

# Validation and Verification Report

# ACR684 Anew - Rusk County Forestry Project

January 21, 2025

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## 1 Introduction

Anew Climate LLC (Anew) contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR684 Anew - Rusk County Forestry Project (Project) for the reporting period of September 23, 2021 – September 22, 2022 and a crediting period of September 23, 2021 – September 22, 2041 under the American Carbon Registry (ACR) program. Anew acts as the project developer for the landowner and project proponent, Rusk County (Rusk). 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 Project Plan "Anew - Rusk County Forestry Project" dated May 2, 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 Anew 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);
- The following elements of the GHG Plan:
  - Project boundary and procedures for establishing the project boundary;
  - o Physical infrastructure, activities, technologies, and processes of the project;
  - o GHGs, sources, and sinks within the project boundary;
  - Temporal boundary;
  - Description of and justification for the baseline scenario;
  - Methodologies, algorithms, and calculations that will be used to generate estimates of emissions and emission reductions/removal enhancements;
  - o Process information, source identification/counts, and operational details;
  - Data management systems;
  - QA/QC procedures;
  - o Processes for uncertainty assessments; and
  - o Project-specific conformance to ACR eligibility criteria.
- Reported GHG baseline, ex ante estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of the verification are to evaluate:

- The emission 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 79,294 acres of both upland and lowland vegetative cover types in northern Wisconsin. The Project is located in Rusk County. Nearby population centers are small but include Ladysmith, Bruce, and Tony.

The primary forest types found on the property are Aspen, Lowland, Northern Red Oak, and Northern Hardwoods. Northern Wisconsin is known to contain premier game species populations such as ruffed grouse, snowshoe hare, woodcock, and white-tailed deer. Much of the property originated after the big cutover period, and over time mid to late successional timber types, like northern hardwood have begun to replace early successional aspen and birch. The Project area has been actively managed for both timber and maximizing public benefits. Management decisions of the forest focus on sustainable, natural forest growth and non-commercial forest maintenance for essential activities and forest health. The Project ensures long-term sustainable management of the forests, which could otherwise undergo significant commercial timber harvesting.

#### 1.3 RESPONSIBLE PARTY

#### **Project Proponent**

Rusk County 311 Miner Avenue East Suite 115 Ladysmith, WI 54848 Ashley Heath, Rusk County Administrative Coordinator 715-532-2113

#### Project Developer

Anew Climate LLC 2825 E. Cottonwood Parkway, Ste 400 Cottonwood Heights, UT 84121 Josh Strauss, Vice President 949-233-1501

#### 1.4 VALIDATION AND VERIFICATION TEAM

Lead Validator and Verifier: Zach Eyler Biometrician: Andrea Eggleton, FRST

Professional Forester: Christian Eggleton, FRST Forest Carbon Project Manager: Tim Facemire, FRST

Forestry Analysts: Andrew Russo, FRST, Anna Woodall, FRST, Thomas Christopher, FRST

Internal Reviewer: Bonny Crews

#### 1.5 VALIDATION AND VERIFICATION CRITERIA

#### 1.5.1 Validation and Verification Standards, Guidelines, and Tools

- Anew Rusk County Forestry Project GHG Plan (May 2, 2024)
  - Verification only
- ACR Standard, Version 7.0 (December 2020)
- 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, January 1, 2024
- ACR Tool for Risk Analysis and Buffer Determination, v1.0
- ISO 14064-3:2006 "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 on October 9, 2022 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on October 12, 2022.
- RCE and Anew held a validation/verification kick-off meeting on October 17, 2022. During the kick-off meeting RCE reviewed the validation/verification 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 October 31 to November 3, 2022. During the site

visit the Verification Team performed key personnel interviews, conducted sequential sampling 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:
    - Tim Facemire
    - Andrew Russo
    - Anna Woodall
- During the site visit, the Verification team met with the following individuals:
  - Anew
    - Jason Heffner
  - Steigerwaldt Land Services
    - Mike Raichel
    - Kate Handberg
    - Nate Handberg
- 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, GHG management and monitoring systems and eligibility documentation.
- RCE conducted interviews and had conversations with Project personnel during the verification. Personnel interviewed include:
  - Jason Heffner Anew
  - Mingfei Xiong Anew
- RCE submitted requests for corrective actions, additional documentation, and clarifications as necessary to Anew 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 Anew.

# 3 VALIDATION AND VERIFICATION FINDINGS

#### 3.1 Project Boundary and Activities

The Project is located on 79,294 acres across northern Wisconsin. GHG emission reductions for the Project are quantified by comparing actual onsite carbon stocks and carbon in wood products harvested during the reporting period 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 September 23, 2021 – September 22, 2041.

#### 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 Project Plan appropriately identifies the offset project boundary and includes all relevant SSRs.

Source **GHG Description** Above-ground biomass Major carbon pool for project activity CO<sub>2</sub>Below-ground biomass  $CO_2$ Major carbon pool for project activity Standing dead wood Major carbon pool in unmanaged stands for the project CO<sub>2</sub>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

**Table 1. GHG Emissions Sources** 

#### 3.3 ELIGIBILITY

#### 3.3.1 ACR Eligibility

RCE confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 7.0 by reviewing the project proponent's 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).

emissions must be included in the quantification of project

- Start Date: The project start date is September 23, 2021.
- Minimum Project Term: The minimum project term is 40 years.

benefits.

- Crediting Period: The crediting period is 20 years as specified by the Methodology, September 23, 2021 September 22, 2041.
- Real: RCE confirmed that the GHG reductions follow the ACR methodology and are verifiable.
- Emission or Removal Origin: RCE confirmed that Rusk County 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 (Rusk), which 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 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:

- Rusk controls the timber rights on the forestland and can legally harvest.
- The Project will have harvesting.
- The Project is not on tribal lands.
- The Project is 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.
- Rusk owns 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 geographic region for the Project includes northern Wisconsin. Throughout the geographic region, industrial forestland is heavily cut, often through clear-cutting and high-grading, and is managed to maximize NPV of the forestland investment. The project is public county forestland ownership. Without the Project the property would have been likely managed for timber production and would resemble typical industrial forestlands in the region. 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, Rusk loses the ability to monetize timber harvests at a rate similar to business-as-usual practices during the life of the Project. Anew provided a financial assessment comparison of NPV between the baseline scenario with harvesting and the project scenario with reduced

harvesting and 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 and FRST 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.

RCE and FRST also confirmed that the Project committed to a 40-year agreement with ACR by signing the AFOLU Carbon Project Reversal Risk Mitigation Agreement. Through this agreement and the ACR Tool the Project adequately addressed potential causes of unintentional reversals.

#### 3.6 Programmatic Development Approach

RCE confirmed that the Project is utilizing a Programmatic Development Approach (PDA). The Project currently only has one "site" but expects to potentially add additional area to the Project in the future. RCE confirmed that the Project has completed the required PDA Project Design Document and included it as an addendum to the GHG Plan.

#### 3.7 LEAKAGE

RCE and FRST confirmed that the Project correctly accounted for leakage. The Project demonstrated that that there is no activity-shifting leakage since there is an entity-wide management certification that covers all entity owned lands. The Project also correctly accounted for market leakage per the Methodology – since wood products decreased by greater than 25%, the market leakage is 40%.

#### 3.8 Environmental and Community Impacts

The 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.

#### 3.9 Local Stakeholder Consultation

Not applicable for the Project. Rusk County adhered to its internally agreed upon practices of project consultation and notification on associated decision making.

#### 3.10 Monitoring Plan

The 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 Anew 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. Anew and Rusk implemented the monitoring plan as stated in the Project Plan during Project activities.

#### 3.11 BASELINE SCENARIO

The Project's baseline scenario represents aggressive industrial harvests with stricter parameters than recommended state practices, targeted to maximize net present value at a 4% discount rate for public 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, shelterwood removal, single tree selection, and clearcut.

Anew utilized the USDA's Forest Vegetation Simulator (FVS) Lake States variant to model harvests and yields. Growth was calibrated using tree cores taken on or near plots, which were used to assign site index values calculated from site index curves and associated equations from Carmean et al 1989. Averaged species site index values supplemented tree core data where cores did not produce a valid sample, and soil data was also incorporated with no species data available. FRST reviewed all data and calculations related to site index 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.

#### 3.12 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 four forested strata. The Verification Team confirmed that stocking and vegetation comprising a particular stratum were consistent with descriptions in inventory data and the Project Plan. FRST randomized the plot order and measured at least one plot in every stratum during the site visit.

The current inventory contains 258 permanent, fixed-radius plots. At each plot location, trees were measured in two nested plots: a larger 1/15th acre plot with radius of 30.4 feet, and a smaller 1/100th acre plot with radius of 11.78 feet. The larger plot measured all trees greater than or equal to 5 inches DBH while the smaller, nested plot measured all living trees between 1-4.99 inches.

Given this sample design and Project size, the Verification Team was required to achieve a minimum of 13 plots within the project to successfully verify inventory stocking levels. The Project did indeed pass a paired t-test with the 13 minimum plots.

#### 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 Anew 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.

### 3.13 Project Data and GHG Emissions Reductions and/or Removals Assertion

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

#### 3.13.1 Baseline Emissions

RCE and FRST confirmed that the baseline emissions were correctly calculated. See more detail in section 3.9.

#### 3.13.2 Project Emissions

RCE and FRST confirmed that the project emissions were correctly calculated.

#### 3.13.3 Emission Reductions

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

RCE and FRST assessed quantitative uncertainty of the emission reduction calculations and the methodologies and applicable data sets and sources. RCE and FRST confirmed that the Project has appropriate measures in place to address uncertainty and that the sampling error associated with the mean of the estimated emission reductions/removals was less than +/-10%. RCE and FRST also confirmed that all defaults, projections, and other data used were correct and consistent with expectations.

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

# 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). Anew 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 ACR684 Anew - Rusk County Forestry 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 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 September 23, 2021 – September 22, 2022 can be considered in conformance with the:

- ACR Standard, Version 7.0 (December 2020)
- 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, January 1, 2024
- ACR Tool for Risk Analysis and Buffer Determination, v1.0
- ISO 14064-3:2006 "Greenhouse gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions"

Table 2 provides a summary of the Emission Reduction Tons (ERTs).

**Table 2. Total ERTs** 

Vintage	Removal ERTs (mtCO <sub>2</sub> e)	Other ERTs (mtCO <sub>2</sub> e)	Ts Reductions and		Risk Buffer (mtCO₂e)	Final ERTs (mtCO₂e)
2021	34,452	37,223	71,675		11,468	60,207
2022	91,299	98,640	189,939		30,391	159,548
Total	125,751	135,863	261,614		41,859	219,755

Note: Totals might not sum due to rounding.

**Lead Validator and Verifier Signature** 

**Internal Reviewer Signature** 

Zach Eyler

**Bonny Crews** 

## APPENDIX A—DOCUMENTS REVIEWED

- 1. ACRGuidance
- 2. RuskCounty\_RP1\_MonitoringReport\_1\_21\_25\_signed
- 3. Carmean\_SiteIndex\_1989
- 4. Chapter100
- 5. Chapter1000
- 6. Chapter200
- 7. Chapter2000
- 8. Chapter300(1)
- 9. Chapter3000
- 10. Chapter400
- 11. Chapter4000
- 12. Chapter500
- 13. Chapter600
- 14. Chapter700
- 15. Chapter800
- 16. Chapter900
- 17. complete table of cont
- 18. Copy of Rusk County Carbon Credit Report series
- 19. RuskCounty\_GHGPlan\_series
- 20. RuskCounty\_ACR\_GHGPlan\_5\_2\_24
- 21. RuskCounty Start SV CO2 series
- 22. Mooney Acquisition Deed
- 23. Rusk County CFL Reports\_52A
- 24. Rusk County Check Cruise Table
- 25. Rusk County Harvest Sample
- 26. Rusk County Harvest Sample Mill Slips
- 27. RuskCounty\_100Yr\_calcs\_series
- 28. RuskCounty\_ACR\_GHGPlan\_06\_02\_23 series
- 29. RuskCounty\_Boundary\_5\_17\_23.shp series
- 30. RuskCounty CarbonPlot Methodology 10 13 22
- 31. RuskCounty\_CCA\_series
- 32. RuskCounty\_CCL\_series
- 33. RuskCounty\_CCO\_SH\_series
- 34. RuskCounty FVS Plots 02 21 2023.csv
- 35. RuskCounty\_GROW
- 36. RuskCounty growthScheduleCalcs 05 08 2023
- 37. RuskCounty\_IndTreeGrowls series
- 38. RuskCounty\_INVENTORYIs.db
- 39. RuskCounty\_PDA\_PDD\_2\_23\_23 series
- 40. RuskCounty Plots 9 28 22.shp
- 41. RuskCounty\_Regeneration\_Calcs
- 42. RuskCounty RMZ 5 17 23.shp series

- 43. RuskCounty\_RP\_ERT\_HWP\_series
- 44. RuskCounty\_RP1\_Harvest\_6\_5\_23.shp.shp series
- 45. RuskCounty\_RP1\_HarvestCheck\_10\_21\_22\_AnewEdits
- 46. RuskCounty\_RP1\_MonitoringReport\_ series
- 47. RuskCounty\_SHW50\_series
- 48. RuskCounty\_SiteIndex\_Calcs\_series
- 49. RuskCounty\_Start\_RP\_CO2\_series
- 50. RuskCounty\_Strata\_5\_17\_2023.shp series
- 51. RuskCounty\_STS50BA10\_series
- 52. SFIWICountyForestcert
- 53. TimberMartNorth\_Vol 28 No 1
- 54. Wisconsin's County Forest Program 2022 SFI FM Public Report
- 55. wss\_SSA\_WI107\_soildb\_WI\_2003\_[2021-09-09]

# APPENDIX B—LIST OF FINDINGS

Includes Corrective Action Requests, Non-Material Findings, Additional Documentation Requests, and Clarification Requests, as necessary.

Corrective Action Request, Non-Material Finding, Additional Documentation Request, or Clarification Request ID#	Finding	Client response	RCE response	Client response	RCE response	Client response	Additional RCE response	Open or Closed
CAR 1	Wisconsin DNR has the Rusk County Forest out of	Rusk County forester has clarified that Rusk Counties SFI certification is unaffected as SFI is aware of the violation and no CARs (corrective action request) or OFIs (opportunity for improvement) have been issued by SFI. We have also requested a guidance from ACR to resolve the issue and guidance was uploaded to the supporting Docs folder. As noted in the guidance email, Section IX of the monitoring report was updated to include the noncompliance issue, and further evidence of back to compliance will be provide to ACR before credit issuance.	Thank you for you for the provided documentation and clarification. Please provide documentation from the last SFI audit that shows no CAR's or OFI's regarding Rusk County's BMP issues or correspondence with SFI confirming that they and/or the most recent SFI auditor is aware of the violation.	The most recent 2022 SFI audit report was added to the supportingDocs folder. There is only one identified OFI which is unrelated to Rusk County's BMP issues.	Thank you for the provided documentation. Upon receiving further guidance from ACR, please provide evidence of remediation of the affected area and proof that Rusk county had created a county ordinance to prevent future BMP issues.	Documentation of ordinances sent via email.	Resolved via email. This item may be closed.	Closed
NM 1	in 'RuskCounty_RP_ERT_HWP_02_21_2023' on the 'Actual_RP1_HWP_Step_1' tab, for Sawtimber entries bark ratio is being incorporated. MBF Scribner Short log is a volume measurement that already excludes bark, no bark ratio correction is needed.	Thank you the formulas in columns J and L have been updated to remove the bark ratio correction.	Thank you this item may be closed.					Closed
NM 2	Please incorporate the appropriate bark ratio correction for pulpwood per Miles and Smith 2009 equations 7, 8, and 9 in the calculation of bark ratio on 'Actual_RPI_HWP_Step_1' of 'RuskCounty_RP_ERT_HWP_02_21_2023'.	Column I heading has been updated to accurately reflect the 1-adjusted bark ratio correction factor by which pulpwood is multiplied.	Thank you this item may be closed.					Closed
ADR 1	Please provide the soils database used in the Site Index	The soils database .zip file has been uploaded to the supporting Docs folder in	Thank you the provided files(s), this item					Closed
ADR 2	quantification.  Upon review of the sampled scale tickets seen on the  'ADR2' tab, sale #2603 has not been able to be confirmed.  Please provide the documentation needed to confirm this  sale	the shared verification folder. Landowner has checked and confirmed sale was fully cut prior to the reporting period 1. It should not have been included in the data that was sent previously and that is why it is not included in the shapefiles. The harvest data sheet is updated in the verification folder to exclude the sale.	may be closed.  Thank you the clarification, this item may be closed.					Closed
ADR 3	The Harvest revenue tab of RuskCounty_100Yr_calcs_02_21_2023.xlsx only contains the baseline 100 year harvest volumes. Please provide a project 100 year harvest volume table.	The current information provided sufficiently demonstrates a financial implementation barrier, as part of the three-prong additionality test in section B4 of the protocol. From the protocol, "When applying the financial implementation barrier test, Project Proponents should include solid quantitative evidence such as NPV and Internal Rate of Return (IRR) calculations". This NPV calculation can be found in the WashburnCounty_RP_ERT_HWP_03_17_23.xisx workbook on the 'Financial_Barriers_Test' tab. Furthermore, the modeled project scenario only constitutes a reasonable estimate of the project scenario used to calculate ERT offset projections. The actual project scenario harvest and associated ERTs will be updated and calculated on an annual basis.	Thank you for this explanation. After review of the provided documentation, independent confirmation of values, and internal discussion, it has been determined that the provided level of analysis meets both the financial barriers test and guidance from ACR. This item may be closed.					Closed
ADR 4	The Financials tab of RuskCounty_100Yr_calcs_02_21_2023.xlsx only contains the baseline 100 year harvest volumes. Please provide the project Cash flow (harvesting only) and Project annual cash flow with Carbon (20 years) tables.	See above	Thank you for this explanation. After review of the provided documentation, independent confirmation of values, and internal discussion, it has been determined that the provided level of analysis meets both the financial barriers test and guidance from ACR. This item may be closed.					Closed

ADR 5	Please provide the reference material to support the equations used in the Stem CO2 column AF of the 'StartDate_Tree_CO2' tab of 'RuskCounty_Start_RP_CO2_02_21_2023'.	These calculations are done in response to the issue that inventory data is degrown to the start date and some of the RP1 harvesting was completed prior to the inventory, which leads to start date stocking lower than actual levels because the stocks removed in RP1 harvests were not accounted for. The solution to this is to estimate the RP1 harvest removal volume that occurred before the inventory and add this value back to the starting stocks. To do this we first estimate the stem CO2e for trees using the whole tree CO2e based on whether species was softwood or hardwood (column AF), then we calculate whole tree to bole ratio (column AG), which is then used to get an average Total/Stem CO2e ratio for all trees greater than 5" DBH (column AH). The value in column AH is then used in the WashburnCounty_RP_ERT_HWP_03_17_23.xlsx workbook on the 'Actual_RP1_HWP_Step_1' tab (cell Q13) where it is multiplied by the before inventory harvest removal CO2 (cell S8) and divided by the project acreage to determine the per acre removals not accounted for by the inventory, which is then added to the Total Live CO2e (tons/acre) for 2021 found on the 'Baseline_Project_40NR_CO2e' tab (cells B3 and B27). The specific species mix that was harvested prior to inventory is unknown, so the whole tree/bole ratio is determined using generic hardwood/softwood calculation which leads to a	Thank you for the provided information, this item may be closed.			Closed
ADR 6	Please provide the material to show that QA/QC field procedures of a 10% check cruise of the inventory as outlined on page 28 of	conservative estimate of the unaccounted for volume.  The check cruise data sheet has been provided in the SupportingDocs folder.	Thank you the provided files(s), this item may be closed.			Closed
	RuskCounty_ACR_GHGPlan_02_22_23.pdf		may be closed.			
ADR 7	Please provide a harvest shapefile(s) or geodatabase where the timber sales are differentiated.	The Harvest shapefile has been uploaded to the Spatial/Harvest folder in the verification folder	Thank you the provided files(s), this item may be closed.			Closed
ADR 8	Please provide soil geodata used for Site Index calcs.	The soils database .zip file, which includes the soils shapefile, has been uploaded to the supportingDocs folder in the shared verification folder.	Thank you the provided files(s), this item may be closed.			Closed
ADR 9	Please provide harvest inspection sheets if possible.	The harvest check data sheet has been provided in the Supporting Docs folder. Only Plot #84 was checked with trees marked as harvested. The county forester confirmed all other plot that intersected with the harvest boundary were harvested before inventory and there was no additional harvest activity on these plots after their establishment.	Thank you the provided files(s), this item may be closed.			Closed
CR 1	In 'RuskCounty_Start_RP_CO2_02_21_2023' on the  'InvDate' tab, what is the reference for the values in the	The temperature data and formulas used to derive the growth schedule is now	Thank you this item may be closed.			Closed
	Monthly tree growth Schedule column?	included in the supportingDocs folder  According to WI DNR, neither species is treated as non-native in WI. Striped	, , , , , , , , , , , , , , , , , , , ,			
CR 2	Tree 19_12 is a striped maple (315) and tree 195_103 is sassafras (931), neither of which are endemic to WI, please clarify.	maple is a Wisconsin Special Concern plant that is native to Wi. Sassafras, though rare today, is also native within the state. This project does not have non-native species used to convert adequately stocked native stands. Therefore, according to the IFM methodology, there should be no concerns of non-native species identified from the inventory.	Thank you this item may be closed.			Closed
CR 3	in the GHG plan and calc workbooks, the strata are defined as Aspen (A), Lowland (L), Northern Hardwoods (NH), and Northern Red Oak (O). However, in the strata shapefile, the strata are NH, A, SH, and O. Please clarify what strata are being implemented in the project. See Tab CR 4 for visual representations.	The strata in the GHG plan and Calc workbooks: Aspen (A), Lowland (L), Northern Hardwoods (NH), and Northern Red Oak (O) are implemented in the project. The strata names in the shapefile was updated to be consistent with the GHG plan and workbooks.	Thank you this item may be closed.			Closed
CR 4	Per the Ireeuata tab of "RuskCounty_Start_RP_CO2_02_21_2023.xlsx' there is one plot that have trees recorded as logged: 84. There are 6 other plots that intersect the "RuskCounty_RPI_Harvest_10_21_22.shp", were these plots rewisited after harvest? Plots 26.56.72.109.237.263.	Only Plot #84 was checked with trees marked as harvested. The county forester confirmed all other plot that intersected with the harvest boundary were harvested before inventory and there was no additional harvest activity on these plots after their establishment.	Thank you this item may be closed.			Closed

CR 5	There appears to be a road partially cut out the harvest shapefile by plot 109. Other unforested areas in the boundary shapefile also appear to have not been cut out. Please clarify.	The "road" was created by the gap between different sales polygons when we merged them, as reflected in the harvest shapefiles where the timber sales are differentiated, which are not actual roads. The unforested areas in the CRS tab top right screenshot is a recent clear cut that will be forested after regeneration in the future. The unforested areas in CRS tab bottom left screenshot were seasonal wetlands ad openings that were historically forested below our 2.5 acres minimal mapping unit. The unforested areas in the CRS tab bottom right screenshot is a power line ROW and is now removed from the project and the boundary shapefile was updated accordingly.	Thank you this item may be closed.			Closed
CR 6	In the intersection of the 'RuskCounty_RP1_Harvest_10_21_22' and 'RuskCounty_RMZ_9_26_22' shapefiles, there are 54.1904 acres of overlap. Please clarify how logging operations were managed to meet BMP	The SMZ layer was designed to conservatively cover more ground than may be necessary for the on-the-ground conditions. It therefore may not reflect on-the-ground conditions found for individual harvests. The landowner has confirmed their harvest boundaries encompass some SMZ areas, but all buffer requirements are met as evidenced by their ongoing forest certification and Wisconsin's Best Management Practices for Water Quality are followed.	Thank you this item may be closed.			Closed
CR 7	Is this project enrolled in any other environmental asset program for non-carbon benefits?	The landowner confirmed the property is not enrolled in any other environmental asset program.	Thank you this item may be closed.			Closed
CR 8	Please clarify the choice of Site Index coefficients from the Great Lakes paper (NC088) and the Eastern US paper (NC128) for balsam fir, quaking aspen, white spruce, white pake and black chery.	The original sources for the coefficients used for the requested species can be found below and were sourced from the Carmean et al. (1989) NC128 paper and has now been added to the supportingDocs folder. The NC128 paper is referenced in the FVS-LS variant overview where it states "Users should always use that site index." From this NC128 paper coefficients were chosen based on the proximity of the sample plots to the project location. While there is significant overlap between NC088 and NC128, based on the variant overview it would be inappropriate to source coefficients from NC088. Balsam Fir. Carmean, Willard H.; Hahn, Jerold T. 1981. Revised site index curves for balsam fir and white spruce in the Lake States.  Balsam Fir. Carmean, Willard H. 1978. "Site Index curves for northern hardwoods in northern Wisconsin and Upper Michigan.  white spruce: Gevorkiantz, S.R. 1957. Site index curves for white spruce in the Lake States black cherry: Carmean, Willard H. 1978. "Site Index curves for northern hardwoods in northern Wisconsin and Upper Michigan.	Thank you this item may be closed.			Closed