

# VALIDATION AND VERIFICATION REPORT

## *American Carbon Registry*

### *ACR735: Finite Carbon – Loon Echo & Mahoosuc Land Trusts IFM*

**Reporting Period:**

**08 October 2021 to 10 May 2022**

**Prepared for:**

**Finite Carbon**

**07 March 2023**



AMERICAN CARBON REGISTRY

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<b>Project Title</b>	<b>Finite Carbon – Loon Echo &amp; Mahoosuc Land Trusts IFM</b>
<b>ACR Project ID</b>	<b>ACR735</b>
<b>Client</b>	<b>Finite Carbon</b>
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## Executive Summary

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This report describes the validation and initial verification services provided for the Finite Carbon – Loon Echo & Mahoosuc Land Trusts IFM project (“the project”), an Improved Forest Management project located in southwestern Maine and northeastern New Hampshire, that was conducted by SCS Global Services. The project proponents are the Loon Echo Land Trust and the Mahoosuc Land Trust. The overall goal of the validation engagement was to review impartially and objectively the GHG project plan against the requirements laid out in the ACR Standard and relevant methodology. The overall goal of the verification engagement was to review impartially and objectively the claimed GHG emission reductions/removal enhancements for the reporting period from 08 October 2021 to 10 May 2022 against relevant ACR standards and the approved methodology. The validation and verification engagements were carried out through a combination of document review, interviews with relevant personnel and on-site inspections. As part of the validation and verification engagements 27 findings were raised: 0 Non-Conformity Reports, 17 New Information Requests, and 10 Observations. These findings are described in Appendix A of this report. The project complies with the validation and verification criteria, and SCS holds no restrictions or uncertainties with respect to the compliance of the project with the validation and verification criteria.

## Table of Contents

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<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	About SCS Global Services .....	1
1.2	Objectives .....	1
1.3	Scope .....	2
1.4	Validation and Verification Criteria .....	3
1.5	Level of Assurance .....	3
1.6	Treatment of Materiality .....	4
1.7	Summary Description of the Project.....	5
<b>2</b>	<b>Assessment Process.....</b>	<b>5</b>
2.1	Method and Criteria .....	5
2.2	Document Review .....	5
2.3	Interviews.....	6
2.4	Site Inspections .....	7
2.5	Resolution of Findings .....	8
2.6	Techniques and Processes Used to Test the GHG Information and GHG Assertion .....	9
<b>3</b>	<b>Validation Findings .....</b>	<b>9</b>
3.1	Project Boundary and Activities.....	10
3.2	Description of and Justification for the Baseline Scenario .....	11
3.3	Project-Specific Conformance to ACR Eligibility Criteria .....	12
3.4	Demonstration of Additionality .....	16
3.5	Processes for Emission Reductions/Removal Enhancements Quantification .....	17
<b>4</b>	<b>Verification Findings.....</b>	<b>19</b>
4.1	Results of Quantitative Uncertainty Assessment.....	19
4.2	Analysis of the Quantification Methodologies and Applicable Data Sets and Sources .....	19
4.3	Basis of Data and Information Supporting the GHG Assertion.....	20
4.4	Leakage Assessment.....	20
4.5	Risk Assessment .....	21
<b>5</b>	<b>Conclusion.....</b>	<b>21</b>
	<b>Appendix A: List of Findings .....</b>	<b>23</b>

# 1 Introduction

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## 1.1 About SCS Global Services

SCS Global Services (SCS) is a global leader in third-party certification, auditing, testing services, and standards. Established as an independent third-party certification firm in 1984, our goal is to recognize the highest levels of performance in environmental protection and social responsibility in the private and public sectors, and to stimulate continuous improvement in sustainable development. In 2012, Scientific Certification Systems, Inc. began doing business as SCS Global Services, communicating its global position with offices and representatives in over 20 countries.

SCS' Greenhouse Gas (GHG) Verification Program has been verifying carbon offsets since 2008 and to date has verified over 296 million tonnes of CO<sub>2</sub>e, providing GHG verification services to a wide array of industries including manufacturing, transportation, municipalities, and non-profit organizations. The GHG Verification Program draws upon SCS's established expertise to serve the global carbon market.

## 1.2 Objectives

### 1.2.1 Validation Objectives

The overall goal of third-party validation was to review impartially and objectively the GHG project plan against the requirements laid out in the ACR Standard and relevant methodology. SCS independently evaluated the project design and planning information, based on supporting documentation and GHG validation best practices.

The objectives of validation were to evaluate

- Conformance to the ACR Standard.
- GHG emissions reduction project planning information and documentation in accordance with the applicable ACR-approved methodology, including the project description, baseline, eligibility criteria, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures.
- Reported GHG baseline, ex ante estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

SCS reviewed any relevant additional documentation provided by the project proponent to confirm the project's eligibility for registration on ACR.

### 1.2.2 Verification Objectives

The overall goal of third-party verification was to review impartially and objectively the claimed GHG emission reductions/removal enhancements against relevant ACR standards and the approved

methodology. SCS independently evaluated the GHG assertion, based on supporting evidence and GHG verification best practice. The objectives of verification were to evaluate

- Reported GHG baseline, project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).
- Any significant changes to the project procedures or criteria since the last verification.
- Any significant changes in the GHG project's baseline emissions and emission reductions/removal enhancements since the last verification.

SCS reviewed the GHG project plan, GHG assertion, and any additional relevant documentation provided by the client to determine

- That the reported emissions reductions and/or removal enhancements are real.
- Degree of confidence in and completeness of the GHG assertion.
- That project implementation was consistent with the GHG project plan.
- Eligibility for registration on ACR.
- Sources and magnitude of potential errors, omissions, and misrepresentations, including the
  - Inherent risk of material misstatement.
  - Risk that the existing controls of the GHG project would not have prevented or detected a material misstatement.

## 1.3 Scope

### 1.3.1 Scope of Validation

The validation included examination of all of the following elements of the GHG project plan:

- Project boundary and procedures for establishing the project boundary
- Physical infrastructure, activities, technologies, and processes of the project
- GHGs, sources, and sinks within the project boundary
- Temporal boundary
- Description of and justification for the baseline scenario
- Methodologies, algorithms, and calculations that will be used to generate estimates of emissions and emission reductions/removal enhancements
- Process information, source identification/counts, and operational details
- Data management systems
- QA/QC procedures
- Processes for uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

### 1.3.2 Scope of Verification

Verification included examination of some or all of the following elements of the GHG project plan:

- Physical infrastructure, activities, technologies, and processes of the GHG project
- GHG SSRs within the project boundary
- Temporal boundary
- Baseline scenarios
- Methods and calculations used to generate estimates of emissions and emission reductions/removal enhancements
- Original underlying data and documentation as relevant and required to evaluate the GHG assertion
- Process information, source identification/counts, and operational details
- Data management systems
- Roles and responsibilities of project participants or client staff
- QA/QC procedures and results
- Processes for and results from uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

SCS examined the reported data, quantification methodologies, calculation spreadsheets or databases, source data, project data management systems, data quality controls in place, measurement and monitoring systems, and records pertaining to emissions quantification. Calculation and error checks, site inspections, interviews with project participants, an iterative risk assessment, sampling plan, and audit checklist were performed to the extent necessary for SCS to develop an understanding of how data are collected, handled, and stored for a specific project.

Finally, as a full verification, the verification services included a field visit to the project site and

- Such carbon stock measurements as SCS required to provide a reasonable level of assurance that the GHG assertion is without material discrepancy (per ACR's materiality threshold of  $\pm 5\%$ ).
- Updated assessment of the risk of reversal and an updated buffer contribution.

## 1.4 Validation and Verification Criteria

The validation and verification criteria were comprised of the following:

- ACR Standard, Version 7.0
- Improved Forest Management Methodology, Version 1.3 ("the methodology")
- ACR Tool for Risk Analysis and Buffer Determination, Version 1.0
- ACR Validation & Verification Standard Version 1.1

## 1.5 Level of Assurance

The level of assurance was reasonable.

## 1.6 Treatment of Materiality

For validation purposes, a material misstatement was declared if any of the following circumstances were detected:

- The physical or geographic boundary of the GHG project plan was not reasonably accurate.
- In respect of the project baseline,
  - The procedures for determining baseline emissions were not technically sound.
  - Data representative of the operations and activities had not been used, either from a single year or a multi-year average.
  - The baseline scenario chosen was not one for which verifiable data are available.
- In respect of the quantification methodology,
  - The quantification method for each data type was not clearly defined, and/or the degree of supporting documentation provided was inadequate to support a reasonable level of assurance.
  - Methods were not appropriate for accurately quantifying each data type:
    - Activity data had not been correctly applied from the original documentation.
    - The most accurate activity data readily available had not been used.
    - The quantification methodology did not account for all variations in activity data over the relevant crediting period.
    - Any emission factors used did not meet the requirements of the approved methodology and/or are not appropriate to the activity.
    - Any emission factors used had not been correctly applied from the original documentation to the relevant activity data.
    - The most appropriate factors readily available had not been selected.
    - Where there was a choice among equally defensible emission factors, the principle of conservativeness had not informed the choice of emission factors.
  - Methods were not applied consistently to develop estimates of emission reductions and removal enhancements.
  - The ISO principle of conservativeness was not applied; i.e., the choice of assumptions, calculation methods, parameters, data sources, and emission factors was not more likely to lead to an underestimation than overestimation of net GHG emission reductions and removal enhancements.



For verification purposes, it was required that discrepancies between the emission reductions/removal enhancements claimed by the project proponent and estimated by SCS be immaterial, i.e. be less than ACR's materiality threshold of  $\pm 5\%$ , as calculated according to the equation in the ACR Standard.

## 1.7 Summary Description of the Project

The project is aimed at enhancing carbon sequestration and includes multiple forested tracts, through southwestern Maine and northeastern New Hampshire, spanning Cumberland and Oxford Counties in Maine, and Coos County in New Hampshire. As indicated in the GHG Plan, the tracts are managed “as model forests, focused on public access, general health, habitat, species, age-class and structural diversity and quality timber production over long rotations, along with revenue generation to facilitate land conservation and stewardship.”

## 2 Assessment Process

### 2.1 Method and Criteria

The validation and verification services were provided through a combination of document review, interviews with relevant personnel and on-site inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, an assessment was made for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5 of this report, findings were issued to ensure conformance to all requirements.

The audit team created a sampling plan following a proprietary sampling plan template developed by SCS. The audit team identified areas of “residual risk”—those areas where there existed risk of a material misstatement (see Section 1.6 above) that was not prevented or detected by the controls of the project. Sampling and data testing activities were planned to address areas of residual risk. The audit team then created a validation and verification plan that took the sampling plan into account.

### 2.2 Document Review

The GHG project plan (“GHG Plan”) and monitoring report (“MR”) were carefully reviewed for conformance to the validation and verification criteria. The following provides a list of documentation – provided by project personnel including and in support of the GHG Plan and MR – that was reviewed by the audit team.

Documentation Reviewed During the Course of Validation and Verification Activities		
Document	File Name	Ref.
Greenhouse Gas Plan	ACR735 GHG Project Plan_1.6_030623.pdf	1
Monitoring Report	ACR735 RP1 Monitoring Report_030623_Signed.pdf	2

Calculation Workbook	ACR735 GHGPP Calculations v1.5.xlsx	3
Inventory Data Workbook	ACR735 Inventory Data.xlsx	4
Inventory Methodology	ACR735 Inventory Specification.pdf	5
Spatial Data	ACR735_RP1.gdb	6
Loon Echo Conservation Easement	CE to PWD RECORDED Bk 36277 Pg 183.pdf	7
Mahoosuc Conservation Easement	McCoy Recorded Declaration Book 5403, Page 519 (1) (1).pdf	8
Mahoosuc Conservation Easement	Scruton Easement (Recorded Amended and Restated) (1).pdf	9
Loon Echo Management Plans	[16 files in VerifierDocs\ManagementPlan\LoonEcho folder]	10
Loon Echo Ownership Docs	[56 files in VerifierDocs\Ownership\LoonEcho folder]	11
Mahoosuc Ownership Docs	[6 files in VerifierDocs\Ownership\Mahoosuc folder]	12
Appendix C maps	[8 files in AppendixC \LELT folder]	13
Appendix C maps	[8 files in AppendixC \MLT folder]	14
FVS modeling data	[5 files in Baseline Modeling Package\ACR735 Baseline Modeling Package v1.1 folder]	15
FVS run on-call	Test_JG_102022.out	16
FVS run on-call	Test_RX_102022.out	17
Client Treatment of IFM3	ACR735 Snag Model and Standing Dead Wood Dynamics_Proprietary 20220914.pdf	18
Site Index Calculations and SSURGO Sources	[5 files in Baseline Modeling Package\SiteIndex folder]	19
Timber Pricing	ACR735 TimberPricing.xlsx	20
NPV Calculations	ACR735 TimberVolumes.xlsx	21
Common Practice ARB	LoonEchoMahoosuc_SuperSection_CP.xlsx	22
CDSA Agreement	LELT - MLT - Finite - CDSA Executed_Redacted.pdf	23
Walk Through Method Justification	FC_ResponseToSCS_EdgePlots_20221007.pdf	24
Walk Through Plots Column added to Inventory Data	ACR735 Inventory Data_wWalkThru.xlsx	25
ATFS Inspections	[13 files in AdditionalDocumentation_101122\InspectionForms]	26

## 2.3 Interviews

### 2.3.1 Interviews of Project Personnel

The process used in interviewing project personnel was a process wherein the audit team elicited information from project personnel regarding (1) the work products provided to the audit team in

support of the PD and MR; (2) actions undertaken to ensure conformance with various requirements and (3) implementation status of the project activities. The following provides a list of personnel associated with the project proponent who were interviewed.

Interview Log: Individuals Associated with Project Proponent			
Individual	Affiliation	Role	Date(s) Interviewed
Matt Smith	Finite Carbon	Vice President of Forest Operations	Throughout the site visit
Lucas Hiltz	Finite Carbon	Forest Carbon Analyst	Throughout the site visit
Nathan Hanzelka	Finite Carbon	Associate Director of Project Development	Throughout the audit
Eric Downing	Finite Carbon	Vice President of Voluntary Projects	Throughout the audit
Kirk Siegel	Mahoosuc Land Trust	Executive Director	18 Aug 2022
Matt Markot	Loon Echo Land Trust	Executive Director	18 Aug 2022

### 2.3.2 Interviews of Other Individuals

The process used in interviewing individuals other than project personnel was a process wherein the audit team made inquiries to confirm the validity of the information provided to the audit team. The following personnel not associated with the project proponent. The following provides a list of individuals not associated with the project proponent who were interviewed.

Interview Log: Individuals Not Associated with Project Proponent			
Individual	Affiliation	Role	Date(s) Interviewed
Scott Rolfe	NH Department of Natural & Cultural Resources	South Regional Forester	12 September 2022
Dr. Steven Bick	Northeast Forests LLC	Independent Forester	04 October 2022
Michael Richard	Maine Dept of Agriculture, Conservation & Forestry	District Forester	12 September 2022
Adam Cates	Maine Dept of Agriculture, Conservation & Forestry	Regional Enforcement Officer	12 September 2022

## 2.4 Site Inspections

The objectives of the on-site inspections were as follows:

- Confirm the validity of the statements made in the GHG Plan and associated project documentation;

- Confirm the baseline conditions and project conditions.
- Interview project personnel to determine if the GHG Plan correctly identifies project activity and assess project personnel competencies;
- Select samples of data from on-the-ground measurements for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the Project; and
- Perform a risk-based review of the project area to ensure that the Project is in conformance with the eligibility requirements of the validation/verification criteria.

In support of the above objectives, the audit team performed an on-site inspection of the project area on the dates 26 July 2022 through 27 July 2022. The main activities undertaken by the audit team were as follows:

- Performed an in-depth assessment of the conformance of the Project to the assessment criteria
- Interviewed project personnel (see Section 2.3.1 of this report) to gather information regarding the inventory and monitoring procedures and project implementation
- Carried out on-site inspections of the project's measurement and/or monitoring methodologies through the following activities:
  - Toured the project areas, visually observing and taking coordinates at posted boundary signs, old fence lines, and other boundary references.
  - Selected samples of inventory data using simple random selection methods.
  - At each selected sample location, took on the ground measurements
  - Verified the sample by running a paired sample t-test on the independently calculated Mt CO<sub>2</sub>e/acre on each plot
- Review of management's commitment to the carbon project.
- Assessment of project during the reporting period to confirm that the project scenario consists of maintaining above baseline carbon stocks through carbon sequestration.

## 2.5 Resolution of Findings

Any potential or actual discrepancies identified during the audit process were resolved through the issuance of findings. The types of findings typically issued by SCS during this type of validation and verification engagement are characterized as follows:

- Non-Conformity Report (NCR): An NCR signified a discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a validation and/or verification statement.
- New Information Request (NIR): An NIR signified a need for supplementary information to determine whether a material discrepancy existed with respect to a specific requirement. Receipt of an NIR did not necessarily indicate that the project was not in compliance with a

specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a validation and/or verification statement.

- Observation (OBS): An OBS indicates an area where immaterial discrepancies exist between the observations, data testing results or professional judgment of the audit team and the information reported or utilized (or the methods used to acquire such information) within the GHG assertion. A root cause analysis and corrective action plan are not required, but highly recommended. Observations are considered by the audit team to be closed upon issuance, and a response to this type of finding is not necessary.

As part of the audit process, 0 NCRs, 17 NIRs and 10 OBSs were issued. All findings issued by the audit team during the audit process have been closed. All findings issued during the audit process, and the impetus for the closure of each such finding, are described in Appendix A of this report.

## 2.6 Techniques and Processes Used to Test the GHG Information and GHG Assertion

- Review of project documentation including the MR (Ref. 2), calculation workbooks (Refs. 3, 19-21), spatial information (Ref. 6), modeling files (Refs. 15-17), inventory methodologies and documentation (Refs. 4-5, 24-25), referenced management plans (Ref. 10), ownership and easement documentation (Refs. 7-9, 11, 12), certifications (Ref. 26), and to check for project-specific conformance to ACR standard and methodology (Refs. 1, 13, 14, 18, 22, 23), appropriateness of methodologies and tools applied, and accuracy of GHG information and assertion.
- Assessment of any disturbances or forest management activities that took place in the project area during the reporting period.
- Review of project scenario.
- Review of the sources, sinks and reservoirs of GHG emissions within the project boundary (Refs. 3, 6, 15-17, 18-22).
- Assessment of eligibility, additionality, GHG emission reduction assertion and underlying monitoring data to determine if either contained material or immaterial misstatements.
- Assessment of the emission reduction calculation inputs and procedures was performed to review the quantitative analyses undertaken by Finite Carbon to convert the raw inventory data into emission reduction estimates during the reporting period. This included a re-calculation of project emissions, ERTs, and uncertainty using inventory data as described below in section 3.1 and 3.2 (Refs. 3-4, 18, 20-21).
- Communicate with project personnel and project proponent via interviews, emails, and meetings to gain a better understanding of the project team's methodologies.
- Examine the data management and quality control processes and its controls for sources of potential errors and omissions.
- Review of project documentation including risk assessment and regulatory compliance.

## 3 Validation Findings

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### 3.1 Project Boundary and Activities

#### 3.1.1 Project Boundary and Procedures for Establishment

The GHG Plan contains a description of the physical boundary of the project, which is located on approximately 8,568.3 acres of forested land “dominated by a mix of hardwood (maple/beech/birch) and softwood (spruce/pine/fir) forest types typical of Maine forests.” The project area comprises many forested parcels in two states (NH, ME) all owned and managed by either the Loon Echo Land Trust or the Mahoosuc Land Trust. This is the physical and geographic site where project activities occur. The audit team confirmed that the boundaries were well documented throughout both the document review and site visit activities. During the site visit the audit team independently checked the accuracy of spatial information on ownership, as used in delineation of the project area, by visiting a sample of corners or other ownership monuments and comparing actual locations to mapped locations. Likewise, during document review the audit team inspected project shapefiles (Ref. 6) to confirm project boundaries are accurately represented as compared to boundaries mapped during the site visit, maps provided in the GHG Plan, and available satellite imagery.

#### 3.1.2 Physical Infrastructure, Activities, Technologies and Processes

The audit team reviewed the GHG Plan and project documentation (Refs. 1, 10) which indicate potential infrastructure, activities, and technologies used within the project area. The project activity consists of allowing the forest to progress naturally with limited harvesting. The audit team concluded that project activities, infrastructure and technologies will be minimal within the project area.

#### 3.1.3 GHGs, Sources, and Sinks within the Project Boundary

The GHG sources, sinks and/or reservoirs that are applicable to the Project were confirmed. The sources, sinks, and reservoirs of GHG emissions within the project boundary are listed in the table below. This applies to both the baseline and project scenarios.

### 3.1.4 Temporal Boundary

The ACR Standard in Chapter 3 states that “ACR defines the Start Date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline.” SCS was able to review the GHG Plan, MR, and relevant contractual documents (Ref. 1, 2, 23) for authenticity and concluded that the documents provided indicate the project start date is eligible.

For ACR the minimum project term is 40 years and the eligible crediting period for this type of project is listed as 20 years. SCS confirmed that the GHG Plan included a timeline with a first crediting period of 20 years and a minimum project term of 40 years.

## 3.2 Description of and Justification for the Baseline Scenario

Description	Included / Excluded	Gas	Justification
Above-ground biomass carbon	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.
Below-ground biomass carbon	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.
Standing dead wood	Included	CO <sub>2</sub>	Major carbon pool in unmanaged stands subjected to the project activity.
Harvested wood product	Included	CO <sub>2</sub>	Major carbon pool subjected to the project activity.
Burning of biomass	Included	CH <sub>4</sub>	Non-CO <sub>2</sub> gas emitted from biomass burning.

The methodology defines an IFM baseline scenario as “the legally permissible harvest scenario that would maximize NPV of perpetual wood products harvests.” The GHG Plan indicates that the baseline scenario is typical of practices in the project region on lands of similar forest types and ecological conditions. The silvicultural prescriptions used to model and maximize NPV are named ‘Heavy thin’ and ‘Light thin’.

During the site visit and through interviews with the landowner and local foresters the audit team verified that aggressive industrial timber harvesting is common practice in the region. The audit team also conducted a financial feasibility assessment of the baseline scenario using regional stumpage rates to independently verify NPV. SCS determined that the harvesting rate indicated in the baseline scenario would be feasible.

### 3.3 Project-Specific Conformance to ACR Eligibility Criteria

The audit team reviewed the demonstration of conformance, as set out in the PP, to each of the relevant eligibility criteria listed in the ACR Standard. The audit team confirmed the full conformance of the project with the relevant eligibility criteria. A more detailed assessment of the audit team's findings is provided below.

Actions Undertaken to Confirm Conformance to Eligibility Criteria		
Criterion	ACR Requirement	Validation Activities
Start Date, All Projects	Non-AFOLU Projects must be validated within 2 years of the project Start Date. AFOLU Projects must be validated within 3 years of the project Start Date.	Confirmation that this report was issued less than 3 years after 08 October 2021, the start date of the project according to the GHG Plan.
Start Date Definition, Non-AFOLU Projects	ACR defines the Start Date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline.	Not applicable; this project is an AFOLU project.
Start Date Definition, AR or Wetland Projects	For AR or Wetland restoration/revegetation projects, the Start Date is when the Project Proponent began planting or site preparation.	Not applicable; the project is not an AR or wetland project.
Start Date Definition, IFM Projects	For IFM, the Start Date may be denoted by one of the following: 1. The date that the Project Proponent began to apply the land management regime to increase carbon stocks and/or reduce emissions relative to the baseline. 2. The date that the Project Proponent initiated a forest carbon inventory. 3. The date that the Project Proponent entered into a contractual relationship to implement a carbon project. 4. The date the project was submitted to ACR for listing review. Other dates may be approved by ACR on a case by case basis.	SCS was able to review the GHG Plan, MR, and the CDSA Agreement (Refs. 1, 2, 23) for authenticity and to confirm start date based on option 3, to the left.
Start Date Definition, Avoided Conversion Projects	For Avoided Conversion of non-forest, the Start Date is when the Project Proponent implemented the project action physically and/or legally, such as securing a concession or placing a land conservation agreement on the project land.	Not applicable; the project is not an avoided conversion project.
Start Date Definition, Other Agricultural	For other Agricultural Land-based projects, the Start Date is the date by which the Project Proponent began the Project Activity on project	Not applicable; the project is not an other agriculture land-based project.



Land-based Projects	lands, or the start of the cultivation year during which the Project Activity began.	
Minimum Project Term (AFOLU Projects Only)	Project Proponents of AFOLU projects with a risk of reversal shall commit to a Minimum Project Term of 40 years. The minimum term begins on the Start Date, not the first or last year of crediting. This requirement applies only to AFOLU projects that have had ERTs issued that are associated with GHG removals (sequestration). AFOLU projects that have claimed only avoided emissions are not subject to this requirement.	Review of the GHG Plan to confirm that the minimum term is 40 years, as required.
Crediting Period	<p>The Crediting Period for non-AFOLU projects shall be 10 years.</p> <p>All AR projects shall have a Crediting Period of 40 years.</p> <p>All IFM projects shall have a Crediting Period of 20 years.</p> <p>Avoided Conversion projects on both forest and non-forest land with land conservation agreements in place shall have a Crediting Period of 40 years, unless otherwise specified in chosen methodologies.</p> <p>Wetland Restoration/Revegetation projects shall have a Crediting Period of 40 years.</p> <p>The Crediting Periods for agriculture projects that avoid emissions by changing to lower GHG practices and those that include a soil sequestration component will be specified in the applicable methodology.</p>	Review of the GHG Plan to confirm that the crediting period is 20 years, as required given the project type.
Real	<p>GHG reductions and/or removals shall result from an emission mitigation activity that has been conducted in accordance with an approved ACR Methodology and is verifiable.</p> <p>ACR will not credit a projected stream of offsets on an ex-ante basis.</p>	Review of the emission mitigation activity, as described in the GHG Plan, to confirm that it conforms to the requirements of the methodology and will be verifiable if implemented as described.
Emission or Removal Origin (Direct Emissions)	The Project Proponent shall own, have control over, or document effective control over the GHG sources/sinks from which the emissions reductions or removals originate. If the Project Proponent does not own or control the GHG sources or sinks, it shall document that effective control exists over the GHG sources and/or sinks from which the reductions/ removals originate.	Review of the GHG Plan, and the ownership documentation provided (Refs. 1, 11-12) to confirm that Project Proponent has control over the GHG sources/sinks from which the emissions reductions or removals originate on the properties.
Emission or Removal Origin	For projects reducing or removing non-energy indirect emissions, the following requirement applies:	Not applicable; the project is not reducing or removing non-energy indirect emissions.

(Indirect Emissions)	The Project Proponent shall document that no other entity may claim GHG emission reductions or removals from the Project Activity (i.e., that no other entity may make an ownership claim to the emission reductions or removals for which credits are sought).	
Offset Title (All Projects)	The Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration. Title to offsets shall be clear, unique, and uncontested.	Review of the GHG Plan, MR attestations, and the ownership documentation provided (Refs. 1-2, 11-12) to confirm no offsets prior to registration of the Project and that the Project Proponent has ownership of the properties included in the Project.
Land Title (AFOLU Projects Only)	<p>For U.S. projects with GHG emissions reductions resulting from terrestrial sequestration, Project Proponents shall provide documentation of clear, unique, and uncontested land title. For international projects, Project Proponents shall provide documentation and/or attestation of land title; ACR may require a legal review by an expert in local law.</p> <p>Land title may be held by a person or entity other than the Project Proponent, provided the Project Proponent can show clear, unique, and uncontested offsets title.</p> <p>AFOLU projects that result only in the crediting of avoided emissions with no risk of reversal may not require demonstration of land title.</p>	
Additional	<p>Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test, or pass a three-pronged test of additionality in which the project must:</p> <ol style="list-style-type: none"> <li>1. Exceed regulatory/legal requirements;</li> <li>2. Go beyond common practice; and</li> <li>3. Overcome at least one of three implementation barriers: institutional, financial, or technical.</li> </ol>	Confirmation that the project meets all relevant additionality requirements (see Section 3.4 below for more details).
Regulatory Compliance	Projects must maintain material regulatory compliance. To do this, a regulatory body/bodies must deem that a project is not out of compliance at any point during a reporting period. Projects deemed to be out of compliance with regulatory requirements are not eligible to earn ERTs during the period of non-compliance. Regulatory compliance violations related to administrative processes (e.g., missed application or reporting deadlines) or for issues unrelated to integrity of the GHG emissions reductions shall be treated on a case-by-case basis and may not disqualify a project from ERT issuance. Project Proponents are required to	After performing extensive regulatory compliance checks for the project during the reporting period (RP1), the audit team found no indication of any violations regarding regulatory compliance. EPA, ECHO and OSHA were checked, and no violations were observed. There are few regulations that govern forest management in these states. We confirmed with local foresters for ME and NH that there have been no violations pertaining to timber harvesting or other environmental policies on the properties over the last year. Given these

	provide a regulatory compliance attestation to a verification body at each verification. This attestation must disclose all violations or other instances of non-compliance with laws, regulations, or other legally binding mandates directly related to Project Activities.	lands have had very few management activities, the audit team does not consider this a high area of risk. We have achieved a reasonable level of assurance on this regulatory check.
Permanence (All AFOLU Projects)	AFOLU Project Proponents shall assess reversal risk using ACR's Tool for Risk Analysis and Buffer Determination, and shall enter into a legally binding Reversal Risk Mitigation Agreement with ACR/Winrock that details the risk mitigation option selected and the requirements for reporting and compensating reversals.	Confirmed a total risk percentage of 18% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.
Permanence (Terrestrial Sequestration, Avoided Conversion Projects)	Proponents of terrestrial sequestration or avoided conversion projects shall mitigate reversal risk by contributing ERTs to the ACR Buffer Pool or using another ACR-approved insurance or risk mitigation mechanism.	Confirmed a total risk percentage of 18% using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology.
Permanence (Geologic Sequestration Projects)	Proponents of geologic sequestration projects shall mitigate reversal risk during the project term by contributing ERTs to the ACR Reserve Account and post-project term by filing a Risk Mitigation Covenant, which prohibits any intentional reversal unless there is advance compensation to ACR, or by using another ACR-approved insurance or risk mitigation mechanism.	Not applicable; the project is not a geologic sequestration project.
Permanence (All Projects)	All projects must adhere to ongoing monitoring, reversal reporting, and compensation requirements as detailed in relevant methodologies and legally binding agreements (e.g., the ACR Reversal Risk Mitigation Agreement).	Confirmed that section D of the GHG Plan includes a detailed Monitoring Plan relevant to the methodology.
Net of Leakage	ACR requires Project Proponents to address, account for, and mitigate certain types of leakage, according to the relevant sector requirements and methodology conditions. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project in excess of any applicable threshold specified in the methodology.	Confirmed that a 40% leakage deduction was applied which is consistent with market-leakage per the methodology. No activity shifting leakage was also confirmed through the clarification of the GHG Plan section E3: All forested acres owned or under management control of the Project Proponent and associated landowner are enrolled in the project.
Independently Validated	ACR requires third-party validation of the GHG Project Plan by an accredited, ACR-approved VVB once during each Crediting Period and prior to issuance of ERTs.	The GHG Plan has been independently validated by SCS, an accredited, ACR-approved validation/verification body.

Independently Verified	Verification must be conducted by an accredited, ACR-approved VVB prior to any issuance of ERTs and at minimum specified intervals.	The GHG Plan has been independently verified by SCS, an accredited, ACR-approved validation/verification body.
Environmental And Community Assessments	<p>ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices. Environmental and community impacts should be net positive, and projects must “do no harm” in terms of violating local, national, or international laws or regulations.</p> <p>Project Proponents must identify in the GHG Project Plan community and environmental impacts of their project(s). Projects shall also disclose and describe positive contributions as aligned with applicable sustainable development goals. Projects must describe the safeguard measures in place to avoid, mitigate, or compensate for potential negative impacts, and how such measures will be monitored, managed, and enforced.</p> <p>Project Proponents shall disclose in their Annual Attestations any negative environmental or community impacts or claims thereof and the appropriate mitigation measure.</p>	Confirmed by reviewing the GHG plan, MR, and management plans (Refs. 1-2, 22-23) which indicate that the project has no anticipated negative community or environmental impacts.

### 3.4 Demonstration of Additionality

The audit team reviewed the demonstration of additionality, as set out in the GHG Plan, and confirmed that the additionality requirements set out in the ACR Standard have been met. A more detailed assessment of the audit team’s findings is provided below.

#### 3.4.1 Regulatory Surplus Test

A regulatory review of the Project was conducted by the audit team. There are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring the project activities.

#### 3.4.2 Performance Standard Test

Not applicable.

#### 3.4.3 Common Practice Test

The Project demonstrated that the predominant forest industry technologies and practices that exist within the project’s geographic region are similar in comparison to forest type, ecological condition, and species or forest product type.

Through interviews with local managers and a detailed review of published data for the region, the audit team verified the timber harvesting practices involving the silvicultural prescriptions claimed in the baseline scenario are common practice in the region. Additionally, the audit team verified the feasibility of the local mill capacity to accept the different wood products created in the baseline scenario.

### **3.4.4 Implementation Barriers Test**

The “financial barrier” option was chosen by the project proponent as an implementation barrier. SCS Global Services received guidance from ACR personnel, in an email dated 6 June 2019, stating the following:

*The intent of the financial implementation barrier test encompasses the interpretation and wording in Table 2, in which “carbon funding is reasonably expected to incentivize the implementation of the project scenario”, yielding increased carbon stocks compared to the baseline. A quantitative assessment demonstrating forgone profit as a result of employing the project scenario suffices for passing this test.*

Given this guidance, a financial barrier was demonstrated through a quantitative assessment demonstrating foregone profit as a result of employing the project scenario (i.e., demonstrating that the net present value of the baseline scenario was higher than the projected net present value of the project scenario). The audit team independently conducted a financial feasibility assessment by using local stumpage prices to verify that the baseline scenario could feasibly occur in the project area in the lifetime of the carbon project if the project were not implemented.

## **3.5 Processes for Emission Reductions/Removal Enhancements Quantification**

### **3.5.1 Methods, Algorithms, and Calculations To Be Used to Generate Estimates of Emissions and Emission Reductions/Removal Enhancements**

The audit team validated the methodologies applied to quantify GHG emissions and emission reductions in the baseline and project scenarios. The objective was to determine whether the methods are clearly defined with supporting documentation, appropriate for accurately quantifying each data parameter, applied consistently, and result in a conservative estimate of GHG emissions reductions and removal enhancements.

Section 4.2 provides further detail on the methods, algorithms, and calculations used to generate and validate emissions reductions estimates.

### **3.5.2 Process Information, Source Identification/Counts, and Operational Details**

The forest inventory serves as the primary source of data and information used to quantify emissions reductions. The GHG Plan and inventory methodology (Ref. 1, 5) describe the process including sample size, determination of plot numbers, plot layout, data collected, and measurement techniques. Through

site visit, data, and document review (Refs. 4-5, 24-25), the audit team verified the forest inventory methodologies and application.

The inventory data was then run within the Forest Vegetation Simulator with baseline prescriptions to project the baseline condition and a grow-only scenario to estimate the project scenario. The audit team confirmed that the baseline prescriptions were feasible and representative of common practice conditions in the region (see section 3.4.2).

### **3.5.3 Data Management Systems**

SCS verified through review of the GHG Plan and the datasets submitted that the data management systems are in place as described.

### **3.5.4 QA/QC Procedures**

Section Title ‘Inventory Audit (QA/QC)’ of the Inventory Methodology (Ref. 5) identifies QA/QC procedures related to the review of field collected data. Ref. 5 states that “The Audit will consist of a minimum of 7% of the samples collected. Initially, audits will address all cruisers equally. If however, individual cruisers are found to be consistently out of compliance, the auditor or audit team may focus on individuals in order to verify compliance with the specifications.” The ‘inventory audit’ involves full plot measurement to identify any problems with determining in/out trees, species identification, or measurements. These field QA/QC procedures were confirmed on-site and during interviews.

The QA/QC procedures and the quantification approach employed by the project team conform to the parameters and quantification methods required by the Methodology. SCS determined that the Project Proponent sufficiently documented and quantified each parameter.

### **3.5.5 Processes for Uncertainty Assessments**

The GHG Plan describes how baseline and project uncertainty were calculated. The GHG Plan states that uncertainty in the combined carbon stocks in the baseline is quantified using equation 10 of the methodology (Ref. 3). The percentage uncertainty in the combined carbon stocks in the project during the reporting period is calculated using equation 18 of the methodology (Ref. 3). The total project uncertainty (percentage) during the reporting period is quantified using equation 19 of the methodology (Ref. 3). SCS confirmed that the approaches for assessing uncertainty that are identified in the GHG Plan are in conformance with the quantification methods required by the Methodology. Further detail on uncertainty quantification is in sections 4.1.

## 4 Verification Findings

### 4.1 Results of Quantitative Uncertainty Assessment

SCS devoted a portion of the verification assessment to the review of the manner and propriety by which the project proponent quantified uncertainty associated with the individual GHGs in the project, in addition to the uncertainty of the calculation of GHG emission reductions and removals. The audit team also calculated the total materiality of the GHG reduction and removal assertion.

#### 4.1.1 Project Uncertainty

The reported total Project Uncertainty (UNC<sub>t</sub>) value of 8.39% value reported by the client for 2021 was independently re-quantified by SCS using equation 19 in the methodology. The audit team found this difference reasonable and immaterial.

Year	UNC <sub>t</sub> Client Values	UNC <sub>t</sub> SCS Values	Difference
2022	8.39%	8.39%	0.00%

*Note: final numbers are rounded for simplicity.*

#### 4.1.2 Materiality

The total materiality of the GHG reduction and removal assertion was also calculated for the reporting period.

$$\% \text{ Error} = \frac{(\text{Project Emission Reduction Assertion} - \text{Verifier Emission Reduction Recalculation})}{\text{Verifier Emission Reduction Recalculation}} * 100$$

$$\% \text{ Error} = \frac{(54,571 - 54,772)}{54,772} * 100 = \frac{-201}{54,772} * 100 = -0.37\%$$

### 4.2 Analysis of the Quantification Methodologies and Applicable Data Sets and Sources

The audit team re-quantified baseline and project emissions, emissions reductions, and baseline and project uncertainty from the raw inventory data provided by the client. This process entailed verifying that the methods detailed in the GHG Plan and MR were applied as indicated. The team confirmed the emissions reduction by conducting the following analysis:

- Recalculate the live aboveground, live belowground, and standing dead carbon pools using Woodall equations and decay class information.

- Calculate the change in project carbon stock stored in above and below ground live trees using equation 11 in the methodology
- Calculate the change in project carbon stock stored in above ground dead trees using equation 12 in the methodology
- Calculate any greenhouse gas emission resulting from the implementation of the project in the reporting period using equation 13 in the methodology
- Calculate the change in the project carbon stock and GHG emissions during the reporting period using equation 14 in the methodology.
- Calculate the percentage uncertainty in the combined carbon stocks in the project during the reporting period using equation 18 in the methodology
- Calculate the total project uncertainty (percentage) during the reporting period using equation 19 in the methodology.
- Calculate the net greenhouse gas emission reductions (in metric tons CO<sub>2</sub>e) during the reporting period and during each annual vintage using equation 20 in the methodology.
- FVS model outputs were assessed by running simulations collaboratively with the Client and comparing the outputs to those used in ERT calculations. This approach was chosen because the audit team was unable to configure a computing environment to accommodate the older version of FVS that the Client elected to use, and the results between the older version (2013) and modern version (2022) are incompatible (see Finding NIR2; OBS 17). Through the collaborative approach, the audit team was able to verify that the Client's simulation results are valid.
- Additional checks included, among other things, a review of site index calculations, harvest parameters, NPV values, interpolation methods, defect calculations, and any assumptions used.

### 4.3 Basis of Data and Information Supporting the GHG Assertion

The data and information supporting the GHG assertion were based on industry defaults, future projections, and actual historical records. The future projections are a result of a combination of tree inventory data, site index data, and other data modelled over time. Industry defaults are used in the harvested wood products as well as growth rates for the region. Actual historical records are used to assess stumpage prices, common practice, and boundary assessment.

### 4.4 Leakage Assessment

A finding was issued regarding the leakage assessment of the project (NIR 9). The audit team confirmed that project activities decrease total wood products produced by the project relative to the baseline by 25% or more over the Crediting Period. The audit team also reviewed the management plans and historical records provided. SCS confirmed that the applicable market leakage factor of 0.4 was applied.



## 4.5 Risk Assessment

The reported value of the total risk score, as determined based on the risk analysis documented in the GHG Plan and MR, was 18%. The audit team performed a complete review of the risk assessment against the requirements of the ACR Tool for Risk Analysis and Buffer Determination. The audit team concludes that the assignment of risk scores is appropriate and in conformance to the ACR Tool for Risk Analysis and Buffer Determination. A more detailed review of the audit team's conclusions may be found below.

Actions Undertaken to Evaluate Whether the Risk Assessment Has Been Conducted Correctly		
Risk Category	Value Selected	Verification Activities
A	4%	Confirmation, through site inspections and independent review of documentation, that project is not located on public or tribal lands
B	4%	Confirmation, through site inspections and independent review of documentation, that project is not located on public or tribal lands
C	2%	Confirmation, through site inspections, that the project is not located outside the United States
D	0%	Confirmation, through independent review of documentation, that conservation easement does not cover entire project area
E	2%	Confirmation, through independent review of documentation, that project is located in a low-risk fire region
F	4%	Confirmation, through independent review of documentation, that epidemic disease or infestation is not present within project area, or within 30 mile radius of project area
G	0%	Confirmation, through site inspections as well as independent review of documentation, that project is not a wetland project or a forest project where more than 60% of the project area is not a forested wetland
H	2%	Confirmation that default value has been applied in the risk assessment calculation
	18%	TOTAL

## 5 Conclusion

The audit team asserts, with no qualifications or limitations, that

- The GHG Plan conforms, in full, to the validation criteria.
- The quantification of GHG emission reductions and/or removal enhancements, as reported in the MR, conforms to the verification criteria and is without material discrepancy.

The following provides a summary of the annual emission reductions and removals issuance for the current Reporting Period with the Leakage deduction included and the Buffer deductions excluded (Gross ERTs):


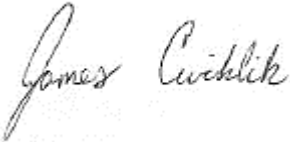
Annual Emission Reductions and Removals in Metric Tons (tCO <sub>2</sub> e) during Reporting Period 1				
Vintage	Start Date	End Date	Gross GHG Emission Removals (tCO <sub>2</sub> e)	Gross GHG Emission Reductions (tCO <sub>2</sub> e)
2021	08 October 2021	31 December 2021	0	26,310
2022	1 January 2022	10 May 2022	0	40,240
Total			0	66,550

Note: final numbers are rounded for simplicity.

The following provides a summary of the ERT issuance for the current Reporting Period with the Leakage and the Buffer deduction included (Buffer credits shown separately):

Annual Emission Reduction in Metric Tons (tCO <sub>2</sub> e) during Report Period 1				
Vintage	Start Date	End Date	Net GHG Emission Reductions/Removals (tCO <sub>2</sub> e)	Quantity of Buffer Credits (tCO <sub>2</sub> e)
2021	26 March 2021	31 December 2021	21,574	4,736
2022	1 January 2022	25 March 2022	32,997	7,243
Total			54,571	11,979

Note: final numbers are rounded for simplicity.

Lead Auditor Approval	 Alexa Dugan, 07 March 2023
Internal Reviewer Approval	 James Cwiklik, 07 March 2023

## Appendix A: List of Findings

Please see Section 2.5 above for a description of the findings issuance process and the categories of findings issued. It should be noted that all language under “Project Personnel Response” is a verbatim transcription of responses provided to the findings by project personnel.

### **NIR 1 Dated 16 Sep 2022**

**Standard Reference:** ACR IFM Methodology v1.3

**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** In section 3.2 Wood Products Calculations within step 3 for ‘Steps to Estimate Carbon Storage in In-Use Products 100 Years after Harvest’ the Project Proponent selected ‘default wood product classes for the project’s Assessment Area, as given in the most current Assessment Area Data File found on the Reference Documents section of this methodology’s website.’ In the GHG plan, the weighted average values for ‘Harvest Wood Product %’ in Table E1.3.6 do not match with weighted values given the Project Proponents wood project percent source and the percent of project area provided. Please provide supporting evidence of the values found in Table E1.3.6.

**Project Personnel Response:** Upon further review it was found that the equation references in the ERT workbook did not correctly reflect the weighted average values for Harvest Wood Product %. These references have been corrected in the workbook and any impacted values have been updated throughout all project documentation.

**Auditor Response:** The values have been updated to reflect the weighted average values for ‘Harvested Wood Product %’. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 2 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** LoonEchoMahoosuc\_BSL\_package\_08092022.out

**Finding:** Section 3.1 of the IFM Methodology states “CBSL,TREE,t and CBSL,DEAD,t must be estimated using models of forest management across the baseline period. Modeling must be completed with a peer reviewed forestry model that has been calibrated for use in the project region.” The Methodology also indicates that models must be: “• Peer reviewed in a process involving experts in modeling and biology/forestry/ecology • Used only in scenarios relevant to the scope for which the model was developed and evaluated • Parameterized for the specific conditions of the project.” From the Forest Management Service Center website

(<https://www.fs.usda.gov/forestmanagement/aboutus/fmsc.shtml>): “The Forest Vegetation Simulator (FVS) is the USDA Forest Service’s nationally supported framework ensuring consistency among forests in vegetation growth and yield modeling. In addition to training and support, other responsibilities include adapting FVS to new areas, model maintenance, enhancement, testing, validation, and connection to other corporate software.” From the FVS website

(<https://www.fs.usda.gov/fvs/whatis/index.shtml>): “The FMSC performs a technology transfer role, working with researchers and National Forest staff from various geographical areas to incorporate their findings into the FVS framework. The FMSC is constantly upgrading existing variants and developing additional variants.” The audit team is observing differences in growth and yield projections compared to the Project Proponent’s data caused by FVS versioning. According to an FVS output file, the Project Proponent is using release version 07/15/13 of FVS. There have been many updates to FVS since this release version that impact the northeast (ne) variant used in this project (see FVS newsletters for those occurring since 2017:

<https://www.fs.usda.gov/fvs/documents/newsletters/index.php>). These updates include changes to the SDI Max values, the implementation of volume equations, and regeneration (sprouting) values that directly impact growth, yield, and carbon quantification. Please provide justification for the use of an outdated release version that does not incorporate the latest peer reviewed parameterization and calibration of FVS and the northeast variant.

**Project Personnel Response:** FC acknowledges these versioning updates and subsequent differences between quantification values. Efforts are currently underway to update our workflows using the more recent, online-based FVS platform for the development of future projects listed under the ACR IFM 2.0 methodology. That said, the vintage of inventory software used on this project is still fully in conformance with ACR v1.3 (published April 2018) and also complies with the latest ARB protocols. FC has provided the audit team with a copy of the FVS.exe file(s) associated with this software vintage for testing.

**Auditor Response:** The new information provided satisfies concerns related to FVS versioning in this project. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 3 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735 GHG Project Plan\_1.1; LoonEchoMahoosuc\_BSL\_package\_08092022

**Finding:** Section C1 of the IFM Methodology states “The IFM baseline is the legally permissible harvest scenario that would maximize NPV of perpetual wood products harvests. The baseline management scenario shall be based on silvicultural prescriptions recommended by published state or federal agencies to perpetuate existing onsite timber producing species while fully utilizing available growing space.” In section E1.3.3.2 of the GHG Plan for the ‘Thin from Above to Basal Area target’ prescription it states “Only trees with DBH’s and heights within the user-defined ranges are considered for removal. The tree record with the largest diameter within the specified range is considered for removal first, and the proportion of that tree record specified in field 3 is removed. The tree record with the next largest diameter is considered next, then the next largest and so on until the residual basal area target is met or all records in the specified range have been considered. The residual target basal area is specified only for the user-defined range of DBH and height and does not represent the total residual unless the range of DBH’s and heights includes all trees in the stand. The THINABA keyword was used to simulate heavy thins from above in upland stands. The target residual basal area was set to 30 square feet per acre, consistent with typical silvicultural practices in the state of Maine.” In reviewing the description of this prescription as well as the application of the prescription in FVS (LoonEchoMahoosuc\_BSL\_package\_08092022.out), the audit team found that this prescription harvests all of the trees in the largest size class and then works its way down the next largest sizes classes until 30 sq ft/acre are achieved. It appears that this harvest practice meets the definition of a diameter limit cut which is a form of high grading. For instance the Catanzaro and D’Amato 2016 ([https://newenglandforestry.org/wp-content/uploads/2016/04/High\\_Grade\\_Harvesting\\_1.pdf](https://newenglandforestry.org/wp-content/uploads/2016/04/High_Grade_Harvesting_1.pdf)) write that “Diameter-limit cut - A timber harvest that removes all trees larger than a specified diameter (e.g., 12” and larger). Diameter-limit cuts often result in high grading.” They also explain that “High grading liquidates the value of the woods by: (1) Removing the largest, most valuable trees and, (2) Increasing the composition of the poorer quality and traditionally low-value species (e.g., red maple, beech, hemlock) (see Figure 1). The rest of the publication documents the negative consequences of such timber harvesting practices and particularly how the practice does not “perpetuate existing onsite timber” which is a requirement of the IFM methodology. Please provide justification that the THINABA treatment does not constitute high grading and is ultimately a recommended silvicultural prescription that will perpetuate existing onsite timber producing species.

**Project Personnel Response:** A 'high-grading' type of management regime will favor trees of better form and merchantability, whereas a diameter-limit cut will target all stems (regardless of form and/or defect) within the specified parameters. The Maine Forest Practices Act, Rule Chapter 23, defines high grading as "timber harvesting that removes the most commercially valuable trees and leaves a residual stand composed primarily of trees of poor quality, poor condition, unable to respond to release from competition, and/or non-commercial species."

The use of the THINABA keyword in our FVSStandInIt table (included below) allows for all stems between 0-999" DBH to be harvested.

THINABA 0. PARMS(30.0,1.0,0.0,999.0,0,999.0)

The use of a Thin From Above management regime, which can also be considered an Overstory Removal, is a commonly utilized silvicultural practice in Maine with reliable propagation of timber producing species, as referenced in The Forestry Rules of Maine ([https://digitalmaine.com/cgi/viewcontent.cgi?article=1051&context=for\\_docs](https://digitalmaine.com/cgi/viewcontent.cgi?article=1051&context=for_docs)). It should be noted that clearcutting is also an acceptable management regime per Maine Forestry Rules.

**Auditor Response:** This finding is re-opened because the cited reference defines an 'overstory thinning,' but does not recommend it. The 'Heavy Thinning' treatment "shall be based on silvicultural prescriptions recommended by published state or federal agencies to perpetuate existing onsite timber producing species while fully utilizing available growing space." Please provide the required recommendation.

**Project Personnel Response 2:** Chapter 20 of the Maine Forest Service Forest Regeneration and Clearcutting Standards states "This rule establishes the standards for clearcutting and for forest regeneration following timber harvesting" ([https://www.maine.gov/dacf/mfs/publications/rules\\_and\\_regs/chap\\_20\\_rules\\_05012014.pdf](https://www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_20_rules_05012014.pdf)). There is no specific mention of "recommended" silvicultural prescriptions within the Standards given that an applicable prescription may depend on a variety of factors including stand age, species composition, density, etc. We believe it is reasonable to assume that the overstory removal prescription should be considered a "recommended" prescription given that it is explicitly defined in the Forest Practices Act with specific requirements and metrics for facilitating advanced regeneration.

**Auditor Response 2:** The additional documentation provided in Chapter 20 satisfies this information request.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 4 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** Section B4 of the IFM methodology indicates that “The common practice test requires Project Proponents to evaluate the predominant forest industry technologies and practices in the project’s geographic region. The Project Proponent shall demonstrate that the proposed project activity exceeds the common practice of similar landowners managing similar forests in the region. Projects initially deemed to go beyond common practice are considered to meet the requirement for the duration of their Crediting Period.” Section B6 of the GHG Plan states “The project scenario consists of managing the forestland to sustainably generate timber products while providing significant recreational, ecological, and environmental benefits, including the maintenance of large blocks of forest and wildlife habitat.” Later, section C2 of the GHG Plan states “The project is located in Southwestern Maine and Northeastern New Hampshire. Demand for wood, including sawtimber and pulpwood, from mills throughout the Northeast drives investment in timberland, with industrial forestland owners seeking to maximize the NPV of their investments through intensive management practices. Investment return requirements can lead to significantly higher harvest levels and were the project not implemented the intensive management and resulting lower onsite carbon stocks associated with that level of harvest activity could very well occur within the project area. As described in A6. PROJECT ACTION the project will exceed common practice in the region.” The Loon Echo website indicates that “Loon Echo Land Trust protects land in the Lake Region of Maine to conserve its natural resources and character for current and future generations.” The Mahoosuc land trust website indicates that “We work with communities to conserve critical lands that protect biodiversity on a regional level, mitigate climate change, and provide recreational, scenic, economic, and ecological benefits.” During interviews with these two project proponents, the audit team learned the conservation of forest resources was at the core of their missions. We learned that these two project proponents are non-profit land trusts, and therefore do not represent industrial forestland owner with intensive forest management practices. As a result, “similar landowners managing similar forests” to the Mahoosuc and Loon Echo land trusts would be other land trusts or nonprofit forestland owners in the region, and not industrial forestland owners. Please demonstrate how the project activity of “of managing the forestland to sustainably generate timber products while providing significant recreational, ecological, and environmental benefits, including the maintenance of large blocks of forest and wildlife habitat” exceeds the common practice of similar landowners (nonprofit land trusts) managing similar forests in the region.

**Project Personnel Response:** Please see workbook ‘LoonEchoMahoosuc\_SuperSection\_CP’ for comparison of project stocks to regional, ‘Common Practice’ stocking levels derived from FIA data. Through the landowner’s commitment to retain and sequester carbon per their enrollment in the IFM project, they will aim to increase the carbon stocking levels to above those of the regional Common Practice values. This is demonstrated by the 20-year Crediting Period total of Above Ground Carbon Mean (mtCO<sub>2</sub>e/acre) for the project stocks vs. Common Practice.

The common practice test is not intended by ACR to be applied specifically to nonprofit land trusts in this context. Similar landowners refers to other private landowners. Additionally, it should be noted that in VVB-led interviews with each land trust, both Loon Echo and Mahoosuc confirmed that more intensive management activities as a source of revenue would be a very likely outcome in the absence of the project.

**Auditor Response:** The new information provided has satisfied the concerns raised in this finding. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

#### **NIR 5 Dated 16 Sep 2022**

**Standard Reference:** ACR Validation and Verification Standard, Section 9.B

**Document Reference:** ACR735 Inventory Specification

**Finding:** Section 9.B of the ACR Validation and Verification Standard states “The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses.” The Project Proponent’s Inventory Specifications state that “In order to be eligible for this procedure, the hard edge must fall within two plot radii of the edge. If a plot falls wholly within the sample frame but within two plot radii, use the walk-through method...” Please provide documentation which asserts that double-tallying trees within a plot is appropriate and accurate when the physical boundary never intersects the limiting distance of the 1/20th acre fixed radius plot (radius = 26.3 feet).

**Project Personnel Response:** FC has provided a more comprehensive response regarding the walk-through method ('FC\_ResponseToSCS\_EdgePlots\_20221007.pdf') in a separate correspondence.

**Auditor Response:** The project proponent provided adequate new information supporting their methods. Along with the responses to findings 6 and 7 revealing immaterial differences using the method as applied by the project proponent, the finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

#### **NIR 6 Dated 16 Sep 2022**

**Standard Reference:** ACR Validation and Verification Standard, Section 9.B

**Document Reference:** ACR735 Inventory Specification

**Finding:** Section 9.B of the ACR Validation and Verification Standard states “The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses.” Please provide a list of all plots that were identified as “W:Walkthrough” by cruisers as stated on page 4 of the Inventory Specification, and those identified as “Obvious potentials locations for walk-through plots will be labeled on the plot map for cruisers in advance of field activities” as stated on page 2 of the Inventory Specification.

**Project Personnel Response:** Inventory data has been updated to include reference to walk-through plots and trees (with initial tree indicated as Walk Thru 1 and duplicate tree indicated as Walk Thru 2).

**Auditor Response:** The additional information provided (along with the response to finding 7) reveals that the walk-through method - as applied by the project proponent - does not result in material differences. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA



**NIR 7 Dated 16 Sep 2022****Standard Reference:** ACR Validation and Verification Standard, Section 9.B**Document Reference:** ACR735 Inventory Specification

**Finding:** Section 9.B of the ACR Validation and Verification Standard states “The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses.” Please provide a complete and revised data set (inventory tree list) including a column indicating the trees that are walkthrough/double counted so the verifier can review the quantified differences.

**Project Personnel Response:** See response to Finding Number 6.

**Auditor Response:** The additional information provided reveals that the walk-through method - as applied by the project proponent - does not result in material differences. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 8 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735 GHG Project Plan\_1.0.pdf, ACR735 GHGPP Calculations v1.1.xlsx

**Finding:** Section C1 of the IFM methodology states “Project Proponents shall use the baseline discount rate values in Table 1 for the appropriate ownership class to identify a project-specific NPV-maximizing baseline scenario.” Table 1 then shows that a 6% discount rate represents private industrial land owners where as a 4% discount rates applies to non-governmental organizations. According to interviews with the land owners and review of their websites, the audit team found that these project proponents represent non-governmental organizations. However, section B5 of the GHG Plan states “The baseline scenario represents an aggressive industrial harvest regime, targeted to maximize net present value at a discount rate of 4%, typical of practices in the project region on industrial private lands.” Furthermore, in review of the Project Proponent’s calculation workbook (sheet ‘NPV\_Model’), a 5% discount rate was used for the NPV calculations. Thus, the audit team requests more information to clarify these discrepancies.

**Project Personnel Response:** It appears that a previous version of the GHG plan was referenced for this finding, whereas the current version does show the 4% rate. In the calculation workbook, the use of the 5% discount rate was erroneous. This has been corrected to the 4% rate and a new workbook has been uploaded to vault to reflect the change.

**Auditor Response:** The discount rate has been corrected. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 9 Dated 16 Sep 2022****Standard Reference:** ACR GHG Plan Template, IFM Methodology v1.3 Erratum and Clarifications**Document Reference:** ACR735 GHG Project Plan\_1.0

**Finding:** Section E3 of the GHG Plan Template requires the following: “Describe how leakage is accounted for and quantified. Provide sample calculations wherever possible.” Section E3 of the GHG plan states “No activity-shifting leakage is allowed by the ACR IFM methodology beyond de minimis levels. The project includes a moderate level of harvest activity within the first reporting period, and moderate levels are projected for future reporting periods, as well. Forest management plans and historical records provided for verification demonstrate no deviation from management plans or from historical trends.” Page 7 of the IFM v1.3 Errata and Clarification states “If the project decreases wood product production by >5% 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 bounds of the ACR carbon project. This demonstration is not applicable if Project Proponent and associated landowners enroll all of their forested landholdings, owned and under management control, within the ACR carbon project.” However, it is not indicated in section E3 of the GHG Plan that the Project Proponents have enrolled all of their forested landholdings, owned and under management control, within the ACR carbon project, thus this section does not fully describe “how leakage is accounted for” or why a lack of activity shifting leakage is not demonstrated. Please provide more information in section of the GHG plan.

**Project Personnel Response:** Additional language has been added to Section E3 describing the landowner's enrollment.

**Auditor Response:** The audit team reviewed the edits to the GHGPP and confirmed that this additional language has satisfied the requirements. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 10 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** Section A2 of the IFM Methodology states “Private or non-governmental organization ownerships subject to commercial timber harvesting at the project Start Date in the with-project scenario must be certified by FSC, SFI, or ATFS or become certified within one year of the project Start Date. If there are no ongoing harvests at the project Start Date, but harvests occur later in the project life cycle, the project area must become certified before any commercial timber harvesting can occur.” During interviews with landowners the audit team learned that low-impact harvesting is a management activity applied by both land trusts. We understand that no harvesting has occurred during this monitoring period, however, section B6 of the GHG Plan indicates that “The project scenario consists of managing the forestland to sustainably generate timber products while providing significant recreational, ecological, and environmental benefits, including the maintenance of large blocks of forest and wildlife habitat.” Section E2 also indicates that “We produce an ex-ante projection of the project scenario assuming the landowner will conduct regular timber harvests over the next 20 years.” Later, section E3 states “The project includes a moderate level of harvest activity within the first reporting period, and moderate levels are projected for future reporting periods, as well.” The audit team requests the following information:

- Please provide evidence of the moderate level of harvest activity within the first reporting period, including where these harvests took place.
- If harvests were conducted in the first reporting period, please provide evidence of the FSC, SFI, or ATFS certifications
- If harvests were not conducted during the first reporting period but there are plans to harvest in the future, please provide more information regarding when the project proponents plan to become by FSC, SFI, or ATFS certified as well as when the next timber harvests are planned.

**Project Personnel Response:** The language in Section E3 regarding harvest activities in the first reporting period was incorrectly included from a previous project. This has been removed from the document. There were no harvest activities conducted in the first reporting period.

Only one of the two Project Proponent entities, Loon Echo, has plans for future limited harvest activity. The exact timing of these activities are not yet known by Loon Echo, however we do include ex-ante projections in our calculations workbook for each reporting period beginning in RP2.

Loon Echo carries ATFS certification for their areas that undergo harvest activity. Certificates for each of these properties have been uploaded to Vault. In the event that the Mahoosuc Land Trust decides to pursue any commercial harvest activity they would become certified before initiating any harvest.

**Auditor Response:** The new information provided has satisfied the concerns raised in this finding. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 11 Dated 16 Sep 2022****Standard Reference:** ACR Tool for Risk Analysis v1.0**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** The ACR Tool for Risk Analysis indicates that for '2. Natural Disaster Risks' pertaining to 'F Diseases and Pests' a value of 8% should be selected "...if epidemic disease or infestation is present within project area, or within 30 mile radius of project area". Otherwise, a 4% default value should be selected. The GHG Project Plan indicates that the 4% default value was selected citing a website link that is no longer active (<https://www.fs.fed.us/foresthealth/applied-sciences/mapping-reporting/national-risk-maps.shtml>). Information obtained from Forester interviews and the quarterly 'Forest & Shade Tree – Insect & Disease Conditions for Maine' from July 11, 2022 and August 26, 2022 (Maine Department of Agriculture Conservation and Forestry) indicates an ongoing outbreak of spongy moth overlapping the project area. The Northern Hardwood strata is susceptible to spongy moth defoliation and mortality (55.8% of project area), and some percentage of tree species in the remaining three softwood-dominated strata are also susceptible. Please provide evidence supporting the selection of the default risk score value for Diseases and Pests.

**Project Personnel Response:** In the case of spongy moth presence, several state forestry publications suggest that while defoliation can be a common symptom associated with the pest, mortality is generally rare and the likelihood of mortality caused by the spongy moth to reach a level that could contribute to a reversal at the project-level is exceedingly low (NY Dept of Environmental Conservation, UNH Cooperative Extension, MSU Extension). Where significant outbreaks do occur, spongy moth is also known to carry two different diseases - the nucleopolyhedrosis virus, known as "NPV", and *Entomophaga mainaiga*, known as the spongy moth fungus, both of which affect the pest in high population densities, and subsequently aid in reducing outbreak levels. For these reasons, the presence of spongy moth does not qualify for the 'High' mortality risk rating as described in the ACR Tool for Risk Analysis.

<https://www.dec.ny.gov/animals/83118.html>

<https://extension.unh.edu/resource/spongy-moth-fact-sheet>

<https://www.canr.msu.edu/resources/a-virus-and-a-fungal-disease-cause-spongy-moth-outbreaks-to-collapse>

**Auditor Response:** The new information provided adequately addresses the concerns raised in this finding. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 12 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** Crooked River - Edwards Deed, Deed Hastings to LEIT #136 12-2-2003, ...

**Finding:** The ACR IFM Methodology indicates that the “Project proponent must demonstrate its ownership or control of timber rights at the project start date”. While the audit team has received some ownership documentation and deeds, we have not received complete ownership evidence including deeds which clearly demonstrate correspondence to all parcels included in the project area. Please provide clear evidence and documentation for ownership or control of timber rights for all parcels in the project.

**Project Personnel Response:** It appears that this finding may have been written before all deeds/ownership documentation were uploaded to Vault. Please let us know if anything still appears to be missing.

**Auditor Response:** The ownership documents were provided the day before our initial findings were issued. The ownership documentation provided addressed this finding, which is now closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 13 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735\_RP1.gdb

**Finding:** The full title of the ACR IFM Methodology is “Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands.” The Methodology states “Forest land is defined as land at least 10 percent stocked by trees of any size, or land formerly having such tree cover, and not currently developed for non-forest uses.” According to the Project Proponent’s geospatial data, there is approximately 0.5 acres of project area over water on an island on the Androscoggin River north of East Bethel. This results in a non-material overestimation of the area of the project and subsequent carbon stocks.

**Project Personnel Response:** FC acknowledges the Observation.

**Auditor Response:** This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 14 Dated 16 Sep 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** The full title of the ACR IFM Methodology is “Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands.” The Methodology states “Forest land is defined as land at least 10 percent stocked by trees of any size, or land formerly having such tree cover, and not currently developed for non-forest uses. Land proposed for inclusion in this project area shall meet the stocking requirement, in aggregate, over the entire area.” The GHG Project Plan states “The goal of the project area stratification was to provide an unbiased stratification of the project area’s vegetative communities and to remove non-forested areas.” During the site visit two open areas approximately 0.61 acres (southeast of plot 97) and 1.03 acres (west of plot 90) were identified within the project boundary. Please provide us with more information regarding your minimum mapping unit, and reasoning for inclusion of openings this size while other openings (e.g. small water bodies, roads, etc.) were excluded from the project area.

**Project Personnel Response:** Our GIS Team utilized a mapping unit of approximately 5 acres for digitizing fields/openings from the project area using the observable forest edge of the imagery (Google Aerial and/or Esri World Imagery cached on 6/1/2020) at a scale of 1:2500. Some smaller openings were already excluded in the existing landowner data.

**Auditor Response:** The audit team confirms the information requested. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 15 Dated 16 Sep 2022****Standard Reference:** ACR Standard v6.0**Document Reference:** ACR735 GHG Project Plan\_1.1

**Finding:** Table 4, Eligibility Criteria of the ACR Standard states under Start Date definition "The date that the Project Proponent entered into a contractual relationship to implement a carbon project." The GHG Plan states "The project has a start date of October 8, 2021, the date on which a Carbon Development Services Agreement between the Project Proponent and a purchaser of the ERTs was fully executed." Please provide this agreement for verification.

**Project Personnel Response:** A redacted version of the CDSA has been uploaded to Vault.

**Auditor Response:** The requested material has been provided. This finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 16 Dated 16 Sep 2022****Standard Reference:** ACR Monitoring Report Template**Document Reference:** ACR735 RP1 Monitoring Report\_1.1 20220830

**Finding:** Some of the instructions intended for the Project Proponent in the Monitoring Report Template were not removed from the Project Proponent's completed Monitoring Report Document.

**Project Personnel Response:** Instructions removed from document.

**Auditor Response:** The observation is closed. However, the instructions have not been removed from the most recent MR document provided in contrast to the client's response.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 17 Dated 14 Oct 2022****Standard Reference:** ACR IFM Methodology v1.3**Document Reference:** LoonEchoMahoosuc\_BSL\_package\_08092022.out

**Finding:** This observation is to memorialize a concern related to the project proponent's use of an outdated version of FVS as mentioned in finding 2 of this workbook. Section 3.1 of the IFM Methodology states "CBSL,TREE,t and CBSL,DEAD,t must be estimated using models of forest management across the baseline period. Modeling must be completed with a peer reviewed forestry model that has been calibrated for use in the project region." The Methodology also indicates that models must be: "• Peer reviewed in a process involving experts in modeling and biology/forestry/ecology • Used only in scenarios relevant to the scope for which the model was developed and evaluated • Parameterized for the specific conditions of the project." From the Forest Management Service Center website (<https://www.fs.usda.gov/forestmanagement/aboutus/fmsc.shtml>): "The Forest Vegetation Simulator (FVS) is the USDA Forest Service's nationally supported framework ensuring consistency among forests in vegetation growth and yield modeling. In addition to training and support, other responsibilities include adapting FVS to new areas, model maintenance, enhancement, testing, validation, and connection to other corporate software." From the FVS website (<https://www.fs.usda.gov/fvs/whatis/index.shtml>): "The FMSC performs a technology transfer role, working with researchers and National Forest staff from various geographical areas to incorporate their findings into the FVS framework. The FMSC is constantly upgrading existing variants and developing additional variants." The audit team is observing differences in growth and yield projections compared to the Project Proponent's data caused by FVS versioning.

**Project Personnel Response:** FC acknowledges the Observation.**Auditor Response:** The observation is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA**NIR 18 Dated 7 Nov 2022****Standard Reference:** ACR Validation and Verification Standard**Document Reference:** ACR735 GHGPP Calculations v1.3.xlsx

**Finding:** Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses." In the calculations workbook for the year 2030, the project proponent shifts from using a weighted averaged by supersection to using a single supersection in the calculation of harvested wood product storage for the project scenario (sheet 'HWP\_PRJ\_Calcs'). Please provide justification for changing the supersection values used.

**Project Personnel Response:** The 'HWP\_PRJ\_Calcs' tab has been updated in ACR735 GHGPP Calculations v1.4.xlsx and Table E5.1 in ACR735 GHG Project Plan\_1.4\_111422.pdf.

**Auditor Response:** The calculations have been fixed and relevant documents updated. The finding is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 19 Dated 7 Nov 2022****Standard Reference:** ACR Validation and Verification Standard**Document Reference:** LEM Site Index Workup\_083022.xlsx

**Finding:** Section 9.B of the ACR Validation and Verification Standard states “The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses.” The SSURGO database uses a few different common names for species than FVS. The project proponent adjusted site indices (using FVS keyword SITECODE) for species not present in the inventory, but a species present in the inventory was not included - eastern white cedar AKA northern-white cedar. This does not change the FVS project in this case, especially since the reference species site index is correctly included and will adjust the growth accordingly for any species not otherwise specified with a SITECODE keyword.

**Project Personnel Response:** FC acknowledges the Observation.**Auditor Response:** The observation is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA**NIR 20 Dated 9 Nov 2022****Standard Reference:** Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands. v1.3 - Erratum & Clarifications**Document Reference:** ACR735 GHGPP Calculations v1.3.xlsx

**Finding:** Section G. Calculation of ERTs states "ERT's by vintage shall then be determined by prorating Reporting Period calendar days within vintage year t (21), applying the non-permanence buffer deduction (Equation 22) and subtracting ERT's by vintage year from the non-permanence buffer deduction (Equation 23). Buffer pool ERTs will be deposited by vintage, if this is the risk management option the Project Proponent has chosen." Please follow the equations listed to calculate the vintage years for ERTs and buffer.

**Project Personnel Response:** See updated calcs in ACR735 GHGPP Calculations v1.4.xlsx.**Auditor Response:** The issue is resolved. The finding is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA**OBS 21 Dated 9 Nov 2022****Standard Reference:** Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands. v1.3 - Erratum & Clarifications**Document Reference:** ACR735 GHGPP Calculations v1.3.xlsx

**Finding:** Section 3.2 Wood Products Calculations step 3 and 4 both state: "Assign a percentage to each product class for hardwoods and softwoods according to mill data or default values for the project." In the harvested wood products calculations for baseline and project scenarios these steps assume the same percentages for both hardwoods and softwoods. While this does not result in a material error (thus is being issued as an observation), it does result in a less accurate estimation of the pricing.

**Project Personnel Response:** FC acknowledges the Observation.**Auditor Response:** The observation is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA



**OBS 22 Dated 10 Nov 2022****Standard Reference:** ACR Standard v6.0**Document Reference:** ACR735 TimberPrices.xlsx

**Finding:** Section 2.A of the Standard includes guiding principles for GHG accounting including conservativeness - "Use conservative assumptions, values, and procedures to ensure that GHG emission reductions or removal enhancements are not overestimated." - and accuracy - "Reduce bias and uncertainties as far as is practical." Two species have one individual in the inventory data, but are included in the (unweighted) average of timber pricing. In this case, it does not result in a large difference with the potential to influence materiality, so an observation is issued.

**Project Personnel Response:** FC acknowledges the Observation.**Auditor Response:** The observation is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA**OBS 23 Dated 10 Nov 2022****Standard Reference:** ACR Validation and Verification Standard**Document Reference:** ACR735 GHG Project Plan\_1.3\_102122.pdf

**Finding:** Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses." The GHG Project Plan references an old version of the calculation workbook (pages 14, 37, 38).

**Project Personnel Response:** References updated in ACR735 GHG Project Plan\_1.4\_111422.pdf**Auditor Response:** The references have been updated, and the finding is closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 24 Dated 16 Nov 2022**

**Standard Reference:** ACR IFM Methodology v1.3, ACR Standard v6.0

**Document Reference:** ACR735 Loon Echo Mahoosuc FVS Out FinalBaseline\_08222022.accdb

**Finding:** Section C1 of the Methodology states, "Required inputs for the project NPV calculation include the results of a recent timber inventory of the project lands, prices for wood products of grades that the project would produce, costs of logging, reforestation and related costs, silvicultural treatment costs, and carrying costs. Project Proponents shall include roading and harvesting costs as appropriate to the terrain and unit size. Section 2.A of the Standard includes guiding principles for GHG accounting including conservativeness - "Use conservative assumptions, values, and procedures to ensure

that GHG emission reductions or removal enhancements are not overestimated." The project proponent is using treelength pricing for spruce and fir - applying the same value for saw and pulp.

While this pricing applies to mills in the project area (ME,

[https://img1.wsimg.com/blobby/go/f4436691-e66a-4dc0-b5fe-](https://img1.wsimg.com/blobby/go/f4436691-e66a-4dc0-b5fe-01d6bdba895a/downloads/snb_spec_package_updated_may21_2021.pdf?ver=1621613914176)

[01d6bdba895a/downloads/snb\\_spec\\_package\\_updated\\_may21\\_2021.pdf?ver=1621613914176](https://img1.wsimg.com/blobby/go/f4436691-e66a-4dc0-b5fe-01d6bdba895a/downloads/snb_spec_package_updated_may21_2021.pdf?ver=1621613914176)), the FVS cutlist shows that not all spruce and fir harvested meet the criteria for the premium price applied to these species (minimum 29', 76.9% of the cutlist stems). This does not result in a material difference in this case, so it is being issued as an observation.

**Project Personnel Response:** FC acknowledges the Observation.

**Auditor Response:** The observation is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 25 Dated 8 Dec 2022**

**Standard Reference:** ACR Validation and Verification Standard, Section 9.B

**Document Reference:** ACR735 GHGPP Calculations v1.4.xlsx, sheet TLC\_RP1

**Finding:** Section 9.B of the ACR Validation and Verification Standard states "The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses." During our recalculation of the end of reporting period carbon, it was noted that tree-level carbon TPA and CUFT values are exactly double. This issue appears to be resolved in the plot-and-strata-level calculations. This has been issued as an observation because it has the potential to impact future projects or uses of your data.

**Project Personnel Response:** FC acknowledges the Observation.

**Auditor Response:** The observation is closed.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**NIR 26 Dated 8 Dec 2022**

**Standard Reference:** ACR Validation and Verification Standard, Section 9.B

**Document Reference:** ACR735 GHGPP Calculations v1.4.xlsx, ACR735 RP1 Monitoring Report\_111422

**Finding:** Section 9.B of the ACR Validation and Verification Standard states “The VVB should assess the effectiveness of methods for data collection and processing, identify likely areas for data corruption or potential errors, and characterize GHG data collection and management system integration weaknesses.” In the MR, the buffer ERTs for each vintage of RP1 do not sum to the total buffer value provided in the MR. In the calculation workbook, there are two locations where calculations of ERTs occur. Please update the MR with the correct value and clarify or simplify the duplicate calculations in the Calculation Workbook sheet ERTs\_UNC for vintage crediting.

**Project Personnel Response:** This error has been corrected. See ACR735 GHGPP Calculations v1.5.xlsx and ACR735 RP1 Monitoring Report\_120822.

**Auditor Response:** The new information request has been satisfied with the documents supplied.

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

**OBS 27 Dated 12 Dec 2022**

**Standard Reference:** ACR IFM Methodology v1.3 Erratum & Clarifications

**Document Reference:** ACR735 GHGPP Calculations v1.5.xlsx, ACR735 GHG Project Plan\_1.4\_111422.pdf, 13 ATFS certification pdfs in [InspectionForms] folder

**Finding:** The Methodology Erratum and Clarifications for applicability states that "If the project is not subject to commercial harvest activities within the project area as of the project Start Date, but harvests occur later in the project life cycle, the project area must meet the requirements outlined above before commercial timber harvesting may occur" Those requirements are: "Be certified by FSC, SFI, or ATFS or become certified within one year of the project Start date [or] Adhere to a long-term forest management plan or program incorporating all their forested landholdings, prescribing the principals of sustained yield and natural forest management (plan and program criteria subject to ACR approval)." According to the GHG Plan and the calculation workbook, the first instance of commercial harvesting is in RP2. However, an older version of the GHG Plan erroneously indicated that harvesting would occur in RP1 (see finding 10). Therefore ATFS certification was requested, and received. Although certification did not end up being needed in RP1, this observation memorializes a gap in the ATFS coverage. The 13 certifications provided corroborate ATFS totals (4,733 forested acres and 4,903 total acres) and do not cover the entirety of Loon Echo's portion of the project area (5,397.24 acres). This observation memorializes this gap in certification coverage.

**Project Personnel Response:**

**Auditor Response:**

**Bearing on Material Misstatement or Conformance (M/C/NA):** NA