&

Validation and Verification Report

ACR716 ILTF/NICC & SIG Mississippi Band of Choctaw Indians Forest Carbon Project

April 18, 2024

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1 INTRODUCTION

Indian Land Tenure Foundation (ILTF) contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR716 ILTF/NICC & SIG Mississippi Band of Choctaw Indians Forest Carbon Project (Project) for the reporting period of December 3, 2020 – December 2, 2022 and a crediting period of December 3, 2020 – December 2, 2040 under the American Carbon Registry (ACR) program. RCE was acquired by TÜV SÜD America, Inc. (TÜV SÜD) in 2023. RCE will be used throughout this report. Spatial Informatics Group, LLC (SIG) acts as the project developer for the project proponent ILTF, and the landowner, Mississippi Band of Choctaw Indians (MBCI). This report is documentation of validation and verification activities that RCE performed for the Project. For the validation, RCE reviewed the project information as described in the GHG Project Plan "ILTF/NICC & Mississippi Band of Choctaw Indians Forest Carbon Project Greenhouse Gas Plan" dated April 17, 2024. For the verification, RCE ensured that the GHG assertion was materially correct, that the data provided to RCE was well documented, and that if SIG made any material errors, that these errors were corrected. RCE worked with Forest Resource Solutions and Technologies (FRST) to complete this validation and verification.

1.1 OBJECTIVES

The objectives of the validation are to evaluate:

- Conformance to the ACR standard and the approved ACR Methodology for Improved Forest Management (Methodology).
- 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 emissions reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of the verification are to evaluate:

- The emissions reductions and to ensure that the assertion is materially correct;
- The data provided to RCE can be documented and if errors or omissions are detected, they be corrected.

RCE retains all data and documents for seven years after the end of the project reporting period or for the duration required by ACR, whichever is longer.

1.2 PROJECT BACKGROUND

The Project is located on approximately 25,230 acres of upland pines and lowland hardwoods in central Mississippi. This property is owned by MBCI. The Project ensures long-term sustainable management of the forests.

1.3 Responsible Party

Project Proponent

ILTF
151 County Rd. B2E
Little Canada, Minnesota, 55117
Bryan Van Stippen, Program Director

Project Developer

SIG
2529 Yolanda Ct.
Pleasanton, CA 94566
Tim Kramer, Carbon Domain Director

1.4 Validation and Verification Team

Lead Validator and Verifier: Zach Eyler
Biometrician: Andrea Eggleton, FRST
Professional Forester: Christian Eggleton, FRST
Forest Carbon Projects Manager: Tim Facemire, FRST
Team Members: Andrew Russo, FRST, Alexis Nelson, FRST
Internal Reviewer: Bonny Crews

1.5 Validation and Verification Criteria

1.5.1 Validation and Verification Standards, Guidelines, and Tools

- ILTF/NICC & Mississippi Band of Choctaw Indians Forest Carbon Project GHG Plan (April 17, 2024)
    - Verification only
- ACR Standard, Version 8.0 (July 2023)
- ACR Validation and Verification Standard Version 1.1 (May 2018)
- Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non‐Federal U.S. Forestlands v.1.3, April 2018
- Errata and Clarifications - Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non‐Federal U.S. Forestlands v.1.3, September 30, 2021
- ACR Tool for Risk Analysis and Buffer Determination, v1.0
- ISO 14064-3:2019 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

1.5.2 Level of Assurance

The verification was conducted to a reasonable level of assurance.

1.5.3 Materiality

The verification was conducted to ACR's required materiality threshold of +/-5% of the GHG project's emissions reductions or removal enhancements.

2 VALIDATION AND VERIFICATION PROCESS

As the first step in validation/verification activities, the Lead Validator/Verifier developed a Validation/Verification Plan to be followed throughout the validation and verification. The plan included the following activities:

- RCE completed a COI form for the validation and verification on December 21, 2022 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on January 4, 2023.
- RCE and SIG held a validation and verification kick-off meeting on January 5, 2023. During the kick-off meeting RCE reviewed the objectives and process, reviewed the schedule, and submitted an initial document request.
- RCE performed a strategic review and risk assessment of the received data and support documents to understand the scope and areas of potential risk in the GHG emissions reductions.
- RCE developed a risk-based sampling plan based upon the strategic review and risk assessment. The validation/verification plan and sampling plan were used throughout the process and were revised as needed based upon additional risk assessments.
- The validation/verification team conducted the site visit to the Project to verify the inventory quality and forest management practices from January 16-19, 2023. During the site visit the Verification Team performed key personnel interviews, conducted a paired t-test of inventory plots, conducted reconnaissance of the Project area boundary, observed elements of natural forest management, and observed harvest locations (if applicable) during and preceding the reporting period.
    - The site visit was attended by the following verification team personnel:
        - FRST:
            - Andrew Russo
            - Alexis Nelson
    - During the site visit, the Verification team met with the following individuals:
        - SIG Carbon
            - Eric Jaeschke
            - Keith Stagg
            - Sunil Nepal
        - Green Timber
            - Justin Miller
            - Shane Kleiman
- RCE performed a risk-based desktop review of the submitted validation/verification documents. The desktop review included an assessment of the GHG calculation methods and inputs, source data completeness, data management system and monitoring systems and eligibility documentation.

- RCE conducted interviews and had conversations with Project personnel during the verification. Personnel interviewed include:
    - SIG – Eric Jaeschke
    - SIG – Santosh Subedi
- RCE submitted requests for corrective actions, non-material findings, additional documentation, and clarifications as necessary to SIG throughout the validation/verification.
- RCE's internal reviewer conducted a review of the validation/verification sampling, report, and statement.
- RCE issued a final validation/verification report, verification statement, and List of Findings.
- RCE held an exit meeting with SIG.

3 Validation and Verification Findings

3.1 Project Boundary and Activities

The Project entails improved forest management on approximately 25,230 acres of upland pines and lowland hardwoods in central Mississippi. GHG emission reductions for the Project are quantified by comparing actual onsite carbon stocks against modeled baseline onsite carbon stocks and baseline carbon in harvested wood products. The difference in these Project and baseline carbon stocks year over year is the basis for calculating the Project's primary goal of maintaining and enhancing forest GHG pools.

The Project's temporal boundary is the crediting period from December 3, 2020 – December 2, 2040.

3.2 GHG Sources Sinks, and Reservoirs

Table 1 shows the GHG emission sources included in the project boundary based on the Methodology. RCE confirmed that the GHG Project Plan appropriately identifies the offset project boundary and includes all relevant SSRs.

Table 1. GHG Emissions Sources

Source	GHG	Description
Above-ground biomass	CO_2	Major carbon pool for project activity
Below-ground biomass	CO_2	Major carbon pool for project activity
Harvest wood products	CO_2	Major carbon pool for project activity
Market Effects	CO_2	Reductions in project outputs due to project activity may be compensated by other entities in the marketplace. Those emissions must be included in the quantification of project benefits.

3.3 ELIGIBILITY

3.3.1 ACR Eligibility

RCE confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 8.0 by reviewing the project proponent's GHG Project Plan, Monitoring Report, and calculations as well as other supporting documentation described throughout this report (a full list of documents reviewed is in Appendix A).

- Start Date: The project start date is December 3, 2020.
- Minimum Project Term: The minimum project term is 40 years.
- Crediting Period: The crediting period is 20 years as specified by the Methodology, December 3, 2020 – December 2, 2040.
- Real: RCE confirmed that the GHG reductions follow the ACR methodology and are verifiable.
- Emission or Removal Origin: RCE confirmed that MBCI and ILTF/NICC owns and has control over or documented effective control over the GHG sources/sinks from which the emissions reductions or removals originate.
- Offset Title: RCE confirmed that all Project lands are owned directly by the Project Proponent MBCI and ILTF/NICC, which holds full legal title.
- Additional: RCE confirmed that the project is additional as described in Section 3.4.
- Regulatory Compliance: RCE confirmed that the Project was in compliance with all applicable regulations.
- Permanent: RCE confirmed that the Project correctly applied the ACR Tool for Risk Analysis and Buffer Determination to account for permanence. A total risk score of 16% was confirmed.
- Net of Leakage: RCE confirmed that the Project correctly accounted for leakage per the Methodology.
- Independently Validated and Verified: RCE is a third-party validation and verification body that the project proponent has contracted to validate and verify the Project.
- Environmental and Community Assessments: RCE reviewed project impacts as described in section 3.6 of this report.

3.3.2 Methodology Eligibility

RCE reviewed the Project against the ACR Methodology eligibility and applicability conditions and confirmed the following:

- The Project is located on tribal forestland.
- MBCI and ILTF/NICC control the timber rights on the forestland and can legally harvest.
- The Project property and all associated harvest activity has a BIA approved Forest Management Plan (FMP).
- The Project is on tribal lands.
- The Project is not on public non-federal lands.
- The Project does not use non-native species where adequately stocked native stands were converted for forestry or other land uses after 1997.
- The Project has not drained or flooded wetlands on or after the project start date.
- MBCI and ILTF/NICC own all lands and timber rights on the Project area.

- The Project's stocking levels will increase well above the baseline conditions for the duration of the Project and by the end of the Crediting Period.

3.4 ADDITIONALITY

The Project meets the requirements for the demonstration of additionality specified by the ACR Standard and the Methodology.

3.4.1 Regulatory Surplus Test

RCE confirmed that there are no existing laws, regulations, statutes, legal rulings, or other regulatory frameworks in effect as of the start date that requires the Project activity and the associated GHG emissions reductions; thus, the Project passes the regulatory surplus test.

3.4.2 Common Practice Test

The Project area is similar to surrounding private forestland that is regularly harvested as it reaches viable diameter thresholds and has a history of some timber harvesting.

The project's geographic region for timber production extends in all directions. Throughout this region forestland is heavily cut, often through shelterwood, single tree selection and clear-cutting, and is managed to maximize NPV of the asset. Wood products including hardwood, sawtimber and softwood pulpwood are distributed to mills throughout this region and demand is strong and steady.

Without the carbon project commitment, the baseline harvest levels could also readily be realized due to increasing pressure in the area to convert forestland to residential development and agricultural lands. With Project implementation the forestland carbon stocks will exceed the common practice found in the region.

3.4.3 Implementation Barriers Test

The Project chose to assess the financial barriers test per the ACR Standard and Methodology. RCE confirmed that carbon funding is reasonably expected to incentivize the Project's implementation. Due to the Project being implemented, MBCI loses the ability to monetize timber harvests at a rate similar to business-as-usual practices during the life of the Project. SIG provided a financial assessment comparison of NPV between the baseline scenario with harvesting and the project scenario with a lower amount of harvesting but including revenue from carbon credits. The baseline scenario NPV was significantly greater demonstrating that carbon funding is integral to the project activity.

3.5 PERMANENCE

RCE confirmed that the Project correctly applied the ACR Tool for Risk Analysis and Buffer Determination to account for permanence. A total risk score of 16% was confirmed.

3.6 ENVIRONMENTAL AND COMMUNITY IMPACTS

The GHG Project Plan includes a summary of the Project activity's net positive environmental and community impacts. The Project will provide habitat protection for wildlife, plant species, and trees, water

quality protection and protection from soil erosion and degradation among other benefits. The Project is not expected to cause any negative environmental impacts.

3.7 Local Stakeholder Consultation

The project proponent, ILTF/NICC, adhered to the practices of project consultation and notification in relation to decision making.

3.8 Monitoring Plan

The GHG Project Plan includes a Monitoring Plan that identifies all monitored data and parameters. RCE confirmed that the monitoring parameters and approaches conform to the methods required by the Methodology. The plan includes all relevant data parameters and appropriately identifies units of measurements, data sources, methodologies, uncertainty, monitoring frequency and procedures, and QA/QC procedures. After discussions with SIG and reviews of project documents, RCE determined that the Monitoring Plan accurately reflects how Project data is monitored and recorded and there are no deviations relevant to the Project activity against the requirements of the Methodology. SIG and ILTF/NICC implemented the monitoring plan as stated in the GHG Project Plan during Project activities.

3.9 Baseline Scenario

The Project's baseline scenario represents a harvest regime less aggressive than their maximum annual allowable cut per the FMP, targeted to maximize net present value at a 5% discount rate for tribal lands. The baseline scenario applies harvesting across the non-constrained Project area as allowed by the Methodology to maximize NPV.

The Project's baseline model simulates a range of harvest types and rotation lengths based on legal requirements and simulated growth within each stratum. The objective of modeling was to determine possible timber harvests in the project area over 100-years within the framework of legal and reasonable harvest constraints.

Stands were modeled for several different prescriptions, including no-harvest, clearcut, commercial thinning, and selection, with restrictions on rotation ages, retention, and minimum harvest volumes.

SIG utilized the USDA's Forest Vegetation Simulator (FVS) Southern variant to model harvests and yields. Growth models were calibrated using site index values calculated from plot tree cores and associated plots. RCE reviewed the Site Index calculations and confirmed that a reasonable species and site index for the region was assigned on an individual plot basis to appropriately calibrate growth. The process was confirmed to be consistently and systematically applied to each plot.

RCE reviewed the resulting baseline outputs to ensure that they reflected the modeling objectives and the legal additionality requirements. The model grows trees and volumes at a reasonable rate compared to regional averages.

3.10 On-site Inventory Verification Check

In preparation for and during the site visits, the Verification Team reviewed evidence necessary to verify Project inventory estimates. The project inventory occurred from February to March of 2022.

The Project inventory consists of one forested stratum which FRST sampled using a random sampling method.

The current inventory contains 133 permanent, fixed-radius plots. At each plot location, trees were measured in two nested plots: a larger 1/24th acre plot with radius of 24.00 feet, and a smaller 1/300th acre plot with radius of 6.8 feet. The larger plot measured all living trees greater than or equal to 5 inches DBH while the smaller, nested plot measured all living trees between 1-4.9 inches.

Given this sample design and Project size, the Verification Team was required to achieve a minimum of 7 successful plots within the project to successfully verify inventory stocking levels. The Verification Team successfully verified site data after measuring a total of 13 site plots. The Project passed the t-test during the site visit.

Project Area

During the site visit, the Verification Team conducted boundary-line reconnaissance by visiting Project boundary edge lines and points, plotting edge points with GPS receivers, and determining whether there were discrepancies with the digital Project boundary files provided by SIG and the physical boundary witnessed on-site. This was done to determine the risk that Project area inaccuracies could contribute to a material misstatement in Project emission reductions. To the extent feasible, the Verification Team confirmed that the Project area boundary was appropriate and accurate.

3.11 Project Data and GHG Emissions Reduction Assertion

RCE reviewed the GHG Project Plan and Project data and calculations to ensure that appropriate equations were used in calculating baseline emissions, project emissions, and net emissions reductions.

3.11.1 Baseline Emissions

RCE and FRST confirmed that the baseline emissions were correctly calculated. Baseline emissions were calculated by reviewing input and output files for every FVS baseline modeling prescription, including forest codes, diameter breaks, merchantability thresholds, rotation lengths, regen/spouting, FVS harvest triggers on individual plots, site indices, treelists, and plotlists modeled over 100 years. The output workbook (Baseline_with_LPoutputs) was then independently recreated in the data checks confirming proper calculation of assigned plot level outputs allocated to prescription based independently confirmed SMZ constrained and unconstrained acres. These values were then compiled into yearly baseline values for live as reflected in the ERT monitoring calculation sheet. A secondary output of this process was the 100-years of modeled harvesting based off Best Management Practices (BMP) constrained acreages which was then run through the prescribed harvested wood product calculations customized for the project region(s). These calculations were made on 40-year time intervals as well as 100-year intervals and they were appropriately incorporated into the ERT monitoring calc sheet. See additional information relevant information in section 3.9.

3.11.2 Project Emissions

RCE and FRST confirmed that the project emissions were correctly calculated. The methods to confirm project emissions follow what is described in section 3.11.1 above.

3.11.3 Emissions Reductions

RCE verified that SIG calculated emission reductions according to relevant Methodology equations and that the methods are included in the GHG Project Plan.

RCE recalculated emission reductions for the first reporting period according to the equations defined in the Methodology and the GHG Project Plan and found the Project assertion to be free of material misstatement.

RCE and FRST also recalculated and confirmed the uncertainty assessment for the Project. The uncertainty calculation is the compiled square roots of the summed errors of the stratum using a 90% confidence interval. RCE and FRST confirmed that the live, dead, and total uncertainty for the reporting period onsite carbon stocks was accurate.

3.12 Leakage Assessment

RCE and FRST recalculated and confirmed the leakage for the project in accordance with the ACR Validation and Verification Standard version 1.1 section 6.F and 9.H.

4 Validation and Verification Results

RCE developed a combined List of Findings for both the validation and verification. The List of Findings noted all corrective action requests (CARs), non-material findings (NMs), additional documentation requests (ADRs), and clarification requests (CRs). SIG appropriately responded to all items in the List of Findings. The List of Findings is provided as Appendix B.

5 Validation and Verification Conclusion

RCE conducted a risk-based analysis of the ILTF/NICC & SIG Mississippi Band of Choctaw Indians Forest Carbon Project GHG assertion including a strategic review of the Project data and evidence. Based upon the processes and procedures and the evidence collected, RCE concludes that the Project emission reductions during the reporting period December 3, 2020 through December 2, 2022 can be considered:

- GHG-related activity: improved forest management of forest land on the Project area
- GHG statement: 12/3/2020 – 12/2/2022
- Criteria
    - In conformance with ACR's Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non‐Federal U.S. Forestlands v.1.3, April 2018 and ISO 14064-3:2019 standards,
    - Without material discrepancy, and
    - Verified to a reasonable level of assurance.

The data and information supporting the GHG statement were historical in nature.

RCE has ensured ILTF's effective use of controls related to the GHG statement. RCE concludes that there is sufficient and appropriate evidence to support ILTF's GHG statement and is issuing an Unmodified Opinion.

RCE confirms that the GHG statement has been prepared:

- Without material discrepancy,
- In accordance with all applicable criteria, and
- Verified to a reasonable level of assurance.

The verified emission reductions are listed in Table 2. While RCE confirmed the emission reduction calculations and the total emission reductions to be correct and within the materiality threshold, the values in Table 2 are summary data only with significant figures rounded for summary purposes in this report.

Table 2. Total ERTs

Vintage	Total GHG Reductions and Removals (mtCO2e)	Risk Buffer (mtCO2e)	Final ERTs (mtCO2e)	Removal ERTs ($mtCO_2e$)	Other ERTs ($mtCO_2e$)
2020	8,355	1,337	7,018	5,397	2,958
2021	104,446	16,712	87,734	67,467	36,979
2022	96,090	15,375	80,715	62,069	34,021
Total	**208,891**	**33,424**	**175,467**	**134,933**	**73,958**

Note: Totals might not sum due to rounding.

Lead Validator and Verifier

Zach Eyler

Internal Reviewer

Bonny Crews

APPENDIX A—DOCUMENTS REVIEWED

1. 126_ECSMTV plot video
2. 3q-2022-price-report
3. 41_mbci_salo plot video
4. 5 Federal Reg. Documents
5. 6_ECSMTV plot video
6. 82 Deeds
7. ACR716 SDG Contributions Reporting Tool 20230824
8. ACR716 Template for ACR AFOLU Project SDG Contribution Report 20230824
9. ACR716 Template for ACR AFOLU Project SDG Contribution Report 20240402
10. ACR716_MBCI_GHGPlan_series
11. ACR716_MBCI_GHGPlan_20240402 (signed April 11)
12. ACR716_MBCI_GHGPlan [signed bjvs]
13. ACR716_MBCI_Environmental and Social Impact Assessment Report_20240402
14. MBCI_Monitoring Report_RP1_20240402 (signed April 11)
15. Bogue Chitto
16. Bogue Homa
17. Carroll County
18. CI151_F00_CarbonInventory_series
19. CI151_F01_GIS_series
20. CI151_F010_HWPcalcs_RP1_series
21. CI151_F02_SiteIndexforPlots_series
22. CI151_F03_FVSin_Cruise_series
23. CI151_F03_FVSout_Cruise_1yr_series
24. CI151_F03_FVSout_Cruise_5yr_series
25. CI151_F05_FVS_AvgDefect_series
26. CI151_F06_LiveC_RP0_2020_treelist_series
27. CI151_F07_RP0_PlotAvgs_series
28. CI151_F08_LiveC_RP1_2022_series
29. CI151_F09_RP1_PlotAvgs_series
30. CI151_F13_InvDate_PlotAvgs_series
31. CI151_F14_NPVcalc_series
32. CI151_F15_ERTs_series
33. CI151_F16_BaselineFMPTable_series
34. Conehatta
35. Crystal Ridge
36. De Kalb
37. Entire_bmp_2008-7-24_2
38. Forisk North American Forest Industry Capacity Database Update 2023 Q1_MBCI
39. Henning
40. Issaquena County
41. Keyword_mbci_50Percent_selection_series out file
42. Keyword_mbci_Baseline_Project_letgrow_series out file

43. Keyword_mbci_exist_thin_series out file
44. Keyword_mbci_regen_natural_letgrow_series out file
45. Keyword_mbci_regen_plantation_withThin_series out file
46. Leake-Attala
47. Louisville
48. MBCI Multi Resource Mgmt Plan_2013
49. MBCI_Baseline_with_LPoutputs_series
50. MBCI_CarbonInventorySummary_do not distribute
51. MBCI_DevelopmentData_series shapefile
52. MBCI_InventoryManual20230217
53. MBCI_Mississippi_Audits_ALL_PTS_03222022
54. MBCI_Monitoring Report_RP1_Final_series
55. MBCI_Monitoring Report_RP1 [signed ILTF]
56. MBCI_Monitoring Report_RP1 [signed bjvs]
57. MBCI_PlotDevelopmentData_series shapefile
58. MBCI_Project_with_LPoutputs_series
59. MBCI_TreeList_WithPhantom_hts
60. Nanih Waiya
61. Noxubee
62. Ocean Springs
63. PC400_DraftPlotGrid_20220108_2775V2_label shapefile
64. PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_series
65. PC400_F12_LP5yr_Baseline_20FstPct_series
66. Pearl River
67. Pearl River Timber Sale Unit 22 Appraisal
68. Pearl River Unit 22 Timber Sale Map 25 Acres
69. Red Water
70. Red Water Housing Project
71. Red Water Housing Project Timber Cutting Permit 4 acs 001-2021
72. Red Water Housing Project Timber Cutting Permit 5 acs 002-2021
73. site_index_planted_loblolly_pine
74. Standing Pine
75. TAAMS Tract Tables
76. TimberPrice_3q_2022_MS
77. Tucker
78. Tucker Timber Sale 84 Acres Units 2, 4 & 5
79. Tucker Unit 2, 4 & 5 Appraisal 2020 Timber Sale
80. Tucker_harvest_date_email
81. Tucker_Timber_Sale shapefile
82. TuckerHarvestAttestation
83. wtc_65 plot video

APPENDIX B—LIST OF FINDINGS

Includes Corrective Action Requests (CAR), Non-Material Findings (NMs), Additional Documentation Requests (ADR), and Clarification Requests (CR), as necessary.

Corrective Action Request (CAR), Non-Material Finding (NMF), Additional Documentation Request (ADR), or Clarification Request (CR) #	Finding and Date	Section of Protocol/ Methodology or Program Document	Project Developer Response and Date	RCE response and Date	Additional Project Developer Response and Date	Additional RCE Response and Date	Additional Project Developer Response and Date	Additional RCE Response and Date	Additional Project Developer Response and Date	Additional RCE Response and Date	Open or Closed
CAR 1	There are several places where satellite imagery indicates there is a timber type boundary significantly within the provided project boundary, indicating the provided project boundary does not match ownership. Please adjust these boundaries to ensure that they do not extend beyond property ownership. Questionable areas are listed in the MBCI_boundary_question_points shapefile as points which have the point type "External Boundary" and two example screenshots can be seen in the CAR 1 tab.	B2	Thank you for the finding. Timber types can be the result of historical land management decisions across the landscape and are an inconsistent indicator of current ownership boundaries. The lands enrolled in the carbon project are the outcome of a long period of acquisition by the tribe and reflect forest conditions in a wide variety of age classes, species composition, and predominant forest management.	Per guidance from ACR, mismatches between project GIS boundaries and real world property boundaries identified through satellite imagery must be corrected during validation. Unless stronger evidence is provided, the project boundary cannot extend beyond clear real world property boundaries. Please use the previously provided document detailing the areas in question. For registry guidance, please see the 'ACR Guidance' tab.	The development team agrees with the observations of the audit team and has taken good faith steps to address them. Where appropriate, attempts were made to remove infeasible, geographically separate polygons. Polygon-type shapefiles are a digital representation of the physical world reflecting sampling frame acreage and important to include in carbon accounting. Some slivers are acceptable artifacts from earlier geoprocessing steps. Furthermore, where possible, boundaries were re-delineated conservatively and resulting in a net acreage reduction.	Thank you for making these updates. There are a few points where additional adjustments are still needed to match visible borders, timber type changes or provided property documentation. The CAR 1 tab has been updated with screenshots of these areas and the "MBCI_Question_Areas_v2" shapefile has points on the still questionable areas.	Additional changes have been made to the development polygon in response to the finding. Please see "MBCI_DevelopmentData_20230707.shp"	Thank you for making these additional changes. This item may be closed.			Closed
CAR 2	Several provided workbooks either refer to outdated versions of provided workbooks or workbooks that were not included. These inter-workbook links need to be fixed. The CAR 2 tab has a table of noted broken links.	Various	Thanks for the finding. We've done our best to ensure broken links have been fixed in this latest material submission. There is an option in MS Excel to "Edit Links" and assistance can be provided by the development team.	It is outside of the purview of the verification team to modify/correct the documents of the developer to assess the validity of that document. Additional findings will be tracked in other items, this item may be closed.							Closed
CAR 3	In several locations, including the "Tab B6.5_6" tab of the PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_04_19 and page 10 of the "MBCI_Monitoring Report_RP1_Final_20230227" document, the ERTs for RP1 are split into 2021 and 2022 Vintages, however RP1 also covers a portion of 2020. Per the ACR Standard v7.0 "The vintage year of the ERTs correspond to the year the emissions reductions or removals occurred". Please adjust the final claimed ERT vintages to account for the 2020 start time.	ACR Standard v7.0, 6.A	Thanks for this observation. In line with ACR rules, all individual year vintages have been broken out for reporting.	Thank you for making this change. This item may be closed.							Closed
CAR 4	Upon review of the 'ERTs' tab in the 'C1S1_F1S_ERTs_125K_BL_SK_Project_12_27_2023' workbook the RP1 HWP Project value is currently zero. There were harvests in RP1, please correct this error.	D3	Thanks for catching this discrepancy. Project case HWPs are now incorporated in the ERT calculation worksheet.	Thank you for making this change, it has been confirmed. This item may be closed.							Closed
NMF 1	The mill efficiencies in cells C3:C7 of the RP1 HWP of completed harvest tab of the PC400_F10_HWPcalcs_RP1_2023_01_21 workbook and Cells B3:B7 of the HWPs tab of the PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17 workbook do not match the mill efficiency values for Mississippi given in the reference document on ACR's website. This also occurred on Page 37 of the "ACR716_MBCI_GHGPlan_Final_20230221" document, which states that mill efficiency values from the ARB 2015 Forest Offset Compliance Protocol for the Southeast region are used in the project. However Mississippi is in the South Central region, not the Southeast region in that document.	C3 3.2	The mill efficiency values from the 2015 CARB Protocol have been corrected in the HWP calculation workbook and in reporting documentation in response to the finding.	Thank you for making this change. This item may be closed.							Closed
NMF 2	In the PC400_F06_LiveC_RP0_2020_treeList_2023_02_15 workbook's TreeList_2020_C tab's column N, 29 trees are degrown to less than 1 inch DBH, however they are still calculating positive carbon values despite being under the minimum DBH size for trees. Please clarify.	A1	All 29 records at the time of cruise were >= 1" in diameter; however, when de-grown to RP0, their diameter became <1". CO2 values related to these 29 records can be zeroed out.	Thank you for acknowledging this. Please correct the workbook to zero-out these values.	We ensured trees <1" were excluded from the start date treelist by removing them entirely. Please see "PC400_F06_LiveC_RP0_2020_treeList_2023_07_07.xlsx"	Thank you for making this change. This item may be closed.					Closed
NMF 3	Per response to ADR 2, only half of the Tucker Unit harvest was conducted during RP1. The volume figures used for the harvest should be prorated to reflect this.	D1	Thank you for the finding. "PC400_F10_HWPcalcs_RP1_2023_04_18.xlsx" has been updated to ensure half of the harvested volumes are included in accounting.	Thank you for making this change. This item may be closed.	Version 'PC400_F10_HWPcalcs_RP1_2023_10_05' provided.	Upon review of this most recent version, the values quantified in col. A of 'RP1 Hrv Vols. Wtn' are not prorated as has been previously assured. Please revert to the previously provided correction.	Thanks for the finding. The volume figures have been halved and now reflect RP1. Please see "C1S1_F10_HWPcalcs_RP1_2024_01_02.xlsx."	Thank you for correcting this. It has been confirmed, this item may be closed once again.			Closed
NMF 4	Upon review of the updated version of 'MBCI_DevelopmentData_20230707.shp' the developer is calculating a total of 25,260.98 acres but when the verifier uses the 'calculate geometry' function on the corresponding projected coordinate system 'NAD 1983 StatePlane Mississippi East FIPS 2301' the total acres calculated is 25259.53 ac. matching the previous versions total. This discrepancy is 0.0056% of project acreage and been deemed nonmaterial upon concurrence from the developer.	C1	Thanks for the observations. The development team used industry-standard practices to compute acreage and ensured consistency across applications in project quantification files.	Thank you for the confirmation. This item may be closed.							Closed
ADR 1	The "MBCI_CarboninventorySummary_do not distribute" document mentions figure 3 and figure 4, but there is no figure 3 or 4 included in the document. Please provide these figures.	C3 3.1.1	We recognize those figures are missing and made revisions to the inventory manual. 2023-02-17	Thank you for providing the updated inventory manual. This item may be closed.							Closed
ADR 2	Please provide GIS shapefiles for any harvests conducted from project start date through the end of RP 1.	5.B, 9.G	The timber sale type for the project is lump sum. Materials have been provided which summarize recent and upcoming harvest activities. No inventory plots fell in RP1 harvested areas. The Tucker timber sale was the only harvesting which occurred during RP1. Only half of the timber from this sale was cut during RP1 as the other half was harvested between 8/2020 and 12/2020. The area is planned to be replanted in 2024. The timber sale was visited during the site visit and a shapefile of the boundaries has been provided "Tucker_Timber_Sale.shp". The Pearl River timber sale will occur in RP2. Note the Red Water housing project is outside of the project area. 2023-02-17	Thank you for providing this shapefile. This item may be closed.							Closed
ADR 3	Please provide documentation on how the volumes in the "Tucker Unit 2, 4 & 5 Appraisal 2020 Timber Sale" document were determined as the current tract conditions.	D8	The volumes reported in the timber sale document were provided by the MBCI local Forester and reflect the lump sum timber sale which occurred on the parcel.	Thank you for providing this document. This item may be closed.							Closed
ADR 4	Please provide the raw FVS outputs that were used to generate the "PC400_F04_FVSout_TreeList_East_Syrlnt" document.	C3 3.1	Raw FVS output is in the folder (fvs_output_mbci_12_2_2022.db)	Thank you for providing this document. This item may be closed.							Closed
ADR 5	Please provide documentation of how the stumpage volumes in the Economics tab of the "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15". & "PC400_F11_LPyields_withMOrt_RegnCT_20FstPctBL_2023_02_15" workbooks were determined.	B4	We have attached TimberPrice_3q_2022_MS.pdf.	Thank you for providing this document. Please clarify exactly how the numbers in those tabs were obtained, as they do not seem to correspond to the values in the provided sheet.	Supported prices can be found in the worksheet "C1S1_F14_NPVcalc_125K_BL_SK_Proj_10_06_2023.xlsx."	Thank you for the clarification, this has been confirmed. This item may be closed.					Closed
ADR 6	Please provide documentation of the 5% check cruise mentioned in the "ACR716_MBCI_GHGPlan_Final_20230221" document.	F1	The total visited check cruise plots was closer to 10% and The file "MBCI_Mississippi_Audits_ALL_PTS_03222022.xlsx" has been provided in response to the finding.	Thank you for providing this documentation. This item may be closed.							Closed
ADR 7	Please provide the raw FVS outputs that were used to generate the "PC400_F11_LPyields_withMOrt_RegnCT_20FstPctBL_2023_02_15" and "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" documents.	C3 3.1	A new approach using Woodstock has been adopted and the associated FVS outputs have been provided.	Thank you for the clarification, additional items will be generated pending their review. This item may be closed.							Closed
ADR 8	Please provide the scale/mill slips for the Tucker harvest for analysis. If there are more that 50 slips, please provide a scale slip manifest that can be used to request a subsample.	C3 3.2	Further documentary evidence was requested from the landowner representative but none is available as scale tickets are not available on lump sum type timber sales.	Thank you for the clarification, secondary analysis has been completed to confirm these values. This item may be closed.							Closed
ADR 9	Please provide a list of the regional mills and their capacity by species and type to assess the viability of the proposed baseline harvest regime.	D.5	Please see "Forisk North American Forest Industry Capacity Database Update 2023 Q1_MBCI.xlsx."	Thank you for providing this document, it has been analyzed. This item may be closed.							Closed
ADR 10	Please provide the reference associated with the 'rule of thumb' short ton conversions noted in cell G1 of 'C1S1_F1S_BaselineFMPTable_2024_01_10'.	D.5	The rules of thumb for short tons conversion are no longer used in baseline determination.	Thank you for the clarification. This item may be closed.							Closed
CR 1	Several trees in the inventory have a decay class of 5, but the "MBCI_CarbonInventorySummary_do not distribute" document only lists decay classes of 1-4, please clarify.	C3 3.1.1	There are only 4 ACR snag classes and all class 5 trees are reassigned to class 4 in the quant. 2023-01-13	Thank you for the clarification. This item may be closed							Closed

CR 2	Per the "MBCI_CarbonInventorySummary_do not distribute" document, decay class 4 is listed as being "Bole only, no branches" however the calculation for individual trees on the trees tab of the PC400_F00_CarbonInventory_2022_12_21 workbook do not appear to be adjusted. Decay class 4 or 5 trees are not being adjusted with the ratio of biomass contained in a tree's stem vs the entire tree to account for a lack of branches and limbs. Please clarify.	C3 3.1.1	The Jenkins equation computes aboveground CO2 for whole tree (less foliage and bark). The ACR IFM methodology states: "Step 4: The biomass of dead wood is determined by using the following dead wood density classes deductions: Class 1 – 97% of live tree biomass; Class 2 – 95% of live tree biomass; Class 3 – 90% of live tree biomass; Class 4 – 80% of live tree biomass". SIG applies these percentages in file PC400_F0S_FVS_AvgDefect_2022_12_12.xlsx which is used to compute net CO2. 2023-01-13	Thank you for the explanation. This item may be closed							Closed
CR 3	Have there been any disturbances larger than the minimum mapping unit? (Harvests, blowdowns, etc.)	D1	No disturbances were detected larger than a minimum mapping/classification unit of 1 acre. 2023-02-17	Thank you for the confirmation. Please include discussion of this minimum mapping unit in the GHG plan.	Discussion of disturbance monitoring has been added to Section D2 of the GHG Plan.	Thank you for adding this. This item may be closed.						Closed
CR 4	Which version of the ACR standard for Improved Forest Management on Non-Federal U.S. Forestlands is in use for this project?	C3 3.1.1	v1.3 2023-01-13	Thank you for the confirmation. This item may be closed								Closed
CR 5	Were any plot locations moved or offset because of inaccessibility or falling outside of the property boundaries?	C3 3.1.1	No plot locations were moved or offset for inaccessibility or falling outside the project area sampling frame. 2023-01-13	Thank you for the confirmation. This item may be closed								Closed
CR 6	Why do the DBH values in column O of the "PC400_F04_FVSout_TreeList_East_5yrInt" workbook not exactly match the DBH values in column E of the "PC400_F00_CarbonInventory_2022_12_21" workbook's TREES tab?	A1	Thank you for the finding. The project development team examined the tree diameters identified in the worksheets. It was noted that differences between the worksheets are nearly nonexistent and therefore no action was taken.	This response is sufficient to close the item.								Closed
CR 7	In the "PC400_F08_LiveC_RP1_2022_treeList_2022_02_15" workbook's TreeList_RP1_C tab Columns K-M refer to the years 2021 and 2026, however the source of the calculations in the "PC400_F04_FVSout_TreeList_East_5yrInt" workbook lists them as being from 2022 and 2027. Please clarify.	A4	Thank you for the finding. A new worksheet "PC400_F08_LiveC_RP1_2022_treeList_2022_04_19.xlsx" has been provided with the dates within the headings fixed.	Thank you for making this change, this item may be closed.								Closed
CR 8	How were the wood product class allocations in lines 14 and 18 on the 'RP1 HWP of completed harvest' tab of the "PC400_F10_HWPcalcs_RP1_2023_01_21" workbook determined for each wood product category in cells B3:B7?	C3 3.2 step 3	The wood product classes are a function of the products which can be produced from the available wood. For instance pine sawlogs are destined for the softwood lumber category and pine pulpwood is destined for paper.	Thank for the response. Per IFM 1.3 Section C3 3.2 Step 3 regarding carbon storage in in-use wood products: "This must be done by either: Obtaining a verified report from the mill(s) where the Project Area's logs are sold indicating the product categories the mill(s) sold for the year in question; or If a verified report cannot be obtained, looking up default wood product classes for the project's Assessment Area,... of this methodology's website." Please provide the verified mill report for the specific logs harvested or use the default wood product classes given.	A mill report is not available and therefore the CAR8 supersection wood product classes were applied.	Thank you for making this change, it has been confirmed. This item may be closed.						Closed
CR 9	Are the values in the FVS_C_HRV tab of the "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" work book in tons of carbon or CO2? If they are in carbon, please clarify why no conversion takes place when they are used in cells D8, G8 and J8 of the HWPs tab of the PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17 workbook, as the calculations they support are listed as being in CO2.	C3 3.1	The values in the FVS_C_HRV tab of the "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" worksheet are in units of mTCO2e.	Waiting on FVS outputs to be received from ADR 7 before completing response to this item.	FVS outputs provided in line with the finding above.	Thank you for making this change, the new inputs don't have this issue. This item may be closed.						Closed
CR 10	Why is the per acre value in cell C43 of the 'RP1 HWP of completed harvest' tab of the "PC400_F10_HWPcalcs_RP1_2023_01_21" not calculated dynamically like the per acre values in cells C45 and C46?	C3 3.2	Thank you for the finding. The per acre values are not used in calculations but the formula in cell C43 was fixed to align with the others.	Thank you for making this change, this item may be closed.								Closed
CR 11	Cell D1 of the "FVS_C_HRV" tab of the "PC400_F11_LPyields_withMOrt_RegnCT_20FstPctBL_2023_02_15" workbook, is calculating an average total harvested C between the years 2020, 2025, 2030 and 2035, however in cell D8 of the "HWPs" tab of the "PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17" this value is being used to represent an average from the year 2020-2040. Please clarify.	C3	The average harvest value in cell D1 is reflective of four (4) harvest periods from FVS through Dec. 31 2039.	Thank you for the clarification. This item may be closed								Closed
CR 12	Cells B10:B21 in the "Harvest_Comp" tab of the "PC400_F11_LPyields_withMOrt_RegnCT_20FstPctBL_2023_02_15" workbooks are used in the HWPs tab of the PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17 workbook to represent a 20 year average from 2020-2040, however the values in the Harvest_Comp tab only range from 2020-2035. Please clarify.	C3	The average harvest values for products are reflective of four (4) harvest periods from FVS through Dec. 31 2039.	Thank you for the clarification. This item may be closed								Closed
CR 13	Cells B10:D21 in the "Harvest_Comp" tab of the "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" workbooks are used in the HWPs tab of the "PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17" workbook to represent averages from 2021-2030 and 2030-2040, however the values referenced in Harvest_Comp tab only range from 2020-2025 and 2030-2035 respectively. Please clarify.	C3	The project scenario is broken into the first and second decades; through Dec. 31 2029 and through Dec. 31 2039.	While the calculation for the first half of the project scenario ends Dec. 31 2029, real world data exists for the first 2 years of the project, meaning that a calculated average of the modeling covering the remainder of this period should cover 8 years, not 10 and should be weighted to match, not evenly split between the two 5 year FVS periods.	This finding may need to be revisited as annual values are now available for the project scenario. Please reach out to the development team with any questions.	This issue no longer exists in the new worksheets, therefore this item may be closed.						Closed
CR 14	Cell D1 of the "FVS_C_HRV" tab of the "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" workbook, is calculating an average total harvested C between the years 2020 and 2025, however in cell G8 of the "HWPs" tab of the "PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17" this value is being used to represent an average from the year 2021-2030. Cell E1 has a similar calculation, with an average between years 2030 and 2035 being used to represent the years 2030-2040. Please clarify.	D3	The project scenario is broken into the first decade; through Dec. 31 2029.	While the calculation for the first half of the project scenario ends Dec. 31 2029, real world data exists for the first 2 years of the project, meaning that a calculated average of the modeling covering the remainder of this period should cover 8 years, not 10 and should be weighted to match, not evenly split between the two 5 year FVS periods.	This finding may need to be revisited as annual values are now available for the project scenario. Please reach out to the development team with any questions.	This issue no longer exists in the new worksheets, therefore this item may be closed.						Closed
CR 15	In the ERTs tab of "PC400_F13_ERTs_withCT_Final_20FstPctDrop_2023_02_17" workbook the cells E23:F26 cover RP1, however there is real world inventory data and harvest volumes that covers RP 1. Why is FVS modeling being used instead calculating values from the real world RP1 data?	D3	Thank you for the finding. We have updated the values for Cptree and Cpdead within the ERT worksheet to reflect the end of RP1 estimated carbon stocks.	Thank you for making this change, this item may be closed.								Closed
CR 16	Where are the Project row's percentages in table E1.7 of the "ACR716_MBCI_GHGPlan_Final_20230221" document sourced from?	A4	The values in table E1.7 come from the "HWPs" tab of the ERTs worksheet.	Thank you for clarifying this and updating the values to match the worksheet. This item may be closed.								Closed
CR 17	How was the base age of 50 for loblolly pine plantations determined in the "PC400_F02_SiteIndex_2022_12_01" workbook?	C3 3.1	Please see the write-up in "site_index_planted_loblolly_pine.docx."	Thank you for providing this document. Please provide the email from the FVS helpdesk that the document mentions.	The site indices for planted loblolly pine stands were calculated using the Amateis and Burkhart (1985) paper on site index. We used base age 50 because FVS SN variant requires base age 50 for loblolly pine site index computation.	Thank you for the clarification, this has been confirmed in the FVS variant document. This item may be closed.						Closed
CR 18	The project area contains several non-forested areas that appear to be larger than the 1 acre minimum mapping unit. Why have these been included within the project area? The noted non-forested areas are listed in the MBCI_boundary_question_points shapefile as points which have the point type 'Non Forested" . Two example screenshots can be seen in the CR 18 tab.	A1	A 1 acre minimum mapping unit was used for disturbance detection as part of monitoring. Some nonforest may be included in the project area but this is permissible as all areas received equal opportunity to be sampled as part of the sampling frame. The project area meets the 10% forestland stocking requirement in aggregate.	Per guidance from ACR, the golf course hole which has not been cut out of the project area is a "non-forested land use where trees are actively excluded, so just like a building or impermeable surface, it should be removed from the project." Please remove this non-forested area from the project. See ACR Guidance Tab for a screenshot of the provided guidance.	This nonforested area in the golf course was removed per verifier request.	Thank you for making this adjustment. The item may be closed.						Closed
CR 19	Portions of the provided "Tucker_Timber_Sale" shapefile extend beyond the project boundary. Is this accurate, and if so, why was the total harvested volumes used to calculate the harvested wood products for the sale not adjusted to account for a portion of the harvest being outside of the project area? Area in question is shown in the CR 19 tab.	C3 3.2	The boundaries of the Tucker timber sale shapefile were delineated by hand at the request of the verification team. These boundaries, and their resulting acres, were not used for any accounting and intended for reference purposes as lump sum sale data was used for carbon accounting.	If portions of a harvest extend beyond the project boundary, the total amount of wood harvested will need to be prorated by the percentage of the harvest that occurred within the harvest area. As such, the exact harvest boundary is used for carbon accounting if it extends beyond the project area. Please either provide an updated shapefile with an attestation from the tribe that no harvesting occurred outside of the project area, or prorate the harvest based on the percentage of the harvest that occurred within the project area.	The Tucker harvest shapefile was adjusted to ensure all portions exist within the project area boundary.	Thank you for making this change. Please also provide an attestation from the tribe that no harvesting occurred outside of the project area.	Please see "TuckerHarvestAttestation.pdf".	Thank you for providing this attestation, it has been confirmed. This item may be closed.				Closed
CR 20	The "ACR716_MBCI_GHGPlan_Final_20230221" document generally lists the total project acreage as being 25,367 acres, however table E1.9 in the same document gives prescription across a total of 22147 acres. Furthermore, the total acres in the prescriptions in the "PC400_F11_LPyields_withMOrt_RegnCT_20FstPctBL_2023_02_15" & "PC400_F11_LPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15" documents are calculated across 24,986 acres. Why are these different acreages used in different locations?	B2	The LP model acres are slightly less than the project area total due to the absence of 2 plots from the analysis. The 2 omitted plots were no-tallies.	Thank you for clarifying why the LP models acres don't match the total project acreage. Please additionally clarify the purpose of the discrepancy in table E1.9 as mentioned in the original finding.	Stands 134 and 138 do not have any stocking and therefore do not contribute to project or baseline case harvesting. All other stands receive appropriate prescriptions.	Thank you for the clarification, other items involving the LP model have been written elsewhere. This item may be closed.						Closed
CR 21	Why do the NPV values in Table C3.1 of the "ACR716_MBCI_GHGPlan_Final_20230221" document not match the NPV values calculated in the model tabs of the "PC400_F12_LPSyr_Project_Cut08pctGrowth_2023_02_15" and "PC400_F12_LPSyr_Baseline_20FstPct_2023_02_15" workbooks?	B4	Thank you for the finding. The GHG plan values have been corrected to match the NPV values for the baseline and project scenarios from the F12 files. Numbers had not been updated to match the latest versions.	Thank you for correction this. This item may be closed.								Closed

CR 22	The project area contains several slivers. Why have these been included within the project area? The noted slivers are listed in the MBCI_boundary_question_points shapefile as points which have the point type "Sliver". Two example screenshots can be seen in the CR 22 tab.	A1	The smaller areas of the project area polygons shapefile are allowable and represent included locations eligible for sampling. They are a digital representation of the physical world and the computed acreage is used for carbon accounting.	As these acres are eligible to be incorporated into baseline model harvesting prescriptions, a harvest must be considered feasible. In these slivers, there is no way for a logger to operate without trespassing onto private land and leaving the project area. As such these areas should not be included in the project area, please see the previously provided shapefile for reference.	The slivers identified by the audit team have been removed to ensure baseline harvesting feasibility.	Certain slivers have not been removed. Screenshots of the area have been added to the CR 22 tab. The "MBCI_Question_Areas_v2" shapefiles also has points on the questionable areas.	Additional changes have been made to the development polygon in response to the finding. Please see "MBCI_DevelopmentData_20230707.shp"	Thank you for making these changes. This item may be closed.			Closed
CR 23	Which FVS location code was used for the FVS growth and yield projections?	C3 3.1	FVS location codes 80701 and 80706 were used and can be found in the FVS input matrix.	Thank you for confirming this. This item may be closed.							Closed
CR 24	How were the locations of intermittent and perennial streams which required buffers determined in the project area?	B2	The location of streams GIS analysis was informed by using the MS BMPs documentation "Entire_bmp_2008-7-24_2.pdf" and provided to the audit team.	Apologies for the lack of clarity. This document covers BMPs around perennial and intermittent streams, not their actual physical locations. Please provide documentation of how the physical locations of these streams which required buffers were determined within the project area.	The following is a description of how the physical locations of stream buffers were determined in GIS: Perennial buffers following state BMPs of 30ft width for areas with a slope of 0%-5%, 40ft width for areas with a slope of 6%-20%, 50ft width for areas with a slope of 21%-40%, and 6ft width for areas with a slope over 40% were applied to the project area boundaries. Intermittent stream buffers of 30 ft from center line stream were applied. All streams were buffered to 10 ft from the centerline before the state BMPs listed above were applied. The USGS National Hydrography (NHD) dataset was used for the effort.	Thank you for clarifying how stream locations were determined. This item may be closed.					Closed
CR 25	Is the project enrolled in any other environmental asset programs for non-carbon benefits?	6.1	The project is not enrolled in any other environmental benefit programs for non-carbon.	Thank you for confirming this. This item may be closed.							Closed
CR 26	Per equation 7 in the Miles 2009 paper (https://www.nrs.fs.usda.gov/pubs/jrnl/jrnl_nrs38.pdf) when the gross volume of wood is used, the bark ratio should be used with a different formula, rather than as a flat multiplier. Why is the bark ratio being used as a flat multiplier when gross volume of harvest wood is being used in the calculations in cells B39:B40 in the "RP1 Hrv Vols, Wts" tab of the "PC400_F10_HWPcalcs_RP1_2023_04_18" workbook?	S.C	Thanks for the finding. Equation 7 from the Miles paper is now being correctly applied.	Upon review of cells D6:D10 of 'CI151_F10_HWPcalcs_RP1_2023_10_05', the bark ratio values are being calculated using equation 7, instead of a combination of equation 7, 8, and 9. Please clarify/correct. A screen capture is included to the right of this item.	Thanks for the finding. This discrepancy was fixed as part of an overhaul of the HWP worksheet in line with other findings. Please see "CI151_F10_HWPcalcs_RP1_2024_01_02.xlsx."	It appears that bark ratio is now being properly applied, but due to the nature of the other errors confounding the final values this item might be opened again. For now, this item may be closed.					Closed
CR 27	In the PC400_F13_ERTs_withCT_Final_20FstPstDrop_2023_04_19 Workbook's HWPs tab, cells F3:F78 I3:I7 refer to percentage in the PC400_F11_UPyields_withMOrt_RegnCT_10pctGrowth_2023_02_15 for product categories that do not match the product categories listed in cells A3:A7 in the same workbook. Please clarify.	C3	Thank you for the finding, this error has been fixed in the newer version of the ERT calc worksheet.	It appears that this workbook no longer is incorporated into the quantification. Therefore this item may be closed.							Closed
CR 28	The Jenkins Coefficients for FIA species 998 in the "PC400_F08_LiveC_RP1_2022_treeList_2022_04_19" and "PC400_F08_LiveC_RP1_2022_treeList_2022_04_19" workbooks do not match those listed by the official paper. Please clarify the note which states they were changed to match FVS outputs on cell B470 of the "JenkinsCoefs" tab.	C3 3.1.1	Species substitutions descriptions are provided in the F00 file under the FVS code tab where the crosswalks are needed due to FVS southern variant.	Thank you for the clarification. This item may be closed.							Closed
CR 29	In cells B39 and B40 of the "PC400_F10_HWPcalcs_RP1_2023_04_18" workbook's "RP1 Hrv Vols, Wts" tab, the difference between the specific gravity of a tree's wood and bark is used as a ratio to adjust the calculated Bark Volume percent. Why is this?	C3 3.1.1	Thanks for the finding. Equation 7 from the Miles paper is now being correctly applied.	As the resolution to the bark ratio issue is being accounted for in CR 26, the focus of this item will shift to conversion between green weight and dry weight. Per Step 1, number 3 of section 3.2, 'If a weight measurement is used subtract the water weight based on the moisture content of the wood. This results in pounds of biomass with zero moisture content'. It is also important to note that these 'MC_PCT_GREEN_WOOD' per species values need to be treated in the exact same way as the Bark Ratio as discussed in CR 30 and 32 for the Hardwood mixture volumes.	Thanks for the finding. This discrepancy was fixed as part of an overhaul of the HWP worksheet in line with other findings. Please see "CI151_F10_HWPcalcs_RP1_2024_01_02.xlsx."	It appears that the green to dry conversion is now being properly applied, but due to the nature of the other errors confounding the final values this item might be opened again. For now, this item may be closed.					Closed
CR 30	Why were sweetgum and loblolly pine used to represent all the Hardwood and Pine respectively on the "RP1 Hrv Vols, Wts" tab of the "PC400_F10_HWPcalcs_RP1_2023_04_18" workbook?	A4	Sweetgum was applied because it is the most dominant hardwood species. Loblolly pine makes up the vast majority of the softwood species stocking and it was therefore appropriate to use.	As basal area based weighting is being applied for the hardwood HWP variables this is now a non-issue. Please see CR32 for further discussion. In relation to pine, it is approx. 98% of the softwood inventory so non-weighting is considered reasonable. This item may be closed.							Closed
CR 31	In cells E23, E24:G23, G24, H23 & H24 of the "ERTs" tab of the "PC400_F13_ERTs_withCT_Final_20FstPstDrop_2023_04_19" workbook, why are these values being calculated as proportional average between the years 2020 and 2025 rather than proportional averages involving the year 2022, which has real world data?	D1	Thanks for the finding, this discrepancy has been fixed.	This error does not apply to the new document, therefore this item may be closed.							Closed
CR 32	In the tab 'SpecificGravity' of 'CI151_F10_HWPcalcs_RP1_2023_10_05' there are basal area weighted wood product conversion values calculated for hardwoods in row 43. At this time, these values are including softwood values, including species 131, and 110. Please correct these values to be hardwood only.	C.3	Thanks for the finding. This discrepancy was fixed as part of an overhaul of the HWP worksheet in line with other findings. Please see "CI151_F10_HWPcalcs_RP1_2024_01_02.xlsx."	No, no it was not. Please see the equation in cells N43:T43 of the 'SpecificGravity' tab of 'CI151_F10_HWPcalcs_RP1_2024_01_02.' Note the equation pulls from range 3:42, and loblolly pine is row 14, shortleaf pine is row 23.	Thanks for the finding. Pine has been removed from calculations for the inventory-weighted moisture content percent in green wood. (QA/QC santosh)	Thank you for making this change, it has been confirmed. This item may be closed.					Closed
CR 33	Upon review of 'CI151_F10_HWPcalcs_RP1_2023_10_05'-'SupersectionArea' , the total acreage summed in pivot table does not match the total project acreage in the acreage found in MBCI_DevelopmentData_20221108.shp, or 'CI151_F01_GIS_2023_08_21'. Please clarify.	C.3	Thanks for the finding. This discrepancy was fixed as part of an overhaul of the HWP worksheet in line with other findings. Please see "CI151_F10_HWPcalcs_RP1_2024_01_02.xlsx."	No, no it was not. Please see the screenshots on the tab titled, 'CR 33'. Also, it appears that a similar acreage issue is showing up in the supersection area product weighting for both in-use and landfill products in both the Baseline and Project models, 'ERT_Inputs' of 'MBCI_Baseline_with_Lpoutputs_125K_12_27_2023' rows 31-44 and the same in 'MBCI_Project_with_Lpoutputs_5K_12_27_2023'.	Please see "CI151_F01_GIS_2024_02_01.xlsb" where development team computed acreages are used throughout quantification files consistently.	Thank you for providing this updated documentation, this issue will be transitioned to 'NMA'. This item may be closed.					Closed
CR 34	Upon review of PLOTS tab of CI151_F00_MBCI_ILTF_Carbon_Inventory_08_29_2023.xlsx, several plots appear to have not had the appropriate boundary procedures implemented based on a intersect MBCI_DevelopmentData_20230707.shp and a buffer with the radius of the plots. See tab CR 34 for more details.	D.2	Thanks for the finding. The purpose of the boundary correction method is to account for the sample area of a plot of which a portion, as observed by a qualified cruiser in the field, falls outside of the sampling frame. While the plot centers may fall within a sample radius as seen in GIS, the field conditions could have indicated that the sample was appropriately taken fully within the sampling frame. Plot observation data is provided for the following, note plot videos are large in size: Plot 41: Please see interesting plot video, barb wire fence passes through plot. Plot 6: See plot video, at the end it is noted that the GIS indicates it is a boundary plot but property is not marked and was inventoried as normal. Plot 65: See plot video, the boundary is outside of the plot radius beyond the brush. Plot 126: See plot video, although boundary is close the plot radius fell within the sampling frame.	Thank you for the additional information. The videos were incredibly helpful, this item may be closed.							Closed
CR 35	Upon review of the 'CI151_F10_HWPcalcs_RP1_2023__10_05' document the values used for the bark percent appear to be from the CRM reference, instead of the Table 4 Miles and Smith 2009 paper. Please clarify/confirm.	3.2 Step 1	Thanks for the finding. This discrepancy was fixed as part of an overhaul of the HWP worksheet in line with other findings. Please see "CI151_F10_HWPcalcs_RP1_2024_01_02.xlsx."	There appear to be two species that are still using the CRM coefficients for bark ratio, 367 and 500. Please clarify.	The development team was unable to find the discrepancies for species bark ratios for pawpaw and hawthorn spp. The values appear to be correct at 15.16% for both.	The purpose of this item was to call out that the CRM values are being used instead of the Domke values and to be recognized by the developer, this has been deemed acceptable. This item may be closed.					Closed
CR 36	Upon review of the 'BL_125K' and 'Proj_5K' tabs of 'CI151_F11_Optimization_outputs_125k_BL_10_04_2023' there is a discrepancy in model outputs and their manipulation into the ERT calculation inputs. FVS is outputting merchantable cubic feet in rows 6:10, and then is being converted into 'barkless' quantities. This step appears to be unnecessary. Per sections 2.6.1 and 2.6.2 of the 'Fire and Fuels Extension to the Forest Vegetation Simulator', "FFE live tree merchantable biomass estimates are based on FVS volume equations which vary by geographic variant, and do not include C from bark biomass" and "The FFE biomass/carbon algorithms do not include stem bark in the estimate of total merchantable biomass, therefore stem bark is also missing from the C accounting," respectively. Please clarify. If incorporating a bark correction is deemed appropriate and justified with additional information, please then correct the method by which the bark ratio is applied, as seen in the other LoF items.	C.3	Thanks for this observation and finding. Please see "MBCI_Baseline_with_LPoutputs_125K_12_27_2023.xlsx" and "MBCI_Project_with_LPoutputs_5k_12_27_2023.xlsx."	Thank you for making this change, it has been confirmed. This item may be closed.							Closed
CR 37	Upon review of the 'ERTs' tab of 'CI151_F12_ERTs_125K_BL_5K_Project_10_06_2023' the values captured in the ACR Parameters section appears to be the degrown inventory data, instead of the raw inventory data statistics. Please clarify.	C.5	Thank you for this observation. We have updated the source of the live/dead uncertainty values to ensure they come from the inventory-as-measured dataset.	Thank you for making this change, it has been confirmed. This item may be closed.							Closed
CR 38	Upon review of the .out files, 'Keyword_mbci_50Percent_selection_09_28_2023', 'Keyword_mbci_Baseline_Project_letgrow_09_28_2023', 'Keyword_mbci_defect_letgrow_09_26_2023', 'Keyword_mbci_regen_natural_letgrow_09_29_2023', 'Keyword_mbci_regen_plantation_letgrow_09_29_2023', 'Keyword_mbci_regen_plantation_withThin_09_29_2023', and 'Keyword_mbci_thin_09_28_2023', there are FVS14 WARNINGs, where a plots ecoregion is defaulting to 231DD. This default does not fit the project area. If this issue also exists in the clearcut outfiles per woodstock which have not been provided, these should also be corrected/clarified.	D.5	The ecoregion has been updated to represent the project area in line with the finding.	Thank you for correcting this item as 231Bd, it has been confirmed. This item may be closed.							Closed

CR 39	Upon review of the 'MBCI Multi Resource Mgmt Plan_2013' section 2.4.1.4 the Maximum Annual Allowable Cut 'anticipates the final harvest of approximately 495 acres annually.' With an updated understanding of stand stocking since the creation of the FMP, please justify the increase in clearcut acres required over the first 22 years (averaging to 785 ac. of hardwood and softwood clearcut specific prescriptions per year) as laid out in the 'BL_125K' tab of 'C1S1_F11_Optimization_outputs_125k_BL_10_04_2023'.	C.1	Thank you for bringing up the important topic of tribally-approved harvest levels in the context of an appropriately modeled project-specific baseline. a) The FMP contains harvest history for the period 2012-2013 when 1,056 acres were harvested, noting that records are not available. In addition, page 52-53 2015-2017 of the FMP states the plan was to harvest ~70,000 cords of pulpwood and 22.6 MMBF sawtimber. The baseline was developed using this FMP harvest intent (projections), in addition to market and economic feasibility. The baseline model is appropriate with sideboards; limiting harvesting to far less than legally permissible, incorporating best management practices, merchantability of wood products, among others. Please see the workup provided in "C1S1_F16_BaselineFMPTable_20240110.xlsx." b) Local staffing, logging capacity, logistics and related are more than adequate to allow baseline harvesting regime. A Forisk worksheet was provided in another finding which provides for regional mill capacity and product types. c) More aggressive forest management is feasible at project start without carbon finance. d) The carbon project is expected to provide an important source of revenue for the tribe and allow for reinvestment in the community, economic empowerment, and provide benefits to marginalized tribal members.	Upon further review of the FMP and the document 'C1S1_F16_BaselineFMPTable_2024_01_10' there are still concerns about the plausibility of the clearcut acres targets as modeled in the baseline ('MBCI_Baseline_with_Lpoutputs_125K_12_27_2023'). There is an average of 775 acres cut each year over the first 25 years of the carbon project baseline, and the harvests included in the FMP projected out to the year 2027 top out at 528 acres in any single year, or 505 acres averaged over all FMP projected years (15 years, please see 'CR 45'). This correlates to a 50% increase in clearcut acres every year for the first 25 years of the baseline model. Please see the tab 'CR 39' for additional details and calculations. Per previous discussion with ACR, Maximum Annual Allowable cuts based off of the FMP appears to be a ceiling for modeling a carbon baseline without extensive analysis (see Jan 3rd Andrew Taylor email). With the current justification in the F16 document of FMP projected harvests, the math does not support the scaling of clearcut acreage or volume in the baseline model. As this property is in a timber production area concerns of mill capacity, staffing, and logger capacity/logistics are mitigated and no longer a concern based off of other analysis.	The development team carefully considered feedback from the audit team and ACR in crafting a new baseline which takes a conservative approach of the FMP. A constraint was added to the LP model to ensure the total clearcut harvesting in the first 15 years does not exceed 7,586 acres. This allows for a baseline which reflects the FMP and no single year can incur more than 506 acres of clearcut harvesting.	Please provide additional detail on how the baseline models allocation of 4,079 acres of thin and selection treatments in the first year of the baseline aligns within the FMP.	The FMP scheduled approximately 28,166 acres for selection and thinning cuts over the 15-year period. Since we are running FVS's SN variant on a 5-year interval, these thinning and selection acres should be considered in terms of a 5-year interval. So, although it appears that we are cutting 4,079 acres in the first year, it should be interpreted as cutting 4,079 acres over the first five years. However, an alternative and more conservative approach of intermediate treatment allocations was taken. We have re-run the baseline with the constraint to limit selection and thinning treatments to no more than 1,877 acres per year. In addition, due to the 5-year FVS intervals for these treatments, a linear interpolation exercise was undertaken for the baseline and project cases. Baseline silvicultural prescriptions align with conservative interpretations of harvest allowances within the FMP.	Apologies, but the linear program outputs do not support a harvest of 1,877 acres per year the first couple of years of the baseline. There is a harvest of 1,877 in year 1, and then again in year 5, not the years between. Please see tab 'CR 39.1' for a mathematical description. Linear interpolation from year 5 to year 1 of baseline live/dead stocks does not make sense in this context as the stocking of the harvested acres and subsequent wood products have a different impact on residual stand stocking, particularly considering the first paragraph of this LoF response. Please clarify.	Thanks for the observation. To further clarify, although we constrained the model to 1,877ac per year, it should be considered that these stands receive intermediate treatments over the course of 5 years. The FMP recommendations are respected. Allowing the baseline harvesting to occur annually, with the associated change in onsite stocks, is more in line with reality by smoothing the counterfactual harvest scenario. Further, the linear interpolation is an inherently conservative approach.	Thank you for the phone call (2/22) and the subsequent confirmation. The baseline quantification and the interview with the lead modeler agree that the thin and selection of 1,877ac is modeled on 5 year increments and subsequently can be considered as a fifth of that harvest each year, not 1,877ac each year in the intervening years. Therefore the incrementalization of standing stocks is more reasonable. This item may be closed.	Closed
CR 40	Please 'Refresh' the Species Composition pivot table in 'C1S1_F00_MBCI_ILTF_Carbon_Inventory_08_29_2023'.	A4	Thanks for this observation. Downstream calculations were updated accordingly.	Thank you for making this change, it has been confirmed. This item may be closed.								Closed
CR 41	Upon review of the 'HarvVolume' tab of 'MBCI_Baseline_with_Lpoutputs_125K_12_27_2023', there are plots that are listed as 'Restricted' in relation to SMZs that are receiving the 'Clearcut' prescription. They are 8, 14, 23, 30, 71, 78, 88, 101, and 109. Please clarify.	C3	Thanks for the finding. We looked into the SMZ stands with harvest restrictions and identified stands 9, 15, 25, 27, 29, 32, 74, 77, 81, 92, 105, 116, and 138. These stands are either undergoing selection harvest or are not subjected to any harvest treatment in the baseline.	Thank you for the clarification, the verifier was erroneously using FID #, instead of plot #. This item may be closed.								Closed
CR 42	In the 'BL_125K_NPVcalc' tab of 'C1S1_F14_NPVcalc_125K_BL_SK_Proj_12_27_2023', the equation for discounted costs over time is not set up to include the 'PlantCost' values for col. V due to a lack of parenthesis. Please clarify.	B4	Thanks for the finding. We have corrected the calculations for plant cost in the NPV calc sheet.	Thank you for making this change, it has been confirmed. This item may be closed.								Closed
CR 43	Upon review of the 'ERTs' tab in the 'C1S1_F15_ERTs_125K_BL_SK_Project_12_27_2023' workbook the incorporation of the HWP baseline values isn't weighted to the appropriate years. Cell E15, corresponding to 12/3/2022, is linked to the initial years harvest quantity despite the first RP covering 2 years worth of harvest sums. Please clarify.	C3	The baseline HWPs for RP1 now reflect the 2 year reporting period in line with the finding.	Thank you for making this change, it has been confirmed. This item may be closed.								Closed
CR 44	Upon review of the value in G3 in 'C1S1_F16_BaselineFMPTable_2024_01_10' the calculation is dividing the cord value annually twice. Once in F3 and a second time in G3, please clarify.	C3	Thanks for the observation, volume is not longer used as a constraining factor in baseline harvest targets.	Thank you for the clarification, this item may be closed.								Closed
CR 45	Upon review of the FMP and 'C1S1_F16_BaselineFMPTable_2024_01_10' why is a period spanning two years (2013-2014) being calculated as 1 for the purposes of the analysis? If harvesting can occur in both 2013 and 2014 to meet the targets, then please clarify how that is not two seasons worth of harvesting, particularly considering the language in section 2.3 of the FMP, as seen in tab 'CR 45'.	C3	Thanks for the observation. The FMP is now respected in the baseline for the appropriate years.	Thank you for making these changes, they have been confirmed. This item may be closed.								Closed
CR 46	Upon review of the 'Economics' tab of 'C1S1_F14_NPVcalc_506ccAsperYr_BL_SK_Proj_02_08_2024' and the same tab in 'C1S1_F14_NPVCalc_125K_BL_SK_Proj_12_27_2023' the value for 'plantCost has changed from 136 to 84. Section E1 Baseline Harvest Schedule Scenario Overview of the GHG plan still states the value should be $136. Please clarify.	C1	Corrected via email 2/15/2024.	Thank you for making this change, it has been confirmed. This item may be closed.								Closed
CR 47	Upon review of the .out files in the 'FVSoutput' folder of the most recent download the time stamps are from December 28th. Please provide the outfiles from the updated modeling prescriptions if modeling constraints have been changed.	C3	Thanks for the observation, the development team confirms that FVS output files remain the same from the Dec. 28th submission.	Thank you for the confirmation. This item may be closed.								Closed
CR 48	Upon review of the 'ERT_Inputs' tab of 'MBCI_Baseline_with_Lpoutputs_506AcresPerYr_BL_02_14_2024' and the corresponding Project document the mill efficiencies used in rows 18:22 are rounded/truncated from the verified HWPs. The same thing appears to be occurring with the wood product allocations applied in rows 31:44. Please clarify.	C3	Corrected via email 2/14/24.	Thank you for making this change, it has been confirmed. This item may be closed.								Closed
CR 49	Upon review of the 'BL_NPVcalc' tab of 'C1S1_F14_NPVcalc_430ccAsperYr_BL_SK_Proj_02_15_2024' in the calculation of 'totalRevenue' (col. U) the 'total_merchantable_CO2_harvested' values (col. P) is being included, which is not a dollar value. Also, in the same calculation the PW values (col. F) are being excluded entirely from the revenue calculation. Please clarify.	C1	Thanks for these findings. We have made the appropriate corrections. See newly provided NPV worksheet.	This might have been completed for the previous prescription/acre allocation but not the current, because upon review of 'C1S1_F14_NPVcalc_02_16_2024' on the 'BL_NPVcalc' tab, there are prescriptions in periods for stands that do not correlate to the 'HarvVolume' tab of 'MBCI_Baseline_with_Lpoutputs_CC_430_ThinSel_1877AcPerYr_BL_02_15_2024'. See tab 'CR 49' for more details.	Thanks for the catch. See newly provided NPV worksheet.	Thank you for making this change, it has been confirmed. This item may be closed.						Closed
CR 50	Upon review of the 'ERTs' tab of 'C1S1_F15_ERTs_02_15_2024' the calculation of 20 yr average baseline cell E16 [=AVERAGE(E15:X15)] is weighting two years worth of products (E15) to a single year of time, so simply doing a second average is overestimating yearly HWP carbon. Also, since the first RP has 2 years of carbon calculation, to meet a '20 year carbon average' it should be 20 years, not necessarily 20 RPs, i.e. 2041 (col. X). Please clarify.	C3	Thanks for the findings. We have made some revisions to the ERT calc worksheet to ensure 20 years are used per the ACR methodology.	Thank you for modifying the ERT sheet to more clearly show the two year component of RP1. The average weighting value is resolved. The 20yr Avg Baseline Value row 16 of the ERT sheet is pulling HWP values from B45:V45. This is 21 years worth of harvesting (21 distinct years of values). Harvesting in 2020 (four weeks from start date to the end of year) is not quantified in 2020, it is quantified at the end of 1 year (12/3/2021). Please correct the range of row 16.	We have updated the 20 year avg baseline HWP value to ensure 20 years are reflected.	Thank you for making this change, it has been confirmed. This item may be closed.						Closed
CR 51	Upon review of 'ACR716_MBCI_GHGPlan_20240212 section B5 the language states that baseline harvesting 'allows for a maximum of 7,586 acres to be clearcut over a 15-year period and therefore the baseline model was constrained to this important benchmark'. With the new model the baseline is constrained 'below' this mark. Please clarify/correct.	C3	Section B5 and E1 of the GHG Plan were updated to reflect baseline harvest targets adopted.	Thank you for changing this language, it has been confirmed. This item may be closed.								Closed