# **VALIDATION AND VERIFICATION REPORT**

# American Carbon Registry

ACR506: Bluesource – Greenleaf Improved Forest Management Project

Reporting Period: 11 April 2019 to 10 April 2020

**Prepared for:** 

**Bluesource LLC** 

2 February 2021



AMERICAN CARBON REGISTRY

Prepared by:

James Cwiklik | Lead Auditor

Greenhouse Gas Verification Program
+1.510.452.9092

jcwiklik@scsglobalservices.com



2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA +1.510.452.8000 main | +1.510.452.8001 fax www.SCSglobalServices.com

Project Title	Bluesource – Greenleaf Improved Forest Management Project	
Client	Bluesource LLC	
Prepared By	SCS Global Services	
Date of Issue	2 February 2021	
Contact	2000 Powell Street, Suite 600, Emeryville, CA 94608, USA	
	http://www.scsglobalservices.com	
	Email: <a href="mailto:CPollet-Young@scsglobalservices.com">CPollet-Young@scsglobalservices.com</a>	
	Telephone: +1 (510) 452-8000	
Audit Team	Lead Auditor: James Cwiklik	
	Auditor: Alexa Dugan	
	Technical Expert: Kyle Hampton	
	Internal Reviewer: Michael Hoe	

# **Executive Summary**

This report describes the validation and initial verification services provided for the Bluesource – Greenleaf Improved Forest Management Project ("the project"), an Improved Forest Management project located in the upper peninsula of Michigan, that was conducted by SCS Global Services. 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 objectively the claimed GHG emission reductions/removal enhancements for the reporting period from 11 April 2019 to 10 April 2020 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 7 findings were raised: 0 Non-Conformity Reports, 4 New Information Requests and 3 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**

1 In	troduction	1
1.1	About SCS Global Services	1
1.2	Objectives	
1.3	Scope	
1.4	Validation and Verification Criteria	3
1.5	Level of Assurance	4
1.6	Treatment of Materiality	4
1.7	Summary Description of the Project	5
2 As	ssessment Process	5
2.1	Method and Criteria	5
2.2	Document Review	5
2.3	Interviews	7
2.4	Site Inspections	8
2.5	Resolution of Findings	9
2.6	Techniques and Processes Used to Test the GHG Information and GHG Assertion	9
3 Va	alidation Findings	10
3.1	Project Boundary and Activities	10
3.2	Description of and Justification for the Baseline Scenario	12
3.3	Project-Specific Conformance to ACR Eligibility Criteria	12
3.4	Demonstration of Additionality	17
3.5	Processes for Emission Reductions/Removal Enhancements Quantification	18
4 V	erification Findings	20
4.1	Results of Quantitative Uncertainty Assessment	20
4.2	Analysis of the Quantification Methodologies and Applicable Data Sets and Sources	20
4.3	Basis of Data and Information Supporting the GHG Assertion	22
4.4	Leakage Assessment	22
4.5	Risk Assessment	22
5 Co	onclusion	23
Δnner	ndix A: List of Findings	24

### 1 Introduction

### 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 250 million tonnes of CO2e, 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
  - o 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 ±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 6.0
- Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3 ("the methodology")
- Improved Forest Management V.1.3 Errata & Clarification
- ACR Tool for Risk Analysis and Buffer Determination, Version 1.0

SCS will perform assessment services to meet the requirements of:

- ACR Validation and Verification Standard, Version 1.1 (May 2018)
- ISO 14064-3:2006, Greenhouse Gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions

### 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 ±5%, as calculated according to the equation in the ACR Standard.

# 1.7 Summary Description of the Project

The project is located in northern Michigan and Wisconsin. The project's aim is to conduct forest management activities with a focus on sustainable forest growth with regular uneven-aged harvests as well as promotion of recreation, wildlife habitat and forest health. Greenleaf's forest management practices result in increased carbon storage and conservation value than higher return, more aggressive management regimes of industrial private lands in the region, which are characterized by shorter, even-aged rotations.

### 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 (Greenleaf\_ACR\_GHGPlan\_11\_10\_20; "PP") and monitoring report (Greenleaf\_MonitoringReport\_08\_05\_20; "MR") were carefully reviewed for conformance to the validation and verification criteria. The following provides a list of additional documentation, provided by project personnel in support of the aforementioned documents, that was reviewed by the audit team.

Documentation Reviewed During the Course of Validation and Verification Activities			
Document	File Name	Ref.	
Inventory Methodology	Greenleaf_CarbonPlot_Methodology_11_6_19.pdf	1	
Green Timber Tree Group Certification	DOC001.pdf	2	
Commercial Forest Management Plan	Greenleaf_CF_plan_2019_Revision.pdf	3	
Biehl Property Deed	Greenleaf_Biehl_48-12 property.pdf, Deed.pdf	4	
<b>Ecoland Property Deed</b>	Deed.pdf	5	
Shippy 440 Property Deed	Greenleaf_Luce_Parks 48-5, Shippy 48-6.pdf, Deed 1.pdf	6	
Delveaux Property Deed	Greenleaf_Sliwinski-Mattson 27-7_property.pdf, Deed.pdf	7	
Boundary shapefile	Greenleaf_Boundary_7_22_20.shp	8	
Inventory plots shapefile	Greenleaf_InventoryPlots_7_22_20.shp	9	
Strata shapefile	Greenleaf_Strata_7_22_20.shp	10	
Carbon Development & Marketing Agreement	Bl So_Greenleaf_CDMA _executed_2019-04-12_Redacted.pdf	11	
Calculation workbook	Greenleaf_100Yr_Calcs_8_4_20	12	
Calculation workbook	Greenleaf_RP_ERT_HWP_8_4_20	13	
Calculation workbook	Greenleaf_Start_RP_CO2_8_4_20	14	
Calculation workbook	Greenleaf_Regeneration_Calcs_8_4_20	15	
Calculation workbook	Greenleaf_SiteIndex_Calcs_8_4_20	16	
FVS input	Greenleaf_FVS_Plots.xlsx	17	
FVS input	Greenleaf_INVENTORY.accdb	18	
FVS output	Greenleaf_CC_2019.accdb	19	
FVS output	Greenleaf_CC_2019.key	20	
FVS output	Greenleaf_CC_2019.out	21	
FVS output	Greenleaf_GROW.accdb	22	
FVS output	Greenleaf_GROW.key	23	
FVS output	Greenleaf_GROW.out	24	
FVS input	Greenleaf_START.accdb	25	
FVS output	Greenleaf_SHW.accdb	26	
FVS output	Greenleaf_IndTreeGrow.accdb	27	
FVS output	Greenleaf_STS50BA10.accdb	28	
FVS output	Greenleaf_STS75BA10.accdb	29	

Regional Forestry Doc	IC4011_SustainableSoilAndWaterQualityPracticesOnForestLand_268417 _7.pdf	30
Regional Forestry Doc	Michigan_Final_2018_Mill_Report.pdf	31
Regional Forestry Doc	TimberMartNorth_Vol 25 No 2.pdf	32
Regional Forestry Doc	USDA_SilvicultureGuide_NE_Hwds.pdf	33
Regional Forestry Doc	WI_Silviculture_Handbook.pdf	34
Greenhouse Gas Plan	Greenleaf_ACR_GHGPlan_11_10_20.pdf	35
Monitoring Report	Greenleaf_MonitoringReport_08_05_20.pdf	36
Annual Attestation	Greenleaf_AnnualAttestation_Signed.pdf	37
ACR Guidance	Greenleaf_Attestation_Emails.pdf	38
ACR Guidance	RE_ Greenleaf Site Visit ACR Question.pdf	39

### 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
Liz Lott	Bluesource LLC	Assistant project lead	10 Sept. 2020
Tim Hipp	Bluesource LLC	Project lead	10 Sept. 2020
			24 Nov 2020
Josh Clark	Bluesource LLC	Technical lead	24 Nov. 2020
Ben Parkhurst	Bluesource LLC	Field/technical assistant	12 Oct 2020
Megan McKinley	Bluesource LLC	Assistant project lead	10 Sept. 2020
			24 Nov. 2020
			Site Visit (11-15 <sup>th</sup> Oct 2020)
Ben Parkhurst	Bluesource LLC	Field/technical assistant	12 Oct 2020
Justin Miller	Green Timber Consulting	Forester	Site Visit (11-15 <sup>th</sup> Oct 2020)
Matt Beaupied	Greenleaf Timber Holding Inc.	Forester	12 Oct 2020

### 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
Kristen Matson	Michigan Department of Natural Resources – Forestry Division	Gwinn Unit Forest Manager	04 Dec. 2020
Marissa Castello	Michigan Department of Environment, Great Lakes, and Energy	Environmental Quality Analyst	04 Dec. 2020

# 2.4 Site Inspections

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

- Ensure that data collection for sequential sampling purposes (t-test) was carried out to the highest possible quality standards and that our client was comfortable with the work being performed
- Perform field reconnaissance to independently confirm
  - That the project area has more than 10% canopy cover (or equivalent stocking)
  - Absence of any unreported disturbance or timber harvest
  - Ground-truth stratification of project area
- Independently check 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

In support of the above objectives, the audit team performed an on-site inspection of the project area on the dates 11 October 2020 through 15 October 2020. The main activities undertaken by the audit team were as follows:

- Interviewed project personnel (see Section 2.3.1 of this report) to gather information regarding the monitoring procedures, project implementation, and feasibility of harvest claims
- 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 averaged GPS coordinates at survey markers and other boundary reference locations.
  - o Selected samples of inventory data using simple random selection methods.

- o 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 CO2e/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 in order 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, 4 NIRs and 3 OBS 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

The audit team applied various techniques and processes to test the GHG information and the GHG assertion over the course of the audit, listed below:

Review of project documentation including the MR, ownership documentation (Refs. 4-7), attestations (Refs. 37), spatial information (Refs. 8-10), modeling files (Refs. 17-29), certifications (Refs.2-3) referenced management plans (Ref. 3), and calculation workbooks

(Refs. 12-16) to check for project-specific conformance to ACR standard and methodology, appropriateness of methodologies and tools applied, 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 scenarios.
- Review of the sources, sinks and reservoirs of GHG emissions within the project boundary (Refs. 35-36).
- 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 Bluesource 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. 12-16).
- 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

# 3.1 Project Boundary and Activities

### 3.1.1 Project Boundary and Procedures for Establishment

A description of the physical boundary of the project was provided, which is located on 22,209.5 acres of mixed forestland across the Upper Peninsula of Michigan state along with small portions across the state border in Wisconsin. A total of 14 different counties in Michigan and 1 in Wisconsin. The project land is owned and managed by Greenleaf Timber Holding, Inc. The project proponent and land is certified under the Green Timber Tree Farm Group (Ref. 2). 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 (Refs. 8-10) to confirm project boundaries are accurately represented as compared to boundaries mapped during the site visit, maps provided in the PP, and available satellite imagery.

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

The audit team reviewed the PP and project documentation (Refs. 2 - 3) which indicate potential infrastructure, activities, and technologies used within the project area. The project activity consists of natural forest management focusing on sustainable forest growth and regular, uneven-aged harvests as well as promotion of recreation, wildlife habitat and forest health. The audit team concluded that project activities, infrastructure and technologies will be an improvement in the carbon storage and sustainable forest practices of the 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 is the case for both the baseline and project scenarios.

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-CO2 gas emitted from biomass burning. Please note, no burning is planned in the project.

### 3.1.4 Temporal Boundary

The ACR Standard indicates that the project must have a validated/verified Start Date of January 1, 2000 or after. Also, in accordance with Chapter 3 of the ACR Standard, the start date is defined as the date that the Project Proponent entered into a contractual relationship to implement a carbon project. SCS was able to review the PP, MR, and relevant contractual documents (Ref. 11, 37) for authenticity and to confirm that each document consummated "a contractual relationship to implement a carbon project." SCS concluded that the documents provided indicate the project start date is eligible.

In ACR the minimum project term is 40 years and the eligible crediting period for this type of project is also listed as 40 years. SCS confirmed that the PP 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

The methodology defines the baseline scenario as an estimation of the GHG emissions or removals that would have occurred if the Project Proponent did not implement the project. The PP indicates that "The baseline scenario represents an aggressive industrial harvest regime, targeted to maximize net present value at a discount rate of approximately 6%, typical of ca. 2019 practices in the project region on private lands. Baseline practices involve northern hardwood silvicultural prescriptions that are currently implemented in the surrounding areas that include single tree selection, shelterwood, and clearcut harvests. The audit team confirmed that the prescriptions are common in the area on private lands as well as recommended under published sources (Refs. 30-34).

During the site visit and through interviews with local managers 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 by obtaining regional stumpage rates and tax 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 11 April 2019, the start date of the project according to the PP.	

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	SCS was able to review the PP, MR, and relevant contractual documents (Ref. 11) for authenticity and to confirm that each document consummated "a contractual relationship to implement a carbon project."
Start Date Definition, Avoided Conversion Projects	by case basis.  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 Land-based Projects	For other Agricultural Land-based projects, the Start Date is the date by which the Project Proponent began the Project Activity on project lands, or the start of the cultivation year during which the Project Activity began.	Not applicable; the project is not an other agriculture land-based project.
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 PP to confirm that the minimum term is 40 years, as required.

Crediting Period	The Crediting Period for non-AFOLU projects shall be 10 years.  All AR projects shall have a Crediting Period of 40 years.  All IFM projects shall have a Crediting Period of 20 years.  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.  Wetland Restoration/Revegetation projects shall have a Crediting Period of 40 years.  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.	Review of the PP to confirm that the crediting period is 20 years, as required given the project type.
Real	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.  ACR will not credit a projected stream of offsets on an ex-ante basis.	Review of the emission mitigation activity, as described in the PP, 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.	Reviewed the supporting documentation, as described in the PP, and a sample of the ownership documentation provided (Refs 4-7) to confirm that Project Proponent have control over the GHG sources/sinks from which the emissions reductions or removals originate on their respective properties. Evidence of land title for each parcel in the project area was provided and confirmed (Refs.4-7).
Emission or Removal Origin (Indirect Emissions)	For projects reducing or removing non-energy indirect emissions, the following requirement applies:  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).	Not applicable; the project is not reducing or removing non-energy indirect emissions.
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.	Confirmed by reviewing attestation that no offsets exist or were sold prior to registration of the project (Refs. 4-7, 37).

### Land Title (AFOLU Projects Only)

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.

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.

AFOLU projects that result only in the crediting of avoided emissions with no risk of reversal may not require demonstration of land title.

Reviewed land title documents (Refs. 4-7) along with an independent review of ownership using the Landgrid Survey database which included property data, county assessor data, and up to date maps. Additionally, on site, various property survey markers were confirmed the accuracy of the associated boundary claimed.

#### Additional

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:

- 1. Exceed regulatory/legal requirements;
- 2. Go beyond common practice; and
- 3. Overcome at least one of three implementation barriers: institutional, financial, or technical.

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 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,

After performing extensive regulatory compliance checks during this reporting period, the audit team found no indication of any violations regarding regulatory compliance. EPA and ECHO were checked, no violations observed. OSHA records were also check during the reporting period and no violations observed that pertained to the project. There are few regulations that govern forest management in the state. Correspondence area foresters from the Michigan DNR indicates that no violations were observed during the reporting period within the project area. An interview with Marissa Castello from the Michigan Department of Environment, Great Lakes, and Energy led to a

	regulations, or other legally binding mandates directly related to Project Activities.	thorough check of the project area against any violations related to stream and water protections through their online database MIWaters Site explorer. A verbal confirmation was also obtained from Matt Beaupied during the site visit. The audit team also reviewed the regulatory compliance section of the MR submitted (Ref. 36).
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 PP 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. The PP indicates that "Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond de minimis levels. All forestland owned by Greenleaf Timber Holding, Inc. is certified under the Tree Farm certification program, therefore there is no activity-shifting leakage." The audit team verified the

		Tree Farm certification (Refs 2). The PP also states "Because future harvest values have not yet been determined, we applied no timber harvest to the project scenario so as to conservatively default to the highest leakage factor, 40%."
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 PP 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 PP has been independently verified by SCS, an accredited, ACR-approved validation/verification body.
Environmental And Community Assessments	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.	Confirmed by reviewing the PP, the annual attestation (Ref. 37), and management plans (Refs. 3) indicate that the project has no anticipated negative community or environmental impacts.
	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.	
	Project Proponents shall disclose in their Annual Attestations any negative environmental or community impacts or claims thereof and the appropriate mitigation measure.	

# 3.4 Demonstration of Additionality

The audit team reviewed the demonstration of additionality, as set out in the PP, 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 Common Practice Test

The Bluesource – Greenleaf Improved Forest Management Project showed that similarities exist with the project and nearby private industrial forestland in the region. During the site visit through interviews with local managers and review of published data for the region, the audit team verified that aggressive timber harvesting practices involving the silvicultural prescriptions claimed in the baseline scenario are common practice in the region.

#### 3.4.3 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 project net present value of the project scenario). The audit team's findings regarding this assessment are provided below.

The PP indicates that "Carbon funding is reasonably expected to incentivize the project's implementation. The implementation of the carbon project represents an opportunity cost to lost revenue associated with the potential timber harvesting that could legally and feasibly occur on the property in the lifetime of the carbon project. A financial feasibility assessment is provided separately for verification demonstrating the financial barrier carbon funding overcomes in project implementation."

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 was 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 PP and inventory methodology (Ref. 1) describe the process including sample size, determination of plot numbers, plot layout, data collected, and measurement techniques. Through site visit and document review (Refs. 1, 13-14), 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 the data management systems put in place by the project personnel as described in the PP. It states that "Manually and electronically filed data are stored and archived. Backup copies of all electronically stored data are maintained in a separate data center with scheduled archiving to assure data protection. Future revisions to project documents after initial verification and registration will be clearly identified by saving them as separate files and including the date of revision in any modified documents. All data will be stored on Dropbox or similar online cloud storage service as well as on an external hard drive and kept by Bluesource for a minimum of 15 years."

### 3.5.4 QA/QC Procedures

Section D of the PP identifies field and desk QA/QC procedures. The field QA/QC procedures include senior forester review of field collected data and remeasurement of any plots that cannot be reconciled. Further the PP states that "At least 5% of the plots will be checked by a different forester than cruised the plot, preferably by someone senior to the field crew. This will involve full plot measurement to identify any problems with determining in/out trees, species calls, defect measurements, DBH measurements, and height measurements. Any errors noted during the check cruise will be used to update the master spread sheet file. Any consistent height, species, DBH, or defect errors will be resolved by talking with the foresters and removing crew members if need be." These field QA/QC procedures were confirmed on-site and during interviews.

The PP identifies three stages of desk QA/QC procedures including an independent forester review, a technical review, and a senior management review. These include independent checks on the inventory data, model runs, carbon calculations, and document text and formatting.

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. Section D of the PP also provides in detail a monitoring and data management plan for each parameter throughout the reporting period.

### 3.5.5 Processes for Uncertainty Assessments

The PP describes how baseline and project uncertainty were calculated. The PP states that uncertainty in the combined carbon stocks in the baseline is quantified using equation 10 of the methodology (Refs. 35-36). The percentage uncertainty in the combined carbon stocks in the project during the reporting period is calculated using equation 18 of the methodology (Refs. 35-36). The total project uncertainty (percentage) during the reporting period is quantified using equation 19 of the methodology (Ref. 35-36). SCS confirmed that the approaches for assessing uncertainty that are identified in the PP 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 personnel 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 project uncertainty of 7.8% (Ref. 14) was verified within independent re-quantification. The audit team also calculated the total materiality of the GHG reduction and removal assertion. See below.

# 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 PP 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 Jenkins equations and decay class information using the inventory data provided by the client (Refs. 32-34)
- Recalculate tree and plot-level live aboveground and standing dead tree defect (Ref. 12-16)

- Took tree cores during the site visit to confirm site index for the remeasured plots as well as cross referenced with published data
- Randomly select a sample of plot(s) and prescription(s) from the baseline scenario. Run the selected sample in FVS and follow methodologies specified in the PP to calculate carbon stocks. Compare to the client's calculations for the selected plot to derive a correction factor to apply the population baseline for the reporting period and ex-ante (Refs. 17-21, 26-29).
- Randomly select a sample of plot(s) and the grow prescription from the project scenario. Run the selected sample in FVS and follow methodologies specified in the PP to calculate carbon stocks. Compare to the client's calculations for the selected plot to derive a correction factor to apply the population project for the reporting period and ex-ante (Refs. 22-25)
- Calculate the change in the baseline carbon stock stored in live trees and standing dead trees
  using equations 1 and 2 of the methodology. Calculate the 20-year average value of carbon
  remaining stored in wood products 100 years after harvest using equation 3 (Refs. 12-13).
- With the outputs from equations 1, 2 and 3, calculate the long-term average baseline stocking level for the crediting period using equation 5 of the methodology. Use equation 6 to calculate the annual change in the baseline carbon stock (Ref. 12-13).
- Calculate the baseline uncertainty in the combined carbon stocks in the baseline using equation 10 (Refs. 12-13).
- Calculate the change in project carbon stock stored in live trees using equations 11 and 12 (Refs. 12-13).
- Calculate the change in the project carbon stock and GHG emissions during the reporting period using equation 14 (Refs. 12-13).
- Calculate the percentage uncertainty in the combined carbon stocks in the project during the reporting period using equation 18 (Refs. 12-13).
- Calculate the total project uncertainty (percentage) during the reporting period using equation 19 (Refs. 12-13).
- Calculate the net greenhouse gas emission reductions (in metric tons CO2e) during the reporting period and during each annual vintage using equation 20 in the methodology (Refs. 12-13).

#### **Emission Reductions**

The audit team verified that the project personnel used the appropriate emissions factors and GWP's to calculate total emission reductions, which is adherent to the ACR Methodology. The team recalculated the final emission reductions and confirmed that they are without material discrepancy.

The ERT's associated with the first reporting period are reported in the MR and ERT workbook (Ref. 13) and are verified by the verification team are as follows:

 187,784 tCO2e (Emissions reductions at the end of the current reporting period without risk buffer deductions)

- 153,983 tCO2e (Emissions reductions at the end of the current reporting period including risk buffer deductions)
- 33,802t CO2e Risk buffer contribution
- 125,189t CO2e Leakage deduction

#### **Variances or Deviations**

For this reporting period, there were no variances or deviations.

### Uncertainty

See section 3.1.1 above.

# 4.3 Basis of Data and Information Supporting the GHG Assertion

The following table indicates whether the data and information supporting the GHG assertion were based on assumptions and industry defaults, future projections, and/or actual historical records.

Assumptions and Industry Defaults	⊠
Future Projections	⊠
Actual Historical Records	$\boxtimes$

# 4.4 Leakage Assessment

Section E3 of the PP states: "All forestland owned by Greenleaf Timber Holding, Inc. is certified under the Tree Farm certification program, therefore there is no activity-shifting leakage." The audit team verified this certification with Annica McGuirk, of the American Tree Farm System.

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 PP 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	
А	4%	Confirmation, through site inspections, that project is not located on public or tribal lands	

В	4%	Confirmation, through site inspections, that project is not located on public or tribal lands
С	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
Е	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, that project is not a wetland project or a forest project where more than 60% of the project area is not a forested wetland
Н	2%	Confirmation that default value has been applied in the risk assessment calculation

# 5 Conclusion

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

- The PP 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.

Lead Auditor Approval

James Cwiklik, 2 February 2021

Internal Reviewer
Approval

Michael Hoe, 2 February 2021

# **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 26 Oct 2020

**Standard Reference**: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands Version 1.3

Document Reference: Greenleaf ACR GHGPlan 08 05 20.pdf

**Finding**: The methodology states "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 manging similar forests in the region."

The GHG plan states "The forest type for this project is similar to industrial forestland ownerships typical of the region. Throughout the geographic region, private forestland is heavily cut, often through clear-cutting and high-grading, and is managed to maximize NPV of the asset. According to Bluesource's interviews with professionals familiar with the regional industry, as well as the Michigan DNR stumpage reports particular to the Upper Peninsula, wood product demand in this region is strong and consistent across species and product types. The ownership itself is large and varied enough to sell into all markets common throughout the region, able to respond demand and fluxes throughout out the year. It's a seller's market, with mills often operating below maximum capacity. If the Bluesource – Greenleaf Improved Forest Management Project was not implemented, the forest management would resemble that of a typical industrial forestland ownership in the region."

During the site visit, the lead auditor inquired as to if the owner had the capability to harvest as claimed across so many different parcels and areas. The response was a resounding yes with Matt Beaupied, the director of land resources, pointing to quotas at many of the mills in the region. Please provide these quotas for verification purposes to confirm the claimed harvests would be realistic with the mills in the region. Or provide some other type of evidence indicating that the large varied type of ownership can indeed manage the way claimed. Additional information such as the referenced DNR stumpage reports and interviews should be available for review as well.

Secondly, it was discussed on site that many large timber companies exist in the upper peninsula, but no data has been provided for verification. Please demonstrate that the proposed project activity exceeds the common practice of similar landowners managing similar forests in the region. Please provide examples and data of similar landowners (i.e. with widely spaced parcels of private timber land) managing similar forests in the region.

**Project Personnel Response**: The reference to DNR stumpage reports was an outdated reference. It has been amended in the GHG Plan and the Timber Mart North report was provided previously in the shared folder.

Mill capacity was assessed for the state of Michigan in 2019. This report has been shared in the Regional Forestry Docs folder. The report found that the Upper Peninsula mills alone receive and process the equivalent of roughly 188,915 MCF annually. The baseline scenario's most intensive decade is 2019-2028, in which harvested volume amounts to 109,144 green tons, or 3,438 MCF, annually - approximately 1.8% of the regional mill capacity. This annual harvest figure in the baseline reduces, on average, to less than 1/3 of this initial value in the subsequent decades of the project – or roughly 0.5% of regional capacity. Given the strong forest and mill markets and future outlook in the Upper Peninsula, according to the report, this baseline scenario is feasible now and likely throughout the project lifetime.

Pertinent notes from a January 29, 2020 interview conducted with Justin Miller, ACF, Green Timber Consulting Foresters, Inc. (Michigan Registered Forester #3301045978) have been edited for clarity and presented below:

Q: Tell us about the general market region and product classes you can sell into.

A: "Greenleaf has a wide geographic footprint over Northern Michigan. We do not sell much into Canada. Higher end roundwood gets exported eventually after processing. Saw, veneer, and chip markets are all strong. There are mills in distance of all parcels. Mill capacity in the region is large enough to support intensive operations throughout the region. In any given year, logging capacity would be the limitation, not mill capacity. We have a wide variety of market opportunities. Most of the trees on the property on any given parcel are merchantable."

Other landowners that have widely distributed, disparate parcels throughout the Upper Peninsula include Lyme Timber, TRG, Hancock Forest Management, JM Longyear, and the Keweenaw Land Association. We believe that we have provided sufficient evidence, and have provided first hand accounts from both the owner's representative and the owner's manager, that the management as modeled in the baseline scenario is feasible and exceeds Common Practice of the region. The baseline silvicultural prescriptions are based on the recommended actions of published literature, provided in the RegionalForestryDocs folder.

**Auditor Response**: Thank you for the clarification regarding the common practice in the area. The further explanation and references to specific figures in the stumpage report helps to confirm the feasibility of the harvests claimed in the baseline scenario. Additionally, a quote from a registered professional forester adds to the credibility of the claims made on site and in the GHG plan. The audit team now has confidence that the project meets the common practice test by demonstrating the predominant forest industry technologies and practices in the geographic area region. The finding is now closed.

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

### NIR 2 Dated 26 Oct 2020

**Standard Reference**: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands Version 1.3

Document Reference: Greenleaf ACR GHGPlan 08 05 20.pdf

**Finding**: The 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. Where the baseline management scenario involves replacement of existing onsite timber producing species (e.g. where forest is converted to plantations, replacing existing onsite timber-producing species), the management regime should similarly be based on silvicultural prescriptions recommended by published state or federal agencies, and must adhere to all applicable laws and regulations."

The GHG plan states "These treatments were derived by applying the most common silvicultural prescriptions that are currently implemented in Northern Michigan and Wisconsin (typically, even aged (clearcut) harvest, and natural regeneration. These practices are commonly implemented the US Forest Service on most young growth managed timber, and private landowners in the region. Specifically, there are 11 silvicultural prescription in the linear programming model, shown in in Table E1-e."

Please provide evidence from published state or federal agencies with which these prescriptions were based on. This includes specific references to which sections of the publications are being referenced for the baseline silvicultural prescriptions.

Project Personnel Response: USDA SilvicultureGuide NE Hwds.pdf and

WI\_Silviculture\_Handbook.pdf have been shared in the "RegionalForestryDocs" folder. Relevant portions have been highlighted in the document.

**Auditor Response**: Thank you for the two references. The highlighted areas as well as additional information verified by the team has confirmed no concerns relating to the legally permissible harvest scenarios used. The finding is now closed.

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

### NIR 3 Dated 26 Oct 2020

Standard Reference: ACR Standard V 6.0

2.B.6 Managing Data Quality

Document Reference: Greenleaf\_ACR\_GHGPlan\_08\_05\_20.pdf

Greenleaf\_100Yr\_Calcs\_8\_4\_20.xlsx

Finding: The GHG plan states "Only volume from merchantable species count toward costs and

revenue for regeneration harvest (i.e., hardwood species are not included)."

The audit team was a little confused by the line above and seeking clarification. From other parts of the GHG plan and specifically the merchantable species in the project, it would seem that hardwood species are merchantable and should count toward costs and do indeed count towards revenue as calculated in the workbook "Greenleaf\_100Yr\_Calcs\_8\_4\_20.xlsx."

If the above statement is accurate, please explain how hardwood species are not included in cost and revenue projections.

**Project Personnel Response**: This is an error in the GHG plan and has been fixed. Hardwood species are indeed included as indicated in the calculations workbook.

**Auditor Response**: Update has been noted, thank you for the clarification. This finding is now closed.

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

### NIR 4 Dated 26 Oct 2020

Standard Reference: ACR Standard V 6.0

2.B.6 Managing Data Quality

Document Reference: Greenleaf\_ACR\_GHGPlan\_08\_05\_20.pdf

**Finding**: The audit team has communicated the issues below regarding discrepancies in the GHG plan. They are summarized below with the understanding as communicated that updates would be made after the first round of findings were issued. All quotes below are from the GHG Plan.

### **Project Activity**

"Management decisions of the forest focus on sustainable forest growth and regular, uneven-aged harvests as well as promotion of recreation, wildlife habitat and forest health. The project ensures long-term sustainable management of the forests, which could otherwise undergo significant commercial timber harvesting."

"The vast majority of the project area's timber is merchantable in one market or another and it is the intention of the owner to continue to harvest under certification."

"Ongoing commercial harvesting is intended for the carbon project area. Management considerations for the project area will promote uneven-aged silviculture practices. The landowner is committed to following state Best Management Practices so as not to impact water quality in the area."

Following the above information, harvesting is expected to take place within the project, even if not during this reporting period (referencing the monitoring report). This was also confirmed during our call as a salvage harvest occurred in May of this year.

### A6.3 Project Action

"By committing to maintain forest CO2 stocks above the baseline level, the project will provide significant climate benefits through carbon sequestration. The project action will allow the forest to progress naturally with no commercial harvesting."

"The landowner will continue to harvest into the future. The property is certified under the Tree Farm Certification."

Here we have a clear discrepancy with the plans for the project. I am reading that the property is certified, and the plan is to continue harvesting on a commercial level, while at the same time they will allow the forest to progress naturally with no commercial harvesting.

#### Leakage

"Market leakage was determined by quantifying the merchantable carbon removed in both the baseline and with-project cases. Carbon in long-term storage in in-use wood products and landfills, calculated above, was used to assess relative amounts of "total wood products produced" in the two scenarios. No timber harvest is projected to take place in the with-project scenario. The decrease in wood production relative to the baseline was then calculated and the applicable market leakage discount factor was determined."

Market leakage is claiming to quantify the merchantable carbon removed in both scenarios but also claims that no timber harvests are expected to take place in the project scenario.

Tim Hipp replied on Friday September 25th to the inquiries above. Please make sure the clarifications and changes are made in the updated GHG Plan.

**Project Personnel Response**: Appropriate edits have been made to clarify the GHG plan.

**Auditor Response**: Clarifications have been noted. This finding is closed. **Bearing on Material Misstatement or Conformance (M/C/NA):** C

OBS 5 Dated 26 Oct 2020 Standard Reference: N/A Document Reference: N/A

**Finding**: This observational finding is to simply record the unique circumstance that occurred during the site visit. An email to Kurt Krapfl at ACR was sent to SCS in which Bluesource communicates the issue of the lateness of the site visit due to COVID and subsequently why grown data was used to test against verifier's measurements.

This issue could of be caught ahead of time and saved the auditor and project developer time in the field. Please consider addressing the issue ahead of the site visit in future verifications as this could of caused additional significant issues.

**Project Personnel Response:** 

**Auditor Response:** 

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

#### OBS 6 Dated 18 Dec 2020

Standard Reference: ACR Standard V 6.0

Chapter 3: Project Eligibility Requirements, Table 2 Eligibility Requirements for Offsets Projects

**Document Reference: N/A** 

**Finding**: An email exchange dated to Tuesday December 15th stated "ACR will not send out the RMA until their review, FYI, so you can just flag that as needed in your documentation. I believe that makes us whole on our end for attestations: annual has been shared, Monitoring Report will be signed upon ACR review for the regulatory compliance attestation, and the RMA will be sent and executed by ACR after their review as well."

This observational finding is to capture that the verification team does not have a signed Reversal Risk Mitigation Agreement for review. This will be followed up upon completion of the verification.

**Project Personnel Response:** 

**Auditor Response:** 

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

### **OBS 7 Dated 18 Dec 2020**

Standard Reference: ACR Standard V 6.0

Chapter 3: Project Eligibility Requirements, Table 2 Eligibility Requirements for Offsets Projects

**Document Reference:** 

**Finding**: An email exchange dated to Tuesday December 15th stated "ACR will not send out the RMA until their review, FYI, so you can just flag that as needed in your documentation. I believe that makes us whole on our end for attestations: annual has been shared, Monitoring Report will be signed upon ACR review for the regulatory compliance attestation, and the RMA will be sent and executed by ACR after their review as well."

This observational finding is to capture that the verification team does not have a signed Regulatory Compliance Attestation for review. This will be followed up upon completion of the verification.

**Project Personnel Response:** 

**Auditor Response:** 

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