negative impacts on local stakeholders or mitigates such impacts where necessary. This conclusion is justified as follows:

- The audit team confirmed during interviews with PP members, that that any potential negative impacts have been identified and communicated to the stakeholders.
- The audit team concludes for any potential risks identified, the project proponent has put in place appropriate prevention and/or mitigation measures. However the negative impacts are only potential, in the future, only under a bigger scale perspective.
- The audit team confirmed that the grievance and redress procedure is in conformance with the VCS requirements of section 3.18.19, and the local stakeholders are aware of it.

3.4. Application of Methodology

3.4.1 Title and Reference

The title and reference of the methodology applied by the project (referred to hereafter as "the methodology") and any tools applied by the project are identified in the table below. The audit team affirms that the methodology and any applied tools, and the specific versions of them applied by the project, were valid at the time of issuance of this validation report.

Methodology/Tool	Reference	Version	Validity at the time of validation
Methodology for Improved Forest Management Through Extension of Rotation Age	VM0003	1.3	Yes, confirmed by VVB.
UNFCCC CDM Tool for the demonstration and assessment of additionality	EB 70	7.0.0	Yes, confirmed by VVB.
AFOLU Non-Permanence Risk Tool 4.0 in VCS	-	4.0	Yes, confirmed by VVB.
Tool for calculation of the number of sample plots for measurements within A/R CDM project activities.	EB 58	02.1.0	Yes, confirmed by VVB.
Tool for testing significance of GHG emissions in A/R CDM project	EB 31	1	Yes, confirmed by VVB.

activities.			

3.4.2 Applicability

The PD/MR states all evidence used to demonstrate each condition of the applicable methodology; where complete explanations are included. The assessment was carried out for each applicability criterion and included, amongst others, the review of evidence and sources provided in the PD/MR and the compliance check of the local project setting with the applicability conditions as follows:

Applicability Condition	Steps taken by the audit team to assess compliance	Conclusion regarding applicability condition
1) Forest management in both baseline and project scenarios involves harvesting techniques such as clear cuts, patch cuts, seed trees, continuous thinning, or group selection practices.	VVB confirmed in Annex AZ and interviews #9-12 that the baseline scenario is even-aged management which requires harvesting techniques such as clear cuts, patch cuts and seed tree, as well as that the project scenario includes techniques such as patch cuts, continuous thinning or group selection practices according to a policy maintained by the PP for an uneven-aged management, according to Annex BC.	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.
2) Forests which are not subject to timber harvesting, or managed without an objective for earning revenue through timber harvesting in the baseline scenario are not eligible under this methodology.	The baseline scenario is timber harvesting as common practice to the region, as confirmed by VVB in Annex A, Annex AZ, amongst others (see section 3.4.5 Additionality in this report), while the baseline not to be unmanaged (but subject to timber harvesting to be comparable to the baseline scenario) is a eligibility criterion (#6).	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.
3) Prior to the first verification event, the project area must meet one of the following conditions:	All included PAIs are subject to an easement (Forest Management Lease	The project (eligibility criteria and current PAIs compliance) meets this applicability

a) Certified by Forest Stewardship Council (FSC); or b) Subject to an easement, or equivalent instrument, recorded against the deed of property that prohibits commercial harvesting for the duration of the crediting period unless later certified by FSC.	Agreement) recorded against the deed of property that prohibits Commercial Harvesting for the duration of the crediting period, as verified by VVB in Annex D and interviews #1, #13.	condition.
4) Project proponents must define the minimum project length in the project description.	VVB verified in Annex D (section 2.3, 2.4) and Interviews #1, #13 that the minimum project length for crediting is 25 years, while is it required PAIs to maintain carbon stocks until expiration of project lifetime, at minimum 60 years.	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.
5) The project does not encompass managed peat forests, and the proportion of wetlands is not expected to change as part of the project.	Annex BH and Annex BM, as well as the onsite visit, showed that the PAIs do not include soil strata that meet the minimum organic matter composition (75%) to comprise peat soils.	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.
6) Project proponents must have a projection of management practices in both with- and without-project scenarios.	A projection of baseline scenario and project scenario including management practices is modeled in Annexes AG, P, AL and AZ as confirmed by VVB.	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.
7) Where fire is used as part of forest management, fire control measures such as installation of firebreaks or back-burning must be taken to ensure fire does not spread outside the project area — that is, no biomass burning is permitted to occur beyond the	VVB confirmed that no fire management that causes any emissions can be used as part of the forest management (Annex D, section 8.6) and according to Annex Q, if fire is used then fire control measures, such as installation	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.

project area due to forest management activities.	of fire-breaks or back-burning, must be taken. Onsite visit by VVB to the current PAIs showed that no fire has taken place as part of the forest management during the project.	
8) There must be no leakage through activity shifting to other lands owned or managed by project proponents outside the boundary of the project area.	VVB confirmed that the project does not generated activity-shifting leakage, since all forested lands of every PAI and of each landowner are enrolled in the project, as requested in Annex D (sections 6.5, 8.3, and 8.4 and Exhibit) and Interview #1 and #13.	The project (eligibility criteria and current PAIs compliance) meets this applicability condition.

The VVB confirmed that the 'CDM Tool for the demonstration and assessment of additionality' and the 'AFOLU Non-Permanence Risk' tool have no applicability conditions relevant to this project. The 'Tool for calculation of the number of sample plots for measurements within A/R CDM project activities' has "no internal applicability conditions". The applicability of the 'Tool for testing significance of GHG emissions in A/R CDM project activities' states that it shall be used in the application of a CDM approved A/R methodology, thus this condition is met.

In opinion of AENOR, the evidence and explanations confirm the fulfillment of the project with the methodology and associated tools.

3.4.3 Project Boundary

Spatial Boundaries

The audit team evaluated the spatial boundaries of the project area based on the procedures outlined in the methodology. The audit team confirmed that the PAIs and spatial boundaries of the project area are included in the area of contiguous United States and southern Alaska, and are accurately depicted in the shape files provided by the project proponent (Annex BO, L) as demonstrated in the maps in section 3.3 of the PD/MR. The audit team confirmed through independent recalculation that the areas in the shape files provided match the areas of the forest analysis units presented in the PD/MR and those utilized in the calculation workbooks (Annex AG, P, AL, AY).

Carbon pools

The steps taken to assess whether each carbon pool has been selected (or not selected) correctly in accordance with the methodology are described below:

Carbon Pool	Included/Excluded	Steps taken by the audit team to assess the element
Above ground biomass, credited	Yes	Checked against Table 1 in methodology to confirm that inclusion 'Above ground tree biomass – credited' is mandatory. All calculations of GHG emissions reductions and emissions include this pool.
Above ground biomass, uncredited reserve stock (URS)	No, however subject to verification	PP justified it as a portion of the major carbon pool which will be subject to the project activity but is conservatively not contributing towards VCU accounting and issuance (see 3.4.7 Methodology deviations). Calculations of GHG emissions reductions and emissions include this pool.
Below ground biomass	Yes	Checked against Table 1 in methodology to confirm that inclusion 'Below ground biomass' is mandatory. All calculations of GHG emissions reductions and emissions include this pool.
Dead wood, Standing, credited	Yes	Checked against Table 1 in methodology, PP elects to include dead wood as long as it represents less than 50% of the total carbon volume on site in any given year. Calculations of GHG emissions reductions and emissions include this pool.
Dead wood, Standing, uncredited reserve stock (URS)	No, however subject to verification	PP justified it as a portion of the standing dead wood pool that will be subject to the project activity but will conservatively not contribute towards VCU accounting and issuance (see 3.4.7 Methodology deviations). Calculations of GHG emissions reductions and emissions include this pool.
Dead wood, Lying	Yes	Checked against Table 1 in methodology, PP elects to include dead wood as long as it represents less than 50% of the total carbon volume on site in any given year. Calculations of GHG emissions reductions and emissions include this pool.
Litter	No	Changes in the litter pool will be de minimis as a result of rotation extension, thus the Table 1 of the methodology requests its exclusion. Calculations of GHG emissions reductions and emissions exclude this pool.
Soil organic carbon	No	Changes in the soil organic carbon pool will be de minimis as a result of rotation extension, thus the Table 1 of the methodology requests its exclusion. Calculations of GHG emissions reductions and emissions exclude this pool.
Wood products	Yes	According to Table 1 of the methodology, this stock may

		increase or decrease relative to the baseline due to implementation of the project activity, then it is included since evidence cannot "be provided that carbon stocks in wood products are rising faster in the project case than in the baseline or are decreasing faster in the baseline than in the project case". Calculations of GHG emissions reductions and emissions exclude this pool.

GHG Sources and Sinks

The audit team confirmed through the review of the Methodology (table 2) that:

- CO2 emissions due to burning of biomass are excluded per Section 5.1 of the VM0003 v1.3 Methodology in the baseline and project scenarios, so not accounting for them is appropriate.
- CH4 emissions due to burning of biomass are included per Section 5.1 of the VM0003 v1.3 Methodology in the baseline and project scenarios, so accounting for them is appropriate.
- N2O emissions due to burning of biomass are excluded per Section 5.1 of the VM0003 v1.3 Methodology in the baseline and project scenarios, so not accounting for them is appropriate.

Above selections are considered in the calculations of GHG emissions reductions and emissions in the spreadsheets.

The audit team concludes, overall, that the project physical boundaries are appropriately specified, and the selected sources, sinks and reservoirs appropriately are justified for the project, as described in detail below.

3.4.4 Baseline Scenario

The identified baseline scenario is justified according to VM0003 Methodology for Improved Forest Management Through Extension of Rotation Age 1.3 section 6.3. The audit team's assessment of the baseline scenario is included in the table below.

Items to be assessed	Steps taken by the audit team to assess the item
Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable.	The audit team conducted interviews with independent forest consulting entity (Interview #14), local contractors (Interviews #10-13) and staff (Interviews #1, 8, 9), reviewed relevant documentation (Annex A, BD, IV, Y, Z), and inspected onsite the project area and surroundings. The land use history has been established as even-aged timber harvesting in order to maximize net present value to the landowner through timber harvests, and including clear cut, patch cut, seed tree, continuous thinning or group selection forest management techniques.

Documentary evidence used in determining the baseline scenario is relevant, and correctly quoted and interpreted in the project description.	The baseline scenario uses common silvicultural practices and rotation ages for the location in which each PAI resides. Rotation ages used within the baseline scenario were determined through consultation with local, practicing foresters, documented in the forester attestation. A listing of the baseline rotation ages applied for each management stratum (modeling unit) was provided. Baseline rotation ages of each management strata were confirmed by referencing FVS files provided with the baseline model and forester attestation. Evidence corroborating that the trees included in the project activity were at risk of harvesting in the baseline scenario is provided via the forester attestation in Annex BD. In conclusion, it was confirmed that the documentary evidence is relevant and interpreted correctly in the PD/MR (Annex A, BD, IV). All PD/MR reporting requirements pertaining baseline scenario have been included.
Relevant national and/or sectoral policies and circumstances have been considered and are listed in the project description.	Confirmed during interviews with independent forest consulting entity (Interview #14), local contractors (Interviews #10-13) and staff (Interviews #1, 8, 9) and an independent review of relevant forestry laws in Arkansas and Alabama (Annex IV), that the baseline scenario of continuation of the pre project activities (even-aged timber harvesting for maximizing net present value) are in-line with relevant national and sectorial policies.
The procedures for identifying the baseline scenario have been correctly followed and the identified scenario reasonably represents what would have occurred in the absence of the project.	As discussed in the table below and section 3.4.5 on additionality, all procedures for identifying the baseline scenario have been correctly followed, according to section 6.3 of the methodology and the additionality tool. The audit team agrees that the procedures were appropriate, and the baseline scenario reasonably represents what would have likely occurred in absence of the project.

The specific steps taken to validate the baseline scenario against each applicable requirement of the methodology are described below.

Section	Steps taken to assess compliance by VVB
Step 1a. Identify credible	The audit team confirmed that the project identified the

alternative forest management scenarios to the proposed VCS project activity	baseline and demonstrated that the project activity is additional by applying the "EB 70 UNFCCC CDM Tool for the demonstration and assessment of additionality v7.0.0". See Section 3.4.5 below. Audit team conducted interviews on site with independent forest consulting entity (Interview #14), local contractors (Interviews #10-13) and staff (Interviews #1, 8, 9), reviewed relevant documentation (Annex A, BD, IV, Y, Z), and inspected onsite the project area and surroundings, to determine land use history and likely scenarios without project activity. Audit team confirmed that the legal and common practice of the project area was for even-aged timber harvesting for maximizing net present value.
Step 1b. Selection of a single baseline forest management scenario	The audit team assessed the four plausible scenarios identified by the project proponent, and has found that the selection of the legal and common baseline scenario (which in this case are identical) is appropriate to this project. The PP demonstrated that even-aged timber harvesting for maximizing net present value is the most plausible scenario, since it complies with legal requests and is the common practice in the region, through: - Interviews with independent forest consulting entity (Interview #14). - Interview with local contractors (Interviews #10-13). - Interview with staff (Interviews #1, 8, 9). - Review of comparable forest management plans (Annex A). - Review of project forester attestation by an independent forest consulting entity (Annex BD), whose resume covers: Senior Forester; Arkansas Licensed Real Estate Broker; Arkansas Registered Forester (consultant forester since 2002); Specialized in: rural real estate sales, forest management, timber thinning and harvest, reforestation, and marketing of timber; B.S., Forest Resource Management, 2002, University of Arkansas at Monticello. - Review relevant forestry laws in Arkansas and Alabama (Annex IV).

	- Documentary review of Arkansas Best Management Practices (Annex Y, by Arkansas Department of Agriculture – Forestry Division) and Alabama's Best Management Practices for Forestry (Annex Z, by Alabama Forestry Commission). - And inspected onsite the project area and surroundings. Thus, in VVB's opinion, evidence is enough according to methodology requests.

3.4.5 Additionality

Overall, the VVB concludes that additionality is justified for the project according to EB70 UNFCCC CDM Tool for the demonstration and assessment of additionality v7.0.0, as VM0003 Methodology for Improved Forest Management Through Extension of Rotation Age 1.3 requests. A summary of steps taken to assess additionality is provided below.

Section	Steps taken to assess compliance
Adherence to regulatory surplus requirements.	The alternatives to the project are legal. The audit team confirmed that the project activity goes above and beyond the alternative scenarios with respect to sequestering CO_2. The audit confirmed through interviews with independent forest consulting entity (Interview #14), local contractors (Interviews #10-13) and staff (Interviews #1, 8, 9), the PD/MR review, and on-site visit that all plausible baseline scenarios could be undertaken within the legal requirements of Arkansas and Alabama States (Annex IV).
The appropriateness of data and parameters used in financial calculations and sensitivity analyses, including those taken from feasibility study reports.	The audit team confirmed the data and analysis presented in the NPV project cash flow analysis regarding the prevalence of forestry operations being much more profitable. The results of the sensitivity analysis show that the proposed project activity is less financially attractive than the baseline scenario of common practice management (Annex AD).
The suitability of the benchmark used for investment analysis.	A financial benchmark analysis is not applicable for this project because the project proponent applied an investment comparison approach.
The credibility of each barrier identified in the barrier analysis.	Barrier analysis is not applied.

The appropriateness of the geographical region used in the common practice analysis.	Through interviews with independent forest consulting entity (Interview #14), local contractors (Interviews #10-13), and on-site visit, the audit team confirms the appropriateness of the geographic region.
Information regarding similar projects identified in the common practice analysis, including essential distinctions between similar projects and the proposed project.	There are no other project activities in the region similar to the project scenario, according to independent forest consulting entity (Interview #14), local contractors (Interviews #10-13), and documentation on best practices in both states (Annex Y, Annex Z).
The reasonableness of assumptions made in the demonstration of additionality.	Interviews with project personnel, stakeholders, and the on-site visit confirmed the assumptions underlying the demonstration of additionality.

3.4.6 Quantification of GHG Emission Reductions and Removals

Quantification of baseline emissions

Procedures for the quantification of baseline emissions and/or removals were taken from Sections 8.2, 8.4, and 8.5 of the VM0003 Methodology v1.3. The following steps were taken:

Quantification of GHG emission reductions and removals, including Parameters at validation		**Steps taken to validate the quantification methods**
ΔC_{BSL}	Baseline net greenhouse gas removals by sinks (t CO2e)	Properly calculated by using Equation 1, as confirmed in Annex AM.
ΔC_{BSLp}	Carbon stock changes in all pools in the baseline scenario (t CO2e)	Properly calculated by using Equation 2, as confirmed in Annex AM.
$\Delta C_{BSLtree}$	Carbon stock changes in above-ground and below-ground biomass of trees in the baseline scenario (t CO2e)	Properly calculated by using Equation 3, as confirmed in Annex AM. It was confirmed by the VVB that the project isn't accounting for ERRs from trees younger than the rotation age because, per VM0003 EQ 3, ERRs are only generated where baseline emissions exceed

		project emissions. The baseline scenario includes removals from the growth in young stands until the time they are harvested in the baseline scenario.
$\Delta C_{BSLAG\|BG,i,100}$	Summed annual net carbon stock change in above-ground and below-ground biomass for stratum i summed over the 100-year modeled baseline (t C)	Quantification of ex-ante onsite carbon stocking was carried out by following the allometric method approach defined in VM0003. The volume and biomass equations and references were sourced from the US Forest Inventory & Analysis (FIA) program, which are also used in both the California Air Resources Board and Climate Action Reserve programs, and are available on both of these programs' websites, in Annex BI. Biomass equations were compiled in proprietary visual basic analysis code (VBA) in Microsoft Excel and data analysis software. Tree species, DBH, height, decay, and region-specific biomass equations were used to calculate carbon estimates in tonnes of CO2 equivalent. Carbon was only calculated for trees above 5 inches at DBH and above. Both the project and baseline ex-ante scenarios utilize the same underlying forest inventory data to forecast, which was realized in 2022 (90 plots randomly located) for the current PAIs. All inventory data underwent QA/QC checks as described (Annex BG). The plot allocation process used the "Calculation of the number of sample plots for measurements within A/R CDM project activities" tool v2.1.0, as confirmed by VVB in Annex G. During the onsite visit a sample of plots were re measured (Activity #2), with no major deviations regarding Annex O and P. The project defined first 9 larger measurement strata designed to increase measuring precision (per VM0003 section 9.3 Sampling Design and Stratification). Using aerial imagery (National Agriculture Imagery Program – NAIP- and other aerial imagery datasets to determine differences in forest structure and species composition) and field visits, each PAI was stratified into relatively homogeneous units for sampling purposes. Due to the homogeneous nature of the forest types of 7 out of the 8 PAIs, 7 consist of 1 stratum each (mixed hardwood), and one PAI contains 2 strata (mixed hardwood and one

even-aged pine plantation), thus 9 measurement strata were identified the project area for inventory purposes; which was crosschecked during the onsite visit (see Activity #2 in section 2.4 of this report). These larger measurement strata, after the field inventory and its processing, were further subdivided into 21 management strata designed to better reflect a combination of management system, site index, species, and age class (per VM0003 section 8.1 Stratification, which requests "further division where differences exist in site index, species and/or age class") to ensure that all areas subject to management within a given year or within years between monitoring events comprise whole, discrete management strata.

The baseline and project model were organized by the 21 management strata, with results rolled up to the 9 measurement strata for ERR accounting. The VM0003 equations for change in carbon pools (e.g. equations 3, 4, 5) are calculated at the management stratum level, then rolled up to the project level (measurement level). In other words, the reason of the two levels of stratification is the relationship between the model for baseline and project (21 management strata) and the ERR report (9 measurement strata), so the two stratifications are not different, but nested depending on the appropriate variables/purpose of stratification. That said, the final stratification is as follows:

Property Name/PAI	Measurement Stratum		Management Stratum
	ID	Stratum type	ID
Saline Bluff	1	Mixed hardwood forest	1 2
Fourche La Fave	2		11 12
Hickls	3		5 6 7 8
Rooks Ranch	4		3 4
Black River	5		19 20 21
Harding/Freed	6		9 10

Dickson	7	17 18
El Ranchos	8	15 16
	9	Even-aged pine plantation	13 14

Then, AENOR determined that the management system (baseline and project management system and rotation age), site index, species (leading specie and species composition), and dominate age class were properly considered by the PP for stratification, excluding harvest constraints area, according to:

- Onsite by visiting 4 out 8 plots, including both identified measurement strata types, and 5 out of the 9 measurement strata (indicated in column 'stratum type' and 'stratum' in Activity #2 in section 2.4), as well as the revision of the GIS database.

- Revision of the calculations (Activity #7 in section 2.4), including the processing of the inventory (Treelist), where AENOR confirmed the parameters considered for the management stratification, following VM0003 requirements. It was supported in documentary evidence (Annex L, I). Last, Annexes X, Y, and Z contain harvest constraints used in this management stratification.

Note that in the PD/MR and also the VVR all references to variable i in the VM0003 equations refer to measurement strata, and all references to "stratum" in all Annex documents refer to measurement strata.

That said, AENOR found that the stratification approach taken by the PP is consistent and complies with the methodology, and that the model (baseline and project) was run for the 21 management strata (as modeling unit) and accumulated for the 9 management strata for the ERR calculation showed in the workbooks provided (Model Results, Harvest Wood Products and Accounting Model).

Forest management of the baseline and project scenarios were modeled over a 100-year period using

		the US Forest Service Forest Vegetation Simulator (FVS) software, which is a forest growth and yield model that allows for region-specific parameterization across the United States. To confirm its accuracy, VVB reproduced the inputs used by the PP again, in order to compare the outputs, using the following steps: 1. As data input, data from the inventory carried out by the PP described in section 5.4 of the PD/MR were used (90 in total, in Annex BE). See Activity #2 and Activity #3, where a sample of plots were cross-checked to compare the results between the inventory measurement and the measurement during the audit. The inventory data (starting point with the forest conditions at the beginning of the project start date) contains as parameters the species, DHB, H, all parameters related to dead Wood, plot area, site conditions, etc., in short, the necessary parameters described in sections 6.1 and 6.2 of the PD/MR. 2. As assumptions, the 100-year simulation scenarios contemplate a baseline scenario with even-aged silvicultural system and one with an un-aged system as objective management: while the first mainly contemplates clear cuts, seed-tree harvest and shelterwood harvest as harvesting techniques, the project scenario contemplates continuous thinning, group selection and patch cuts to maximize the carbon content and a harvest always less than 10% of the carbon stock during any 5-year period. Best management practices in the States of Alabama and Arkansas were also considered (Annex Y and Z), aligned also in the practices reported onsite by the PP technical team, local contractor and independent forester (Interviews #8-12). 3. The models collected in Southern (SN) Variant Overview –which is the corresponding one to the current PAIs- were used to simulate the growth and development of individual trees and stands over time, based on tree growth rates, mortality, competition, and

		response to environmental conditions for the region of the PAIs. 4. The projection of the future forest conditions was obtained by applying the growth and yield models (SN Variant Overview) and factoring in the effects of management actions (baseline scenario and project scenario) to predict changes in estimates of biomass considering the validated pools. After conducting a comprehensive review of the FVS simulation, the VVB assessed the accuracy and reliability of the modeling process, also supported by the PP technical team (Activity #7). The outputs in Annex AZ indicate that the results obtained were based on adequate parameters from inventory and reasonable assumptions, and aligned closely with the outcomes produced by the PP's original FVS simulation. VVB examined the input data, model parameters, and simulation execution and found a high degree of consistency between both results.
ΔC_{BSLDW}	Carbon stock changes in dead wood in the baseline scenario (t CO2e	Properly calculated by using Equation 4, as confirmed in Annex AM.
$\Delta C_{BSLDW,i,100}$	Summed annual net carbon stock change in dead wood for stratum i summed over the 100-year modeled baseline (t C)	Under the VM0003 Methodology, the dead wood pool is broken into two components: standing dead wood and lying dead wood. Below-ground dead wood is conservatively omitted.
$\Delta C_{DW,i,t}$	Annual carbon stock change in dead wood for stratum i averaged over the monitoring period (t C yr-1)	Properly calculated by using Equation 24, as confirmed in Annex AM.
$C_{DW,i,t*}$	Carbon stock of dead wood in stratum i at time t = 1,2 (t C)	The annual change in the dead wood carbon pool for stratum i was calculated as the sum of the lying and standing deadwood components, multiplied by CF_{DW} (IPCC default value = 0.5 (t C t-1 ; correctly inputted in spreadsheet), according to Equation 25, as validated by the VVB in Annex.

$B_{SDW,i,t}$	Biomass of standing dead wood in stratum i at time t (t d.m.)	As required by the VM0003 Methodology, a 10-year linear decay function was applied to standing dead within the FVS baseline model (Annex AZ). After 10 years standing dead is assumed to fall and transition into the lying dead wood pool. It was sampled using a plot method.
$B_{LDW,i,t}$	Biomass of lying dead wood in stratum i at time t (t dam.)	The super section from the California Air Resource Board Protocol for US Forest (June 2015) of each PAI was established and the forest type was determined (validated in Annex BL). Forest types were matched with FIA (Forest Inventory and Analysis Program) forest types listed in The Fire and Fuels Extension to the Forest Vegetation Simulator: Updated Model Documentation, Table 4.16.10, pp.295-296 (2015), from USGS, Forest Management Service Center (crosschecked in Annex BJ). The lying dead wood default biomass values for size classes 3-6, 6-12, and >12 were summed for each forest type associated with a PAI, and then used as lying dead values for the initial year of the baseline model. Following the initial year, lying dead wood was assumed to be equal to the difference between current above ground carbon contained within standing dead and the standing wood values reported in the previous 10-year cycle. Since lying dead was calculated directly from changes in the standing dead wood pool, the same 10-year linear decay function was applied. Default lying dead wood biomass values that were used for each PAI were correctly used for calculations in Annex BK.
ΔC_{BSLWP}	Carbon stock changes in wood products in the baseline scenario (t CO2e)	Properly calculated by using Equation 5, as confirmed in Annex BR.
$\Delta C_{BSLWP,i,t}$	Baseline annual net carbon stock change in wood products for stratum i at time t (t C yr-1)	Properly calculated by using Equation 28, as confirmed in Annex BR.
$\Delta C_{WP,t}$	Carbon stock of wood	To calculate wood products the Winjum et al. Method

	products at time t (t C)	was used (Annex AX).
$EXC_{WP,ty}$	Summed stock of extracted biomass carbon from within the project area for class of wood product ty (t C) defined here as sawnwood, wood-based panels, other industrial roundwood, and paper and paper board	Based on $V_{ex,h,ty,j}$ (Volume of timber extracted from within the project area during harvest h for species j and wood product class ty (m3), using equation 31, as confirmed by VVB in Annex BR.
$C_{Mill,ty}$	Summed stock of carbon remaining in wood products of class ty from within the project area after milling (t C)	To calculate the total carbon in harvested timber that enters the wood products pool based on mill efficiencies and product disposition percentages, based on $EXC_{WP,ty}$ (Summed stock of extracted biomass carbon from within the project area for class of wood product ty (t C)). WW is Wood waste fraction based on mill efficiency. Assumed to be 0.19 as the PAIs exist within a developed country according to the Winjum et al. method. Properly calculated by using Equation 32, as confirmed in Annex BR. WW was correctly inputted.
$C_{WP,ty}$	Total carbon removed from the project area stored in each type, ty, of harvested wood products (t C)	Based on $C_{Mill,ty}$ calculated and considering equation 33: - SLF (Fraction of wood products that will be emitted to the atmosphere within 3 years of timber harvest in tC). - OF (Carbon emitted due to decay or burning of medium-lived wood products calculated for 20 years following each harvest and summed by product type ty and year t). Per the VM0003 Methodology, a default value of 0.62 was used for OF for both sawnwood and paper product classes. Properly calculated by using Equation 33, as confirmed in Annex BR. SLF and OF were correctly identified by PP (Winjum et al. 1998) and inputted in calculation spreadbook.

SLF	Fraction of wood products emitted to the atmosphere within 3 years of timber harvest (t C)	Correctly calculated according to equation 34, as confirmed in Annex BR. Default slp values of 0.12 and 0.24 were used for sawnwood and paper product classes, respectively, according to VM0003 Methodology v1.3. Correctly inputted in the spreadsheet.
MLF	Fraction of wood products that is considered stored for the medium term and will be emitted to the atmosphere each year after harvest for 20 years (t C)	It was properly calculated in Annex BR according to Equation 35 and: - Using equation 36 to calculate the fraction of wood products stored between years 3 and 5 ($MLF_{3,5}$), with a Short-lived proportion for the period (slp_{adj}) of 0.08 (sawnwood) and 0.16 (paper product classes), according to VM0003 v1.3. - Also using equation 37 to calculate the fraction of wood products stored between years 5 and 100 ($MLF_{5,100}$). Both properly inputted in the spreadsheet, as the VBB could confirm in Annex BR.
GHG_{BSLE}	Greenhouse gas emissions as a result of forest management activities within the project area in the baseline scenario (tCO2e)	According to equation 6, Baseline GHG emissions are equivalent to logging slash ($E_{BSL, BiomassBurn,t}$), which in the baseline scenario is excluded according to the methodology, as such, $GHG_{BSL,E}$ was considered as zero. AENOR confirmed that it is a correct interpretation.
URS	Uncredited Reserve Stock	When a PAI is first enrolled to the grouped project, $\Delta C_{BSL,tree}$ and $\Delta C_{BSL,DW,standing}$ were conservatively reduced from the initial carbon stocks (based on inventory data, projected via FVS, Annex AZ) to reflect the nine-percent (9%) portion of initial carbon stocks to be set aside to the URS. This procedure results in baseline depletion rates that were conservatively lower in baseline emissions, resulting in fewer credits as compared to otherwise (see section 3.4.7 in this report). Its proper calculation was confirmed in Annex AG and P.

Ratio of molecular weight of CO2 to carbon (t CO2e t C-1)	$\frac{44}{12}$	Default value
D_j	Basic wood density of species j (t d.m. m-3)	Bibliography value (Winjum et al. 1998). Correctly identified by the PP and inputted in calculation spreadsheet.
D_{DW}	Basic wood density of dead wood in the density class-sound (1), intermediate (2), and rotten (3) (T d.m. ft^{-3})	Bibliography value (Harmon et al. 2011). Correctly identified by the PP and inputted in calculation spreadsheet.
CF_J	Carbon fraction of biomass for tree species j; IPCC default value = 0.5 (t C t-1 d.m.)	Default value. Correctly identified by the PP and inputted in calculation spreadsheet.
$A_{BSL, i}$	Area of baseline stratum, i (Acres)	Calculated by GIS. Crosschecked by AENOR through the shapes (Annex L, I, BO, BN) and onsite (Activity #1). The project area and its strata do not change for ex ante and ex estimations, regardless the scenario.
BEF	Biomass expansion factor for conversion of annual net increment in stem biomass to total above ground tree biomass increment for species j (Dimensionless)	Default values according to VM0003 v1.3. Correctly identified by the PP and inputted in calculation spreadsheet.

Quantification of project emissions

Procedures for the quantification of project emissions and/or removals were taken from Section 8.5 of the VM0003 Methodology v1.3. The following steps were taken:

Quantification of GHG emission reductions and removals, including Parameters at validation		**Steps taken to validate the quantification methods**
ΔC_{ACTUAL}	Actual net greenhouse gas	Properly calculated by using Equation 10, as confirmed in

	removals by sinks (t CO2e)	Annex AL and AY.
ΔC_P	Sum of the changes in above-ground biomass, dead wood and wood products in the project scenario (t CO2e)	Annual change in carbon stock in all selected carbon pools for year t (t C yr-1) multiplied by the ratio of molecular weights of CO2 and carbon (mol mol-1) (44/12), according to equation 11. Properly calculated by using Equation 10, as confirmed in Annex AL and AY.
ΔC_t	Annual change in carbon stock in all selected carbon pools for year t (t C yr-1)	It was properly calculated using Equation 12, as the sum of Annual carbon stock change in above-ground and below-ground biomass, dead wood carbon and wood products carbon for stratum I (t C yr-1). Confirmed in Annex AL and AY.
$\Delta C_{AG,I,t}$	Annual carbon stock change in above-ground biomass of trees for stratum I (t C yr-1)	The allometric equation method was chosen (Equation 19). Tree species, DBH, height, decay, and region-specific biomass equations were used to calculate carbon estimates in tonnes of CO2 equivalent. It was estimated based on field measurements in sample plots, considering the Carbon stock in above-ground biomass of tree and Carbon fraction of biomass for tree species (IPCC default value = 0.5 tC/td.m.). Carbon was only calculated for trees above 5 inches at DBH and above. Both the project and baseline ex-ante scenarios utilize the same underlying forest inventory data to forecast, which was realized in 2022 (90 plots) for the current PAIs (Annex O and P). All inventory data underwent QA/QC checks as described (Annex BG). The plot allocation process used the "Calculation of the number of sample plots for measurements within A/R CDM project activities" tool v2.1.0. During the onsite visit a sample of plots were re measured (Activity #2), with no major deviations. In order to be consistent, baseline scenario and project scenario have the same stratification. As well as in the baseline, the volume and biomass equations and references were sourced from the US Forest Inventory & Analysis (FIA) program, which are also used in both the CAR Board and CAR programs, and are available on both of these programs' as checked and considered appropriate by AENOR. Biomass equations were compiled in proprietary visual basic analysis code (VBA) in Microsoft Excel and data analysis software (checked in Annex AL).

		Within the ex-ante model the two main parameters used were: - Annual Delta C_actual: estimate the project proponent developed for yearly carbon accretion rates in a per acre basis in the southeastern United States, where the current PAIs are located, based on inventories conducted in the region. - Baseline Depletion Rate: developed by the PP to approximate the yearly decrease in baseline stocks from the project starting year. The parameters were only used in the ex-ante accounting model and not within ex-post calculations, since are approximate estimates for ex ante estimation. To calculate total carbon stocks in trees (Equation 21) was used, by taking Carbon stock in above-ground biomass and Carbon stock in below-ground biomass. This was multiplied by the relation of Area of stratum/Total area of all sample plots in stratum (Equation 22), to obtain Carbon stock in trees per stratum. Divided by the Number of years between monitoring time t1 and t2 (Equation 23), it is obtained Annual carbon stock change in above a below-ground biomass of trees for stratum. Proper calculation confirmed in Annex AL and AY.
$\Delta C_{BG,I,t}$	Annual carbon stock change in below-ground biomass of trees for stratum i (t C yr-1)	Calculated as Carbon stock in above-ground biomass of tree multiplied by Root-shoot ratio appropriate for biomass stock of species (0.24 according to 2006 IPCC Guidelines for National Greenhouse Gas Inventories – Ch4 Forest Land), according to Equation 20. This root-to-shoot ratio was used for all strata, including pine plantations. It was correctly inputted in the spreadsheets (Annex O and P).
$\Delta C_{DW,I,t}$	Annual change in the dead wood carbon pool for stratum i (t C yr-1)	Dead wood carbon pools within the project were calculated in the same manner as the baseline.
$\Delta C_{WP,I,t}$	Annual change in the wood	No harvesting took place within the PAIs during the

	products carbon pool for stratum i (t C yr-1)	monitoring period and are not expected neither under the project scenario in general terms, as verified onsite. Then wood products were not calculated for the project scenario (ex ante o ex post). When harvesting does occur carbon stocks contained within wood products will be calculated using the same equations than for the baseline.
$GHG_{PS,E}$	Greenhouse gas emissions as a result of implementation of the proposed IFM project activity within the project area in the project scenario; tCO_2-e	Project GHG emissions are equivalent to Non-CO2 emissions due to biomass burning as part of forest management during the year t in the project scenario; t CO2-e ($E_{PS,\ BiomassBurn,t}$) according to Equation 35. However, no biomass burning will take place within the project area for the duration of the project, then the emissions as a result of the project are zero.
URS	Uncredited Reserve Stock	The project accounts for emissions from the implementation of limited harvesting as allowed by the policies of the PP which include continuous thinning, group selection and patch cuts for the purpose of maintaining forest health. These emissions will be quantified based on measurements of stock change according to the measurement methods required by VM0003 v1.3. Were the total project emissions as a result of harvesting as allowed by policy exceed the quantity of the URS, such excess emissions shall be accounted for in the selected carbon pools and ΔC_t (equation 12). Properly calculated in Annex AL and AY.

Quantification of leakage

Ex-ante Leakage is estimated using VM0003 Methodology Section 8.6.

Quantification of GHG emission reductions and removals, including Parameters at validation		**Steps taken to validate the quantification methods**
LK	Total GHG emissions due to leakage; tCO2e	According to equation 39 in VM0003 v1.3, Leakage is equal to total GHG emissions due to impacts of project on timber supply and demand ($LK_{Market\ Effects}$, tCO2e), it means, equal to market leakage. AENOR confirmed that it is a correct interpretation.
$LK_{Market\ Effects}$	Total GHG emissions due	Using equation 41, was calculated as the difference

	to market- effects leakage through decreased timber harvest; t CO2-e	amongst Actual and Baseline net greenhouse gas removals by sinks, multiplied by Leakage factor for market-effects calculations (LF_{ME}). Properly calculated in Annex AM.
LF_{ME}	Leakage factor for market-effects	It was determined by using forest type default values provided by the VM0003 v1.3 for all PAIs. Within each stratum, the proportion of total biomass in merchantable species (PMP_i) is calculated and compared with the mean proportion of total merchantable biomass for each forest type (PML_{FT}). It was checked by VVB that the merchantable biomass was considered according to the definition in the methodology. After PMP_i and PML_{FT} were confirmed by VVB in Annex O, and compared, the deduction factors (LF_{ME}) determined in the VM0003 v1.3 were used. LF_{ME} was determined to be 0.2 for all PAIs. Properly calculated in Annex AL for ex-ante and ex-post values. Default values were correctly inputted in calculation spreadsheet.

An applicability condition of using the VM0003 v1.3 is that the project will not have any leakage because of activity shifting to lands owned by the project proponent that are outside the project area (Equation 40). This was verified during the onsite visit, since it is an eligibility criteria (#2d), avoiding the leakage by requesting the owner to enroll all its lands. The PP, who is also the owner, does not own any lands, forested or otherwise. This prevents any activity shifting leakage because the project proponent and landowner do not have any unenrolled forested lands to shift harvesting onto.

Uncertainties associated with the calculation of emissions

The determination of sampling error for the purposes of calculating the uncertainty deduction is assessed at the project-level using a 90 percent confidence interval of VM0003 v1.3 (Section 8.7.1). Stratum-level sampling variances are combined to a single project-level sampling variance, weighted by stratum acreage relative to the total project acreage as is standard for stratified samples, following Lohr equation (2014).

For the project and baseline scenarios, the included carbon pools for above ground biomass, below ground biomass, wood products and standing dead wood were all either measured as part of the plot-based inventory sample or were modeled based on input inventory data from the plot-based sample. The %SEM (Standard Error of the Mean, in %) is calculated based on plot-based inventory data, and since these pools were measured as part of the same sample, they have the same %SEM. For the project and baseline scenarios, lying dead wood is estimated as part of the transect-based inventory sample, resulting in a distinct sample from the plot-based inventory. Thus, the Lying deadwood pool %SEM is distinctly estimated using the inventory data collected from the transect-based sample.

The accurate calculation of uncertainty was confirmed by the VVB in Annex AH (Uncertainty calculation v0.2), as well as the interviews with the team in charge of calculations (Interviews #1-5, Activity #7). The correct application of the forest inventory procedures and QA/QC procedures to reduce uncertainty were checked in field Activities #1-3 above described.

Summary of net GHG emission reductions or removals

Quantification methods that used for GHG emission reductions and removals		Steps taken to validate the quantification methods
C_{IFM}	Net anthropogenic greenhouse gas reductions and removals (t CO2e)	Calculated according equation 42, the net anthropogenic GHG removals by sinks is the actual net GHG removals by sinks minus the baseline net GHG removals by sinks minus leakage. Properly calculated in Annex AM.

The table below forecasts the ex-ante GHG removals and reductions over the first crediting period, validated by VVB in spreadsheet Annex AM. Note that the results below assume the continued expansion of project acreage throughout the project crediting period. Therefore, the ex-ante model assumes a total enrollment of 40,000 hectares over the course of the project, since the PP anticipates acquiring or leasing 200,000 hectares but only 40,000 hectares will be forested and enrolled in the Project. For 2022, ex-ante projections considered a Project area of 648.8 hectares (1,603 acres), which is equal to the project area applied for accounting of ex-post GHG emission reductions and/or removals for the year 2022.

Year	Total Cohort Hectares	Estimated baseline emissions or removals (tCO_2e)	Estimated project emissions or removals (tCO_2e)	Estimated leakage emissions (tCO_2e)	Estimated net GHG emission reductions or removals (tCO_2e)
5-Jul-2022 to 31-Dec-2022	648.8	(198)	3,002	640	2,560
2023	5,625	(3,515)	53,350	11,373	45,492
2024	10,603	(6,626)	100,558	21,437	85,747
2025	15,580	(9,737)	147,767	31,501	126,003
2026	20,558	(12,847)	194,976	41,565	166,258
2027	25,536	(15,958)	242,184	51,628	206,514
2028	30,513	(19,069)	289,393	61,692	246,769
2029	35,490	(22,179)	336,602	71,756	287,025
2030	40,469	(25,290)	383,811	81,820	327,280
2031	40,469	(25,290)	383,811	81,820	327,280

2032	40,469	(25,290)	383,811	81,820	327,280
2033	40,469	(25,290)	383,811	81,820	327,280
2034	40,469	(25,290)	383,811	81,820	327,280
2035	40,469	(25,290)	383,811	81,820	327,280
2036	40,469	(25,290)	383,811	81,820	327,280
2037	40,469	(25,290)	383,811	81,820	327,280
2038	40,469	(25,290)	383,811	81,820	327,280
2039	40,469	(25,290)	383,811	81,820	327,280
2040	40,469	(25,290)	383,811	81,820	327,280
2041	40,469	(25,290)	383,811	81,820	327,280
2042	40,469	(25,290)	383,811	81,820	327,280
2043	40,469	(25,290)	383,811	81,820	327,280
2044	40,469	(25,290)	383,811	81,820	327,280
2045	40,469	(25,290)	383,811	81,820	327,280
2046	40,469	(25,290)	383,811	81,820	327,280
01-Jan-2047 to 04-Jul-2047	40,469	(17,352)	263,337	56,138	224,551
Total	40,469	(537,408)	8,155,949	1,738,671	**6,954,685**

Harvesting in PAIs is prohibited without the consent of the PP, according to Eligibility criterion #5, and it maintains a policy that limits the application of harvesting to techniques that promote ERA, as demonstrated in the PAIs forest management plans (confirmed in Annex BC) and harvesting policy (confirmed in Annex BU). Harvesting associated with the project activity shall not meet nor exceed the definition of harvest activity (according to VCS Program Definitions v4.3) meaning that the harvesting of trees or vegetation within each PAI shall not reduce carbon stocks by 20% or more during any 5-year period, unless applies the long-term average (according to VCS Standard v4.4).

However, all future harvesting conducted within the project will be designed to maximize carbon storage and/or improve forest health, and to transition forests to uneven-aged structure. This shift from even-aged to uneven-aged forest management will involves an increase in the average age of standing trees within the forest since the goal of the project is to sequester more carbon than currently exists with the project activity instances. On the other hand, approximately 10% of total carbon in the standing forest is reserved by PP from crediting to provide flexibility for members to engage in climate smart forestry treatments while minimizing the impact on annual payments. This shows that, under the assumptions planned by the PP, the application of the long-term average would not proceed.

The audit team concludes the following with respect to the PD/MR:

Assessment of whether…	Conclusion
All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PD.	The audit team was able to confirm the data and parameter assumptions used in the estimates of baseline emissions, and confirms that the baseline emissions can be replicated using the input data provided for validation with the parameters, and processes described in the PD/MR.
All relevant assumptions and data are listed in the PD/MR, including their references and sources.	The audit team confirms that all relevant assumptions and data as well as their references and relevant sources are documented clearly in the PD/MR.
All data and parameter values used in the PD/MR are considered reasonable in the context of the project.	The audit team has concluded that the values presented in the PD/MR are reasonable in the context of the project. This was concluded after review of the data and parameter values presented in the PD/MR, as well as independent review of documentation, interviews and onsite visit (references above).

Overall Conclusion

In conclusion, the methodology and any referenced tools have been applied correctly to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals during the project crediting period.

3.4.7 Methodology Deviations

The project deviates from the procedures set out in VM0003 v1.3 by applying one methodology deviation:

Description of the deviation #1	The PP propose an alternative method related to the criteria and procedures for monitoring that is more efficient for project-specific circumstance. The Uncredited Reserve Stock (URS) is a division of the above ground biomass and standing dead wood carbon pools. URS represents a small portion of project carbon stocks that are subject to the project activity but will conservatively do not count towards VCU accounting or issuance. The URS is calculated as 9% of the initial carbon stock of all PAIs as quantified at the time of addition of each PAI to the grouped project. Contributions to

	(once upon enrollment into the grouped project) and depletions from, the URS are tracked at the PAI level. The balance of the uncredited reserve stock must be included in all future monitoring reports and the balance shall be within the scope of verification however not a selected pool. The purpose of the URS is to establish a dedicated carbon pool that can be depleted to account for carbon removed from the project boundary due to limited harvesting activities to promote forest health according to the policies of FCW, such as limited continuous thinning, which aim to maintain forest vigor and improve structural characteristics to the benefit of added carbon removal by residual trees over time.
Whether the deviation meets with the criteria and specifications for permitted methodology deviations.	The deviation does not have an impact on the applicability conditions, additionality, or the appropriateness of the baseline scenario; only in the monitoring criteria and procedures. Thus, in opinion of the VVB, the deviation meets with the criteria and specifications for permitted methodology deviations in section 3.19 of VCS standard v4.4.
Whether the deviation negatively impacts the conservativeness of the quantification of GHG emission reductions or removals (except where they result in increased accuracy).	The deviation achieves the same level of accuracy and results and is more conservative than what is set out in the methodology: there is no change in the calculation of uncertainty, as it was confirmed by the VVB in the comparison of both uncertainty scenarios: URS vs. no-URS (Annex BE. Chesnut Conserve Treelist v2.18; Annex O. Chestnut Conserve TL v2.18 - No URS). The conservativeness in ensured since it reduces crediting of emissions in the baseline scenario relative to the outcome where it had not been deducted. The comparison amongst the scenarios with-URS and without-URS in the inventory and ex-ante y ex-post calculations was checked by the VVB in Annex AG, P, AL, AY, which proves the deviation does not result in an overestimation of net GHG emissions reductions or removals and is therefore conservative. The relevant parameters were defined sections 6.1 and 7.2 of the PD/MR. Thus, in opinion of the VVB the deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals.

Thus, in opinion of AENOR, the deviation #1 is acceptable.

3.4.8 Monitoring Plan

The parameters to be monitored are as follows:

Parameter to be monitored	Description (Unit)
Ai	Area of stratum i (Hectares)
Ap	Area of sample plot (Hectares/Acres)
$D_{n,i,t}$	Diameter of piece *n* of dead wood along the transect in stratum *i*, at time *t* (cm)
DBH	Diameter at breast height of tree (4.5 ft.) above 5 inches at DBH and above (cm)
H	Height of tree (m)
L	Length of the transect to determine volume of lying dead wood (cm)
N	Total number of wood pieces intersecting the transect (Dimensionless)
PMP_i	Merchantable biomass as a proportion of total above ground tree biomass for stratum *i* within the project boundaries (%)
T	Number of years between monitoring period time *t2* and *t1 (T = t2 – t1)* (year)
URS	Uncredited Reserve Stock (tCO2e)

A monitoring plan, consistent with the requirements of the methodology, is provided in Section 6.3 of the PD/MR. The audit team took the following steps to validate the suitability of the implemented monitoring system:

- The audit team confirmed during interviews (Interviews #1-9) that the project team has an appropriate level of skill and ability to carry out the monitoring tasks as described.
- Through review of the monitoring protocol (Annex AE), FSC management plans (Annex BC), adaptive management plan (Annex III) and section 6.3 of the PD/MR, the audit team can confirm that monitoring procedures are described with an appropriate degree of certainty. All monitoring procedures are appropriate to the stated task.
- The audit team confirmed that the scope, description, and general requirements of the monitoring plan (Annex AE) are in conformance with the methodology and relevant monitoring modules. It includes all the parameters to be monitored according VM0003 v1.3, including: Source of data, Description of measurement methods and procedures to be applied, Frequency of monitoring/ recording, Value applied, Monitoring equipment, QA/QC procedures to be applied, Calculation method.
- The audit team confirmed through interviews (Interviews #1-9) with the project team that the datasets, field survey, and data management approaches that the project

proposes for monitoring of carbon stock changes are currently available and feasible and will continue to be available through the crediting period.

- Confirmed the ownership through the individual agreements between the PP and property owner (Forest Management Lease Agreements) in Annex D for the 8 current PAIs, as well as the Chestnut Carbon, LLC property deeds in Annex II. AENOR confirmed that the PP has the right to continue to implement, monitor and manage project activities.
- Through review of the PD/MR and interviews with the project proponent the audit team confirmed that a robust QA/QC plan (described parameter in section 6.2 of PD/MR and Annex BG) is in place to ensure quality data is used for monitoring parameters relevant to the project.

After the review of evidence provided by the PP, interviews and onsite visit, AENOR confirms that monitoring arrangements described in the monitoring plan are feasible within the project design and that the means considered for the implementation, including data management, quality and assurance control procedures, are sufficient to ensure that the GHG net anthropogenic removals achieved resulting from the proposed VCS project activity can be reported ex post and verified. Therefore, in opinion of the AENOR team, the PP is able to implement the monitoring plan.

3.5. Non-Permanence Risk Analysis

PP has elaborated VCS Non permanence Risk Report (Annex AI, AJ) for the validation process according to the AFOLU Non-Permanence Risk Tool v4.0. Note that the NPRR includes all current properties, since they are in a reduced area between them, sharing the same risks. Therefore, according to the definition of the AFOLU Non-Permanence Risk Tool 4.0 in VCS, and the requirements related to geographic areas of grouped projects of VCS Standard v4.4, the current properties are under the same 'designated geographic area' in order to apply only one Non Permanence Risk assessment and buffer.

Below, it is explained the assessment and the issues raised on regard the non-permanence risk rating determined by the PP in the report version 2.2.

Risk factor	Risk Rating	Assessment of rationale, assumptions and justification, and quality of documentation and data provided
Project Management: It is assessed using table 1 of the VCS AFOLU Risk Tool.	-4 (total may be less than zero)	a) No planting is planned as part of the project, as checked along the PD/MR and during the onsite visit of the VVB. Risk rating=0 is justified. b) Land tenure is clear, and there are no land use rights disputes or encroachments risks, as checked in property deeds (Annex II), PAIs surveys (Annex BN), GIS data base (Annex I), onsite visit (Activity #1), and interview with owner (Interview #1, #13). Risk rating=0 is justified. c) In accordance with the evidence provided (Interviews #1-9, 13), Management team includes individuals with significant experience in all skills necessary to successfully undertake all project activities. Risk rating=0 is justified.

Risk factor	Risk Rating	Assessment of rationale, assumptions and justification, and quality of documentation and data provided
		d) The PP has HQ in US. Management team maintains permanent presence in the regions, as verified in interviews with staff (Interviews #8-10) and contractors (Interview #10-12). Risk rating=0 is justified. e) Management team of FCW includes individuals with significant experience in forest management and have significant experience in AFOLU project design and implementation, carbon accounting and reporting, as showed during the interviews (Interviews #1-9, 13) Risk rating=-2 is justified. f) There is adaptive management plan in place (Adaptive Management Plan in Annex III and current FSC management plan of each property) that complies with the definition in the NPR. Risk rating=-2 is justified.
Financial viability: It is assessed using table 2 of the VCS AFOLU Risk Tool.	1 (total may not be less than zero)	a) Project cash flow breakeven point is greater than 10 years from the current risk assessment. VVB verified that breakeven at year 44 (Annex M and Interviews #1, 13). Risk rating=3 is justified. b-d) Not applicable, see above. e-g) Not applicable, see below. h) Project has secured 80% or more of funding needed to cover the total cash out required before the project reaches breakeven (verified in Annex M by VVB and Interviews #1, 13). Risk rating=0 is justified. i) Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven (demonstrated in Annex M and Interviews #1, 13). Risk rating=-2 is justified.
Opportunity Cost: It is assessed using table 3 of the VCS AFOLU Risk Tool.	6 (total may be less than zero)	a) NPV from project activities is expected to be 100% more profitable than the most profitable alternative land use activity (checked in Annex AD and interviews with owner –Interview #1, #13 and Senior forester – Interview #14), were baseline activity is modeled over 100% more productive than project activity. The baseline scenario was chosen as the alternative scenario with the highest financial profit, which is intensive harvest. Profits from modeled baseline are 228% higher than the project scenario. Risk rating=8 is justified. b-g) Not applicable. h) Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period, as demonstrated in Annex D

Risk factor	Risk Rating	Assessment of rationale, assumptions and justification, and quality of documentation and data provided
		(section 2) and interview with the owner (Interview #1, 13). All landowners participating in the project shall participate in the agreement that the landowner shall continue forest management practices that protect credited carbon stocks for at least 60 years. Risk rating=-2 is justified. i) Not applicable.
Project Longevity: It is assessed using table 4 of the VCS AFOLU Risk Tool.	0 (total may not be less than zero)	a) Not applicable, see below. b) Without legal agreement or requirement to continue the management practice. All landowners participating in the project shall participate in the agreement that the landowner shall continue forest management practices that protect credited carbon stocks for at least 60 years, which is the project longevity (verified in the signed agreements in Annex D and Interviews #1, 13). Risk rating=0 is justified (30-30/2).
Land Tenure and resources access/impact: It shall be assessed using table 6 of the Risk Tool.	0 (total may not be less than zero)	a) Ownership and resource access/use rights are held by same entity(s)as demonstrated in the signed agreements in Annex D, property deeds in Annex II and Interviews #1, 13. Risk rating=0 is justified (30-30/2). b) Not applicable, see above. c)-d) There are no disputes over land tenure or ownership of the project area in more than 5 % of the project area nor disputes over access/use rights (or overlapping rights), according to the signed agreements in Annex D, property deeds in Annex II, property surveys in Annex BN, and Interviews with owner #1, 13, senior forester (Interview #14) and local contractor (Interview #10-12). Risk rating=0 is justified. e) Not applicable. f) Project area is protected by legally binding commitment to continue management practices that protect carbon stocks over the length of the project crediting period. Landowner participate in the agreement that the landowner shall continue forest management practices that protect credited carbon stocks for at least 60 years, which is the project longevity (verified in the signed agreements in Annex D and Interviews #1, 13). Risk rating=-2 is justified. g) Not applicable. See above.
Community engagement: It shall be assessed using table 7 of the	0 (total may be less than zero)	a) The properties where the project area is located consist of the forested and other uses (reforestation) areas and therefore no one lives in the project area. On the other hand, the communities in the area of influence do not depend on the services or goods of these areas and have no rights over them. Confirmed during the onsite visit.

Risk factor	Risk Rating	Assessment of rationale, assumptions and justification, and quality of documentation and data provided
Risk Tool.		Risk rating=0 is justified. c) Not applicable.
Political Risks: It shall be assessed using table 8 of the Risk Tool.	0 (total may not be less than zero)	a-d) Not applicable, see below. e) USA presents 1.24 according to the World Bank Institute´s Worldwide Governance Indicators. VVB verified the value and reliability of source (World Bank Institute Worldwide Governance Indicators website). Risk rating=0 is justified. f) The country has an established national FSC or PEFC standards body, as checked independently by VVB. Risk rating=-2 is justified.
Fire Risk: It shall be assessed using table 10 of the Risk Tool.	LS*M=2	Significance: Minor. Reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Likelihood: Every 10 to less than 25 years. A conservative choice has been done, according to reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Thus LS= 2 is reasonable. Mitigation (M) measures: No applicable. Then, M=1 is reasonable.
Pest and disease outbreaks: It shall be assessed using table 10 of the Risk tool.	LS*M=5	Significance: Major. Reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Likelihood: Every 10 to less than 25 years. A conservative choice has been done, according to reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Thus LS= 5 is reasonable. Mitigation (M) measures: No applicable. Then, M=1 is reasonable.
Extreme weather: It shall be assessed using table 10 of the Risk tool.	LS*M=5	Significance: Major. Reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Likelihood: Every 10 to less than 25 years. A conservative choice has been done, according to reviewed scientific articles justify the choice and are deemed applicable and reliable, in opinion of the VVB. Thus LS= 5 is reasonable. Mitigation (M) measures: No applicable. Then, M=1 is reasonable.
Geological risks: It shall be assessed using table 10 of the Risk	LS*M=0	No carbon stock losses expected to be cause by geological risks. Is not a risk in the current states included, as verified by VVB. Thus LS= 0 is reasonable. Mitigation (M) measures: No applicable.

Risk factor	Risk Rating	Assessment of rationale, assumptions and justification, and quality of documentation and data provided
Tool.		Then, M=1 is reasonable.

The total final non-permanence risk is 15%. AENOR has checked that information provided in the Non-Permanence Risk Report (Annex AI, AJ and scientific articles linked) is consistent with the support documents provided, and each risk factor was thoroughly assessed for conformance against proper rationale, assumptions and justifications. AENOR deems that information provided is reliable and appropriate. Thus, the overall risk rating is credible and realistic and a 15% buffer was applied.

4. VERIFICATION FINDINGS

4.1. Accuracy of GHG Emission Reduction and Removal Calculations

The GHG emission reductions and/or removals for the verification period have been quantified correctly in accordance with the project description and with the applied methodology VM0003 v1.3.

An identification of the data and parameters used to calculate the GHG emission reductions and/or removals for this verification period, and a description of the steps taken to assess each of them, follows.

Parameter monitored	Assessment of accuracy of GHG emission reductions and removals	Assessment of whether methods/formulae set out in project description have been followed Conclusion regarding appropriateness of default values
Ai	The audit team reviewed the project boundaries in the field (Activity #1), the cartographic information provided (Annex BO, L) and independently recalculated per PAI it through GIS, confirming that it coincides with the data obtained by the PP and the data used in the calculation of GHG reductions (Annex AL, AM).	Methods have been followed adequately. The values are appropriate.
Ap	The audit team confirmed on-site the area of the non-permanent sampling plots (0.008 ha) in the field visit (section 2.4 in this report), the interview with the monitoring team (Interview #9) and it was	Methods have been followed adequately. The values are appropriate.

	verified that it coincides with monitoring procedures (Annex AE) and was correctly used in the inventory calculation (Annex BE and O).	
DBH	A sample of plots was measured in the field (Activity #2) and no significant difference was obtained with the values used in the verified inventory. The monitoring team followed the same field monitoring procedures (Annex AE). The data sample was processed with the same procedures of the PP and independently recalculated inventory values, not obtaining significant variations in the inventory values (Annex BE and O).	Methods have been followed adequately. The values are appropriate.
H		Methods have been followed adequately. The values are appropriate.
PMP_i	The inventory values (Annex BE and O) were recalculated independently by the audit team, that is, with the same procedure as the PP, as indicated in VM0003 v1.3 (section 9.1). Parameters were correctly inputted in ex post calculations (Annex AL, AY). Per VM0003 Section 9.3, ex-post re-stratification is allowed under certain circumstances, including unexpected disturbances or forest management activities. However, during the onsite visit (Activity #2, 4) there was no evidence of any of them, since according to the inspection and confirmed during interviews (Interview #1, #8-12) there were no silvicultural treatments or signs of fires, diseases, etc. during the monitoring period. Thus, no re-stratification of the project was required and ex-post stratification is the same as the ex-ante one, as the PP proposed.	Methods have been followed adequately. The values are appropriate.
T	It was verified that the monitoring period was correctly identified: from the start date of the project to the date of the forest inventory and prior to the start of the audit process, and correctly inputted in ex post calculations (Annex AL, AY).	Methods have been followed adequately. The values are appropriate.
URS	During the field visit it was verified that no commercial harvesting activity has been carried	Methods have been followed adequately.

	out so far, nor has any maintenance activity (clear cuts, patch cuts, seed tree, continuous thinning or group selection practices), also confirmed in interviews with staff (Interviews #1, 8, 9) and contractors (Interviews #10-12). Then the 9% of total carbon stock in living and standing dead trees that was set aside as URS did not change for ex post estimations. On the other hand, given that in the monitoring period there have been no harvesting activities in accordance with the definition of VCS Program Definitions v4.3, and on the other hand, the inventory shows that stocks have grown, the application of the long-term average is not needed, as planned.	The values are appropriate.

Note that the parameters $D_{n,i,t}$,, L and N, related to deadwood monitoring (which increases in the project scenario) were not measured: Lying dead was conservatively not sampled and excluded for this first monitoring period, but is eligible for sampling and crediting during future monitoring periods. AENOR confirmed in section 3.4.8 of this report that system for the monitoring of this parameters are in place and comply with methodology VM0003 v1.3.

In conclusion, the audit team finds that the ex post estimates of the GHG emission reductions and removals have been quantified correctly in accordance with the monitoring plan and applied methodology VM0003 v.1.3, as described for ex ante estimations in section 3.4.6 of this report, for this verification period (5-July-2022 to 31-January-2023). Verified GHG emission reductions in the above verification period are as followed:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation (15%)	VCUs eligible for Issuance
5 July 2022 - 31 December 2022	-167	2,167	466	1,722	258	1,464
1 January 2023 – 31 January 2023	-45	592	127	470	70	400
Total	**-212**	**2,759**	**593**	**2,192**	**328**	**1,864**

4.2. Quality of Evidence to Determine GHG Emission Reductions and Removals

Based on the review of the PD, standard operating procedures, calculation workbooks, supporting documentation, on-site visit, and interviews with the project personnel and local stakeholders, the audit team asserts that the evidence used to determine the GHG reductions and removals for the verification period was of sufficient quantity and appropriate quality. An identification of the categories of evidence used to determine the GHG emission reductions and removals, and a description of the steps taken to assess the sufficiency of quantity, and appropriateness of quality, of each category of evidence, as follows:

Category	Reliability of the evidence, and source and nature of evidence (external or internal, oral or documented) for determination of GHG emission reductions or removals	Information flow from data generation and aggregation, to recording, calculation and final transposition into the MR	Appropriateness of implemented calibration frequency of monitoring equipment
Reporting spreadsheets	The calculations spreadsheets (Annex AG, P, AL, AY, AM, BE, O, AH, BG, BK, BR) were created by FCW staff and the audit team determined, after thorough testing, to be of high quality and highly reliable; quantity of workbooks provided to audit team was sufficient.	The audit team traced, recalculated and confirmed the data contained in the monitoring report from the removals/emission reductions calculation spreadsheets back to their respective sources (Activity #7).	NA. Monitoring plan specifies calibration frequency of monitoring equipment and QA/QC procedures were implemented.
Field Protocols	The field protocols (Annex AE) were reviewed by the audit team, who confirmed that they are based on sound scientific data using best practices and are capable of capturing changes in carbon stock in conformance with the methodology.	The audit team reviewed the field protocols and confirmed that the QA/QC (Annex BG) procedures provide checks and balances to ensure high quality data collection during the site visit, since a sample of plots was measured during the onsite visit (Activity #2) and it was observed the field crew implemented the procedures as established (Activity #3).	NA. Monitoring plan specifies calibration frequency of monitoring equipment and QA/QC procedures were implemented.
GIS Data	All stratification information in spreadsheets and other spatial data	The audit team recalculated and confirmed the total project	NA. Monitoring plan specifies calibration

	(Annex BO, L) was provided to the audit team, who confirmed that the data contained all the necessary information to recreate the processes employed by the project and found the calculations consistent with values stated in the PD/MR report and applied calculations.	area per PAI, as well as the total area of each individual stratum level analysis unit reported in the workbooks (Activity #1).	frequency of monitoring equipment and QA/QC procedures were implemented.

All calculations of greenhouse gas emission reductions and removals were checked by the audit team. No errors were discovered that materially affect the stated GHG reductions/removals of the project during the monitoring period. The methods used to estimate greenhouse gas benefits of the project were consistent with the methodology and the current validated PAIs of the project.

5. VALIDATION AND VERIFICATION OPINION

AENOR performed the validation and the verification of Chestnut Carbon Conservation Project and has verified that the project is in compliance with the Verified Carbon Standard version 4.4 without qualifications or limitations. The validation and verification of the GHG statement was conducted in accordance with ISO 14064-3:2019. GHG statement is the responsibility of Forest Carbon Works, PBC.

The validation and verification process was performed on the basis of all issues and criteria of VCS. The conclusions of this report show that the project, as it was described in the joint project documentation and monitoring report, is in line with all criteria applicable for the validation and verification.

AENOR assessed and confirms that the assumptions, limitations, and methods described in the PDD support the claim about the outcome of the Project activities, and the Project is likely to achieve estimated GHG emission reduction or removals. Either way, ex ante results may vary since the estimates are based on assumptions that are subject to change.

Validated GHG emission reductions and removals in the crediting period 5 July 2022 – 4 July 2047:

Year	Estimated GHG emission reductions or removals (tCO_2e)
2022	2,560
2023	45,492
2024	85,747

2025	126,003
2026	166,258
2027	206,514
2028	246,769
2029	287,025
2030	327,280
2031	327,280
2032	327,280
2033	327,280
2034	327,280
2035	327,280
2036	327,280
2037	327,280
2038	327,280
2039	327,280
2040	327,280
2041	327,280
2042	327,280
2043	327,280
2044	327,280
2045	327,280
2046	327,280
2047	224,551
Total estimated ERs	6,954,685
Total number of crediting years	25
Average annual ERs	278,187

The verification assessment covered the first monitoring period from 5-July-2022 to 31-January-2023 and verified that calculated emission reductions were achieved during the monitoring period with a reasonable level of assurance.

AENOR is able to issue a positive verification opinion for the 2,192 tonnes CO2e as reported in the joint project description and monitoring report for the reporting period above. The overall non-permanence risk rating was 15%. Therefore, the total number of credits to be deposited in the buffer account is 328 VCUs and the total VCUs to be issued are 1,864 VCUs. The level of assurance for this verification is be reasonable with respect to material errors, omissions, and misrepresentations.

Verification period: 5-July-2022 to 31-January-2023

Verified GHG emission reductions in the above verification period:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for Issuance
5 July 2022 - 31 December 2022	-167	2,167	466	1,722	258	1,464
1 January 2023 – 31 January 2023	-45	592	127	470	70	400
Total	**-212**	**2,759**	**593**	**2,192**	**328**	**1,864**

Net change in carbon stocks: 2,192 tCO_2e.

Overall non-permanence risk rating: 15%

VCUs buffer to be deposited: 328 tCO_2e.

Total VCUs to be issued: 1,864 tCO2e.

The difference amongst the estimated ex-ante GHG emission reductions and removals and the achieved emission reductions and removals for this monitoring period were properly justified:

Year	Ex-ante emissions reductions/removals	Achieved emissions reductions/removals	Percent difference	Justification for the difference
5 July 2022 - 31 December 2022	2,560	1,722	-39%	The estimated and current project area enrolled differed.
1 January 2023 – 31 January 2023	437	470	7%	The estimated and current project area enrolled differed.
Total	2,997	2,192	-31%	The estimated and current project area enrolled differed.

				En the short-run the difference will be compensated.

Date: 13 December 2023

Carlos Jiménez
Validation and Verification Leader

APPENDIX: FINDINGS

VCS Corrective action requests (CARs)

NC ID:	**01**	**Date:** 20/03/2023
Description of NC		
PD/MR section 1.1: 1- Please, mention that this is a grouped project. 2- “Estimated average GHG emission reductions are 267,452 tons CO2 equivalent per year, with total reductions over the first project crediting period of 6,953,754 tCO2e”. A) Please, indicate the length of the crediting period and,		

if different, also the project longevity. B) On the other hand, these figures do not match the ones in Table 8 and Table 14 in PD/MR as well as in Annex AM (PD-Table 4.4 v1.3). C) Indicate the potential area considered for the ex ante calculations. 3- Regarding the monitoring period, it is stated “At document submission, the project area is 1,742 acres”. Please, also indicate: A) Nº of PAIs in the monitoring period and its location (State, Country), B) Gross removals, C) NPR %, D) Net removals (VCUs), E) Exact period covered (DD-MM-YYYY). 4- The Table requested by the PD/MR template in section 1.1 is not included. Please, note to fill in two rows: 1 for the validation and 1 for the verification.

Project Participant response	**Date:** 31/03/2023
1- The template instructions ask for a summary description of the project; there was no mention of the grouped nature of the project prior to finding, added statement declaring that this project is grouped in section 1.1. 2- The template instructions do not ask for the length of the crediting period in section 1.1 but does ask for an estimate of annual average & total GHG emission reduction and removals. Crediting period length added to this section for clarity. Values updated to match those in the Annex AM. Project longevity added with reference to EC 2e, which states that carbon stocks shall be protected by a legally enforceable agreement for at least 60 years with signature of Annex D. 3-Added number of PAIs, PAI locations, gross removals, NPR, VCUs, and the monitoring period covered added per auditor request that Verra will require these figures 4- There is no table included in section 1.1 in Joint Project Description and Monitoring Report Template v4.1, table included to reflect template v4.2 of the Joint Project Description and Monitoring Report Template with one row for validation and one for verification	

Documentation provided by the Project Participant
Chestnut Conservation Project Joint PD-MIR Section 1.1 Annex AM

VVB Assessment	**Date:** 21/04/2023
1. Closed. Information included. 2. Not closed. Regarding B) The figures of the ex ante removals do not match the rest of the sections of the PD/MR and its Annexes (see findings in NC 03 below). 3. Not closed**.** Regarding B) and D), figures of the ex post removals do not match the rest of the sections of the PD/MR and its Annexes (see findings in NC 03 below). 4. Not closed. The table is not properly filled: Period and number of years are not correct (time begins since the project start date, not validation date), also the end of the period is missing (accreditation period and end of the monitoring period). Number of years is also incorrect (25 for accreditation period and X years for the monitoring period).	

Project Participant response	**Date:** 28/04/2023
2 – updated values in Section 1.1 to match Section 1.10 and Annex AM. “In Text References” tab of Annex AL provides context for these values. 3 – updated values in Section 1.1 to match Accounting Model (annex AL) outputs and section 7 of PD/MR. “In Text References” tab of Annex AL provides context for these values 4 - Table updated in Section 1.1 to reflect 25 year crediting period and 0.8 year monitoring period with start and end dates of each	
Documentation provided by the Project Participant	
Chestnut Conservation Project Joint PD-MIR v1.4 Annex AM – PD-Table 4.4 v1.4 Annex AL – VM0003 Ex-Post Accounting Model v0.20	
VVB Assessment	**Date:** 05/05/2023
2. **Closed.** Ex ante removal were corrected. 3. **Not closed.** Net removals (VCUs) are not properly calculated (see NC 13 below). 4. **Not closed.** First row is for validation and crediting info (then monitoring period does not apply). Second row is for verification and monitoring info (then crediting period does not apply. On the other hand, the proper version of the template is 4.2 (4.1).	
Project Participant response	**Date:** 11/05/2023
3. From NC13: Per VCS AFOLU Non-Permanence Risk Tool 2.5.4, “...the overall risk rating... shall be multiplied by the net change in the project’s carbon stocks.” BRR has been recalculated using the net change in the project’s carbon stocks, rather than the gross, and impacted annexes, tables and text have been updated accordingly. 4. Updated table to meet instructions: first row no longer has monitoring period information; second row no longer has crediting period information. Monitoring period is 5 July 2022 – 31 January 2023, where crediting period is 5 July 2022 – 4 July 2047. Information was moved to template version 4.2.	
Documentation provided by the Project Participant	
Chestnut Conserve Joint PD/MR v1.5 Annex AL - VM0003 Ex-Post Accounting Model v0.23	
VVB Assessment	**Date:** 17/05/2023
3. Closed. Ex post values were corrected according to Annex AL.	

4. Closed. Table was corrected according to template request.

NC ID:	**02**	**Date:** 20/03/2023
Description of NC		

PD/MR 1.4.1 Eligibility Criteria

Table 3:

According to VCS standard 4.4, 3.6.16, "*a set of eligibility criteria shall ensure that new project activity instances:*

1) Meet the applicability conditions set out in the methodology applied to the project." However, not all the applicability conditions of the methodology (section 4) are requested as an eligible criterion, such as:

> "*The conditions under which the methodology is applicable are:*
>
> *- Forest management in both baseline and projects cases that involves harvesting techniques such as clear cuts, patch cuts, seed tree, continuous thinning or group selection practices.*
>
> *- Forests which are unmanaged, or managed by individual tree selection, in the baseline case are not eligible under this methodology*.
>
> *- Project proponents must define the minimum project length in their project description document.*
>
> *- If fire is used as part of forest management then fire control measures, such as installation of fire-breaks or back-burning, shall be taken to ensure fire does not spread outside the project area—that is, no biomass burning shall be permitted to occur beyond the project area due to forest management activities.* (In case fire is not used as part of forest management, please, clarify it as an Eligible criterion).

"*4) Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.*

5) Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area." (VCS standard 4.4, 3.6.16). Please, clarify in the PD/MR text how this is addressed in Eligible criteria #6 (section 1.4.1 PD/MR).

If the set of Eligible criteria (1.4.1 PD/MR) is updated, please, update Table 4 accordingly.

Table 4:

- EC#2 states "Fulfilled by adherence to VSC Standard, Section 3.18.4, see Annex I, and Section 1.7: Ownership of Joint PD-MIR." It is not clear how this complies with all the requests set in Table 3 Eligible criteria #2: section 3.18.4 of which standard? Annex I o Appendix? What's the relation amongst Ownership and all the requests of EC#2? Where is the agreement requested?

- EC#5. Please, reference the specific agreement in which the request of Eligible criterion #6 is addressed.

- EC#6. The reference to section 1.11 does not address specifically and impartially the request of the Eligible criterion #6.

- EC#7. Please, reference the conservation easement in which the request of Eligible criterion #7 is addressed.

Project Participant response	**Date:** 31/03/2023

Table 3

1) Per the VCS standard v4.4 section 3.6.16, the eligibility criteria shall ensure that new project instances meet all applicability criteria listed; Section 3.2 "Applicability of Methodology" Table 10 of the PD/MIR lists all Applicability Conditions and details how they are all met by Eligibility Criteria listed in 1.4.1. All ECs relate to an applicability condition and meet it while shaping the eligibility criteria of this specific project.

"Forest management in both baseline and projects cases that involves harvesting techniques such as clear cuts, patch cuts, seed tree, continuous thinning or group selection practices."

EC 3 and EC 6 updated to reflect the above applicability condition; specific harvesting techniques allowed by the methodology in "Applicability Conditions", Section 4 of VM0003, in both baseline and project scenarios are now listed. EC 3 constrains models for the project and baseline scenarios to the applicability condition while EC 6 therefore requires the baseline scenario to conform to model and thus the applicability condition.

"Forests which are unmanaged, or managed by individual tree selection, in the baseline case are not eligible under this methodology"

EC 3 updated to reflect the above applicability condition; specific harvesting techniques listed in Section 4 of the VM0003 and allowed by the methodology in both baseline and project scenarios are now listed.

"Project proponents must define the minimum project length in their project description document."

This applicability condition is met with the writing of this PD/MIR in section 1.1 with definition of the crediting period as 25 years and the EC 2e that states in Annex D that carbon stocks shall be protected for at least 60 years, resulting in a project length of at least 60 years. Table 10, Section 3.2, "Applicability of Methodology" was also updated to refer to this 60 year project length, thus meeting the applicability condition for project length.

If fire is used as part of forest management then fire control measures, such as installation of fire-breaks or back-burning, shall be taken to ensure fire does not spread outside the project area—that is, no biomass burning shall be permitted to occur beyond the project area due to forest management activities. -Added new eligibility criterion 2i to describe using fire as a management tool and that if used it shall comply with the VCS Standard, per a FCW policy to be applied to all new PAIs to be added to the project and further detailed in Annex D, the legally binding agreement that states the landowner shall not allow for intentional reversal (emissions from willful intent of fire in management) or harm to the forestland by fire or other means. Refer to Annex Q, the internal FCW policy that states that if fire is used as a management tool, measures shall be taken to prevent fire from spreading outside the project area.

"*4) Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.*

Eligibility criteria 6 requires all PAIs in the project to have a baseline scenario that is common practice to the region; Annex A defines these common practice scenarios with example forest management plans. Each new PAI shall have an accompanying management plan added to Annex A that manages for similar forest types and is in the same region with the same harvest regulations as new PAIs.

5) Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area." (VCS standard 4.4, 3.6.16). Please, clarify in the PD/MR text how this is addressed in Eligible criteria #6 (section 1.4.1 PD/MR).

Eligibility criteria 6 requires all PAIs in the project to have a baseline scenario that is common practice to the region; Annex A defines these common practice scenarios with example forest management plans. Each new PAI shall have an accompanying management plan added to Annex A that manages for similar forest types and is in the same region with the same harvest regulations as new PAIs. If the baseline scenario is common practice to the region, the project shall be additional, per the CDM Additionality Tool v7.0. The initial instances demonstrate that the common practice to the region (Annex A) is the baseline scenario by meeting Eligibility Criterion 6, and all new PAIs shall meet all eligibility criteria, thus point 5 above shall be met.

Table 4

- EC#2, Incorrect reference in prior version of the PD/MIR. The text has been clarified to show that Annex D contains the signed Chestnut MLAs which contain the legal agreement that meets all points of EC 2.

- EC#5, the text has been updated to indicate the correct Annex, Annex D, is being referenced to define harvesting restriction requirements to techniques that promote uneven-aged management and extension of rotation age. Each PAI has an agreement signed by each landowner, specified in Table 4.

- EC#6, Annex A contains comparable harvest regimes for the region and demonstrates the selection of baseline scenario as appropriate. Text updated to refer to Annex A, comparable timber harvest plans for the region of the project instances. Baseline Scenario, Section 3.4, is also referenced for details on selection of the baseline scenario.

- EC#7 requires that all new PAIs shall meet ONE of the following conditions: be FSC certified OR be subject to an easement that prohibits commercial harvesting until FSC certification. FCW maintains a FSC certification for all instances of this project as stated in section 1.1, and if any new PAIs are to be added to the project, compliance with EC7 provides protective measures per the signed agreement (Annex D) prohibiting commercial harvesting until FSC certification of the PAI.

Documentation provided by the Project Participant	
Annex D, Annex A, PD/MIR, Annex Q	
VVB Assessment	**Date:** 21/04/2023
Closed. PAIs' eligibility criteria and their compliance for the verified PAIs have been updated to address the requests.	

NC ID:	03	Date: 20/03/2023
Description of NC		
PD/MR 1.10 Project Scale and Estimated GHG Emission Reductions or Removals Figures in Table 8 do not match figures in Annex AM 'PD-Table 4.4 v1.3'.		
Project Participant response		**Date:** 21/03/2023
The values contained in Table 8 have been updated and are now consistent with 'PD-Table 4.4 v1.3' in Annex AM		
Documentation provided by the Project Participant		
Chestnut Conservation Project Joint PD-MIR		
VVB Assessment		**Date:** 21/04/2023

Not closed. Figures regarding gross and net (VCUs) removals are not yet aligned along the **PD/MR** and **annexes**, for **ex ante and ex post** estimations. Eg.:

- Section 1.1: "Estimated average GHG emission reductions are **267,454** tons CO2 equivalent per year, with total reductions over the first 25-year project crediting period of **6,953,821** tCO2e. (…) Net removals for this monitoring period are **2470** tCO2e, with gross removals of **2149** VCUs. The non-permanence risk rating of the project at time of writing is 15%."

- Table 8:

Total estimated ERs	6,953,754
Total number of crediting years	25
Average annual ERs	267,452

- Table 14:

Total	40,469	(537,336)	8,154,857	1,738,439	6,953,754

- Annex AM (PD-Table 4.4 v1.3).

27	2047	224,551
28	**Total estimated Ers**	**6,953,754**
29	**Total number of crediting years**	**25**
30	**Average annual Ers**	**278,150**
31		

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for issuance
2022	*-408*	*2,030*	*487*	*1,798*	*292*	*1,506*
2023	*-111*	*540*	*130*	*480*	*78*	*402*
2024				***2,279***	***371***	***1,908***
2025						

- Table 18

Total	-519	2,569	618	2,279	371	1,908

- Annex AI (ChestnutConserve_Non-Permanence-Risk-Report v2.0_trackedChanges)

4.2 Calculation of Total VCUs

Year	Net GHG emission reductions or removals (tCO_2e)	Buffer Risk Rating (%)	VCUs eligible for Issuance
5 July 2022 – 31 December 2022	1,798	15	1,528
1 January 2023 - 31 January 2023	480	15	408
Total	2,279	15	1,936

Amongst other mentions in the PD/MR.

Project Participant response	**Date:** 28/04/2023

Tables and text within the PD/MR related to gross and net VCUs have been refreshed with new, and aligned, values. Additionally, new workbooks and documents used in the calculation of VCUs, that are aligned with in-text values and tables, have also been re-submitted.

Documentation provided by the Project Participant

Chestnut Conservation Project Joint PD-MIR v1.4

Annex AI - ChestnutConserve_Non-Permanence-Risk-Report v2.0_trackedChanges.docx

Annex AJ - Chestnut Conserve Risk-Report-Calculation-Tool-v2.1.xls

Annex AL - VM0003 Ex-Post Accounting Model v0.20.xlsm

Annex AM - PD-Table 4.4 v1.4.xlsx

VVB Assessment	**Date:** 05/05/2023

Not closed. Ex ante values were updated, however:

1- Section 1.1, Table 18, NPR report amongst other (Table 20 and onwards). VCUs values are not properly calculated (see NC 13 below).

2- Table 19. The comparison is against the Net GHG removals (not the VCUs issued).	
Project Participant response	**Date:** 11/05/2023
1- *From NC13: Per VCS AFOLU Non-Permanence Risk Tool 2.5.4, "...the overall risk rating... shall be multiplied by the net change in the project's carbon stocks."* BRR has been recalculated using the net change in the project's carbon stocks, rather than the gross, and all tables and text have been updated accordingly. *2-* Table 19 has been updated so "Achieved emissions reductions/removals" corresponds with Net GHG removals, rather than VCUs issued.	
Documentation provided by the Project Participant	
Chestnut Conserve Joint PD/MR v1.5 Annex AL - VM0003 Ex-Post Accounting Model v0.23	
VVB Assessment	**Date:** 17/05/2023
1. Closed. Ex post values were updated along the PD/MR. **2. Closed.** Comparison amongst ex ante removals and ex post was corrected.	

NC ID:	**04**	**Date:** 20/03/2023
Description of NC		
PD/MR 2.5 AFOLU-Specific Safeguards Please, provide specific information (o refer to the applicable section that contains the info within the PD/MR) regarding: 1- Local stakeholder identification process and a description of results. You can **reference the applicable section, since it is already explained in section PD/MR 2.2.** 2- Risks to local stakeholders due to project implementation and **how the project will mitigate such risks**. - Risks to local stakeholder resources due to project implementation **and how the project will mitigate such risks, including the plans to ensure the project will not impact local stakeholder's property rights** without the free, prior and informed consent. 3- Processes to ensure ongoing communication and consultation with local stakeholders, including a grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders. **This is included, but please, reference the results of the mechanism during the monitoring period.**		

4- For AFOLU projects with no impacts on local stakeholders, provide evidence of such. **If it proceeds.**

Project Participant response	**Date:** 31/03/2023

Section 2.5 of the PD/MR template requires information on the following:

- Local stakeholder identification process and a description of results.
- Risks to local stakeholders due to project implementation and how the project will mitigate such risks.
- Risks to local stakeholder resources due to project implementation and how the project will mitigate such risks, including the plans to ensure the project will not impact local stakeholder's property rights without the free, prior and informed consent.
- Processes to ensure ongoing communication and consultation with local stakeholders, including a grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders.

1. *A reference to section 2.2 has now been added.*
2. *Additional language has now been added discussing the potential risks to local stakeholders due to project implementation and how the project will mitigate such risks.*
3. *Additional language has now been added referenceing the results of the grievance redress mechanism.*
4. *Impacts on local stakeholders have been described. Not applicable.*

Documentation provided by the Project Participant
Chestnut Conservation Project Joint PD-MIR

VVB Assessment	**Date:** 21/04/2023
Closed. The information requested has been included and deemed accurate.	

NC ID:	**05**	**Date:** 20/03/2023
Description of NC		

PD/MR 3.2 Applicability of Methodology

1- Instead of reference the Eligibility criterion; please state **how** the current monitored 8 PAIs comply with each applicability condition.

2- Applicability condition #4. "The minimum project length is 25 years, as stated in section 1.9". Note that the crediting period can be 25 years, however the minimum longevity in AFOLU projects is 30 years (as per NPR Tool).

3- Regarding 'Calculation of the number of sample plots for measurements within A/R CDM project' tool, note that the last version is 2.1.0.

4- Applicability conditions of the tools (when they have) are missing in this section.

Project Participant response	**Date:** 31/03/2023
1- Applicability Conditions listed in VM0003 are all met with adherence to Eligibility Criteria as listed in Section 1.4.1; each Applicability Condition is built in to each EC as described in Table 10 and how each Applicability Condition is met by each PAI's adherence to the ECs of the project.Table 4 describes how each PAI meets each EC, and Table 10 describes how each EC meets each Applicability Condition, thus all 8 PAIs comply with all Applicability Conditions *2- Added reference to Annex D and EC 2e to meet minimum project length requirement of 30 years. 2e requires IFM project activity to occur for 60 years at minimum, further supported Annex D which requires carbon project activity for at least 60 years.* *3- Title of tool corrected* *4- The tools applied by the project are specified in section 3.1; the template states to demonstrate and justify all "tools (where applicable) applied by the project" - all tools listed in Section 3.1 are listed in VM0003. Text added at the top of section 3.2 stating this. The CDM Tool for the demonstration and assessment of additionality v7.0.0 (Annex R) and the AFOLU Non-Permanence Risk tool (Annex E) have no applicability conditions relevant to this project. The A/R Methodological Tool Calculation of the number of sample plots for measurements within A/R CDM project activities has "no internal applicability conditions." The applicability of the Tool for testing significance of GHG emissions in A/R CDM project activities" (Version 01) states that it shall be used in the application of a CDM approved A/R methodology, thus this condition is met. That there are no applicability conditions relevant to the project and all tools used are listed in the methodology, no tool applicability conditions are listed in section 3.1 of the PD/MR.*	
Documentation provided by the Project Participant	
Chestnut Conservation Project Joint PD-MIR, Annex D, Annex R, Annex E,	
VVB Assessment	**Date:** 21/04/2023
1. Closed. It is clarified in Table 10 that the compliance with methodology applicability conditions is described in Table 4. 2. Closed. Language has been added to clarify the request. 3. Closed. Tool version has been corrected. 4. Closed. Clarification regarding the absence of methodology applicability conditions for the tools has been added.	

NC ID:	**06**	**Date:** 20/03/2023
Description of NC		
PD/MR 3.3 Project Boundary		

Regarding the physical boundaries, during the site visit it was noted that the following areas were not eligible:

- PAI Harding/Freed (different property):

- PAI El Ranchos (non-forested areas due to recent harvest prior to the monitoring period):

Thus:

1- Update maps in PD/MR and GIS database.

2- Update project area along the calculations (note that one monitoring plot was done in the excluded area of Harding/Freed).

Project Participant response	**Date:** 31/03/2023

1 - Harding/Freed and El Ranchos PAI maps have been updated and replaced within section 3.3 of the PDD. Copies of updated PDF maps as well as a zipped folder containing updated PAIs and excluded area shapefiles can be found within Annex L.

2 – PAI hectarage/acreage values listed within sections 1.1, 1.4, 1.17.2, 6.1, 6.2 & 7.1 of the PDD have been updated to reflect the newly excluded areas. The boundary revisions resulted in 1 monitoring plot to be excluded from the Harding/Freed instance and 3 plots from the El Ranchos instance, totaling 4 plots being excluded from analysis. All carbon quantifications and parameters within section 7 have been updated to reflect the absence of these plot data as well as the change in hectarage/acreage.

Documentation provided by the Project Participant

- Chestnut Conservation Project Joint PD-MIR
- Annex L - Shapefiles (CCA_AreasExcluded.shp, CCA_PAIs.shp),
- Annex L – Maps (ElRanchos_Instance_20230330, HardingFreedDickson_Instances_20230330)

- Annex BR - Chestnut Conserve Baseline Wood Products v1.0
- Annex AG - Chestnut Conserve Model Results v1.3
- Annex AZ – FVS files

VVB Assessment	**Date:** 21/04/2023

Not closed:

~~1-~~ Note that in clean version of the PD/MR section 3.3 the old maps have not been deleted.

~~2-~~ Section 5.4 of PD/MR. “An inventory of 15 randomly allocated plots was conducted for the Fourche La Fave instance, 14 randomly allocated plots for the Rooks Ranch instance, and 13 randomly allocated plots for the Black River instance. An inventory of 12 randomly allocated plots was conducted for the Saline Bluff, Hickls, and Harding/Freed instances. An inventory of 11 randomly allocated plots was conducted for the El Ranchos instance and 5 randomly allocated plots for the Dickson instance. A total of 94 plots were collected and included in the project”. Number of plots are not updated.

~~3-~~ Annexes L. ElRanchos_Instance_20230330.pdf and L. HardingFreedDickson_Instances_20230330.pdf are not updated with the exclusions.

4- In section 1 it is stated “At document submission, the project area is 648.8 hectares (1603 acres)”. However, according to Annex AL. VM0003 Ex-Post Accounting Model v0.18, tab MP1 – 2022 it is 1,661 acres.

5- In table 2, Harding/Freed is 58.5 ha (equivalent to 144.5 acre). However in Annex AL. VM0003 Ex-Post Accounting Model v0.18, tab MP1 – 2022 it is 203 acre.

6- Section 1.17.2 indicates 648.8 hectares (1,603 acres). However in Annex AL. VM0003 Ex-Post Accounting Model v0.18, tab MP1 – 2022 it is 1,661 acre.

7. It seems that in the update of the section 7 some figures were missed: Table 15 (ΔC_BSL,tree), Table 16 (ΔC,t; the unit), Table 17 (LK, LKMarketEffects).

Etc. Please, review all applicable sections in the texts of the PD/MR, crosscheck and align.

Project Participant response	**Date:** 25/04/2023

1. The old Harding/Freed and El Ranchos PAI maps have been deleted within section 3.3 of the PD/MR. The PAI maps now accurately depict the most up-to-date version of the instances. Additional copies of these maps can be found in Annex L.

2. Within section 5.4 of the PD/MR, the language, instance level plot numbers and total plot numbers have been updated to reflect the dropped plots due to boundary exclusions.

3. The PAI maps in Annex L now contain the updated PAI maps reflecting the recent exclusions.

4,5,6.

Annex AL. VM0003 ex-post accounting model v0.20 has been updated to reflect the area values listed in section 1 (648.8 hectares (1603 acres)), table 2 (Harding/Freed - 58.5 ha (equivalent to 144.5 acre)), and section 1.17.2 (648.8 hectares (1,603 acres)). Acres/hectares throughout the PD/MR are now consistent with area values utilized within the VM0003 ex-post accounting model v0.20.

7.

Previously, some of the values calculated in Annex AL VM0003 Ex-Post Accounting Model v0.20 were not transferred to the PD/MIR section 7 correctly. Tables 15, 16, and 17 are now complete with all table boxes filled in.

Documentation provided by the Project Participant

Chestnut Conservation Project Joint PD-MIR v1.4

Annex L - Shapefiles (CCA_AreasExcluded.shp, CCA_PAIs.shp),

Annex L – Maps (ElRanchos_Instance_20230330, HardingFreedDickson_Instances_20230330)

Annex AL - VM0003 ex-post accounting model v0.20

VVB Assessment	**Date:** 05/05/2023

1. Closed. Old maps have been deleted.

2. **Not closed.** "An inventory of 15 randomly allocated plots was conducted for the Fourche La Fave instance, 14 randomly allocated plots for the Rooks Ranch instance, and 13 randomly allocated plots for the Black River instance. An inventory of 12 randomly allocated plots was conducted for both the Saline Bluff and Hickls instances. An inventory of 11 randomly allocated plots was conducted for the Harding/Freed instance and 8 randomly allocated plots for the El Ranchos instance. An inventory of 5 randomly allocated plots was conducted for the Dickson instance. A total of 90 plots were collected and included in the project". Plots per instance and total plots do not reflect the final numbers of plots used. The total does not correspond to the sum of plots per instance either.

3. Closed. Pdf maps were updated.

4, 5, 6. Closed. Figures are now consistent.

7. Closed. Tables are now complete.

Project Participant response	**Date:** 11/05/2023

1. The language used to describe the number of plots inventoried for the Saline Bluff and Hickls instances was confusing. The Saline Bluff and Hickls instances each had 12 plots allocated and inventoried. Both instances did not share the same 12 plots. A table has been added to the PD/MIR, more clearly describing the number of plots inventoried by instance. The number of plots by instance and the sum of total plots match the plot count found in the inventory workbook (Annex BE). Plots by PAI are provided here as well.

PAI	# of Plots
Saline Bluff	12
Fourche La Fave	15
Hickls	12

Rooks Ranch	14
Black River	13
Harding/Freed	11
Dickson	5
El Ranchos	8
Total	90

Documentation provided by the Project Participant	
Chestnut PD/MIR v1.5 Chestnut Conserve TLv	
VVB Assessment	**Date:** 17/05/2023
Closed. Plots per instance and total plots reflect the final numbers of plots used, and the total corresponds to the sum of plots per instance as well.	

NC ID:	**07**	**Date:** 20/03/2023
Description of NC		
PD/MR 3.4 Baseline Scenario: 1- "To validate the baseline scenario, a comparable timber harvesting plan (THP) (Annex A) is required for each PAI as demonstration of common practice per Eligibility Criterion 6 (see Section 1.4.1)". Please, demonstrate: a) why the THP can be considered comparable/representative, b) why this THP confirms a baseline scenario with even-aged harvesting, considering that it mostly contains pine plantations. 2- Explain in the text why the (a) "attestation of substantive form" signed by (b)"independent forest consulting entity" provided comply with the methodology request (indicating the Annex and methodology request is not enough). Also provide evidence of the independent consultant determination process of the plausibility of the baseline (if confidential, just relate the specific sources) since the Attestation does not provide how the consultant reached that conclusion. 3- "For the Chestnut Properties, the expected harvest volume in the project scenario is lower than the baseline scenario, and therefore the expected revenue from harvesting in the project scenario is lower than the baseline scenario as demonstrated by conformance with Eligibility Criterion 3". Please, demonstrate this in this section (Referring to Eligibility Criterion #3 is not enough).		
Project Participant response		**Date:** 31/03/2023
1. Additional language has been added to Section 3.4 detailing why the THP provided is considered representative and why the THP is comparable to the baseline model. 2. The text now contains an explanation of how the independent forest consulting entity attestation complies		

with the VM0003 Methodology and how the consultant determined the plausibility of the baseline model. *3.* Information related to harvest volumes in the baseline and project scenarios has now been included in section 3.4
Documentation provided by the Project Participant
Chestnut Conservation Project Joint PD-MIR

VVB Assessment	**Date:** 21/04/2023
Closed. The information requested has been added.	

NC ID:	**08**	**Date:** 20/03/2023
Description of NC		
1- **PD/MR 5.1 Baseline Emissions.** According to the PD/MR template, “the procedure for quantification of baseline (…) removals in accordance with the applied methodology” is missing. “Include all relevant equations, and explain and justify all relevant methodological choices (e.g., with respect to selection of emission factors and default values)”. 2- **PD/MR 5.2 Project Emissions.** According to the PD/MR template, “the procedure for quantification of project (…) removals in accordance with the applied methodology”. NOTE: “Include all relevant equations, and explain and justify all relevant methodological choices (e.g., with respect to selection of emission factors and default values)”. Please, follow as much as possible the methodology structure in a comprehensive approach including intermediate calculations, indicating the methods selected, and all the equations (not only the ones in the methodology, also the allometric equations) or indicate explicitly if the equation is not applicable or the value is zero. Also include the assumptions used (sources and justification of its applicability) such as the case of ‘Annual Delta C_actual’ and ‘Baseline Depletion Rate’ in Annex AM. According to the template, this is “to allow the reader to reproduce the calculation of estimated net GHG emission reductions or removals”, but this means by following the PD/MR (since the annexes are not public).		
Project Participant response		**Date:** 31/03/2023
1. Section 5.1 of the PD/MR template requires the following: *Describe the procedure for quantification of baseline emissions and/or removals in accordance with the applied methodology. Include all relevant equations, and explain and justify all relevant methodological choices (e.g., with respect to selection of emission factors and default values).* The procedure, and equations used, for the quantification of baseline emissions and/removals for have now been included in section 5.1. Methodological choices were justified and default values have now been listed. 2. Section 5.2 of the PD/MR template requires the following:		

Describe the procedure for quantification of project emissions and/or removals in accordance with the applied methodology. Include all relevant equations, and explain and justify all relevant methodological choices (e.g., with respect to selection of emission factors and default values). The procedure, and equations used, for the quantification of project emissions and/removals for have now been included in section 5.2. Methodological choices were justified and default values have now been listed. According to the PD/MR template v4.2, sections 7.2 and 7.3 need to provide "sufficient information to allow the reader to reproduce the calculation". This language was not used within the PD/MR template for sections 5.1 and 5.2.
Documentation provided by the Project Participant
Chestnut Conservation Project Joint PD-MIR

VVB Assessment	**Date:** 21/04/2023
Closed. Sections have been update according to the request of the template.	

NC ID:	**09**	**Date:** 20/03/2023
Description of NC		
PD/MR 5.3 Leakage 1- Even for ex ante estimation, the absence of Activity-shifting leakage is not demonstrated according to section 8.6.1 in Methodology (although it is an applicability condition of the methodology and an eligibility criterion of the project, is not enough; it must be demonstrated with respect to the test requested by the methodology). 2- It is stated that "Market leakage assessments will occur at validation and verification and the appropriate market leakage discount factor will be applied". However in this section is not calculated in order to be used for the ex ante (validation) estimation, although it is used later in Table 14.		
Project Participant response		**Date:** 31/03/2023
1- VM0003 Methodology Section 8.6.1 states "Where the project is not able to demonstrate a decrease in wood product production less than 5 percent relative to the baseline, then the project proponent and all associated land owners must demonstrate that there is no leakage within their operations (i.e., on other lands they manage/operate outside the boundary of the IFM project)." There is no activity shifting leakage on lands managed and operated by the project proponent and the associated land owners. The project proponent (FCW) does not own any lands, forested or otherwise. The only associated landowner at the time of validation, Chestnut Carbon, has enrolled all forested lands in their ownership per the MLA located in Annex D. Per the MLA located in Annex D, activity shifting leakage will be zero for all future PAI's enrolled to the grouped project per the requirement that associated landowners enroll all forested acreage into the grouped project. This satisfies the requirement and prevents any activity shifting leakage because the project proponent and landowner do not have any unenrolled forested lands to shift harvesting onto. Per		

VCS Standards v4.4 3.15.9, "...IFM projects may apply the appropriate market leakage discount factor identified in Table 3 to the net change in carbon stock associated with the activity that reduces timber harvest to determine market leakage." The calculated LFme value was determined by this standard and the process already described in PD/MIR Section 5.3 and the actual value was added to PD/MIR Section 5.3 as well. Additionally, the PMLFT and PMPi values used to calculate LFme were added by stratum to PD/MIR Section 5.3. This satisfies the requirement by demonstrating the process used to determine the appropriate market leakage discount factor. Section 5.3 previously did not include calculations for LF,ME; this section now describes the process by which ex-ante leakage was calculated per VM0003 section 8.6; LF,ME for each PAI was determined to be 20%.	
Documentation provided by the Project Participant	
Chestnut PD/MR, Annex D	
VVB Assessment	**Date:** 21/04/2023
Closed. Activity-shifting leakage absence justification and Market leakage estimation is now included in the text.	

NC ID:	**10**	**Date:** 20/03/2023
Description of NC		
PD/MR 5.4 Estimated Net GHG Emission Reductions and Removals 1- According to the template "For AFOLU projects, includes for the quantification of net change in carbon stocks". Please, consider this for section 5 and 7 (even if the equations are repeated in both sections). 2- Please, provide additional info regarding how the number of plots was established according the Tool Calculation of the number of sample plots for measurements within A/R CDM project activities. 3- Some information in this section would correspond to section 5.1 and 5.2. 4- "Below ground carbon stocks were estimated using a root-to-shoot ratio (R) of .24 for broadleaf forests with biomass above 150 tonnes per hectare per Annex BP". Clarify if it was used for all the strata (including the pine plantations). 5- "The ex-ante model in Annex AM, the results of which are shown below, differs from the ex-post model because it assumes the continued expansion of project acreage throughout the project crediting period". - Clarify the area increase per year foreseen (it could be in the same table 14 by adding a column). - While the section PD/MR it is stated "Chestnut Carbon anticipates acquiring or leasing 500,000 acres" the Annex AM considers 100,000 acres. Please, clarify. 6- Table 14 does not match results in Annex AM.		

7- “Table below forecasts the ex-ante GHG removals and reductions over the first crediting period”. - Please, stay clearly that for 2022 the extension used is 1,600 acres (instead of the 1,742 acres already achieved); in order to avoid confusion with the monitored results that overlaps the same ex ante period. - The project start date used 9 Sept 2022 (instead of 5 July 2022 and each PAI start date); commonly, the start date for the ex ante estimation is the same as the one reported in section PD/MR 1.8. Note also to use ‘DD-Month-YYYY-- DD-Month-YYYY’ for the first vintage, as requested by PD/MR template.

Project Participant response	**Date:** 31/03/2023
1- Per the PD/MIR template, “For AFOLU projects, include equations for the quantification of net change in carbon stocks.” Equations used for estimated net GHG emission reductions and removals calculations were added to PD/MIR Section 5.4. This satisfies the requirement by providing the necessary equations used. 2- Per the A/R Methodological Tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” v2.1.0, “This tool can be used for calculation of number of sample plots required for estimation of biomass stocks from sampling based measurements in the baseline and project scenarios of an A/R CDM project activity.” Plot allocation for the Chestnut Carbon Conservation Project was completed using Equation 1 from the tool and can be found in Annex G. Annex reference for plot allocation were added to Section 5.4 of the PD/MIR. Assumptions informing the use of the allocation tool were ex-ante and based on estimations made prior to sampling. This satisfies the requirement because the tool was used to determine the number of sample plots that were allocated within the project area. 3- Paragraph concerning baseline and project emissions quantification was moved to PD/MIR Section 5.1, Baseline Emissions and PD/MIR Section 5.2, Project Emissions. 4- Clarification added to PD/MIR Section 5.4. This root-to-shoot ratio was used for all strata, including pine plantations. 5- Clarification regarding acreage added in PD/MIR Section 5.4. Chestnut Carbon anticipates acquiring or leasing 500,000 acres. Across the 500,000 acres, we assume 100,000 acres will be forested. The remaining 400,000 acres will not be enrolled in the Chestnut Carbon Conservation Project. The total project acreage per year was added to Table 14, showing the annual acreage increase foreseen. 6- Table 14 was updated to match the ex-ante accounting model results in Annex AM. 7- The project start date format has been updated to DD-Month-YYYY in Annex AL per the PD/MIR template format. Clarification regarding the project activities occurring during 2022 added to PD/MIR Section 5.4.	

Documentation provided by the Project Participant
Annex G, Chestnut Conserve Joint PD/MR, Annex AM, Annex AL

VVB Assessment	**Date:** 21/04/2023
1. Closed. Information requested included now in sections 5 and 7. 2. Closed. Section has been updated and Annex G has been provided. 3. Closed. The information has been reallocated. 4. Closed. Language added. 5. **No closed**. While the total target is clarified, the starting figures are confusing:	

- In section 1.1, “At document submission, the project area is **648.8** hectares (1603 acres)”.

- In section 5.4, “In 2022, the project activities are conducted over **647** hectares, separate from the **705** hectares currently being monitored during the same ex-ante period”.

- Table 14 begins at **647** ha. This is ok, but the reason should be clarified (see point 7 below) in order to establish the differences regarding the ex ante estimation and the ex post one (with 648.8/705/672.2 figures).

- In Annex AL. VM0003 Ex-Post Accounting Model v0.18, tab MP1 – 2022 it is 1,661 acres (**672.2** ha).

Please, align accordingly.

6. **No closed.** Review if needed according point 5 above regarding the starting area.

7. **No closed**. In section 5.4 this has not been attended: “Table below forecasts the ex-ante GHG removals and reductions over the first crediting period”.

- Please, stay clearly that for 2022 the extension used is 1,600 acres (instead of the 1,742 acres already achieved); in order to avoid confusion with the monitored results that overlaps the same ex ante period.

- The project start date used 9 Sept 2022 (instead of 5 July 2022 and each PAI start date); commonly, the start date for the ex ante estimation is the same as the one reported in section PD/MR 1.8. If the start date for the ex ante estimation will remain different from the ex post one, please state it clearly and its justification.

Project Participant response	**Date:** 28/04/2023

5. The actual project area size is 648.8ha (1603 acres).
- Section 1.1 has the correct starting project acreage. This number has not been updated.
- Section 5.4 has been updated to state “In 2022, the project activities are conducted over 648.8 hectares, separate from the 705 hectares currently being monitored during the same ex-ante period”. This reflects the correct total project area and the project activities will be conducted over the entirety of the project area.
- Table 14 has been updated to reflect the actual project area. The total cohort hectares for 2022 are now listed as 648.8.
- Annex AL VM0003 Ex-Post Accounting Model v0.20 has been updated to reflect the actual project area, 1,603 acres (648.8 ha).

6. Table 14 has been updated to reflect the actual project area. The total cohort hectares for 2022 are now listed as 648.8.

7. Table 14 has been updated to reflect the actual project area. The total cohort hectares for 2022 are now listed as 648.8.
- Previously submitted materials did not report a consistent project acreage across project documentation and analysis workbooks, resulting in confusion. The 705 hectares referenced in a previous version of the PD/MIR and referenced as part of this finding (NC10) refers to an outdated project area value, which should not have been present. This has been corrected as part of the most recent submission. This correct project area, 648.8 hectares (1603 acres), has also been applied across project analysis workbooks for the purposes of quantification of GHG emission reductions and/or removals. This project area, 648.8 hectares (1,603 acres), is used for both ex-ante and ex-post calculations. A sentence in the paragraph preceding Table 14 has been added to the PD/MIR to clarify that the same acreage, 648.8 hectares (1603 acres), was used to quantify GHG emission reduction and/or removal for both the ex-ante and ex-post scenarios.
- Annex AM has been updated to reflect the project start date, 5 July 2022. All ex-ante estimation is

performed using this start date. This matches the date recorded in PD/MIR Section 1.8.
Documentation provided by the Project Participant
Chestnut Conserve Joint PD/MR v1.4 Annex AM – PD-Table 4.4 v1.4 Annex AL - VM0003 Ex-Post Accounting Model v0.20

VVB Assessment	**Date:** 05/05/2023
5,6. Closed. Area figures are now aligned through the PD/MR and consistent. **7. Closed.** Project star date is now 5 July 2022 for ex ante y ex post estimations.	

NC ID:	**11**	**Date:** 20/03/2023
Description of NC		
PD/MR 6.2 Data and Parameters Monitored: 1- Section 6.2 is for “parameters to be monitored during the project crediting period”, while section 7.1 is for “parameters monitored during the monitoring period”. This means that parameters PMPSalineBluff, PMPFourcheLaFave, PMPHickls, PMPRooksRanch, PMPBlackRiver, PMPHarding/Freed, PMPDickson, PMPElRanchos Strata2, PMPElRanchos Strata1 corresponds to section 7.1, but not to section 6.2. Please, address the correct PMPi used for the crediting period. 2- Content of boxes incomplete: - Source of data: in some case there is only a reference to an external document. Please provide the source. - Description of measurement methods and procedures to be applied. Incomplete in some cases, according to the template request (“Specify the measurement methods and procedures, any standards or protocols followed, and the person/entity responsible for the measurement. Include any relevant information regarding the accuracy of the measurements (e.g., accuracy associated with meter equipment or laboratory tests”). - Value applied. Values used for the crediting period not indicated for Ai, Ap, PMPi (not necessary for D, DBH, H, L, N). - QA/QC procedures to be applied. Some responses do not comply with template request (“Describe the quality assurance and quality control QA/QC procedures applied, including the calibration procedures where applicable”). Although an external Annex is provided, a summary has to be provided in this section.		

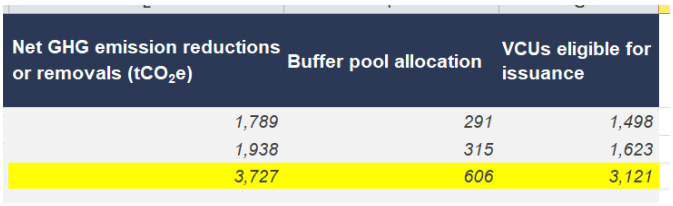
- Purpose of data. Some responses do not comply with template request.
Project Participant response **Date:** 31/03/2023
1- Per PD/MIR template, PMP was adjusted to reflect “PMPi”, rather than instance specific values (PMPSalineBLuff, PMPFourcheLaFave, etc) in PD/MIR Section 6.2. 2- • Per PD/MIR template, the sources of data in Section 6.2 should “Indicate the source(s) of data”. All data and parameters were updated to provide references to both source documents and Annexes. This satisfies the requirement by providing value applied for all applicable data and parameters in Section 6.2. • Per PD/MIR template, “Description of measurement methods and procedures applied” should be populated with “Specify the measurement methods and procedures, any standards or protocols followed, and the person/entity responsible for the measurement. Include any relevant information regarding the accuracy of the measurements (e.g., accuracy associated with meter equipment or laboratory tests).” Further description of measurement methods and procedures was added, the responsible party, standards followed, and references to Annex AE, the Chestnut Conserve Monitoring Protocol v2.0, to provide further insight into how measurements were taken. All information requested by the PD/MIR template was included in Section 6.2. • Per PD/MIR template, the data and parameters in Section 6.2 should each have “Value applied” completed with “Provide an estimated value for the data/parameter”. Specific values were added for Ai, Ap, and PMPi. This addresses the requirement by providing value applied for all applicable data and parameters in Section 6.2. • Per PD/MIR template, “QA/QC procedures applied” should be populated with “Describe the quality assurance and quality control (QA/QC) procedures applied, including the calibration procedures where applicable.” A summary table of QA/QC procedures was added to Section 6.2 for all applicable data and parameters. This addresses the requirement by providing a summary of QA/QC measures for all applicable data and parameters in Section 6.2. • Per PD/MIR template, the “Purpose of data” field should be populated with one of the following: “calculation of baseline emissions”, “calculation of project emissions”, or “calculation of leakage”. The Purpose of data field was updated to select one of these options for all the data and parameters in Section 6.2. This addresses the requirement by complying with the template requirements.
Documentation provided by the Project Participant
Chestnut Conserve Joint PD/MR, Annex AE
VVB Assessment **Date:** 21/04/2023
1. **Closed**. Information corrected. 2. **Closed**. Information completed.

NC ID:	**12**	**Date:** 20/03/2023

Description of NC	
PD/MR 6.3 Monitoring Plan 1- Following points not addressed in the PD/MR, according to the template: - The organizational structure, responsibilities and competencies of the personnel that carried out monitoring activities. - The policies used for oversight and accountability of monitoring activities. - The procedures used for internal auditing and QA/QC. - Where appropriate, include line diagrams to display the GHG data collection and management system. Note that, although some commercial information can be kept confidential and it is already included in 'Chestnut Conserve Monitoring Protocol v2.0', according to VCS standard (3.5.3) "information related to the (…) estimation and monitoring of GHG emission reductions and removals (including operational and capital expenditures) cannot be considered to be commercially sensitive and must be provided in the public versions of the project documents". 2- On the other hand, since the FCW has an own "device" for monitoring: - Where relevant, include the procedures for calibrating monitoring equipment. - Demonstrate whether the required confidence level or precision has been met.	
Project Participant response	**Date:** 31/03/2023
1. The PD/MR template ask for the following: • *The methods used for generating/measuring, recording, storing, aggregating, collating and reporting data and parameters. Where relevant, include the procedures for calibrating monitoring equipment.* • *The organizational structure, responsibilities and competencies of the personnel that carried out monitoring activities.* • *The policies used for oversight and accountability of monitoring activities.* • *The procedures used for internal auditing and QA/QC.* • *The procedures used for handling any internal auditing performed and any non-conformances identified.* • *The implementation of sampling approaches, including target precision levels, sample sizes, sample site locations, stratification, frequency of measurement and QA/QC procedures. Where applicable, demonstrate whether the required confidence level or precision has been met.* Previously this information was split between text within the PD/MR and text contained within the "Chestnut Conserve Monitoring Protocol v2.0" document that was marked as commercially sensitive. To fully comply with the PD/MR template, all of the above information has now been included within section 6.3 of the PD/MR. 2. Information on the use and calibration of the project proponents technologies used for field data collection (i.e. the "device") and processing has now been provided. These are the only documents associated with the PD/MR that are still considered commercially sensitive and are now provided in Annex J.	
Documentation provided by the Project Participant	
Chestnut Conservation Project Joint PD-MIR; Annex J	

VVB Assessment	**Date:** 21/04/2023
Closed. Information provided. **Closed**. Information provided.	

NC ID:	**13**	**Date:** 20/03/2023
Description of NC		
7.5 Net GHG Emission Reductions and Removals The figures in Tables 18, 19 and 20 do not correspond to the values reported in 'Annex AL VM0003 Ex-Post Accounting Model v0.15'. Please also review Tables 15, 16 and 17 once the excluded surfaces in the Harding/Freed and El Ranchos PAIs are updated.		
Project Participant response		**Date:** 24/03/2023
Table values for tables 15, 16, 17, 18, 19, and 20 have been updated to reflect the updated ex-post Accounting Model in Annex AL and the excluded acreage from the Harding/Freed and El Ranchos PAIs.		
Documentation provided by the Project Participant		
Annex AL, Chestnut Conserve Joint PD/MR		
VVB Assessment		**Date:** 21/04/2023
Not closed. The VCUs are not properly calculated. BRR, as the “Portion of carbon credits to be withheld as a buffer reserve” should be the 15% of the Net GHG emission. But if 2,279 tCO2e is the net emission reductions/removals, its 15% is not 371 for the buffer reserve. The final amount of VCUs is the NET-BRR(15% of the NET). Please, update the tables accordingly and the texts in PD/MR and Annexes. - OBS: Table 19. If it is supposed that each row is a vintage/year? Please, indicate it in a column.		
Project Participant response		**Date:** 28/04/2023
Per VCS AFOLU Non-Permanence Risk Tool 2.5.4, “...the overall risk rating... shall be multiplied by the net change in the project’s carbon stocks.” BRR has been recalculated using the net change in the project’s carbon stocks, rather than the gross, and all tables and text have been updated accordingly. An additional column has been added to Table 19 to show that each row represents a year.		

Documentation provided by the Project Participant	
Chestnut Conserve Joint PD/MR v1.4 Annex AL - VM0003 Ex-Post Accounting Model v0.20	
VVB Assessment	**Date:** 05/05/2023
Not closed. Not addressed: The VCUs are not properly calculated. BRR, as the "Portion of carbon credits to be withheld as a buffer reserve" should be the 15% of the Net GHG emission. But if 2,279 tCO2e is the net emission reductions/removals, its 15% is not 371 for the buffer reserve. The final amount of VCUs is the NET-BRR(15% of the NET). NET (as the result of considering the baseline, removals and leakage) already includes the uncertainty discount. Then, in the current version the buffer pool is not 15% of the Net ER:  Please, update the tables accordingly and the texts in PD/MR and Annexes.	

Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for issuance
1,789	291	1,498
1,938	315	1,623
3,727	606	3,121

Project Participant response	**Date:** 11/05/2023
Per VCS AFOLU Non-Permanence Risk Tool 2.5.4, "...the overall risk rating... shall be multiplied by the net change in the project's carbon stocks." BRR has been recalculated using the net change in the project's carbon stocks, rather than the gross, and impacted annexes, tables and text have been updated accordingly.	
Documentation provided by the Project Participant	
Chestnut Conserve Joint PD/MR v1.5 Annex AL - VM0003 Ex-Post Accounting Model v0.23 Annex AI - ChestnutConserve_Non-Permanence-Risk-Report v2.2	
VVB Assessment	**Date:** 17/05/2023
Closed. VCUs are correctly calculated regarding net removals. Figures were updated along the PD/MR and NPR Report.	

NC ID:	**14**	**Date:** 20/03/2023
Description of NC		

Non Permanence Risk Report provided in Annex AI2 (ChestnutConserve_Non-Permanence-Risk-Report v1.0) lacks some fundamental justifications and evidence to be complete. On the other hand, the figure of the final rating does not correspond to the information reported. Please, since the comments are numerous, please review the attached document.

Project Participant response	**Date:** 24/03/2023

NPRR was incomplete: project information section updated, and all risk section calculations updated; a completed and updated Non-Permanence Risk Report is to be submitted. For each risk factor, more detailed justification has been added to each box where risk factors were relevant to the project.

In addition, evidence of financial viability has been submitted as Annex. M All findings and comments are addressed in a new NPRR with comments included, Annex AI. Per the AFOLU Non-Permanence Risk tool, a separate Excel document calculating risk shall be included as well. See Annex AI for NPRR and Anne AJ for risk calculations; all template instructions were followed and the new risk rating is 15%.

Documentation provided by the Project Participant
Annex AI, Annex AJ, Annex M, Annex AD, Annex D

VVB Assessment	**Date:** 25/04/2023

Not closed.

- Financial Viability. Project secured funding is not rated (options E to H). Provide an explanation of the rating in the box and the reference to the evidence.

- 4.2 Calculation of Total VCUs. Figures do not match PD/MR and annexes (see NC 03 above).

- **OBS**. 1) ‘05 July 2022 – 31 January 2023DD-Month-YYYY to DD-Month-YYYY’. 2) Project Management, “c)” is missing.

Project Participant response	**Date:** 26/04/2023

- Financial viability is rated as 0 – Project has secured 80% or more of funding needed to cover cash out until breakeven. In this case E-H are all rated as 0. Explanation added to Risk Report with evidence in Annex M, previously submitted.
- Calculation of VCUs addressed, values match between annexes and PD. Value in NPRR workbook, Annex AJ is C_IFM which is not found in the PD. C_IFM represents the net change in the project’s carbon stocks, prior to the application of the uncertainty deduction. The value is from the Accounting Model, Annex AL, “In text references” tab. For clarity, Uncertainty Deduction is added to the NPRR “VCU Calculations” table.
- Date format fixed, “c” added to table

Documentation provided by the Project Participant	
Annex AI - ChestnutConserve_Non-Permanence-Risk-Report v2.0_trackedChanges.docx Annex AJ - Chestnut Conserve Risk-Report-Calculation-Tool-v2.1.xls Annex M - Chestnut VCS Certification Model; Kimmeridge Carbon Solutions Proof of Funds Annex AL - VM0003 Ex-Post Accounting Model v0.20.xlsm	
VVB Assessment	**Date:** 25/04/2023
Not closed. 4.2 Calculation of Total VCUs. Figures do not match PD/MR and annexes (see NC 03 above and NC 13).	
Project Participant response	**Date:** 11/05/2023
- *Per VCS AFOLU Non-Permanence Risk tool v2.5.4, "... the overall risk rating... shall be multiplied by the net change in the project's carbon stocks."* BRR has been recalculated using the net change in the project's carbon stocks, rather than the gross, and impacted annexes, tables and text have been updated accordingly.	
Documentation provided by the Project Participant	
Annex AI- ChestnutConserve_Non-Permanence-Risk-Reportv2.2 Annex AL- VM0003 Ex-Post Accounting Model v0.23.xlsm	
VVB Assessment	**Date:** 17/05/2023
Closed. VCUs are correctly calculated regarding net removals. Figures were updated along the PD/MR and NPR Report.	

Clarifications (CLs)

CL ID	**01**	**Date:** 20/03/2023
Description of the CL		
PD/MR 1.6 Other Entities Involved in the Project In Table 6 is stated that 'Chestnut Carbon, LLC c/o Kimmeridge' is the Property owner. However, in Forest Management Plans (Annex BC) the different landowners are mentioned (Chestnut Branch, LLC; Chestnut Carbon Acquisitions, LLC). Please, explain the difference and the relation amongst them. Update Table 6 if it proceeds.		

Project Participant response	**Date:** 31/03/2023
Chestnut Branch, LLC and Chestnut Carbon Acquisitions, LLC are subsidiaries of Chestnut Carbon, LLC. Chestnut Carbon is the sole landowner for all these properties. As such, Table 6 was not updated in the PD-MIR, maintaining Chestnut Carbon, LLC as the organization name.	
Documentation provided by the Project participant	
Chestnut Conservation Project Joint PD-MIR	
VVB Assessment	**Date:** 21/04/2023
Closed. The concern has been clarified.	

CL ID	**02**	**Date:** 20/03/2023
Description of the CL		
PD/MR 1.7 Ownership Please, clarify in the text where (Annex) the Ownership is stated (an agreement amongst PP and Owner, according to Eligibility criterion #2) and explains why its complies with Ownership request according to VCS Std v4.4, 3.7.1.		
Project Participant response		**Date:** 31/03/2023
Section 1.7 of the PD/MR now references the Annex in which the Ownership agreements (Forest Management Lease Agreements) are located. Additional text has now been provided that explains why the Forest Management Lease Agreements comply with VSC Std v4.4, 3.7.1 (Ownership section).		
Documentation provided by the Project participant		
Chestnut Conservation Project Joint PD-MIR		
VVB Assessment		**Date:** 21/04/2023
Closed. Clarification has been added to section 1.7 in the PD/MR.		

CL ID	03	Date: 20/03/2023
Description of the CL		
PD/MR 1.11 Description of the Project Activity The project activities are not specifically described, e.g.: 1- It is not clear what the "treatments that accelerate the recruitment of trees into standing dead wood", means or consists of. 2- It is not stated (in years) the prior rotation age and the project extended rotation age. 3- According to Eligibility criteria, "the PAI shall have a baseline scenario demonstrating that common practice is even-aged management". However, it is not clear how, through an ERA project with no harvesting activities, 'transitioning forestland into sustainable, uneven-aged silvicultural systems' is going to be reached. 4- 'Per Eligibility Criterion 5 (see Section 1.4.1), harvesting in PAIs is prohibited without the consent of the project proponent, Forest Carbon Works'. Please, clarify in which cases FCW allows harvesting.		
Project Participant response		**Date:** 31/03/2023
1. The exact treatments have yet to be identified, but are part of an ongoing research project with the University of Minnesota. This has now been specified in the text. 2. The prior rotation age is unknown and the project will not have a 'rotation age' since only uneven-aged silviculture will be practiced. This has now been stated with the PD/MR. 3. As stated in Eligibility Criterion 5, uneven-aged silviculture practices, including patch cuts, continuous thinning, and/or group selection harvesting will occur within the project. *4.* FCW will allow harvesting that promotes carbon sequestration and improves forest health. This has now been stated in the PD/MR section 1.11, and is further emphasized in Eligibility Criterion 5.		
Documentation provided by the Project participant		
Chestnut Conservation Project Joint PD-MIR		
VVB Assessment		**Date:** 21/04/2023
Closed. The clarifications have been included in section 1.11 of the PD/MR.		

CL ID	04	Date: 20/03/2023
Description of the CL		
PD/MR 1.14 Compliance with Laws, Statutes and Other Regulatory Frameworks		

1- Please, “demonstrate compliance of the project with all and any relevant local, regional and national laws, statutes and regulatory frameworks”, not only mentioning the applicable law or referring external evidence. Also, note in the text if there are no other forestry law directly applicable to forest management, including harvesting. 2- “Models of both the baseline and project scenarios reflect all relevant regulations and laws, per Eligibility Criteria 3e and 4”. Please, check if the references to Eligibility Criteria are correct.
Project Participant response **Date:** 31/03/2023
1- Template instructions ask to “identify and demonstrate compliance”. Text modified to demonstrate that compliance with all laws listed in the PD/MR is required for business operation in the United States. Added information that there are no state laws affecting forest management in the project area currently and that all best management practices written by each state where PAIs are located shall be followed even though not required by law 2- Eligibility Criteria reference updated
Documentation provided by the Project participant
Chestnut Conservation Project Joint PD-MIR
VVB Assessment **Date:** 21/04/2023
Closed. The clarifications have been included in section 1.14 of the PD/MR.

CL ID	**05**	**Date:** 20/03/2023
Description of the CL		
PD/MR 1.18.2 Commercially Sensitive Information: According to VCS standard 4.4, clause 3.5.3 “Information in the project description related to the (…) estimation and monitoring of GHG emission reductions and removals shall not be considered to be commercially sensitive and shall be provided in the public versions of the project description”. The PD/MR states that “The monitoring protocol for the project is considered commercially sensitive. This will be provided for validation and verification purposes”. Please, clarify in the text better the way in which both questions are not contradictory. Finally, the content of the document "AE. Chestnut Conserve Monitoring Protocol v2.0" is included in the PD/MR 6.3 section, so it will be public.		

Project Participant response	**Date:** 31/23/2023
The template asks to “indicate whether any commercially sensitive information has been excluded from the project...” Excel VBA code was used to calculate emissions reductions more efficiently than Excel and is mentioned in this section. It is demonstrated that the calculations can be performed manually within Excel and shared using an Access database but the computer code was omitted from verification and document submission. Monitoring protocol cannot be and is not commercially sensitive. Removed reference to monitoring protocol. Text edited to reflect only the omitted VBA code as commercially sensitive.	
Documentation provided by the Project participant	
Chestnut Conservation Project Joint PD-MIR	
VVB Assessment	**Date:** 21/04/2023
Closed. The clarification has been included in section 1.18.2	

CL ID	**06**	**Date:** 20/03/2023
Description of the CL		
PD/MR 2.2 Local Stakeholder Consultation 1- Please, provide more specific info in PD/MR regarding the two events for stakeholders (December 2, 2022; February 2, 2023): mean (face-to-face; remote), number of guests, final attendees, summary of comments and, if it is the case, how the project addressed them. 2- It is said that in ‘https://chestnutcarbon.com/chestnut-sustainable-restoration-project/’ website the information regarding the project was available prior to December 2, 2022 meeting. However, the public info is related to a ARR project, not to this specific IFM-ERA project.		
Project Participant response		**Date:** 31/03/2023
1. Specific info in the PD/MR is now provided regarding the stakeholder consultation events, including the names of people/organizations invited, the number of guests that attended each meeting, a summary of comments, and how the project addressed stakeholder comments. *2.* Text in the PD/MR has now been removed related to the availability of project information online prior to the stakeholder engagement meetings. IFM-ERA project specific information was communicated during two consultations, one in-person and one virtual.		
Documentation provided by the Project participant		

Chestnut Conservation Project Joint PD-MIR	
VVB Assessment	**Date:** 21/04/2023
Closed. The clarification has been included in section 2.2.	

CL ID	**07**	**Date:** 20/03/2023
Description of the CL		
PD/MR 2.3 Environmental Impact Please, indicate if an environmental assessment is legally mandatory, in order to clarify that the one that FCW will implement is voluntary.		
Project Participant response		**Date:** 31/03/2023
The template asks to “Summarize any environmental impact assessments carried out with respect to the project,” wording has been changed to clarify that environmental impact report is an FSC requirement and shall be carried out.		
Documentation provided by the Project participant		
Chestnut Conservation Project Joint PD-MIR		
VVB Assessment		**Date:** 21/04/2023
Closed. The clarification has been included in section 2.3.		

CL ID	**08**	**Date:** 20/03/2023
Description of the CL		
PD/MR 2.4 Public Comments The public comment period ended on January 6, 2023. Please send Verra's email where the comments are included or it is reported that no comments were received. OBS: the section is described as a future action, but actually, it already happened. Please check the wording.		

Project Participant response	**Date:** 31/03/2023
Wording changed to reflect that the comment period has been closed and no comments were received. Therefore no details of the comments is mentioned in this section, as required by the template.	
Documentation provided by the Project participant	
Chestnut Conservation Project Joint PD-MIR	
VVB Assessment	**Date:** 21/04/2023
Not closed. Please, provide Verra email that confirms that no comments were received. The CB has to keep this record.	
Project Participant response	**Date:** 28/04/2023
New Annex BS submitted as pdf of the email from Verra stating no public comments were received	
Documentation provided by the Project Participant	
Annex BS – No Public Comments Evidence from Verra	
VVB Assessment	**Date:** 05/05/2023
Closed. Verra email that confirms that no comments were received wad provided.	

CL ID	**09**	**Date:** 20/03/2023
Description of the CL		
PD/MR 3.3 Project Boundary - Table 12: Regarding 'Dead wood, Standing', 'Dead wood, Lying', 'Wood products' please indicate the reason for their inclusion according to the explanation of choice considered in the methodology.		
Project Participant response		**Date:** 31/03/2023
Per Table 1 of the VM0003 methodology v1.2, dead wood may be included in both baseline and project cases "as long as the dead wood pool represents less than 50% of total carbon volume on the site in any given modeled year", which is true in this case, thus it is included. Clarification added to table 12 for justification of this inclusion. Wood products are also a conditional carbon pool per the methodology if developer cannot provide "transparent and verifiable are rising faster in the project case than in the baseline or are decreasing faster in the baseline than in the		

project case." Since the methodology provides an accounting approach for this pool, this pool is included at the discretion of project proponent. Clarification added to table 12 for justification of this inclusion.
Documentation provided by the Project participant
Chestnut Carbon Conservation Project Joint PD/MIR

VVB Assessment	**Date:** 21/04/2023
Closed. Information included in Table 12.	

CL ID	**10**	**Date:** 20/03/2023
Description of the CL		
PD/MR 4.1 Implementation Status of the Project Activity Please, provide specific information the following items: 1- The operation of the project activity(s) during this monitoring period, including any information on events that may impact the GHG emission reductions or removals and monitoring. If no activities have been carried out (such as sanitary thinning, harvestings, etc.) state so. 2- For AFOLU projects, where no new project activities that lead to the intended GHG benefit commenced during the monitoring period, discuss whether project activities that commenced prior to the monitoring period continued to be implemented during the monitoring period. 3- Where applicable, describe how leakage and non-permanence risk factors are being monitored and managed for AFOLU projects. Provide the monitoring measures (validation) and the specific results for this monitoring period (verification).		
Project Participant response		**Date:** 28/03/2023
1- As stated in VCS Standard 3.2.25, "Where ARR or IFM projects include harvesting, the loss of carbon due to harvesting shall be included in the quantification of project emissions." There are no harvest activities (including sanitary thinning, harvesting, etc.) or other events that may impact the GHG emission reductions or removals and monitoring occurring in the project area during this monitoring period. Therefore, there is no expected loss of carbon or change in GHG emissions reductions or removals expected. PD/MIR Section 4.1 has been updated to reflect this. This satisfies the requirement by demonstrating that while harvesting would impact quantification of project emissions, no harvesting is expected to occur in the project area during this monitoring period. 2- Per VCS Standard 3.2.6, "The project proponent shall demonstrate that project activities that lead to the intended GHG benefit have been implemented during each verification period in accordance with the project design. Where no new project activities have been implemented during a verification period, project proponents shall demonstrate that previously implemented project activities continued to be implemented		

during the verification period." Project activities leading to the intended GHG benefit commenced for the eight Project Activity Instances during this monitoring period. No project activities commenced prior to this monitoring period, so there are no project activities that will continue to be implemented. PD/MIR Section 4.1 has been updated to reflect the current status of project activity. This satisfies the requirement by providing more information on the project activities and their implementation status during the current monitoring period. *3-* Per PD/MIR template, Section 4.1 should "Where applicable, describe how leakage and non-permanence risk factors are being monitored and managed for AFOLU projects." Further detail regarding the parameters needed to assess leakage and non-permanence risk were added to PD/MIR Section 4.1. This satisfies the requirement by providing the necessary information to determine the factors that are being monitored and managed within the project area.
Documentation provided by the Project participant
Chestnut Conserve Joint PD/MR

VVB Assessment	**Date:** 21/04/2023
Closed. Information provided in section 4.1 of the PD/MR.	

CL ID	**11**	**Date:** 20/03/2023
Description of the CL		
6.1 Data and Parameters Available at Validation Please, review this section considering: 1- Source of data. In some cases the source is not provided, such as in BEF or CF. In case an Annex is referenced, provide the source itself (e.g. the academic reference). 2- Value applied. In most of parameters the specific values are not indicated (e.g. ABSL, i; BEF; Dj; DDW; Fu(DBH, H); R; SLF; MLF; LLF; 3- Justification of choice of data or description of measurement. "Justify the choice of data source, providing references where applicable. **Where values are based on measurement, include a description of the measurement methods and procedures applied (e.g., what standards or protocols have been followed), indicate the responsible person/entity that undertook the measurement, the date of the measurement and the measurement results**". Although "more detailed information may be provided in an appendix", at least a summary has to be provided in this section, except if it is a request of the methodology.		
Project Participant response		**Date:** 31/03/2023
1- Per PD/MIR template, the data and parameters in Section 6.1 should each have "Source of data" completed with "Indicate the source(s) of data". The sources of data in Section 6.1 were updated to provide references		

to both source documents and annexes. This addresses the requirement by providing multiple options to find the source document that is cited. 2- Per PD/MIR template, the data and parameters in Section 6.1 should each have “Value applied” completed with “Provide the value applied”. Specific values were added for Ably, BEF, Dj, DDW, Fu, R, and SLF. MLF and LLF have been removed from Section 6.2 as they are irrelevant to the Winjum method used by the project proponent to calculate wood products. This addresses the requirement by providing value applied for all applicable data and parameters in Section 6.1. *3*- Per PD/MIR template, the data and parameters in Section 6.1 should each have “Justification of choice of data or description of measurement methods and procedures applied” completed with “Justify the choice of data source, providing references where applicable. Where values are based on measurement, include a description of the measurement methods and procedures applied (e.g., what standards or protocols have been followed), indicate the responsible person/entity that undertook the measurement, the date of the measurement and the measurement results. More detailed information may be provided in an appendix.” The choice of data source was justified and the responsible entity, date of measurement, and results have been added to all data and parameters in Section 6.1. This addresses the requirement by providing the required information for all applicable data and parameters.
Documentation provided by the Project participant
Chestnut Conserve Joint PD/MR

VVB Assessment	**Date:** 21/04/2023
Closed. Information provided in PD/MR section 6.1.	

CL ID	**12**	**Date:** 20/03/2023
Description of the CL		
7.5 Net GHG Emission Reductions and Removals It is stated that “CIFM_Error was calculated using Equation 44 and the UNC,P and UNC, BSL values (Annex AH). Equation 45 was subsequently used to determine if the uncertainty deduction and subtraction of CIFM_Error were applicable to the determination of net GHG emissions reductions and/or removals and were used to calculate CIFM,adjusted.” C_IFM_Error: 12.9%”. Please, indicate in the section if and how a deduction was applied according to the methodology (8.7.2).		
Project Participant response		**Date:** 31/03/2023
Per VM0003 Methodology v1.3 Section 8.7.2, if CIFM_ERROR > 10% of CIFM- then the uncertainty deduction should be applied. PD/MIR Section 7.5 was updated to describe the calculation process for the uncertainty deduction and its applicability. Equations 46, 47, and 48 were used. CIFM_ERROR is determined to be 29.6% and the discount factor is 7.8%. Because CIFM_ERROR is greater than 10% for the project, the uncertainty deduction applies. This satisfies the requirement because the cited equations are used to meet the standard and correctly		

calculate the CIFM adjusted value.
Documentation provided by the Project participant
Chestnut Conserve Joint PD/MR, Annex AH

VVB Assessment	**Date:** 31/04/2023
Closed. Information included in section 7.5.	

CL ID	**13**	**Date:** 20/03/2023
Description of the CL		
7.5 Net GHG Emission Reductions and Removals According to VCS standard v4.4 (3.6.19), “AFOLU non-permanence risk analyses (…) shall be assessed for each geographic area specified in the project description (for requirements related to geographic areas of grouped projects see the VCS Standard)”. Please, justify why the 8 current PAIs can be considered under the same ‘designated geographic area’ in order to apply only one Non Permanence Risk assessment and buffer.		
Project Participant response		**Date:** 31/03/2023
The project description defines the project area as the entire US and southeastern Alaska, but due to current PAIs falling into the states of Alabama and Arkansas only, one geographic region is included in the NPRR, Annex AI with calculations in Annex AJ. The NPRR defines the southeastern US as one region with similar natural risks, since all PAIs fall into the region of the southeast. Per the AFOLU Non-Permanence Risk tool (Annex E), the designated geographic region of the project may be divided where risks are relevant to only a portion of the area. “Where a project is divided into more than one geographic area for the purpose of risk analysis, a single overall risk rating shall be determined for each geographic area.” As detailed in the Chestnut Conservation Project Joint PD-MIR, “the geographic area of the entire project shall encompass the contiguous United States and southern Alaska”. As all 8 current PAIs fall within the southeastern geographic area, they meet the specifications for ‘designated geographic area’ and necessitate only one Non Permanence Risk assessment and buffer. All VCS standard v4.4 requirements for demonstrating geographic area have been met according to the relevant section of the standard, 3.11.1. A geodetic coordinate has been provided for each instance and provided in KML files for each.		
Documentation provided by the Project participant		
Chestnut Conservation Project Joint PD-MIR, Annex E, Annex AI, Annex AJ		

VVB Assessment	**Date:** 21/04/2023
Closed. Information provided.	