



Validation and Verification Report

ACR879 Northwest Arkansas Improved Forest Management Project

October 15, 2024

TÜV SÜD America, Inc.

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1 INTRODUCTION

Dolecek Enterprises Inc. (DEI), contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR879 Northwest Arkansas IFM (Project) for the reporting period of March 28th, 2023 – December 1st, 2023 and a crediting period of March 28th, 2023 – March 27th, 2043 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. DEI acts as the technical consultant for the landowner and project developer Northwest Arkansas IFM, LLC, a Programmatic Development Approach (PDA) aggregation entity. 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 “Northwest Arkansas Improved Forest Management Project” dated October 14, 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 DEI made any material errors, that these errors were corrected.

RCE teamed with FRST as subcontractors to assist in the completion of this validation and verification. FRST was acquired by TÜV SÜD in February 2024.

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, physical infrastructure, activities, technologies, and processes of the Project, baseline, eligibility criteria, monitoring and reporting procedures, process information, source identification/counts, operational details, 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 8,343 acres of forestland in northwest Arkansas and eastern Oklahoma. This project area is owned by multiple private landowners. The Project ensures long-term sustainable management of the forests.

1.3 RESPONSIBLE PARTY

Project Developer

Northwest Arkansas IFM, LLC
PO Box 1374, Evergreen, Colorado 80437
Nicholas Dolecek

Technical Consultant

Dolecek Enterprises Inc.
PO Box 1374, Evergreen, Colorado 80437
Nicholas Dolecek

1.4 VALIDATION AND VERIFICATION TEAM

Lead Validator and Verifier: Zach Eyler
Biometrician: Tim Facemire, FRST
Professional Forester: Christian Eggleton
Forest Carbon Projects Manager: Tim Facemire
Team Member: Thomas Christopher
Internal Reviewer: Bonny Crews

1.5 VALIDATION AND VERIFICATION CRITERIA

1.5.1 Validation and Verification Standards, Guidelines, and Tools

- Northwest Arkansas Improved Forest Management Project GHG Project Plan (10/14/2024) (verification only)
- ACR Standard, Version 8.0 (December, 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, Version 2.0, July 2022
- ACR v2.0 IFM Errata and Clarifications, August 2024
- ACR Aggregation and Programmatic Development Approach Guidance for Improved Forest Management, January 2021
- ACR Tool for Risk Analysis and Buffer Determination V1.0, January 2016
- 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 Project Proponent COI form for the validation on October 30th, 2023 to identify any potential conflict of interest with the Project or Project Developer. The original COI form was approved by ACR on November 1st 2023, RCE also submitted a COI form for the verification on October 30th, 2023 and it was approved on November 1st 2023.
- RCE and DEI held a validation kick-off meeting on December 4th, 2023. During the kick-off meeting RCE reviewed the validation objectives and process, reviewed the schedule, and submitted an initial document request.
- RCE and DEI held a verification kick-off meeting on December 4th, 2023. During the kick-off meeting RCE reviewed the verification objectives and process, reviewed the schedule, and discussed data/document requests.
- 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 December 11-14, 2023. During the site visit the Verification Team performed key personnel interviews, conducted 90% 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:
 - TÜV SÜD (formerly FRST):
 - Ben Miller
 - Ben Hout
 - During the site visit, the Verification team met with the following individuals:
 - Chronology
 - Nathan Malcomb
 - Northwest Arkansas IFM
 - Nicholas Dolecek
- 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:
 - Nicholas Dolecek – DEI/Northwest AR IFM
- RCE submitted requests for corrective actions, non-material findings, additional documentation, and clarifications as necessary to DEI 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 opinion, and List of Findings.
- RCE held an exit meeting with DEI on August 5, 2024.

3 VALIDATION AND VERIFICATION FINDINGS

3.1 PROJECT BOUNDARY AND ACTIVITIES

The Project entails improved forest management on 8,343 acres of forestland in northwest Arkansas and eastern Oklahoma. 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 March 28th, 2023 – March 27th, 2043.

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 March 28th, 2023.
- **Minimum Project Term:** The minimum project term is 40 years.
- **Crediting Period:** The crediting period is 20 years as specified by the Methodology, March 28th, 2023 – March 27th, 2043.
- **Real:** RCE confirmed that the GHG reductions follow the ACR methodology and are verifiable.
- **Emission or Removal Origin:** RCE confirmed that the individual landowners within the PDA own 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 individual landowners within the PDA, and they hold 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 18% 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 private forestland.
- The individual landowners control the timber rights on the forestland and can legally harvest.
- The Project property has not been harvested in the first reporting period.
- The Project is not 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.
- The individual landowners 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 private 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.

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, the individual landowners lose the ability to monetize timber harvests at a rate similar to business-as-usual practices during the life of the Project. DEI 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 18% was confirmed.

3.6 ENVIRONMENTAL AND COMMUNITY IMPACTS

The reviewed GHG Project Plan includes an Environmental & Social Impact Assessment (ACR-Environmental-and-Social-Impact-Assessment-Report-v1.0_ACR879.pdf), which is 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

No formal stakeholder consultation occurred since the Project is held on private lands.

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 DEI 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. DEI and Northwest Arkansas IFM, LLC implemented the monitoring plan as stated in the GHG Project Plan during Project activities.

3.9 BASELINE SCENARIO

The Project's baseline scenario represents an aggressive harvest regime, targeted to maximize net present value at a 5% discount rate for industrial private lands. The baseline scenario applies harvesting across the 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, thin from below, thin with 50 ft²/acre of basal area retained, and multiple entry thinning, with restrictions on rotation ages, retention, and minimum harvest volumes. The selected baseline model was the clearcut at project start.

DEI 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 tree core analysis and the USDA Web Soil Survey intersection with the project area. RCE and FRST 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 and FRST 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 consists of two forested strata which FRST sampled using a random sampling method.

The current inventory contains 130 permanent, fixed-radius plots. At each plot location, trees were measured in two nested plots: a larger ~1/12th acre plot with radius of 34 feet, and a smaller ~1/100th acre plot with radius of 11.8 feet. The larger plot measured all living and standing dead trees greater than or equal to 5 inches DBH while the smaller, nested plot measured all living trees between 1-4.9 inches. Additionally, standing dead trees had to meet or exceed a height of 4.5 feet.

Given this sample design and Project size, the Verification Team was required to achieve a minimum of 12 successful plots within the project to successfully verify inventory stocking levels. The Verification Team successfully verified site data after measuring a total of 16 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 DEI 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 (ACR879 Project and Baseline Carbon 5.12.2024.xlsx and NPV Workbook 05.12.24.xlsx) were 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 and dead 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 and FRST verified that DEI calculated emission reductions according to relevant Methodology equations and that the methods are included in the GHG Project Plan.

RCE and FRST 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. Materiality threshold for this recalculation can be seen in table 2.

Table 2. Materiality Threshold

Project Proponent GHG Emission Reductions and Removals	Validation and Verification Body GHG Emission Reductions and Removals	Percent Error
145,576	145,576	0%

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 strata 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.

3.11.4 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). DEI 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 validation and verification of the Northwest Arkansas Improved Forest Management Project that included a strategic review of the project data, documentation, and emission reduction calculations. The objective of the validation activities was to assess the project design, baseline scenario, and monitoring plan and to ensure compliance of the GHG Project Plan to the assessment criteria defined in Section 1.5.1. The objective of the verification activities was to conduct an independent assessment of the Project's initial reporting period and resulting ex-post GHG emission reductions.

Based on the review and the historical evidence collected, RCE concludes to a reasonable level of assurance that the Project's GHG assertion is free of material misstatement. The emission reductions resulting from the reporting period 3/28/2023-12/1/2023 can be considered in conformance with the:

- ACR Standard, Version 8.0 (December, 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, Version 2.0, July 2022
- ACR v2.0 IFM Errata and Clarifications, August 2024
- ACR Aggregation and Programmatic Development Approach Guidance for Improved Forest Management, Jan 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”

Table 3 provides a summary of the emissions reductions.

Table 3. Total ERTs

Vintage	Total Emission Reductions / Removals	Buffer Pool / Reserve Account Contribution	Net Emission Reductions / Removals	Removals Subset	Emission Reductions Subset
2023	145,576	26,204	119,372	20,654	124,922
Total	145,576	26,204	119,372	20,654	124,922

Note: Totals might not sum due to rounding.

Lead Validator and Verifier



Zach Eyler

Internal Reviewer



Bonny Crews

APPENDIX A—DOCUMENTS REVIEWED

#	Documents Reviewed Title
1.	ACR879 GHG Plan 10.14.24.pdf
2.	ACR-Monitoring-Report-v5.0_ACR879 RP1 10.7.2024.pdf
3.	ACR-Multi-Site-Design-Documents-v1.1_ACR879.pdf
4.	ACR879 Project and Baseline Carbon X.X.XXXX.xlsx series
5.	NPV Workbook X.X.XXXX.xlsx series
6.	NW Arkansas IFM Carbon_Project Production Pro Forma 5.13.24_NPV.xlsx
7.	Selected Alternative 2023 Clearcut xxxx.xlsx series
8.	Timber Volume capacity-Arkansas Estimates.pdf
9.	NWAR Site Index .xlsx series
10.	NWAR Quality Control Plan.pdf
11.	NWAR QAQC Bm Calculator.xlsx
12.	NWAR 4.4.20241.accdb
13.	Arkansas Mill Capacity.pdf
14.	1st Quarter 23 Timber price report.pdf
15.	2023 shelterwood 2073 70BA thin .xlsx series
16.	2023 thin from below_2063 clearcut x.xlsx series
17.	2023 thin_2063 thin x.xlsx series
18.	2063 50BA thin x.xlsx series
19.	2063 Clearcut x.xlsx series
20.	Selected Alternative 2023 Clearcut x.xlsx series
21.	NWAR Financial Harvest Scenarios explanation.docx
22.	ACR879 Baseline Snag Calculator x.xlsx series
23.	ACR879 Biomass and CO2 Calculator degrown x.xlsx series
24.	ACR879 Biomass and CO2 Calculator grown forward x.xlsx series
25.	ACR879 Biomass and CO2 Calculator Inventory Date x.xlsx
26.	ACR879 Biomass and CO2 Calculator Inventory Date x.xlsx series
27.	ACR879 Project Snag Calculator x.xlsx series
28.	2023 10BA Harvest Exposed_FVSOutput.txt
29.	2023 10BA Harvest Protected_FVSOutput.txt
30.	2023 50BA Exposed_FVSOutput.txt
31.	2023 50BA Protected_FVSOutput.txt
32.	No harvest Exposed_FVSOutput.txt
33.	No harvest Protected_FVSOutput.txt
34.	2023 Exposed 50BA 2063 50BA_FVSOutput.txt
35.	2023 Protected 50BA 2063 50BA_FVSOutput.txt
36.	2063 Exposed 50 BA Harvest_FVSOutput.txt
37.	2063 Exposed Clearcut_FVSOutput.txt
38.	2063 Protected 50 BA Harvest_FVSOutput.txt
39.	2063 Protected Clearcut_FVSOutput.txt

40. 2063 Exposed 50 BA Harvest_FVSOutput.txt
41. 2063 Protected 50 BA Harvest_FVSOutput.txt
42. 2023 Exposed 50BA 2073 70BA_FVSOutput.txt
43. 2023 Exposed 70 TPA Harvest_FVSOutput.txt
44. 2023 Exposed 70 TPA Harvest_FVSOutput.txt
45. 2023 Protected 70TPA Harvest_FVSOutput.txt
46. NWAR FVS output db.db
47. ArtexTimber Attestations signed RP1.pdf
48. Cottage_QHP_Cincinnati_MilesDeanna_Timber Attestations signed RP1.pdf
49. K River Timber Attestation signed RP1.pdf
50. Raheen Land and Cattle Timber Attestations signed RP1.pdf
51. Red Deer Timber Attestations signed RP1.pdf
52. STORY_WJM Timber Attestations signed RP1.pdf
53. WJM Timber Attestations signed RP1.pdf
54. ACR879 100 year Project and Baseline Carbon 12.16.2023.xlsx
55. NWAR Harvest Scenarios and Common Practice + JBD_ND.pdf
56. artex deed addition.1.pdf
57. artex deed addition.2
58. ARtex Parcels.PDF
59. Artex_Deed_Insurance_Assessor.pdf
60. DEEDS_ARTEX Part 1.PDF
61. Cincinnati Insurance.pdf
62. Cincinnati Deeds_Assessor_Insurance.pdf
63. Cottage Roots_Deed_Insurance_Assessor.pdf
64. Cert of Authority_K River.pdf
65. Warranty Deed_K River.pdf
66. Miles and Deanna_Deed_Assessor_Insurance.pdf
67. Quality Housing Partners_Deed_Insurance_Assessor.pdf
68. 4.RaheenLand&CattleLLP.MemoPshipAgmt.16-0928.E.pdf
69. RL&C Warranty Deed 2.pdf
70. RL&C Warranty Deed.pdf
71. doc06748220230623081610.pdf
72. Story Mountain Deeds.pdf
73. Story Mountain_Deed.pdf
74. Story Operating Agreement
75. WD - L201500668.pdf
76. Executed Artex Attestations.pdf
77. Executed Attestation_Raheen Land and Cattle.pdf
78. Executed Attestations_Red Deer Properties.pdf
79. Executed Cincinnati Creek Attestations.pdf
80. Executed Cottage Roots Attestations.pdf
81. EXECUTED IFM ATTESTATION KRIVER.pdf

82. Executed Miles and Deanna Attestations.pdf
83. Executed Quality Housing Partners Attestations.pdf
84. Executed Story Mountain Attestations.pdf
85. Executed WJM Attestations&LOA.pdf
86. NWAR IFM Forest Inventory Manual.pdf
87. all_possible_plots--with_1-4_mi_buffer.gpkg
88. Final Strata Acres.xlsx
89. NWAR - all properties - dissolved.gpkg
90. NWAR_stratification_full.gpkg
91. plot_locations--ProductionGrid.gpkg
ACR879 Reversal Risk Analysis and Buffer Pool Contribution
92. Determination.pdf
ACR-Environmental-and-Social-Impact-Assessment-Report-
93. v1.0_ACR879.pdf
94. ACR-Multi-Site-Design-Document-v1.1_ACR879_Redacted.pdf
95. image004.png

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	Open or Closed
CAR 1	Upon review of the monitoring report and the 'ERT Calculator' tab of 'ACR879 Project and Baseline Carbon 1.19.24' the RP 1 end date is not correct. Please alter it, and any other relevant RP end dates in the calculator tab to the correct dates for the sheet to function properly.	8	This has been corrected in the ERT calculator	Thank you for the updated calculations, this item may be closed.			Closed
CAR 2	Upon review of the monitoring report and the 'ERT Calculator' tab of 'ACR879 Project and Baseline Carbon 1.19.24' the vintage allocation for 2023 is not correct. The ACR ERT calculator template document is not built for an initial RP of less than one year (cells E42:E47). Please correct the values of these cells to reflect the actual days of the respective vintages.	8	This has been corrected in the ERT calculator	Thank you for the updated calculations, this item may be closed.			Closed
NMF 1							
ADR 1	Please provide the QGIS settings used for area calculation of the project strata.	2.3	Ellipsoid for area and distance calculations is GRS 1980 (EPSG: 7019)	Thank you the information, this item may be closed.			Closed
ADR 2	Please provide the output .db file for the selected alternative 2023 clearcut.	4	The selected alternative .db has been uploaded	Thank you the data, this item may be closed.			Closed
ADR 3	Please provide the relevant TimberMart South pricing sheet for review.	4.1 & 4.2.4	The TimberMart South Pricing Sheet has been provided	Thank you the pricing data, this item may be closed.			Closed
ADR 4	Please provide a calculation of species composition as % of basal area as outlined in 'ACR873 Monitoring Report V5.0 RP1 10.15.2023'.	Monitoring Report	Species Composition has been calculated as a % of basal area in the Inventory Date Biometric Calculator "species composition" tab	Thank you the updated files, this item may be closed.			Closed
ADR 5	Please provide the documentation supporting the mill capacities referenced on pages 35 of 'ACR879 GHG Plan 1.19.24'.	4.2.4	Supporting documentation has been provided in two separate documents. One from interviews with mills in the project vicinity and a corroborating document from the USDA.	Thank you the files, this item may be closed.			Closed
ADR 6	Please provide the t-test document referenced in 'NWAR Quality Control Plan'.	4.2.2	The t-test calculator has been provided	Thank you the data, this item may be closed.			Closed
ADR 7	Please provide the contact information for a local forest practices inspector.	4.1 & 4.2.4	Contact information for Jeff Denman, registered professional forester in Arkansas, has been provided in the GHG plan page 13.	Thank you the contact information, this item may be closed.			Closed
ADR 8	Please expand on the analysis of the buffer determination for Diseases and Pests in the GHG Plan, Section B8, Part F.	GHG plan.	More detail has been provided in the GHG plan regarding insect/disease and the use of the National Insect and Disease Risk Map for determination.	Thank you the updated GHG plan, this item may be closed.			Closed
ADR 9	Please provide the methodology and source data used for smz delineation.	2.3	See provided document/protocol outlining process utilized by our GIS team using NHD and 1 meter resolution LIDAR to more accurately inform NHD's with ground truthing.	Thank you the data, this item may be closed.			Closed
CR 1	In the ACR879 Biomass and CO2 Calculator 12.6.1 set of workbooks, the B0 coefficients for % Coarse Roots for softwood trees being used is the B0 coefficient for softwood foliage. Please clarify.	4.2.2.1 Option 1	This has been updated in the equations contained in the books	Thank you this item may be closed.			Closed
CR 2	In the ACR879 Biomass and CO2 Calculator 12.6.1 set of workbooks, the % sound in column AR BM Calcs IFM does not match the % sound in column M of All Plot data. For example Tree 1_96 is 98% sound in All Plot Data and is 100% sound BM Calcs IFM. Please clarify.	4.2.2.1 Option 1	This has been updated in the books with a corrected link to the plot data	Thank you this item may be closed.			Closed

CR 3	In the ACR879 Biomass and CO2 Calculator 12.6.1 set of workbooks, the % sound in column AR BM Calcs IFM is not applied to Stem Bark in Column AW. Please clarify.	4.2	Equation Corrected	Thank you this item may be closed.			Closed
CR 4	In the ACR879 Biomass and CO2 Calculator 12.6.1 set of workbooks, the Structural Loss Adjustments from table Domke 2011 are being applied to standing dead tree Coarse Roots and Stem Bark in columns AU and AW, but not Foliage and Branches in Columns AV an AY. Please clarify.	4.2.3.1 Step 2 Option 1 or 2	Equation followed through in Columns AA and AH. Foliage decay viewed per Jenkins as topwood; Equation in Column UU. Branching reduced via decay classes with 3 containing branching; 4&5 missing enough to zero out.	Thank you this item may be closed.			Closed
CR 5	In the 'All Plot Data' tab of 'ACR879 Biomass and CO2 Calculator Inventory Date 1.16.24', tree 70_83 does not have a DBH. Please clarify.	4.2	This tree was dropped prior to verification due to a status code 2(dead) and a sub 5.0" diameter, nullifying its presence in the inventory. It additionally has no presence in the models.	Thank you for the clarification regarding this tree, this item maybe be closed.			Closed
CR 6	Is the project enrolled in other environmental asset programs for non-carbon benefits?	2.4	No	Thank you for the clarification regarding this matter, this item maybe be closed.			Closed
CR 7	In the 'CO2 2028-2043 Dead' tab of 'ACR879 Baseline Snag Calculator 1.16.24', the summation of exposed_szm_2043 in cells H454:J454 begins at row H359:J359 instead of H319:J319. Please clarify.	4.2.3.1	This has been updated in version 4.1.24	Thank you for the updated calculations, this item maybe be closed.			Closed
CR 8	Please clarify how Chip-n-saw values in column N of the '2023 X' and '2073 X' tabs in 'Selected Alternative 2023 Clearcut 01122024' were derived from and why the CNS is not present in the baseline HWP's of 'ACR879 Project and Baseline Carbon 1.19.24'.	4.1 & 4.2.4	HWP's do not take into account CNS with breakouts for that sort. As CNS is a minor sort and does not have a clear correlation to HWP's this sort has been removed and wood has been grouped as either pulp or saw.	Thank you for the updated NPV data, this item maybe be closed.			Closed
CR 9	Florida maple, American hornbeam, mulberry, eastern redbud, and winged elm are listed as species harvested in the 'Selected Alternative 2023 Clearcut 01122024' and 'ACR879 Project and Baseline Carbon 1.19.24', despite not being common timber trees. Please clarify.	4.1 & 4.2.4	Per local Arkansas Registered Professional Forester Jeff Denman, "maple and elm are often used for sawtimber, cross ties and/or pallet lumber in this area. This includes Florida maple and winged elm. Hornbeam, mulberry and redbud are also utilized for saw products but rarely meet merch spec for saw and are utilized primarily as pulp. All of these species have saw and pulp applications in the central Arkansas market."	Thank you for the clarification regarding the merchantability regarding these species, this item maybe be closed.			Closed
CR 10	In row 36 of the '2073 Protected SMZ 50BA' tab of 'Selected Alternative 2023 Clearcut 01122024', the values appear to be misaligned. Please clarify.	4.1	The typo has been corrected	Thank you for the updated NPV data, this item maybe be closed.			Closed
CR 11	There are no costs or discounted costs in the '2023 Clearcut-Selected Alt' tab of 'NPV Workbook 01122024'. Please clarify.	4.1	A ten percent administration cost has been added to the NPV calculations. As stumpage prices reflect all logging costs administration was the only cost not already accounted for.	Thank you for the updated NPV data, this item maybe be closed.			Closed
CR 12	The acres used for each stratum, including the delineation into smz vs non smz are consistent in all workbooks except 'Selected Alternative 2023 Clearcut 01122024'. Please clarify.	4.1	Error in acres used has been corrected	Thank you for the clarification regarding this matter, this item maybe be closed.			Closed
CR 13	In cells AJ2:AM8 of the 'Product and Landfill' tab of 'ACR879 Project and Baseline Carbon 1.19.24', the product allocation values from 'ACR_IFM_WoodProductReferenceFile_2022.07.07' are being truncated. Please clarify.	4.2.4	Typo has been corrected. Percents were copied from displayed numbers and didn't include non-displayed digits	Thank you for the updated calculations, this item maybe be closed.			Closed

CR 14	In "Site Index Curves for Forest Tree Species in the Eastern United States", it would appear that there are site index curves that are closer to the project area geographically, ecologically, or both for black oak, black cherry, and loblolly pine. Please clarify on the choice of site index curves for those species.	4.2	Black Oak-"Carmean 71',72' " was utilized due to its isolation of one species in black oak, its study range of southern Missouri and its adequate n-value. The other curves mix several oaks together. Black Cherry-"Carmean 78'" was utilized due to adequate n-value and adequate fit ecologically. The other black cherry option has n-value of 39 which is very light and isn't much closer to the subject region. Loblolly Pine-"Schumacher and Colle-60'" was utilized due to geographic range, n-value, and soil relevance.	Thank you for the clarification regarding the site index curve choices, this item maybe be closed.			Closed
CR 15	The site index tree on plot 11 in 'NWAR Site Index 12.5 Update' appears to be using a different curve than the rest of that species. Alease clarify.	4.2	This Site Tree falls above the curves for "Graney and Bower 71'" and has been dropped	Thank you for the updated the site index curve, this item maybe be closed.			Closed
CR 16	The site index trees on plots 33 and 89 appear to be outside the bounds of their relevant site index curves. Please clarify.	4.2	Plot 33 and Plot 89 Site Indexes have been dropped due to not conforming to curve	Thank you for the clarification regarding the site index trees, this item maybe be closed.			Closed
CR 17	The FIA species code 133 in 'NWAR Site Index 12.5 Update' is not loblolly pine. Please clarify.	4.2	This typo has been corrected to 131 code and cross checked through original datasets and SI's to ensure correct application.	Thank you for the updated the site index trees, this item maybe be closed.			Closed
CR 18	The values in columns F and G of 'Project Carbon' tab of 'ACR879 Project and Baseline Carbon 1.19.24' are calculated (starting in F7 and G7 for 2023/RP1) from values in row 4 in the 'Baseline Sx' tabs, which are keyed to 2025, leading to a misalignment of values , particularly for years 2023-2025. Please clarify why this misalignment is taking place.	4.1	This has been corrected in the current project and baseline calculator, it was mis-keyed one row.	Thank you for the updated calculations, this item may be closed.			Closed
CR 19	In 'NWAR Islands Quality Control Plan', it is stated that 5% random sample of plots. With 6 plots sampled in 'NWAR QAQC Bm Calculator', this is only a 4.62% sample and does meet the standard of conservatism. Please clarify.	4.2.2	As shown in the original QA/QC protocol: Plots 03,07,23,74,78,79,94,98,101,102, 105,110 and 115 were blind checked for accuracy. This equates to a 10% check. The QA/QC protocol language has been updated to clarify the use of training check plots as part of the formal and secondary QA/QC process.	Thank you for the clarification regarding the QA/QC plots, this item maybe be closed.			Closed
CR 20	In 'ACR879 GHG Plan 1.19.24', it is stated that the Boston Hills Ecoregion is being applied across the entire project, as it covers the majority of the acreage. Upon overlaying the PAB with the FVS Variants and Locations shapefile, it appears that the project spans multiple FVS locations codes as well as ecoregions. Please clarify if the location code usage is applying a similar methodology to the Ecoregion code usage.	4.2.1	Both the ecoregion and the location code use the plurality of the acreage.	Thank you for the clarification regarding the ecoregion modeling, this item maybe be closed.			Closed
CR 21	During an overlap of 'main.NWAR_stratification_full' and a 2x plot radius buffer (maximum walkthrough plot distance) of 'NWAR Field Coordinates'. 13 plots were found to cross project or strata boundaries (excluding smz delineation). Please clarify if these plot produced any duplicate trees from the walkthrough methodology. See tab CR 21 for plot manifest.	4.2.2	The walkthrough method was utilized and all plots were checked on the ground during inventory for overlap across a strata boundary or project boundary as spelled out in the 'NWAR IFM Forest Inventory Manual.' During inventory 3 plots were found to be boundary plots and the walkthrough was employed with double tallied trees.	Thank you for the clarification regarding the walkthrough plots, this item maybe be closed.			Closed
CR 22	In the 'Project Carbon' and 'ERT Calculator' tabs of 'ACR879 Project and Baseline Carbon 1.19.24' end of RP values do no match what is calculated in 'ACR879 Biomass and CO2 Calculator grown forward 1.16.24'. Please clarify.	4.2.2	This has been corrected in the current version of the ERT calculator	Thank you for the updated calculations, this item may be closed.			Closed

