

VALIDATION AND VERIFICATION REPORT

American Carbon Registry

ACR 647: The Nature Conservancy - Michigamme Highlands Carbon Project

Reporting Period:

26 May 2021 to 17 November 2022

Prepared for:

TerraCarbon LLC

27 November 2023



AMERICAN CARBON REGISTRY

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Executive Summary

This report describes the validation and initial verification services provided for The Nature Conservancy - Michigamme Highlands Carbon Project (“the project”), an Improved Forest Management Programmatic Development Approach project located in the Upper Peninsula of Michigan that was conducted by SCS Global Services. The Project Proponent is The Nature Conservancy. 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 26 May 2021 to 17 November 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 24 findings were raised: 5 Non-Conformity Reports, 18 New Information Requests and 1 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.

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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 269 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
 - 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:

- 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
- Methodology for the Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removals From Improved Forest Management in Non-Federal U.S. Forestlands v2.0 ("the methodology")
- ACR Tool for Risk Analysis and Buffer Determination, Version 1.0
- ACR Validation and Verification Standard v1.1

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 located on the Upper Peninsula of Michigan and is aimed at “increasing carbon sequestration by foregoing timber harvesting that would have likely occurred under alternate ownership. Additionally, TNC will maintain mature forest cover, restore previously high-graded stands, and improve ecosystem resilience by improving wildlife habitat, and treating stands for pests and disease. The properties included in this project will be managed to store carbon, while conserving and enhancing forest health and ecosystem resilience.”

2 Assessment Process

2.1 Method and Criteria

The validation and verification services began on October 4, 2022 and 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 (dated 26 May 2021; “PP”) and monitoring report (dated 16 November 2023; “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.
GHG Project Plan	Michigamme_Highlands_GHG_Plan_2023-10-24_CLEAN.pdf	1
Monitoring Report	Michigamme_ACR_IFM_MonitoringReport_RP1_2023-11-16.docx	2

Monitoring Report Appendix	Michigamme_MonitoringReport_RP1_APPENDIX_2023-10-27_CLEAN.pdf	3
Common practice analysis	CommonPractice_Analysis_2022-12-30.xlsx	4
Reporting period 1 calculations	Michigamme_ACR_Calcs_MonitoringRP1_20231024.xlsx	5
Ex-ante calculations	MichigammePDA_ACRcalcs_20231024.xlsx	6
Harvested wood products calculations	MichigammePDA_BSL_HWPProj_20230519.xlsx	7
Live tree baseline carbon calculations	MichigammePDA_BSL_LiveTreeProj_20230530.xlsx	8
Dead tree baseline carbon calculations	MichigammePDA_BSL_SnagProj_20230502.xlsx	9
Live tree project carbon calculations	MichigammePDA_WP_LiveTreeProj_20221229.xlsx	10
Net baseline net present value calculations	Michigamme_NPV_Analysis_2023-05-17.xlsx	11
End of reporting period tree and plot level carbon calculations	Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx	12
Beginning of reporting period tree and plot level carbon calculations	Michigamme_Carbon_Calcs_GrownBack_2023-05-17.xlsx	13
Scooby Heights site index calculations	ScoobyHeights_SiteIndex_20211214_AMH.xlsx	14
Slate River site index calculations	SlateRiver_SiteIndex_20230324.xlsx	15
Scooby Heights strata polygons shapefile	Scooby_BSLStrata_Final_2023_05_17.shp	16
Scooby Heights plot locations shapefile	Scooby_SamplePoints_2021-10-18.shp	17
Slate River plot locations shapefile	SlateRiver_InvPoints_TC.shp	18
Slate River strata polygons shapefile	SlateRiver_Strata_20221229.shp	19
Nearby red pine conversion locations .kmz file	pine_conversion.kmz	20
Deed for Scooby Heights tract	Deed in-Scooby Heights LLC et al-MI-W-5.26.2021.pdf	21
Deed for Slate River Tract	MichigammeHighlands(AllWoodInc)_DeedIn.pdf	22
Inventory Methodology	TNC_Michigan_CarbonCruise_SOPs_2022-05-23.docx	23
Multi-Site Design Document	MichigammePDA_ACR-Multi-Site-Design-Documents_2023-11-3.pdf	24

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 PP 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
Ben Rifkin	TerraCarbon LLC	Manager	Throughout audit
Emily Clegg	The Nature Conservancy	Director of Land and Water Management	Throughout audit
Alex Helman	The Nature Conservancy	Forest Project Manager	Throughout audit
Rich Tuzinsky	The Nature Conservancy	Land Protection Director	Throughout audit
John Den Uyl	The Nature Conservancy	Project Manager, Forest and Climate Conservation".	Throughout audit – beginning in Jan 2023

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
Gary Willis	Michigan Department of Natural Resources	Service Forester	08 March 2023

2.4 Site Inspections

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

- Ensure that data collection for sampling purposes (paired 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
- 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 18 October 2022 through 20 October 2022. 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 and project implementation
- Carried out on-site inspections of the project's measurement and/or monitoring methodologies through the following activities:
 - Verified measurements on a subsample of inventory plots
 - Recorded GPS tracks, waypoints, and photos at points of interest including:
 - Sites with supporting evidence for baseline scenario activities
 - Strata, project, and ownership boundaries
 - Plot locations
 - Road and watercourse locations

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, 5 NCRs, 18 NIRs and 1 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 GHG Plan (Ref. 1), MR (Ref. 2), spatial information (Refs. 16-20), and calculation workbooks (Refs. 5-13) 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, including a discussion with project personnel on any harvest activities.
- Review of sources, sinks and reservoirs of GHG emissions within the project boundary.
- 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 the project proponent to convert the raw inventory data into emission reduction estimates during the reporting period (Refs. 5-10, 12,13). This included a re-calculation of project emissions, ERTs, and uncertainty using inventory data as described below in section 3.1 and 3.2.
- Baseline scenario modeling and ex ante estimates were also reviewed, recalculated, and remodeled. This included a look at the feasibility financially and physically to accomplish the claims made in the baseline scenario.
- 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 (section III.4 of the monitoring report).
- Attention was paid to the common practice assessment including local silvicultural trends, market wood demands, and regional mill capacities.

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 13,655 acres of northern hardwood forest and mixed forests, in Baraga Country Michigan. The project land is owned and managed by the project proponent, The Nature Conservancy. 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 reviewing ownership deeds, shapefiles, and ground truthing project boundaries when possible. Likewise, during document review the audit team inspected project shapefiles (Refs. 16,19) 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.

Note that this is a Programmatic Development Approach (PDA) project which allows for additional cohorts to be added to the project area over the first 5 years, as outlined in the ACR Standard.

3.1.2 Physical Infrastructure, Activities, Technologies and Processes

The audit team reviewed the PP and project documentation (Refs. 1-3) 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 maintenance harvest for essential activities 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 ₂	Major carbon pool subjected to the project activity.
Below-ground biomass carbon	Included	CO ₂	Major carbon pool subjected to the project activity.

Standing dead wood	Included	CO ₂	Major carbon pool in unmanaged stands subjected to the project activity.
Harvested wood product	Included	CO ₂	Major carbon pool subjected to the project activity.
Market Leakage	Included		As more wood is harvested in the baseline than in the project scenario, market leakage is accounted for to reflect that wood supply elsewhere increases in response to project activity-attributable reductions, assuming demand is constant.

3.1.4 Temporal Boundary

The ACR Standard indicates that the project must have a validated/verified Start Date of 01 January 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 began to apply the land management regime to increase carbon stocks and/or reduce emissions relative to the baseline. SCS was able to review the PP, and MR for authenticity and to confirm that the management regime has been put in place since the start of the project. SCS concluded that 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 listed as 20 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 a moderate to aggressive harvest regime, targeted to maximize net present value at a 5% discount rate for private non-industrial landowners, typical of practices in the project region. Both the Slate River and Scooby Heights parcels’ alternative landowners are private non-industrial landowners and therefore apply the same discount rate. Both properties were acquired within five years of the project start date and therefore, the previous landowner is the appropriate baseline agent.

There are three main baseline management regimes implemented across the properties based on forest type and stand age. Clearcutting then converting to red pine plantation is a common practice throughout Baraga County and the Upper Peninsula of Michigan by both TIMOs and private non-industrial landowners. Evidence for conversion of hardwood forest to red pine plantation is provided in Section E. Additionally, even-aged management of mature mixed-hardwood stands is common throughout the peninsula utilizing silvicultural prescriptions such as clearcutting, and shelterwood harvests¹. Some conservative assumptions are included in the baseline scenarios, including:

- Riparian management zones (RMZs) are buffered around all perennial streams and water bodies with the maximum buffer distance, recommended by the state BMPs, of 175 ft on either side of the hydrologic feature. Conservatively, no harvesting occurs in the baseline in any RMZ.
- Harvest will not exceed more than 6% of the annual mill production in the region.
- The even-age management shelterwood harvest in the Mature and HardwoodMix strata is implemented over a 5-year period, as opposed to a 1-year as justified by the NPV analysis.
- Areas unsuitable for planting red pine based on soil composition are held as reserves on 200+ acres).
- The previous landowner of the Slater River property was an industrial private landowner, however, the project elected a more conservative 5% discount rate to assess NPV maximization.”

The audit team confirmed that the claims related to annual acreage restrictions, silvicultural prescriptions, and general mill capacity are common in the area as well as recommended under published sources.

During the site visit and through interviews with local managers the audit team verified the harvesting practices of owners managing similar forest types with comparable species and wood product types. The audit team reviewed the justification of the baseline scenario with great attention to detail to confirm the claims made regarding harvest types, volume of sawlogs, as well as the capacity of local mills to accept the wood. 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 and is comparable to the common practice in the region.

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

¹ Right to Forest Act, Generally Accepted Forest Management Practices. <https://www.michigan.gov/dnr/-/media/Project/Websites/dnr/Documents/FRD/General-FRD/Final-GAFMPs.pdf?rev=fc22f1287d604013957b4cce1afc607b>

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 26 May 2021, 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 by case basis.	The start date is 26 May 2021, the date of the acquisition of the first parcel included in the project, "Scooby Heights", was acquired by the PP and improved forest management activities began (Refs. 21-22)
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 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	Project Proponents of AFOLU projects with a risk of reversal shall commit to a Minimum Project	Review of the PP to confirm that the minimum term is 40 years, as required.

(AFOLU Projects Only)	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.	
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 PP 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 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. 21-22) to confirm that the Project Proponent has 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. 16, 19, 21-22).
Emission or Removal Origin (Indirect Emissions)	<p>For projects reducing or removing non-energy indirect emissions, the following requirement applies:</p> <p>The Project Proponent shall document that no other entity may claim GHG emission reductions</p>	Not applicable; the project is not reducing or removing non-energy indirect emissions.

	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.	Confirmed by reviewing that no offsets exist or were sold prior to registration of the project (Refs. 2, 21-22). Reviewed land title documents (Refs. 21-22) along with an independent review of ownership using the ArcGIS web developer database which included property data, county assessor data, and up to date maps.
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.	
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	After performing extensive regulatory compliance checks during this reporting period, the audit team found no violations on file with EPA, ECHO, MI Waters, OSHA or with the Michigan Department of Natural Resources (Forestry Division). In addition, a local forester was interviewed about any regulatory compliance issues on the project area, forestry practices, and a discussion of the regional forestry trends and activity. The audit team also reviewed the regulatory compliance section of the MR submitted (Ref. 2).

	attestation must disclose all violations or other instances of non-compliance with laws, regulations, or other legally binding mandates directly related to Project Activities.	
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 30% leakage deduction was applied which is consistent with market-leakage per the methodology. Confirmed that all project proponent owned lands have a valid entity wide management certification (FSC) that requires sustainable practices.
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	<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>	<p>Confirmed by reviewing the GHG plan and monitoring report (Refs. 1-2) which indicate that the project has no anticipated negative community or environmental impacts.</p> <p>Interview with MI-DNR Service Forester, Gary Willis on March 8th, 2022 substantiated this findings.</p>
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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 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. Section 4.A.3 of the Standard states:

“If electing the financial implementation barrier test, Project Proponents shall include solid quantitative evidence such as net present value and internal rate of return calculations.”

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 was not implemented. The audit team also verified the physical feasibility of the harvests proposed as well as verified that the silvicultural activities in the baseline scenario is from published state and federal sources.

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. 23) 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, 23), 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 3.4.3).

3.5.3 Data Management Systems

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

3.5.4 QA/QC Procedures

Section E1 in the PP (Ref. 1) and the inventory methodology (Ref. 23) describe quality control measures related to the inventory plot collection, specifically regarding measurement tolerances and check cruising procedures. 5-10% of plots are checks cruised, with at least 5% spread across multiple cruisers. If measurements are found to be out of tolerance during the check cruise, the plot (or sequence of plots when systematic errors may be present) are to be remeasured.

Additional internal QA/QC procedures referenced in the PP include “...at least one independent review before submission to the VVB. Attention should be paid primarily, but not limited, to calculations, model results and analysis that present the greatest risk to project outcomes such as inventory and uncertainty results, geo-spatial analysis, and growth and yield modeling. Standardized templates and processes will also reduce error risk across project documentation.”

Section D of the PP provides a detailed 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 12 of the methodology (Refs. 5-6, 12-13). The total project uncertainty (percentage) during the reporting period is quantified using equation 20 of the methodology (Ref. 5-6, 12-13). 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 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

The total Project Uncertainty (UNC_t) value of 9.33% 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 _t Client Values	UNC _t SCS Values	Difference
2021	9.33%	9.15%	-0.18%

Note: final numbers are rounded for simplicity.

4.1.2

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

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

$$\% \text{ Error} = \frac{(141,423 - 141,488)}{141,488} * 100 = \frac{-62}{141,488} * 100 = -0.046\%$$

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

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

- Calculate the end of reporting period diameter of individual trees.

- Recalculate the live aboveground, live belowground, and standing dead carbon pools using Jenkins equations and decay class information.
- Calculate the change in project carbon stock stored in above and below ground live trees using equation 13 in the methodology
- Calculate the change in project carbon stock stored in above ground dead trees using equation 14 in the methodology
- Calculate the change in the project carbon stock and GHG emissions during the reporting period using equation 15 in the methodology.
- Calculate the percentage uncertainty in the combined carbon stocks in the project during the reporting period using equation 20 in the methodology
- Calculate the total project uncertainty (percentage) during the reporting period using equation 22 in the methodology.
- Calculate the net greenhouse gas emission reductions (in metric tons CO₂e) during the reporting period and during each annual vintage using equation 27 in the methodology.
- FVS models were used to assess silvicultural prescriptions in both the baseline and project scenarios. This included, among other things, a review of site index calculations, harvest parameters, NPV values, interpolation methods, defect calculations, and 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

Section E3 of the GHG Plan states: “Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond de minimis levels. This is demonstrated by the project proponent having entity wide forest certification that requires sustainable practices on all of their landholdings.

The audit team verified the claims made above by quantifying the merchantable carbon removed in both scenarios. The audit team also confirmed the project demonstrated that there is no leakage within their operations through an entity wide management certification that requires sustainable practices that covers all entity owned lands.

SCS confirmed that the applicable market leakage factor of 0.3 was applied for a total leakage deduction of 110,297 tCO₂e.

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
A	4%	Confirmation, through site inspections, that project is not located on public or tribal lands
B	4%	Confirmation, through site inspections, 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%	The project as not entered a conservation easement
E	2%	Confirmation, through interviews with local personnel and/or foresters and review of fire maps, that the project has a low fire risk
F	4%	Confirmation, through research of local forest health publications, that the project is not within a 30-mile radius of an epidemic disease or pest infestation
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
H	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 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 Net Removals and Reductions separately for the current Reporting Period:



Annual Emission Reductions and Removals in Metric Tons (tCO ₂ e) during Reporting Period 1				
Vintage	Start Date	End Date	Total Emission Removals (tCO ₂ e)	Total Emission Reductions (tCO ₂ e)
2021	26 May 2021	31 December 2021	11,283	92,605
2022	1 January 2022	17 November 2022	16,668	136,803
Total for Reporting Period			27,951	229,408

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 ₂ e)						
Reporting Period	Vintage	Start Date	End Date	Total Emission Removals and Reductions (tCO ₂ e)	Buffer Credits (tCO ₂ e)	Net Emission Removals and Reductions (tCO ₂ e)
1	2021	26 May 2021	31 December 2021	103,888	18,700	85,188
1	2022	1 January 2022	17 November 2022	153,471	27,625	125,846
Total for Reporting Period				257,359	46,325	211,034

Note: final numbers are rounded for simplicity.

Lead Auditor Approval	 Alexander Pancoast, 27 November 2023
Internal Reviewer Approval	 Doug Baldwin, 27 November 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 13 Apr 2023

Standard Reference: ACR Standard v7.0 Section 2.A

Document Reference: Michigamme_Highlands_GHG_Plan_2023-02-09.docx

Finding: The ACR Standard v7.0 Section 2.B.2 states “...Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions and removals...”

Section F1 of the GHG Plan describes 45 pre-existing lease holders within the project area. Please provide additional information about the approved land uses of said lease holders (e.g., any allowances and/or restrictions for lease holders manipulating vegetation), and if/how lease holder activities are monitored and enforced.

Project Personnel Response: The Fillable Lease template has been provided to the auditor on Dropbox for review. The project proponent requests that the lease template remain confidential. See "Fillable_Lease.pdf", "Lease Locator Map" and "Request Form" in the "Lease (Confidential)" folder. Relevant statements are in clauses 4a, 4h, 6, and 7 of the least template.

TNC monitors the leases annually, and holds an in person annual meeting with lease holders. They also communicate regularly through mail, and individual phone calls when working in lease areas. Should the lease holders identify hazardous trees, or other issues that require prior written approval, a TNC staff member visits the site with the lease holder, and completes our “Request Form” – attached. TNC staff members document and approve the request.

If it becomes an issue and we find issues or trees cut etc. that were unapproved by TNC Staff, TNC reserves the right to terminate the lease with a 30 day notice per clause 1.

Auditor Response: Received, thank you. Finding is closed.

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

NIR 2 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 8.A**Document Reference:** Michigamme_Highlands_GHG_Plan_2023-02-09.docx**Finding:** The ACR Standard v7.0 Section 8.A states “As part of the GHG Plan, ACR requires all projects to prepare and disclose an environmental and community impact assessment.”

Section F2 of the GHG Plan describes questionnaire administered in February 2022 documented in “Questionnaire Results.xlsx” and submitted in a “Leaseholder Communications” folder with the GHG Plan. The Audit Team is unable to locate these results and communications. Please add this folder to the shared project documents folder.

Project Personnel Response: The letters TNC has sent to the leaseholders on the updates to the property, and notices of the annual in person meetings can be found in the "Lease (Confidential)" folder. TNC held annual in person meetings Dec 5 and 6, 2021 and November 1 and 2, 2022. These letters are provided in the folder "All_Comms_Letters". TNC has provided these letters for the auditor to review, but requests that these letters remain confidential.

Auditor Response: Received, thank you. Finding is closed.

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

NIR 3 Dated 13 Apr 2023

Standard Reference: ACR Improved Forest Management in Non-Federal U.S. Forestlands v2.0 Section 5.2

Document Reference: Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx,
MichigammePDA_FVS_Database_2022-12-28.xlsx,
Scooby_BSLStrata_Final_20220825.shp,
Scooby_SamplePoints_2021-09-22.shp

Finding: Section 5.2 of the ACR Improved Forest Management in Non-Federal U.S. Forestlands v2.0 states Methodology “For sampling, information shall be provided and recorded in the GHG Project Plan to establish that professionally accepted principles of forest inventory and management are implemented. SOPs and QA/QC procedures for forest inventory, including field data collection and data management, shall be applied.”

The upon inspection of the project GIS data, FVS model inputs, and tree data input, the audit team has found discrepancies in the number of plots in each stratum within the project area.

The GIS data shows the following plot counts by stratum:

- HARVEST: 61,
- MATURE: 62,
- RMZ: 8,
- HARDWOOD: 42

The FVS StandInit table shows the following plot counts by stratum:

- HARVEST: 61,
- MATURE: 61,
- RMZ: 9,
- HARDWOOD: 42

The Tree Data Input (Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx) data shows the following plot counts by stratum:

- HARVEST: 58,
- MATURE: 60,
- RMZ: 9,
- HARDWOOD: 42

As seen above there are discrepancies in the plot counts in the GIS data, FVS input tables, and tree data input between the HARVEST, MATURE, and RMZ stratum. Please provide additional information on these discrepancies and documentation of which plots are meant to be assigned to each strata.

Project Personnel Response: It looks like an earlier version of the Scooby sample point shapefile was shared with the VVB. The most recent version has been uploaded to the Dropbox folder in 'GIS', file "Scooby_SamplePoints_2021-10-18.zip" and "SlateRiver_InvPoints_TC.zip". Based on review of these documents, the plot counts appear to align in the FVS StandInit table and the Tree data input from Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx. The totals reflect the following:

Harvest: 61

Mature: 61

RMZ: 9

Hardwood: 42

It is unclear how the VVB found the plot count in the Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx file. The plot count is displayed on the 'CarbCalcs' tab.

Auditor Response: Thank you for the updated shapefiles. The audit team has used the GIS tool "select by location" to select plots from "Scooby_SamplePoints_2021-10-18.shp" using the stratum layer "Scooby_BSLStrata_Final_20220825.shp" and plots from "SlateRiver_InvPoints_TC.shp" using the stratum "SlateRiver_Strata_20221229.shp"

This yielded apparent inconsistencies in two (2) plots:

- Plot 156 in the Slate River tract appears to fall in the RMZ strata by about 40 feet , making the Slate River count HARDWOODMIX=41, RMZ = 1.

-Plot 81 in the Scooby Heights tract appears to fall in the Mature strata (by only ~2 feet), while it was assigned to the RMZ strata, making the Scooby Heights count Mature = 62, RMZ = 8, Harvest = 61.

This makes the overall count:

- HARVEST: 61,
- MATURE: 62,
- RMZ: 9,
- HARDWOOD: 41

Please provide additional information on how the two plots noted above were assigned to their respective strata.

The count from "Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx" was obtained by filtering the Tree_Data_Input tab and counting records where TREE equals "1". It appears that "null plots" are assigned a TREE #1 place-holder record, which leads the audit to assume that the count of TREE #1 records in each strata should equal the total plot count in that strata.

Please provide additional information to help the audit team understand why the filtering approach described above would not be expected to yield an accurate plot count.

Project Personnel Response 2: For the purposes of the forest carbon inventory, there is only one stratum in the Slate River project boundary (HardwoodMix). The RMZ, as it is delineated in the Slate River property, exists only for the purposes of calculating the acres to be set aside in reserve in the baseline management scenario. The same carbon stock value is applied to the HardwoodMix stratum as to the RMZ in Slate River. Therefore, Plot 156 remains in the HardwoodMix stratum and contributes to the overall stocking estimate for the Slate River property. The Scooby Heights RMZ is treated as its own stratum in the forest carbon inventory and was sampled accordingly, so it has its own carbon stocking estimate. This is all described in detail in Section E1 of the GHG plan. Some of the language in this section was edited for clarity.

The issue with Plot 81 in the Scooby parcel was caused by an underlying datum issue in the property boundary shapefile. At some point after the inventory, the underlying property boundary shapefile datum changed from NAD83 to WGS84 causing the boundary to shift a few feet. The 'Scooby_BSLStrata_*.shp' file datum has been transformed back to the original datum (NAD83), which has corrected the boundary issue. Plot 81 is now correctly located in the RMZ where it was originally established. No other plots appear to be affected by this shift. The corrected shapefile has been shared with the auditor on Dropbox in the GIS folder.

The plot count can be reliably checked on the "Carbon_Calc_Summary" tab of the aforementioned spreadsheet by counting the number of plots with carbon stocking estimates in each stratum. Filtering by tree number is not a reliable way to check total plot count because it's possible that tree numbers may change or be missing if a tree was removed from a plot during the QA/QC process. For example, if a plot were found to be borderline tree that is actually outside of the plot. The total plot counts based on the carbon calcs summary tab align with the total plot counts listed in the GHG plan.

Auditor Response 2: Thank you, finding closed.

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

OBS 4 Dated 13 Apr 2023

Standard Reference: ACR Improved Forest Management in Non-Federal U.S. Forestlands v2.0 Methodology Section 4.2.3.1

Document Reference: ACR Methodology Deviation Request V2-0_MichigammeHighlands_2022-12-29 APPROVED.pdf

Finding: The client has provided a document "ACR Methodology Deviation Request V2-0_MichigammeHighlands_2022-12-29 APPROVED.pdf" granting a deviation by ACR to use the previous methods for quantifying dead standing as described in ACR Improved Forest Management in Non-Federal U.S. Forestlands v1.3 Methodology as the project began development in May 2021 with the intention of using v2.0, however the draft version at that did not require the Domke method be used. The last of the inventory was completed in June 2022 and the final version of the v2.0 Methodology was released in August 2022 which required the use of the Domke (2011) method.

This observational finding is issued to memorialize this approved deviation.

Project Personnel Response: The deviation approval was provided to the VVB.

Auditor Response: Thank you, finding closed.

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

NIR 5 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 2.A**Document Reference:** MichigammePDA_BSL_LiveTreeProj_20221229.xlsx,
Michigamme_Highlands_GHG_Plan_2023-02-09.docx**Finding:** The ACR Standard v7.0 Section 2.A states “Use consistent methodologies for meaningful comparisons of emissions over time”.

The “Pivot_Live” worksheet in the “MichigammePDA_BSL_LiveTreeProj_20221229.xlsx” summarizes live tree CO₂ projections and interpolates the FVS outputs based on the management regimes described in “Michigamme_Highlands_GHG_Plan_2023-02-09.docx”. FVS outputs are generated in 10-cycle intervals and annual CO₂ estimates are required for the crediting period (20 years). Cells I106:I131 interpolate the live tree CO₂ FVS estimates for the mature stratum under the “2021 Shelterwood” regime. This regime represents a shelterwood harvest on 1,876.1 acres in the year 2021. The interpolation routine calculates the average annual change in CO₂ from the FVS projections between 2021 and 2031 and depletes that annualized change evenly across the years from 2021 to 2031. This is applying 1/10th of the carbon removed in 2021 across each year for 10 years. However, the prescription states that the entire 1,876 acres are harvested in 2021. This method of depletion is inconsistent with how the depletions are handled in the other baseline regimes and not representative of the management regime as described in the baseline scenario.

Project Personnel Response: This error has been corrected. A new treelist (see file “Mature_Scooby_Shelterwood_1yr_FVSoutput_20230502.xlsx”) in the “FVS” folder, was downloaded from FVS with the post-harvest (2022) data. Carbon stocks were estimated for the year following the harvest and applied in 2022. The stock calculation should now be consistent with the description of the silvicultural prescription in the GHG plan. See updated calculation file (“MichigammePDA_BSL_LiveTreeProj_20230502.xlsx”). The downstream calculations have been updated accordingly.

Auditor Response: Thank you for the updated calculations. The audit notes that there interpolated values at years 2031 and 2041 do not match those reported in the corresponding pivot table which aggregates the FVS yields, while we would expect them to.

Please provide additional information as to why the interpolated yields do not match the FVS yields at the 2031 and 2041 periods.

Project Personnel Response 2: The interpolated values have been updated and now match the FVS output values. The stock estimates have been updated through the calculation documents and have been updated in the GHG plan.

Auditor Response 2: Thank you, finding closed.

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

NCR 6 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 2.A**Document Reference:** MichigammePDA_BSL_LiveTreeProj_20221229.xlsx**Finding:** The ACR Standard v7.0 Section 2.A states “Use consistent methodologies for meaningful comparisons of emissions over time”.

In the same interpolation table described in NIR 5, the yields for the “Clear Cut and Plant 2021” in 2031 appear to reference the FVS yields associated with the “Clear Cut and Plant 2025” regime. This seems to in turn carry erroneous values through the interpolation of the yields in the subsequent harvest years in the regime.

Please correct the yields associated with the HARVEST strata.

Project Personnel Response: Cell K120 now references cell B46 instead of cell F46, which corresponds to the CC 2021 harvest regime. The downstream calculations have been updated accordingly and a new version of the calculations have been uploaded to the "Calcs" folder.

Auditor Response: Thank you for the updated calculations. The audit would like to note that the Clear Cut and Plant yield interpolation still appears to be slightly off. For regimes CC&Plant 2022-2025, the year 2030 yield for the CC&Plant 2021 regime (1.1) is repeated once for each year following the 2021 harvest regime (twice for CC&Plant 2022, three times for CC&Plant 2023 harvest, etc.). This is inconsistent with the FVS output yields reported in the respective pivot table. Additionally, it creates unexpected behavior such as negative growth for the CC&Plant 2025 regime between 2040 and 2041. In aggregate this is unlikely to amount to material error, however will contribute to a higher materiality calculation by causing slightly lower stocking in the baseline scenario.

Please revise these calculations.

Project Personnel Response 2: The interpolations for the clearcut plant baseline stock yields have been corrected to fix this error. The stock estimates have been updated throughout the calculation documents and have been updated in the GHG plan.

Auditor Response 2: Thank you, finding closed.

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

NIR 7 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 2.A**Document Reference:** MichigammePDA_BSL_SnagProj_20221229.xlsx**Finding:** The ACR Standard v7.0 Section 2.A states “Use consistent methodologies for meaningful comparisons of emissions over time”.

In the “Snag Stocks” worksheet of “MichigammePDA_BSL_SnagProj_20221229.xlsx” cells M3:M23 standing dead stocks are being calculated from the HARDWOODMIX strata based the acres remaining “unharvested” for that year and the per acre stocking of standing dead measured in the inventory. For each year the average stocking of dead standing CO2 is multiplied by the remaining unharvested acres from the previous year. This is inconsistent with how the dead stocks are estimated for the other three stratum.

Please provide additional information on why this method was chosen for the HARDWOODMIX stratum.

Project Personnel Response: This was an error and the remaining unharvested acres are now referenced to the corresponding year. See "MichigammePDA_BSL_SnagProj_20230502.xlsx". The downstream calculations have been updated accordingly and a new version of the calculations have been uploaded to the "Calcs" folder.

Auditor Response: Thank you for updating these calculations. Finding is closed.

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

NIR 8 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 2.A**Document Reference:** MichigammePDA_ACRcalcs_20230203.xlsx

MichigammePDA_BSL_SnagProj_20221229.xlsx

Finding: The ACR Standard v7.0 Section 2.A states “Use consistent methodologies for meaningful comparisons of emissions over time”.

ERTs are calculated using the ACR template in the “ACR IFM calc template” worksheet of the “MichigammePDA_ACRcalcs_20230203.xlsx” workbook. The dead standing CO2 stocks are referenced from the “bls proj” tab in the same workbook. The values in the “bsl proj” tab are pasted in with no reference. The audit team is under the impression that these values are sourced from the “Snag Stocks” worksheet of “MichigammePDA_BSL_SnagProj_20221229.xlsx”, however while the values do not match between the two tables (notice year 2022 and 2026).

Please provide additional information on the source of these values.

Project Personnel Response: References to the source of each column have been added to the spreadsheet and the snag stock numbers have been updated to match the "MichigammePDA_BSL_SnagProj_20230502" file. The downstream calculations have been updated accordingly and a new version of the calculations have been uploaded to the "Calcs" folder.

Auditor Response: Thank you for updating these calculations. Finding is closed.

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

NIR 9 Dated 13 Apr 2023

Standard Reference: ACR Standard v7.0 Section 2.A

Document Reference: MichigammePDA_BSL_HWPProj_20221229.xlsx

Finding: In "MichigammePDA_BSL_HWPProj_20221229.xlsx" HWP's are being calculated from the FVS cut list. It appears that Hemlock is being excluded in the Slate – Shelterwood softwood sawlog calculations while it is included the softwood sawlog and pulp calculations for the other strata.

Please provide additional information as to why hemlock sawlogs are only being excluded in the Slate Shelterwood regime.

Project Personnel Response: This was an oversight and hemlock sawlog is now excluded from the Scooby strata as well. The downstream calculations have been updated accordingly and a new version of the calculations have been uploaded to the "Calcs" folder.

Auditor Response: Thank you for updating these calculations. Finding is closed.

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

NCR 10 Dated 19 Apr 2023

Standard Reference: ACR Risk Tool v1.0

Document Reference: Michigamme_Highlands_GHG_Plan_2023-02-09.docx,
MichigammePDA_ACRcalcs_20230203.xlsx

Finding: The ACR Risk Tool v1.0 states "The output from the risk analysis tool will be a percentage that must be applied to gross ERTs at each issuance, and then deposited into the ACR buffer pool to mitigate the risk of unintentional reversals (unless the Proponent elects another ACR-approved risk mitigation mechanism). "

The project GHG plan provides itemization of the risk scores for each category outlined in the Risk Tool. The sum of these scores equals 18%, however the total risk is reported is 16%. Additionally, 16% is used in the ERT calculations workbook for the buffer contribution calculation. Please update the GHG Plan total and correct the ERT workbook to reflect the correct risk score.

Project Personnel Response: The risk score has been updated in the GHG plan, the monitoring report and in the ACR calculation workbooks which have all been uploaded to the shared Dropbox folder.

Auditor Response: Thank you for updating the risk score and buffer contribution. Finding closed.

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

NIR 11 Dated 19 Apr 2023

Standard Reference: ACR Validation and Verification Standard v1.1

Document Reference: Michigamme_NPV_Analysis_2022-12-30.xlsx;
 Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx;
 Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx

Finding: Section 9.G of the ACR Validation and Verification Standard states “The objectives for verification of quantification methods are to: Identify quantification errors in overall GHG project emissions, identify any outliers in facility-level and temporal boundaries results, and detect any methodological inconsistencies.”

In the client’s NPV workbook (“Michigamme_NPV_Analysis_2022-12-30.xlsx”), tab “species_comp” includes a table that divides average Basal Area by stratum and species, hence producing a compositional breakdown of the project area. These values are hardcoded, so the audit team is unable to trace their direct provenance. However, the client includes a citation that directs the viewer to compositional calculations performed in the Grown Back workbook (“Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx”). In this workbook, tab “Composition” contains multiple pivot tables that calculate the total BA for each species in each stratum of the project area. There are two seemingly identical pivot tables in this sheet, and after a discussion with the client, these tables were described as primary and copied versions of the same information. However, after further investigation, the audit team confirmed that the tables do not display the same values (e.g. cells B12 and AE12 should be the same value, but are not).

The values in the “original” pivot table seem to be taken from the Grown Back workbook, tab “Tree_Data_Input”. From further investigation, the values in the “copied” pivot table appear to come from the client’s Original workbook (“Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx”, tab “Tree_Data_Input”)

The audit team request more clarity on this discrepancy in values and further justification for why these data sets were chosen and how they are reflected in the overall NPV analysis.

Project Personnel Response: The copied pivot table in the "Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx" spreadsheet has been updated to reflect the updated pivot table in this workbook. The table is hardcopied from the pivot table to prevent unintentional or irreversible updates of the pivot table as the pivot table is dynamic and prone to unexpected change. The hardcopied table was not updated with the most recent change to the pivot table. This issue has been corrected and the new composition values have been copied into the "Michigamme_NPV_Analysis_2023-05-02.xlsx" "composition" tab. The update resulted in no material change to composition or to the NPV analysis and no further downstream calculations needed to be updated.

Auditor Response: The audit team confirms that a table has been transferred, but cannot confirm that the data is from "Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx" as this workbook only contains data for the parcel "Scooby Heights" and not "Slate River." Please confirm the source data used for the composition pivot table. This finding remains open.

Project Personnel Response 2: The species composition was pulled from the file shared with the VVB "Michigamme_Carbon_Calcs_GrownBack_*.xlsx", not "Michigamme_Carbon_Calcs_GrownBack_JustScooby_*.xlsx". All strata are included in this workbook and in the composition analysis. The "JustScooby" workbook was shared in error and is not relevant to this particular analysis.

Auditor Response 2: The audit team has confirmed that the workbook Michigamme_Carbon_Calcs_GrownBack_2023-05-17.xlsx was provided by the client and that the composition analysis has been updated. This finding is now closed.

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

NIR 12 Dated 19 Apr 2023

Standard Reference: ACR Standard 7.0

Document Reference: Michigamme_NPV_Analysis_2022-12-30.xlsx;
 Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx;
 Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx

Finding: ACR Standard Section 2.A Table 1, includes “Consistency: Enable meaningful comparisons in GHG-related information. Use consistent methodologies for meaningful comparisons of emissions over time. Transparently document any changes to the data, boundary, methods, or any other relevant factors.”

The “SPECIES_NAME” column of the Tree_Data_Input tab for both Michigamme_Carbon_Calcs_GrownBack_JustScooby_2022-12-30.xlsx & Michigamme_Carbon_Calcs_Orig_2022-12-23.xlsx include both “Red Oak” and “Northern Red Oak”. This differentiation is carried through to Michigamme_NPV_Analysis_2022-12-30.xlsx (tab “species_comp” cells J29:32 & L29:32 and tab “stumpage” cells F12:H12 and F34:H34).

From our expert knowledge of the region in which the project resides, we can confirm that there is only one species of red oak, *Quercus rubra*, whose common name is “red oak” and “northern red oak”. However, in the client’s documents, this single species seems to be coded as two different species, based on variations in the common name. Furthermore, in both carbon calcs workbooks, the two common names use the same FIA code (“SPCD”) of 833, which is the code given to *Quercus rubra*.

The audit team requests more clarity on this inconsistency and how it may impact the client’s calculations and NPV analysis.

Project Personnel Response: First, it should be stated that this discrepancy has no impact on carbon calculations as the SPCD is used to assign Jenkins coefficients, and the same code is used for both Northern Red Oak and Red Oak. The discrepancy has been updated in the inventory calculations workbook.

It should be noted that the discrepancy in naming and the resulting species composition is immaterial to the outcome of the NPV analysis. When updated, the weighted stumpage price does not change. The stumpage value is an estimate that varies broadly from species to species and from year to year. The purpose of assigning a weighted average across two quarterly stumpage reports is to reduce the noise in the stumpage data. The stumpage report provides prices for a “MIXED OAK” category, and it cannot be determined exactly which species of oak are included in this value. For the purpose of the NPV analysis, Red Oak was assigned to this category. Therefore, beyond the scope of this particular finding (relevant to NIR 11 and 14), it should be noted that the stumpage price estimate is merely an approximation based on economic data from the region that contains a lot of noise. See “Michigamme_NPV_Analysis_2023-05-02.xlsx”

Auditor Response: The audit team thanks the client for their response, however the updated NPV workbook provided to us still contains the compositional differentiation of “red oak” and “northern red oak.” This ultimately impacts the species-weighted stumpage values in the client’s NPV analysis. This finding remains open.

Project Personnel Response 2: The species names have been updated to be consistent throughout the inventory and in the species composition estimates. The species weighted average have been updated in the NPV analysis.

Auditor Response 2: The audit team has confirmed these changes. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 13 Dated 19 Apr 2023

Standard Reference: ACR Standard 7.0

Document Reference: Michigamme_NPV_Analysis_2022-12-30.xlsx

Finding: ACR Standard Section 2.A Table 1, includes, “Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.”

In the client’s NPV workbook, tab “stumpage”, cells J29:L32 reference a citation of “University of Maine cooperative extension bulletin #7103
Units_of_Measurement_and_Conversion_Factors_for_Forest_Products”

The audit team requests a copy of this citation for further verification.

Project Personnel Response: The document has been shared via Dropbox in the "Supporting Documents" folder.

Auditor Response: Thank you. The audit team has received this documentation and has reviewed the document for transcriptional accuracy. This finding is now closed.

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

NIR 14 Dated 19 Apr 2023**Standard Reference:** ACR Standard 7.0**Document Reference:** Michigamme_NPV_Analysis_2022-12-30.xlsx

Finding: ACR Standard Section 2.A Table 1, includes, “Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.”

In the client’s NPV workbook, a table containing the species composition of the project area in tab “species_comp” (cells A28:W32) is used to conduct a weighted average of stumpage prices in the tab “stumpage” (cells F5:H43).

Tab “stumpage” list some, but not all, species in the project area, as compared to the table in tab “species_comp”. For example, “basswood” is a species found in the HardwoodMix stratum (“Slate River”) yet is not accounted for in the stumpage price calculations (tab “stumpage”; cells H6 & H23).

The audit team requests more clarity on the species composition selection process for the calculation of stumpage prices and the NPV analysis, including any additional documentation and assumptions made.

Project Personnel Response: The list of species in the "stumpage" tab comes directly from the Michigan Stumpage Report. If a species was not included in the price report, it was not included in the list and did not contribute to the stumpage price because there was no listed price for that species. See "Michigamme_NPV_Analysis_2023-05-02.xlsx"

Auditor Response: As outlined in a meeting with the client, not all species listed in the stumpage report that also appear in the client's inventory list have been properly accounted for in the stumpage cost calculations. Additionally, it appears that the compositional values for several species, including northern red oak, bigtooth aspen, and northern white cedar, have been transcribed incorrectly by the client. This finding remains open.

Project Personnel Response 2: The species composition calculations have been updated in the "Michigamme_Carbon_Calcs_GrownBack_*.xlsx" workbook and transcribed to the "Michigamme_NPV_Analysis_*.xlsx" workbook on the 'Composition' tab. The duplicate species and missing composition totals are now corrected and flow correctly into the stumpage values. The downstream calculations have been updated and the values have been updated in the GHG plan.

Auditor Response 2: The audit team has confirmed these changes. This finding is now closed.

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

NIR 15 Dated 19 Apr 2023**Standard Reference:** ACR Standard 7.0**Document Reference:** Department of Natural Resources, Michigan Stumpage Report "Stumpage Report 10-01-2021 to 12-31-2021.pdf", "DNR_MI_Stumpage 04-01-2021 to 06-01-2021.xlsx", "DNR_MI_Stumpage 10-01-2021 to 12-31-2021.xlsx"; Michigamme_NPV_Analysis_2022-12-30.xlsx**Finding:** ACR Standard Section 2.A Table 1, includes, "Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used."

The DNR Stumpage Report provided by the client states, "The report is ordered by the four (4) timber products sold by the DNR: Sawtimber, Pulpwood, Poles, and Bolts."

In the client's NPV workbook, tab "stumpage" lists species based on their classification as "pulpwood" and "sawtimber". The stumpage report gives average values for the species x classification. The client then uses a weighted compositional average to calculate a total value for each species in the project area, however the determination of whether a species is pulpwood, sawtimber, or both is unclear.

For example, values for pulpwood and sawtimber are provided in the report for bigtooth aspen ("MIXED ASPEN") and white birch ("PAPER BIRCH"). In the client's workbook, bigtooth aspen is classified as pulpwood only, whereas white birch is classified as both pulpwood and sawtimber.

The audit team would like more information on how the client used this report to classify each species based on the classifications outlined in the report, including all assumptions made.

Project Personnel Response: Species were categorized based on the best match to the species or species group listed in the stumpage report based on expert opinion. Bigtooth aspen should have been added to the Mixed Aspen group under sawtimber, and this has been remedied. Where a more specific species is referenced in addition to a broader category, for example Mixed Oak vs Red Oak, the species was assigned to the more specific group. Again, the adjustments to species composition assignment made no material difference to the weighted stumpage prices and the overall NPV analysis. See "Michigamme_NPV_Analysis_2023-05-02.xlsx"

Auditor Response: Thank you for your response. This finding is now closed.

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

NIR 16 Dated 19 Apr 2023**Standard Reference:** ACR Standard 7.0**Document Reference:** Michigamme_NPV_Analysis_2022-12-30.xlsx

Finding: ACR Standard Section 2.A Table 1, includes, “Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.”

During a brief conversation, the client clarified to the audit team that the NPV workbook uses FVS output data to construct pivot tables that then inform the NPV analysis. For example, the data in the tab “FVS_Slate_Grow_DIACCLASS” is used to construct the pivot tables in tab “HARDWOODMIX_Grow_100yrs”. However, when the audit team attempted to reconstruct these pivot tables with the abovementioned data, we were unable to calculate the same results. This is also true of the pivot tables in the “MATURE_GROW_100yrs” tab, which uses data found in tab “FVS_Scooby_GROW_DIACCLASS”.

The audit team requests more clarity on how these pivot tables were constructed, with detailed descriptions of their input data and any additional modifications to the tables that resulted in the final products found in the NPV workbook.

Project Personnel Response: It is unclear to the client what discrepancy the VVB is seeing in these pivot tables. No additional modifications were made to the pivot tables outside of the column, row, and data selections and the filters added to the softwood tables that exclude hemlock. The client requests more clarity on this finding.

Auditor Response: The audit team was able to replicate the pivot tables to accurately reflect the client's values. This finding is now closed.

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

NIR 17 Dated 13 Apr 2023**Standard Reference:** ACR Standard v7.0 Section 2.A**Document Reference:** MichigammePDA_BSL_LiveTreeProj_20221229.xlsx

Finding: The ACR Standard v7.0 Section 2.A states “Use consistent methodologies for meaningful comparisons of emissions over time”.

In the same interpolation table described in NIR 5, the yields for the “HARDWOODMIX” strata, shelterwood regimes in 2032 appear to be referencing the incorrect row in the associated FVS yields. This seems to in turn carry erroneous values through the interpolation of the yields.

Please correct the yields associated with the HARDWOODMIX strata and correct all downstream calculations.

Project Personnel Response: The error has been corrected and the downstream calculations have been updated.

Auditor Response: Thank you, finding closed.

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

NIR 18 Dated 16 May 2023**Standard Reference:** The ACR Standard v7.0 Section 2.B.2**Document Reference:** MichigammePDA_BSL_HWPProj_20230502.xlsx**Finding:** The ACR Standard v7.0 Section 2.B.2 states "...Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions and removals..."

The harvested wood products calculation omits eastern hemlock sawlog volumes and includes eastern hemlock pulpwood volumes. The audit team notes that the regional stumpage and mill capacity documents do not include eastern hemlock sawlog products and eastern hemlock does not appear to be a commercial species for sawtimber in the project region.

The audit team notes that in the baseline HWP calculations, all eastern hemlock volume in the sawlog product size class is omitted entirely from the calculations and not "lumped" into the pulpwood class. This would imply that any sawlog sized eastern hemlock products are not utilized (i.e., left in the woods or otherwise disposed of).

The audit team requests additional information on this assumption, specifically if "sawlog sized" eastern hemlock is utilized for pulpwood, or if there is a maximum size threshold at which eastern hemlock is unable to be utilized for pulp.

Project Personnel Response: After consulting with a forester in the UP, it became clear that hemlock logs up to 18" are sometimes used for pulpwood. Therefore, hemlocks of all size classes are conservatively included in the HWP calculations in the baseline.

Auditor Response: Thank you, finding closed.

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

NIR 19 Dated 16 May 2023**Standard Reference:** ACR Standard v 7.0**Document Reference:** Department of Natural Resources, Michigan Stumpage Report "Stumpage Report 10-01-2021 to 12-31-2021.pdf", "DNR_MI_Stumpage 04-01-2021 to 06-01-2021.xlsx", "DNR_MI_Stumpage 10-01-2021 to 12-31-2021.xlsx"; Michigamme_NPV_Analysis_2023-05-02.xlsx**Finding:** ACR Standard Section 2.A Table 1, includes, "Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used."

The stumpage reports list average stumpage prices by species stratified by specific forest outputs as well as regional and state averages for the state of Michigan. The client uses an average of all values to calculate the stumpage prices in the NPV workbook. The audit team would like more information on how the appropriate stumpage price was determined per species and if these prices adhere to ACR's principle of conservativeness.

Project Personnel Response: Thank you for bringing this to our attention. The stumpage values have been filtered by 'Upper Peninsula' and the resulting stumpage values by species have been updated in the NPV analysis workbook. The NPV max years did not change.**Auditor Response:** The audit team confirmed that the stumpage values have been changed to "Upper Peninsula" and that these values are used throughout the NPV analysis. This finding is now closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** M/C**NCR 20 Dated 1 Jun 2023****Standard Reference:** ACR Standard v 7.0**Document Reference:** Michigamme_Highlands_GHG_Plan_2023-05-31.docx**Finding:** Section 2.B.6 in the ACR Standard 7.0 states "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information, including the assessment of uncertainty in the project and baseline scenarios. QA/QC procedures shall be outlined in the GHG Project Plan."

Section E1 of the GHG Plan describes quality assurance measures associated with field data collection and data entry. The GHG Plan does not include descriptions of QA/QC procedures associated with data and information relevant to other aspects of the project including, but not limited to spatial analysis, financial analysis, growth and yield modeling, carbon stock quantification, and the assessment of uncertainty in the project and baseline scenarios. Examples of concerns regarding QA/QC have been addressed in findings throughout the course of the audit. Please update the GHG Plan to describe the QA/QC procedures in place as required by the Standard.

Project Personnel Response: The QA/QC procedure has been updated in the GHG plan pursuant to Section 2.B.6 in the ACR Standard.**Auditor Response:** Thank you, finding closed.**Bearing on Material Misstatement or Conformance (M/C/NA):** C

NIR 21 Dated 15 Jun 2023**Standard Reference:** ACR Standard 7.0**Document Reference:** Michigamme_Highlands_GHG_Plan_2023-06-01

Finding: ACR Standard Section 2.A Table 1, includes, "Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used."

Section B5: Baseline of the client's GHG Plan states, "...Some conservative assumptions are included in the baseline scenarios, including:.. Areas unsuitable for planting red pine based on soil composition are held as reserves on 200+ acres)."

In the example above, as well as throughout the client's documents, it is mentioned that some areas are unsuitable for planting red pine and thus have been excluded from harvest activities in baseline modeling scenarios. Please provide additional information as to how red pine suitability was determined and why this is a conservative assumption.

Project Personnel Response: Additional explanation of the process for assessing soil suitability for red pine planting has been added to Appendix A in the GHG plan. Areas unsuitable for pine planting are set aside and remain unharvested in the baseline, which is therefore a conservative, though accurate, assumption in the baseline.

Auditor Response: Thank you, finding closed.

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

NCR 22 Dated 15 Jun 2023**Standard Reference:** ACR IFM Methodology v2.0, Section 2.2**Document Reference:** Michigamme_Highlands_GHG_Plan_2023-06-01

Finding: The Methodology states in Section 2.2: "The Project Proponent must provide a detailed description of the geographic boundary of project activities. Note that the project activity may contain more than one discrete area of land, that each area must have a unique geographical identification, and that each area must meet the eligibility requirements. Information to delineate the project boundary must include the following:

- Project area map, delineated on a geographic information system;
- General location map; and
- Property parcel map or recognized equivalent."

The GHG Plan Section A.3 contain project area maps, however no "Property parcel map or recognized equivalent". Please add this map to comply with Section 2.2 of the Methodology.

Project Personnel Response: A vector, delineating the TNC property parcel ownership boundary, has been added to the maps of Slate River and Scooby Heights project areas in the GHG plan.

Auditor Response: The audit team confirmed that a vector delineating the parcel boundary has been added to both the Scooby Heights and Slate River project maps in the GHG Plan. This finding is now closed.

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

NCR 23 Dated 15 Jun 2023

Standard Reference: ACR Standard v7.0, Section 2.B.4

Document Reference: Michigamme_MonitoringReport_RP1_APPENDIX_2023-05-31;
Michigamme_ACR_Calcs_MonitoringRP1_20230531

Finding: The ACR Standard states in Section 2.B.4: "The following rules shall be applied when reporting emissions data to ACR for credit issuance:

- Claimed emissions reductions shall be rounded down to the nearest whole number; and
- Calculated Buffer Pool contributions shall be rounded up to the nearest whole number."

Buffer credits are rounded up and ERTs are rounded down inconsistently across vintages (see cells C58:D59 in "Michigamme_ACR_Calcs_MonitoringRP1_20230531", "ACR IFM calc template" tab. Please correct this rounding to comply with Section 2.B.4 of the Standard.

Project Personnel Response: The rounding rules have been corrected in the Michigamme ACR Calcs spreadsheet and the values have been updated in the monitoring report and the appendix.

Auditor Response: The audit team has confirmed these changes. This finding is now closed

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

NIR 24 Dated 15 Jun 2023

Standard Reference: ACR Standard 7.0

Document Reference: Michigamme_ACR_IFM_MonitoringReport_RP1_20230531.docx

Finding: ACR Standard Section 2.A Table 1, includes, "Transparency: Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used."

Section VI-3: Leakage Emissions reports a value of 110,297tCO₂e and references "Michigamme_MonitoringReport_RP1_Appendix_*.docx". The audit team is unable to locate the source of this value, please provide additional information on the source.

Project Personnel Response: The leakage value, calculated in the workbook and presented in Table B5, has also been added to section B2 of the Appendix for clarity.

Auditor Response: The audit team has confirmed these changes. This finding is now closed

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