Validation and Verification Report

ACR888 Flathead Ridge Ranch Forest Carbon Project

October 18, 2024

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1 INTRODUCTION

Flathead Ridge Ranch, LLC (FRR) contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR888 Flathead Ridge Ranch Forest Carbon Project (Project) for the reporting period of September 26, 2022 – September 25, 2023 and a crediting period of September 26, 2022 – September 25, 2042 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. Greenline Climate (GLC) acts as the project developer for the project proponent FRR. 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 "ACR888_Flathead_GHGPlan20240930 - signed" dated October 1, 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 GLC made any material errors, that these errors were corrected. RCE worked with Forest Resource Solutions and Technologies (FRST) to complete 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, 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 121,246 acres of forestlands in northwest Montana west of Flathead Lake. This property is owned by FRR. The Project ensures long-term sustainable management of the forest.

1.3 RESPONSIBLE PARTY

Project Proponent
Flathead Ridge Ranch, LLC
1500 Solana Blvd., Bldg. 4
Westlake, TX 76262
P. Ryan Langston

Project Developer
Greenline Climate
4023 Kennett Pike #50601
Wilmington, DE 19807
Tim Kramer, Chief Executive Officer

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
Internal Reviewer: Bonny Crews

1.5 VALIDATION AND VERIFICATION CRITERIA

1.5.1 Validation and Verification Standards, Guidelines, and Tools

- 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.2.0, July 2022
- 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.2.0, August 12 2024
- 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 September 1, 2023 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on September 1, 2023.
- RCE and GLC held a validation and verification kick-off meeting on September 6, 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 September 26-29, 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
            - Ben Miller
    - During the site visit, the Verification team met with the following individuals:
        - GLC
            - Eric Jaeschke
            - Maggie Romo
        - American Forest Management
            - Richard Botto
            - Jesse Saunders
        - FRR
            - Caleb Deitz
- 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:
    - GLC – Eric Jaeschke
    - GLC – Santosh Subedi

- RCE submitted requests for corrective actions, non-material findings, additional documentation, and clarifications as necessary to GLC 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 GLC.

3 VALIDATION AND VERIFICATION FINDINGS

3.1 PROJECT BOUNDARY AND ACTIVITIES

The Project entails improved forest management on approximately 121,246 acres of forested lands in western Montana west of Flathead Lake. 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 September 26, 2022 – September 25, 2042.

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 September 26, 2022.
- Minimum Project Term: The minimum project term is 40 years.

- Crediting Period: The crediting period is 20 years as specified by the Methodology, September 26, 2022 – September 25, 2042.
- Real: RCE confirmed that the GHG reductions follow the ACR methodology and are verifiable.
- Emission or Removal Origin: RCE confirmed that FRR 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 FRR, 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 24% 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.
- FRR controls the timber rights on the forestland and can legally harvest.
- The Project property and all associated harvest activity has a Forest Management Plan (FMP) and SFI certification.
- 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.
- FRR 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 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 north, west, and south. Throughout this region forestland is heavily cut, often through shelterwood, and clear-cutting, and is managed to maximize NPV of the asset. Wood products include softwood sawtimber and pulpwood and are distributed to mills throughout this region.

Without the carbon project commitment, the baseline harvest levels could be realized due to increasing pressure in the area to convert forestland into monetary value. 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. GLC 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 24% 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, FRR, 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 GLC 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. GLC and FRR 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 6% discount rate for industrial private 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 across the project area. 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, and selection, with restrictions on rotation ages, retention, and minimum harvest volumes.

GLC utilized the USDA's Forest Vegetation Simulator (FVS) Inland Empire 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 consists of one forested stratum which FRST sampled using a random sampling method.

The current inventory contains 263 permanent, fixed-radius plots. At each plot location, trees were measured in two nested plots: a larger 1/20th acre plot with radius of 26.3 feet, and a smaller 1/150th acre plot with radius of 9.6 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 17 successful plots within the project to successfully verify inventory stocking levels. The Verification Team successfully verified site data after measuring a total of 20 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 GLC 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 (Optimization_outputs) 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 trees 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 GLC 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). GLC 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 Flathead Ridge Ranch 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 September 26, 2022 through September 25, 2023 can be considered:

- GHG-related activity: improved forest management of forest land on the Project area

- GHG statement: 9/26/2022 – 9/25/2023

- 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.2.0, July 2022 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 FRR's effective use of controls related to the GHG statement. RCE concludes that there is sufficient and appropriate evidence to support FRR'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 EMISSION REDUCTIONS / REMOVALS	BUFFER POOL / RESERVE ACCOUNT CONTRIBUTION	NET EMISSION REDUCTIONS / REMOVALS	REMOVALS SUBSET (IF APPLICABLE)	EMISSION REDUCTIONS SUBSET (IF APPLICABLE)
2022	70,110	16,826	53,284	44,946	8,338
2023	193,706	46,490	147,216	124,179	23,037
Total	263,816	63,316	200,500	169,125	31,375

Note: Totals might not sum due to rounding.

Lead Validator and Verifier

Zach Eyler

Internal Reviewer

Bonny Crews

APPENDIX A—DOCUMENTS REVIEWED

1. Inspection Reports - Bobs Bonus
2. Inspection Reports - Elmo Burn Salvage
3. Inspection Reports - Forrey ROW
4. Inspection Reports - In Plain Sight
5. Inspection Reports - Juicebox
6. Inspection Reports - Kessler Cr
7. Inspection Reports - Yellowjacket
8. 2024 MHRA UNABATED VOLUME SUMMARY SHEET
9. MHRA FRR Signed Billing Letter and DS211 2023
10. MHRA Initial Letter_signed_20231219 (003)
11. FRR - Ashley Creek Purchase
12. FRR Purchase from Heidegger
13. FRR Purchase from Lester
14. FRR Purchase from SPP (Flathead Lake Block)
15. FRR Purchase from SPP (LMR, Hubbart, Red Gate, McGregor Blocks)
16. Goode Land Swap
17. Certificate US017185   # Item 1-89I61AC
18. Flathead Ridge Ranch - SIG_MOU_Signed_20220926
19. 2023 Website List ALP Loggers
20. Flathead Ridge Ranch FMP 2024 Updated
21. Forisk North American Forest Industry Capacity Database Update 2022 Q4 Flathead
22. site index equations and curves for the major tree species in british columbia 1979
23. FRR_DevelopmentData_series
24. FRR_DevelopmentDataPlots_series
25. FRR_PlotGridRaw20230516.shp
26. FRR Harvest RP1.shp
27. Keyword_FRR_letgrow_BL_05_08_2024
28. Keyword_Flathead_Regen_withSurv_letgrow_final_05_09_2024
29. Keyword_flathead_50Percent_selection_thinDBH_05_09_2024
30. FRR Product Recap By Setting
31. FRR Product Recap Combined
32. MillReceiptsInExcel_RP1_SS_2024_01_09
33. PC476_F00_FRR_Carbon_Inventory_series
34. PC476_F01_GIS_series
35. PC476_F02_SI_FRR_series
36. PC476_F03_FRR_FVSinput_series
37. PC476_F04_FVSoutput_series
38. PC476_F05_defect_series
39. PC476_F05_DensityAndStructuralLossFactor_09_07_2023

40   PC476_F06_LiveC_InvDate_2023_treeList_series

41   PC476_F06_LiveC_RP0_2022_treeList_series

42   PC476_F07_InvDate_PlotAvgs_series

43   PC476_F07_RP0_PlotAvgs_series

44   PC476_F08_LiveC_RP1_2023_treeList_series

45   PC476_F09_RP1_PlotAvgs_series

46   PC476_F12_Flathead_Optimization_outputs_series

47   PC476_F13_Flathead_NPVcalculation_series

48   PC476_F14_ERTs_v2.0_series

49   PC476_F15_HWPcalcs_RP1_series

50   PC476_F16_Flathead_Inventory_by_PolyID_series

51   SIG-FRR_TreeDataAuditVsCruiserData

52   ACR888_Flathead_GHGPlan20240930 - signed

53   ACR888_Flathead_MonitoringReport_RP1_20240930 - signed

54   Flathead Ridge_SIGNED Carbon Inventory Manual_2023.05.3

55   ACR888 Template for ACR AFOLU Project SDG Contribution Report 20240926

56   ACR888_Environmental and Social Impact Assessment Report_20240926

APPENDIX B—LIST OF FINDINGS

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

Project ID & Name:	ACR 888 Flathead Ridge Ranch
Project Developer:	SIG
Reporting Period:	1
List of Findings version:	7.0

This document is a private working document generated by Ruby Canyon Environmental (RCE) that lists all the material and non-material findings, requests for additional documentation, requests for clarification, and recommendations for improvement in order to complete the project verification. This document will also be provided by RCE to the Climate Action Reserve (CAR) and will be titled "List of Findings". No information in this document

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 'ACR888_Flathead_MonitoringReport_RP1_20240124' there appear to be some issues: The Section V 'Parameter' field for 'Time' has incorrect duration and dates. The Section VI 'Vintage' only lists 2023 despite the project spanning 2022 and 2023.	8	Thanks for the findings regarding the MR. The "Time" parameter has been updated. The development team isn't clear where the discrepancy lies with 'Vintage' in Section VI.7 as both years 2022 and 2023 are listed.	The 'Measurement' field says 2.5 years still. This has been corrected from the previous version (0124) and now shows 2022 and 2023 vintages. This part of the item may be closed.	Thanks for this observation, the "Measurement" field has been updated accordingly.	Thank you for making this change, it has been confirmed. This item may be closed.	Closed
CAR 2	Upon review of the 'ACR888_Flathead_MonitoringReport_RP1_20240516' there appear to be some issues: - In Section IV, 3, there are only 263 plots in the project. - In Section V, 2, there are only 263 plots in the project. - Include the 2.0 Errata and Clarifications. Upon review of 'ACR888_Flathead_GHGPlan20240521' there appear to be some issues: - Table A5.1 the 'forestland' definition references ACR IFM 1.3. - Include the 2.0 Errata and Clarifications. - General Monitoring Method has 266 plots. - E2 has 266 plots. - Discount rate in Sections B and E suggest 6%, but in 'Baseline Harvest Schedule Scenario Overview' it states a 5% discount rate. - Table E1.3 states 'Pine Pulp' and 'Pine Saw' despite the paragraph stating softwood, also, there are other dominant softwood species. - In 'Steps 3 and 4' it states there are two CARB supersections but there is only	8	Thanks for the finding. The following has been corrected: MR and GHG Plan in all locations report the correct plot total of 263. The document "ERRATA AND CLARIFICATIONS IMPROVED FOREST MANAGEMENT ON NON-FEDERAL U.S. FORESTLANDS Version 2.0 " is now referenced and important excerpts are reported in the MR Section VI. 6 and the GHG Plan Section E9. Table A5.1 of the GHG Plan now correctly references the 'forestland' definition from ACR IFM 2.0. Thanks for catching the misreported discount rates, the GHG Plan now reports the correct rate in all locations. Table E1.3 in the GHG Plan now reports "Hardwood" or "Softwood" depending on the wood product group. The terms used are now consistent. Thanks for the observation of the discrepant supersection reporting above Table E1.4 in the GHG Plan, this has now been fixed.	Thank you for making these changes, they have been confirmed. This item may be closed.			Closed
CAR 3	In 'PC476_F14_ERTs_v2.0_2024_07_10' on the 'ERTs' tab the values for Project dead (row 24) from 2024 to 2042 is pulling the dead outputs from the 'BL_40mmbf' tab of 'PC476_F12_Flathead_Optimization_outputs_05_14_2024' instead of the 'Proj_5mmbf' tab. Please correct this error.	4.1	Thanks for the finding. Please see newly provided ERT worksheet where this correction has been made. In addition, a revised GHG Plan with updated Table 8.1 is provided.	Thank you for making this correction. This item may be closed.			Closed
NMF 1							
NMF 2							
NMF 3							
ADR 1	Please provide the inventory methodology/manual.	4.2.2	Apologies, provided.	Thank you for this document, this item may be closed.			Closed
ADR 2	Per section E6. of the GHG Plan, please provide documentation supporting the 5% check cruise of the inventory.	7.1, 7.2	Please see provided check cruise data.	Thank you for providing this document, it has been confirmed. This item may be closed.			Closed
ADR 3	If there was any inventory data recorded prior to incorporation into an electronic database, please provide the cruise cards as requested in the tab 'ADR 3'.	5.2	Electronic data recorders were used and therefore no paper cruise cards can be provided.	Thank you for the clarification, this item may be closed.			Closed
ADR 4	Please provide a copy of Forest Inventory Report No 1 (1979), Ministry of Forest Victoria, BC as referenced in the site index workbook.	4.2	Please see "site index equations and curves for the major tree species in british columbia 1979.pdf."	Thank you for providing this document, the values have been confirmed. This item may be closed.			Closed
ADR 5	Please provide the harvest shapefiles supporting the harvests found in the 'FRR_RP1_Harvest' tab of 'PC476_F15_HWPcalcs_RP1_2024_01_17'. Please include information like date of harvest and silvicultural method applied in the attribute table.	4.2.2	"FRR Harvest RP1.shp" has been provided in response to the finding. Harvest date is only available by year and treatment method has been included.	Thank you for providing this document. Upon review, there are two plots, 83 and 105, that intersect harvest blocks that are 'In Progress' and 'Ongoing' per the shapefile. Please clarify if the treelist provided for these plots is the treelist at the RP end date.	The treelist provided for those 2 plots is for the end of RP1. No plots were impacted by harvesting during RP1. The harvesting was complete before the plots were taken. Plot data reflects the current state.	Thank you for the clarification, it has been confirmed via Sentinel-2. This item may be closed.	Closed
ADR 6	Please provide the updated .out files for the prescriptions as described in the GHG plan. The 'Baseline Harvest Schedule Scenario Overview' states there are let grow, clearcut, and selection prescriptions.	4.1	Please see provided materials.	Thank you for providing this information, additional LoF items will be generated. This item may be closed.			Closed
ADR 7	Please provide the baseline and project stocking calculations to support the selected 'BL_40mmbf' and 'Proj_5mmbf' model silvicultural targets as laid out in 'PC476_F12_Flathead_Optimization_Outputs_12_11_2023'. The 'PC476_F13_Flathead_NPVcalculation_01_24_2024' workbook includes the harvest components, but not the stocking components.	4.1	Thank you for the finding. The PC476_F16_Flathead_Inventory_by_PolyID_03_11_2024.xlsx file contains the stocking for both the baseline and project scenarios.	Thank you for providing this document, additional findings will be tracked in other items. This item may be closed.			Closed
ADR 8	Per 'CR 35' please provide an as-measured plot total workbook.	8	Please see "PC476_F07_InvDate_PlotAvgs_03_11_2023.xlsx."	Thank you for providing this document. This item may be closed.			Closed
ADR 9	Please provide the properties Forest Management Plan.	4.1	"Flathead Ridge Ranch FMP 2024.docx" is provided. The FMP broadly reflects the newer acquisition nature of the property and uses older data.	Thank you for providing this document. This item may be closed.			Closed
ADR 10	Please provide the contact information of the local forest practice inspector.	4.2	Inspection reports are provided in the responses. Emma Merdovich is the contact for the unabated slash program (contact information on the letter). She is new to the state though so it may be more productive if auditors' questions are directed towards her supervisor Marc Vessar. Marc can be reached at mvessar@mt.gov.	Thank you for providing this information, new items may be tracked in other LoF items. This item may be closed.			Closed
ADR 11	Please provide copies of the harvest inspections.	4.2	See folder provided "Inspection Materials".	Thank you for providing this information, this item may be closed.			Closed
ADR 12	Per the 'Flathead Ridge Ranch FMP 2024' document section 6.1, there was a 2021 standing stock of 148,500 MBF with an annual allowable cut (AAC) of 14 MMBF per year, and based off of recent inventory and analysis the standing volume appears closer to 350,000 MBF. Please provide additional documentation to support a 350 MMBF standing stock, including the LiDAR analysis.	4.2	The carbon inventory measured in 2023 is the current most accurate dataset for the property and is one of the datasets available for appraisal and forest management planning purposes. Based on discussions with local forestry staff (FRR and AFM), the previous inventory is at least a decade old and does not reflect the current condition of the forest. The landowner is using the newest inventory data to help inform the forest management plan.	Section 6.1 states, 'In 2023, FRR completed a carbon and LiDAR-based, field verified inventory of the property' as this is an ADR, please provide the LiDAR based component of this analysis as stated and previously requested. If this does not exist, please modify the language.	To avoid confusion, the FMP was revised by the landowner's operations manager to remove reference to the LiDAR based inventory. Please see ""Flathead Ridge Ranch FMP 2024 Updated.pdf".	The mention of LiDAR has been removed from this sentence, but LiDAR is still referenced in multiple sections of this document, including the very next paragraph, and twice in section 5.1. As this LiDAR analysis does not appear to exist, and this FMP is not explicitly a document under the requirements of the standard, this item will be transitioned to a Recommendation for Improvement (RFI), and may be closed.	Closed

ID	Finding	Sec	Response	Verifier Comment	Response 2	Verifier Comment 2	Status
ADR 13	Please provide the 'ACR888_Environmental and Social Impact Assessment Report_20240516' and the 'ACR888 Template for ACR AFOLU Project SDG Contribution Report 20240516' as mentioned in the Appendices section of the GHG Plan.	8	"ACR888 Template for ACR AFOLU Project SDG Contribution Report 20240606.pdf" and "ACR888_Environmental and Social Impact Assessment Report_20240516.pdf" are provided in response to the finding.	Thank you for providing these documents, they have been confirmed. This item may be closed.			Closed
CR 1	Upon review of 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' on the 'TREES' tab column H includes defect percents from 'SIG_FRR_TreeData_09_07_2023' (which has not been provided), where 49 of the 54 values are recorded as percents between 0 - 1. The remaining 5 are whole numbers and include values between 10 and 30. Please clarify. Upon further review, all 5 of these trees are less than 5" and therefore defect will not be quantified as they do not generate a MCuFt value. Please clarify/confirm/remove this junk data from the documentation.	4.2.2	Defect values for these 5 trees have been removed/zeroed out.	Thank you for removing this data, this item may be closed.			Closed
CR 2	Upon review of 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' on the 'TREES' tab column R includes TPA. There are two dominant TPAs, 20.05 and 150.45, but on Plot 1 all the trees have a TPA of 299.8611. Why was this plot and only this plot measured differently?	4.2.2	This was an error. A formula got carried through from a different analysis and was in the TPA calculation cell for this plot. It has been corrected.	Thank you for making this correction. This item may be closed.			Closed
CR 3	Upon review of 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' on the 'TREES' tab there are two dead trees that have not been provided decay classes, 105_6 and 263_17. Please clarify.	4.2.2	These two trees are both subplot trees less than 5" at Dbh. Dead trees should only be recorded on the primary plot and not on the subplot. These two tree records along with another subplot dead tree record have been removed.	Thank you for this information and removing these trees. It has been confirmed, this item may be closed.			Closed
CR 4	In 'PC476_F05_DensityAndStructuralLossFactor_09_07_2023' what is the source of the Standing Dead Decay Ratios used for species 'OS' other or unknown live tree.	4.2.2	These came from the row for Prunus serotina in Appendix D of Harmon et al. - Differences Between Standing and Downed Dead Tree Wood Density Reduction Factors: A Comparison Across Decay Classes and Tree Species - 2011 - RP-NRS-15. The three trees with species code 'BC' were grown in FVS as 'OS' due to black cherry not being native to Western Montana and not being in the Inland Empire variant of FVS. It was suspected they were anomalous and using 'OS' was meant to minimize their contribution. In the updated data these three trees have been coded as 'OH' but still get the Prunus serotina standing dead decay ratios.	Thank you for providing this clarification, there are no longer any species 298/299 in the original inventory. Therefore this item may be closed.			Closed
CR 5	In 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' on the 'TREES' tab there are 106 trees that have a negative 'treeNum' and it appears most of these trees might be site index trees that are off plot, please clarify.	4.2.2	All trees with negative 'TreeNum' values are off-plot trees. The cruisers confirmed this on 9/6/2023 after we asked for clarification. For 101 of the 106, they are site or reference trees. Suitable on-plot trees could not be found. The cruiser used a negative tree number to indicate the tree should not be used in the cruise compilation other than for site index calculation in the case of site trees.	That you for the confirmation, this item may be closed.			Closed
CR 6	In 'PC476_F05 defect_09_06_2023' on the '2022 cubic vols' tab column N is calculating Percent sound as = 1-(value/100). At this time, the referenced 'value' data from 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' column H is already in decimal form, causing the 'Percent Defect' value to be 100 times smaller than intended. Please clarify.	4.2.2	This has been corrected by removing the division by 100. Some data sets we receive have defect percent in integer form and the formula was not updated from a previous analysis.	Upon review of the '2022 cubic vols' tab of 'PC476_F05_defect_09_22_2023' col. N has not been updated. A series of screenshots have been provided in tab 'CR 6' for clarity.	Thank you for checking. We have corrected this in 'PC476_F05_defect_09_23_2023.xlsx' file.	Thank you for making this change, it has been confirmed. This item may be closed.	Closed
CR 7	Per the use of the DRFs there are 5 decay classes (4 distinct values 1-4 as 5 =4), but there are only 3 recorded decay classes. What was the methodology for determining decay class? Were there really no decay class 4 or 5 trees?	4.2.2	We did note the presence of only values of 1, 2, and 3 in the data. The inventory manual lists all five classes and their descriptions. We attributed the lack of 4's and 5's in the data to the very young age of the majority of stands on the property along with the low annual precipitation in the region. It seems reasonable that dead trees would hold their limbs longer than in wetter climates and possibly fall over before dropping them.	Thank you for the additional information, the site visit will determine if this inventory is valid. This item may be closed.			Closed
CR 8	On the 'GrowthCalcs' tab of 'PC476_F08_LiveC_RP1_2023_treeList_09_07_2023' there are 3 trees on plot 207, 6, 7, and 8 that have been calculated using species code OS and numerical code 299. But in 'PC476_F00_FRR_CarbonInventory_09_06_2023' these trees were inventoried with the FIA code of 762 - Black Cherry. Please clarify.	4.2.2	See response to CR4- OS was used as black cherry is not present in the IE variant of FVS. In the updated data these were grown as OH.	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 9	As defect is based off of FVS generated GrossCuFt, there is no quantified defect on hardwoods less than 5" and softwoods less than 6", including decay class, broken top, structural loss, and observable defect. Please clarify/confirm.	4.2.2	Defect is based off of FVS MerchCuFt, and there is no merchantable cubic foot volume on all trees less than 6" (see VOLUME FVS keyword in FVS run details). Decay class, defect, and broken top information are recorded on trees 5.0" to 5.9" as the inventory manual directs, but this information is superseded by the overall plot defect % from the merchantable trees 6.0"+.	In the '2022 cubic vols' tab of 'PC476_F05_defect_09_22_2023' sorting col. L MCuFt by removing all values of '0', there are now DBHs ranging from 5" and up. This seems to contradict the previous workbook, and the developer response to this item. A screenshot has been provided in tab 'CR 9'. Please clarify what has happened to the treelist, and how defect is supposed to work with the supporting workbook.	The default merch spec for the IE variant is 6" for LP and 7" for other species. However, in the keyfile we provided, we specified a minimum DBH of 5" for the merch volume calculation. FVS is generating volume for some 5" classes and not for others. We have used the FVS-calculated merch volume for defect calculation whenever possible	Thank you for the clarification, this approach is valid as FVS is a registry approved model.	Closed
CR 10	Upon review of 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' on the 'TREES' tab and the 'PC476_F04_FVSoutput_09_06_2023' on the 'FVS_TreeList' and 'FVS_TreeList_2023' tabs, there has been a misallocation of data, specifically on plot 240. Per the original data in F00, tree 2 is a 9.3" dead tree and is broken at 10' with a phantom of 35 and there is an unbroken 12.1" dead tree, but in F04, tree 2 is still a 9.3" dead tree but is now unbroken, and the 12.1" tree has a height of 35. This directly impacts the calculation of MCuFt Gross and Net used in the defect calculation document. See the screen captures in the tab titled CR 10, and clarify, why the calculations	4.2.2	Total heights had inadvertently only been included in F00 if they were on broken top trees. A number of total heights were measured on unbroken top trees as well though. These additional measurements were included in F03, the FVS input data, as well as subsequent calculations, and are included in the updated version of F00. There should no longer appear to be this inconsistency between F00 and the later data sets in the analysis. In Plot 240 the measured total height on tree 1 was 35' and the phantom height assigned to tree 2 was also 35'. This combined with the missing unbroken total heights made it look like data got misaligned somewhere.	Thank you for the clarification. This seems reasonable at this time, and this item may be closed.			Closed
CR 11	Upon review of 'PC476_F04_FVSoutput_09_06_2023' on the 'FVS_TreeList' and subsequent tabs, the phantom heights as estimated in the field and recorded in the 'PC476_F00_FRR_Carbon_Inventory_09_06_2023' 'TREES' tab are being ignored for their projected heights and therefore their MCuFt values as used by determining plot level defect. Please clarify why it is acceptable to ignore/overrule field estimated heights.	4.2.2	This has been corrected. In the updated files broken topped trees were grown in FVS with the phantom height as the total height and this is carried through the analysis steps that follow.	Under review.	Please have a look at updated FVS input and FVS output files. We have used phantom heights to grow the trees with broken heights.	Thank you for making this change, it has been confirmed. This item may be closed.	Closed
CR 12	Upon review of the provided boundary and plot shapefiles there are some questions into the use and applicability of the TPA correction method. There are plots within a single limiting distance whose large trees have not been modified including, 21, 80, 252, and 269. And there is one plot that has been corrected for limiting distance that is out of range of a GIS boundary: 174. Screenshots have been provided on the tab titled CR 12. Please clarify, particularly since road cut outs appear to be at issue.	4.2.2	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 21: Plot photos at cardinal directions do not indicate any boundary demarcation, therefore no adjustment was made. Plot 80: See photo "east", the road location suggests it is far enough outside of the plot not to warrant any boundary correction. Plot 252: See photo "south", the road is clearly well outside of the plot and the GIS boundaries reflects a minor offset which is immaterial in acreage allocation. Plot 269: From the photos, it doesn't appear to have any clear boundary demarcation and it was appropriate to measure the plot conventionally where it fell. Plot 174: The plots photos suggest a tree was boundaries and there is a clearing which suggests boundary methods are appropriate to apply.	Thank you for the clarification. Upon review of the provided photos, the verifier has closing comments: Plot 21 is within an extensive rock field and the cruiser would have little context that sections have been removed in GIS. Plot 80 has a road visible, but there is little guidance on cutout width. Plot 252 the GIS is close, but offset from an actual road location. Plot 269 is comparable to plot 21. Plot 174 has a forest boundary delineation, where actual conditions don't match GIS. This item may be closed.			Closed

CR	Finding	Ref	Response	Verifier Response			Status
CR 13	Upon review of the '2022 cubic vols' tab within 'PC476_F05_defect_09_22_2023' plot 271 does not have the appropriate treelist allocated to it. For some reason there are 5 trees, instead of the 2 quantified trees and the single site tree (which should be ignored for carbon purposes). This issue is made clear because there are '#N/A's calculating in col. N, P, Q, R, S of the '2022 cubic vols' tab for the three bad trees on plot 271. A second issue exists at this time, col. N and O on the 'DefectSummary' tabs have an IFERROR equation causing all of the defect that should be quantified to default to 100% sound thus overestimating plot carbon by double. A series of comprehensive screen captures have been included in the tab 'CR 13'. Please clarify/correct both of these issues.	4.2.2	Thanks for finding that. There was a data link issue between the 'SIG-FRR_TreeData_09_07_2023.xlsx' and the F00 file. We fixed this in the revised version, and the F05 and all subsequent files now have all five records for stand 271.	Thank you for correcting the Defect document, it has been confirmed. This item may be closed.			Closed
CR 14	Upon review of the data captured in the 'TREES' tab of 'PC476_F00_FRR_Carbon_Inventory_09_22_2023' there are some trees in question. It appears that a cruiser might have been calculating defect in the field by incorporating broken tops into their defect calculation. Upon review of the inventory methodology, it is unclear if field observable defect ('defectPercent' column) should be based off of what carbon is missing from what is actually standing, or if this value is intended to incorporate field estimated defect for broken tops as well. For example, there is a tree with 85% defect, before considering the broken top of 11' and phantom of 55'. This would imply that of the 11' still standing, 85% of it is defected. A series of these trees has been included in the 'CR 14' tab. Please clarify.	4.2.2	Thank you for this finding. These are the measurements taken by the cruiser in the field. The records in question consist of all dead trees that will not have any meaningful impact on G & Y and potential credit yields and the resulting CO2 calculation is inherently conservative.	Thank you for the clarification, the verifier agrees that it is conservative and that the site visit passed. This item may be closed.			Closed
CR 15	Upon review of the data captured in the 'TREES' tab of 'PC476_F00_FRR_Carbon_Inventory_09_22_2023' there are 11 trees that have broken heights, col. I, but no recorded phantom height, col. J. How is tree defect and broken top defect intended to be calculated with trees like this? A screen capture has been provided on tab 'CR 15'. Please clarify.	4.2.2	There was a data link issue between the 'SIG-FRR_TreeData_09_07_2023.xlsx' file and the 'F00' file. We have resolved this issue in the new 'F00' file. In the new 'F00' file, every tree record with a missing height now has a phantom height	Thank you for correcting this issue, it has been confirmed. This item may be closed.			Closed
CR 16	In 'PC476_F00_FRR_Carbon_Inventory_09_23_2023' on the 'TREES' tab, there is a dead tree that is being double counted. 271_2, a screenshot has been included on the 'CR 16' tab. This is carried forward to final quantification on the F09 document.	4.2.2	The duplicate tree record has been deleted in the PC476_F00_FRR_Carbon_Inventory_03_08_2024.xlsx	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 17	Upon review of the PadUS shapefiles of federal ownership there are overlaps with the project area boundary. This is mostly due to slivers, but there are some substantial overlaps that need clarification (red). See tab 'CR 17' for additional details.	4.1	Thanks for identifying these areas. Using the PADUS dataset for designation, easement, and fee, the project area boundaries were adjusted to ensure no overlap. Please see newly provided development data shapefile.	Thank you for making these changes, it has been confirmed. This item may be closed.			Closed
CR 18	Upon review of an imagery analysis and the 'FRR_DevelopmentData_ParcelsErased_20231114' there appears to be inconsistencies in the classification of roads to be cut out of the project area. Please clarify or modify the shapefile to justify the inclusion or exclusion of the road sections shown in tab 'CR 18'.	3	Thanks for this observation. Attempts were made to remove roads as part of the larger effort to remove nonforest from the project area to adhere to ACR rules. Many of these type of roads remain in the project area which is allowable as part of the sampling frame since a plot could reasonably fall in these locations. Additional clarifying text has been added to the GHG Plan Section B3.	Thank you for the clarification and the modification of B3, it has been confirmed. This item may be closed.			Closed
CR 19	Upon review of the 'FRR_DevelopmentData_ParcelsErased_20231114' shapefile there is a class II stream per the Montana Water Quality Use Class shapefile that has not been classified as an SMZ area. A screenshot has been included detailing the area on tab 'CR 19'. Please clarify.	3	Thanks for identifying this discrepancy. The additional Class II stream was examined for proximity to plots for inclusion as a modeled legal constraint eligible to receive a selection type silvicultural treatment in the baseline. It is approximately 1,000 feet away from the closest plot. No further action was taken.	Although the nearest plot might not be classified as an SMZ, the corresponding acreage available for the baseline and project prescriptions is directly tied to the stratification of SMZ and non-SMZ acres. Please clarify why this area has not been classified as an SMZ.	Thanks for the finding. We ensured the class II stream has been appropriately included as SMZ acreage in line with the finding. Additional acreage has been conservatively constrained to allow for selection or let grow type prescriptions. Please see "PC476_F16_Flathead_Inventory_by_PolyID_05_14_2024.xlsx" for a breakdown of stands receiving treatments. Please see provided updated materials including "FRR_DevelopmentData20240422.shp" and "	Thank you for making this change, it has been confirmed. This item may be closed.	Closed
CR 20	Upon review of the 'FRR_DevelopmentData_ParcelsErased_20231114' shapefile there is a section of road that is listed as owned by Flathead County that has not been removed from the project boundary like other roads. See tab 'CR 20' for additional information, please clarify.	3	Thanks for the finding. Kofford Ridge Road was removed with a 66 foot buffer. Please see newly provided development data shapefile.	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 21	Creating a 30 mi buffer around the project area and intersecting this buffer with the USFS pest aerial datasets there are concerns about the severity and occurrence of affected areas. Please see tab 'CR 21' for additional details, please clarify.	8.1	The USFS aerial survey dataset was obtained by the development team and reviewed. This dataset is conducted by aircraft survey and is relatively coarse, an aggregation of data from multiple sources under various conditions. Recent NAIP imagery (2021) was obtained and on an ocular basis, the vast majority of sites identified for outbreaks do not exhibit any signs suggesting epidemic proportions. It appears there is a high incidence of false positives in the dataset. Please see attachment "CR21_InsectEpidemics.xlsx". Further, acreages are not appropriate to use because "the footprint of total acres damaged may be inflated if the range of severity is not taken into account. To adjust for these potential discrepancies, damaged acres are consolidated and converted into a high severity category labeled "severity-weighted acres" (SWA)," (https://www.fs.usda.gov/foresthealth/docs/fhh/MT_FHH_2022.pdf). The acreages of these primarily endemic damage agents should be adjusted downward accordingly. A closer examination of the historical survey dataset reveals that a vast majority of identified areas from the survey are long-standing, endemic pathogens and threats. The proximity of the 2022 survey sites to older sites may indicate a bias in data collection methods. The dataset is best described as cataloguing endemic attributes or mortality, in other words low level, background effects that occurs every year with natural variation in the species effected due to population dynamics and area of impact. The development team agrees that diseases and pests are present in the project area as part of natural phenomenon's, however, no evidence could be found to indicate that these diseases or infestations have reached epidemic infestation proportions pursuant to the criteria outlined in the ACR risk tool.	Thank you for the clarification, after discussing with the onsite verifiers epidemic levels of pests were not identified. This item may be closed.			Closed
CR 22	Is this project enrolled in any other environmental asset program for non-carbon benefits?	ACR Standard	The project is not currently enrolled in any other environmental asset program for non-carbon benefits.	Thank you for the clarification, this item may be closed.			Closed
CR 23	Please clarify how any easements on property impact baseline harvesting scenarios, including right of ways, hunt clubs, or mineral rights.	4.1	The property does not have any conservation easements. The existing road easements are for right-of-way access and do not impact baseline harvesting. Hunt clubs and mineral rights do not encumber any areas of the project with regard to baseline harvesting, silvicultural methods including clearcutting, thinning, and selection can be employed.	Thank you for the clarification, this item may be closed.			Closed
CR 24	Are there any listed threatened or endangered species on property that need to be accounted for in the baseline modeling prescriptions? How were the plots associated with the Canadian Lynx classified. Please clarify.	4.1	There is a T&E species which has not been recorded but may be present as determined by the Threatened & Endangered Species Active Critical Habitat Report dataset (https://ecos.fws.gov/ecp/report/table/critical-habitat.html) provided by the US Fish and Wildlife Service. This is the Canada lynx. The baseline incorporates a management restriction as selection type silvicultural treatment which ensures habitat features through adequate canopy cover. We have updated the GHG plan to reflect the presence of T&E habitat within the project area. In discussions with the landowner it was clarified that the current status of Canada lynx in MT is that they are handled exclusively at the federal level. There are no mitigation management strategies which private landowners need to undertake.	Thank you for including the language referencing habitat, this item may be closed.			Closed

CR 25	In the 'SI' column of the 'SiteTreeData' tab from the 'PC476_F02_SI_FRR_09_08_2023' why was the maximum allowable site index calculated across species chosen to be 98? Please clarify.	4.2.2	We corresponded via email with the verifier on March 7, 2024, to seek clarifications regarding CR 26. We noticed that 21 plots (1, 7, 9, 14, 19, 35, 38, 66, 69, 82, 90, 92, 94, 98, 118, 145, 148, 165, 166, 234, 245) have site indices greater than or equal to 100', which appears higher than expected for the region. After looking into the FVS IE documentation (Section 3.4 Site Index), we found that the maximum reported site index is listed as 98. This led us to impose a cap on the maximum site index.	Thank you for the clarification, this item may be closed.			Closed
CR 26	In the tab, 'FVS_StandInit' of 'PC476_F03_FRR_FVSinput_09_23_2023' there are 9 plots which do not have site index species or values. They are 15, 34, 50, 68, 138, 195, 202, 219, and 253. Please clarify.	4.2.2	We corresponded via email with the verifier on March 7, 2024, to seek clarifications regarding CR 27. It seems that either site index measurements were not taken during the cruise or the plots lacked trees for site index estimation. In these instances, we have allowed FVS to use the default curve. For example, plots 34 and 50 had only dead trees, and some plots had no tree records at all, indicating that they were not grown for baseline or project scenarios.	Thank you for the clarification, this item may be closed.			Closed
CR 27	In 'PC476_F15_HWPcalcs_RP1_2024_01_17' on the 'FRR_HWP_calc' tab all harvested wood products are being calculated as Softwood. At this time, the 'SS_comment' field in the 'FRR_RP1_Harvest' tab uses the 'mixed species sawlogs' and 'mixed conifer pulp' tags referencing row 2 of the 'FRR_sps_composition' tab for specific gravity, bark percent, and moisture content. Row 2 of the 'FRR_sps_composition' tab cells J2, L2, and N2 included a sumproduct of both hardwood and softwood species. Why are hardwood values being incorporated into a product class of 'softwood sawtimber', particularly when final HWP CO2 is excluding hardwood entirely. Please clarify.	4.2	Hardwood (Hwd) species represent <= 0.45% of the overall species composition in terms of BA (FRR_sps_composition). The weighted moisture content, specific gravity, and bark percent represent this discrepancy between the softwood and hardwood composition in the project area. The mixed species sawlogs category represents ~6450 tons of delivered logs. From the C inventory statistics, 0.45% of that is ~29 tons of hardwood sawlogs. Any impact this will have on the overall HWP calculation can be considered de minimis and it is appropriate to compute HWPs as softwood given the available harvest data. The 'mixed conifer pulp' product category has weighted statistics for specific gravity, moisture content, and bark content derived from the softwood species only.	As this calculation is not a part of the baseline model and the verifier has calculated the difference in HWPs as less than 0.1%, this discrepancy is nonmaterial, and this item may be closed.			Closed
CR 28	The verifier is having trouble recalculating the 'Sum of BA' values for Ponderosa Pine as seen in col. E of the 'FRR_sps_composition' tab in the 'PC476_F15_HWPcalcs_RP1_2024_01_17' workbook. Please clarify the source of this data.	4.2	The source for 'Sum Of BA' values is PC476_F00_FRR_carbon_inventory_03_11_2024.xlsx. Tab: Species Comp	Thank you for the clarification, this item may be closed.			Closed
CR 29	Upon review of 'FVS_StandInit' of 'PC476_F03_FRR_FVSinput_09_23_2023' and a comparison made by the verifier, there are plots that appear to be provided with the incorrect FVS location code. See tab 'CR 29' for the complete list. Please clarify.	4.1	Thanks for the finding. We have made the recommended changes in the revised FVS input file.	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 30	In the 'HWPs' tab of 'PC476_F14_ERTs_Baseline_40mmbf_01_24_2024' there appears to be a blending of methods for calculating Baseline/Project HWPs CO2 in cells C13:C16 and G5:H5. This appears to deviate from the methods in the 'PC476_F15_HWPcalcs_RP1_2024_01_17' workbook. Please clarify.	4.1	Thank you for this finding. We note that in this region the mill efficiency rates are the same between softwood pulp and softwood saw. Therefore, blending them in both the baseline and project scenarios doesn't alter the HWP calculation.	If the updated document versions hold to this, this item may be closed, but will remain open until calculations are finalized.	Please see newly provided revised materials, HWP mill efficiency calculation methods were not altered.	Thank you for the confirmation. This item may be closed.	Closed
CR 31	In the 'BL_40mmbf' tab of 'PC476_F12_Flathead_Optimization_Outputs_12_11_2023' there is a baseline harvest of 'Hardwood_mbf harvest volume' in the 26th year of the project. How is this harvest incorporated into the baseline model and NPV analysis, please clarify. In the same vein, a stemwood CO2 value has not been generated for baseline/project hardwood volume.	4.1	Thank you for the finding. The revised optimization output files have corrected this issue.	Now there is a hardwood harvest in the 20th period, and there still isn't a stemwood CO2 value for quantification. Is this value being ignored for baseline HWPs?	Thanks for the finding. This has been fixed in "PC476_F12_Flathead_Optimization_outputs_05_14_2024.xlsx."	Per the most recent model there is no hardwood harvesting in either the baseline or project models that are quantified. This item may be closed.	Closed
CR 32	Upon review of 'PC476_F13_Flathead_NPVcalculation_01_24_2024' workbook on the 'Economics' tab the values captured in B5:B11 do not match the Western Montana table of the referenced source, https://www.bber.umt.edu/pubs/forest/prices/sawlog2023q3.pdf. In particular, species AF, DF, ES, and LP. Please clarify.	4.1	Thanks for this observation, the pricing assumptions have been updated in the latest NPV calc worksheet. In addition, haul distance was revised to 1.5 hours to better reflect actual conditions.	Thank you for incorporating the changes, they have been confirmed. This item may be closed.			Closed
CR 33	Upon review of 'PC476_F13_Flathead_NPVcalculation_01_24_2024' workbook on the 'Proj_5mmbf' and 'BL_40mmbf' tabs in the 'TimberRev' column (L) the revenue used is the value $120 from the 'StumpageDisc' cell A2. This appears to contradict the analysis done on the 'Economics' tab and the calculated Net Revenue /MBF value (B22). Please clarify.	4.1	Thanks for this note, the revenue assumption has been updated in the latest NPV calc worksheet to reflect	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 34	In the 'PC476_F14_ERTs_baseline_40mmbf_01_24_2024' document on the 'ERTs' tab, the values in the ACR Parameters section cells E13:E14 are currently representative of degrown inventory data. ACR methods prescribe 'as-measured' inventory statistics. Please clarify.	8	Thanks for the finding. This change has been made.	Thank you for updating the live value to the latest as-measured stats, unfortunately the dead value is hard coded and not reflective of the current as-measured dead stats. Please clarify.	Thanks for flagging. In the newest iteration of the ERT worksheet v2.0 we have ensured uncertainty values are pulled from inventory-as-measured statistics.	Thank you for making this change, it has been confirmed. This item may be closed.	Closed
CR 35	Upon review of the quant set with the dates of 9-23-2023 and 9-7-2023, it does not appear that the shapefile 'FRR_DevelopmentData_ParcelsErased_20231114' total acreages have been incorporated. Please clarify/correct.	3	Acreages have changed as a result of other findings. Please see associated findings and materials.	Thank you for incorporating all of the changes, they have been confirmed. This item may be closed.			Closed
CR 36	Upon review of the 'Keyword_FRR_letgrow_BL_03_11_2024', 'Keyword_Flathead_Regen_withSurvival_letgrow_final_03_11_2024', and 'Keyword_flathead_50Percent_selection_03_11_2024' .out files, there is an FVS Warning for ecoregion not recognized and is defaulting to the default code. Please clarify.	4.2	Thanks for this observation. With the new modeling runs the FVS warnings have been fixed. Please see newly provided files.	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 37	Upon review of the 'Keyword_flathead_50Percent_selection_03_11_2024' .out file and the Table E1.2. Baseline prescription specifications' table of the 'ACR888_Flathead_GHGPlan20240325' it appears there is a minimum stocking standard of 4 MBF /acre needed for the selection prescription, which the .out file does not appear to support. See tab 'CR 37' for more details. Please clarify.	4.2	Thanks for the finding. Only two prescriptions are applied to stand IDs on RMZs. The first is the selection cut, and the second is the let-grow. If a stand reaches a basal area of 120 sqft, then the thinDBH keyword is used to model the selection cut on FVS. The selection cut removes <=50% of trees in the DBH class. When the yield file from FVS is fed into Woodstock, we added a criterion in the Woodstock model that only allows the selection cut if >= 2 MBF of softwood volume is available for removals. If a stand isn't selected by the solver for selection thinning, then it receives the let-grow rx. This method is inherently conservative. We have updated the GHG plan to reflect these changes.	This altered prescription appears to meet the GHG plan and the modified constraints from item 'CR 39'. This item may be closed.			Closed
CR 38	Upon review of the SMZ guidance from the state of Montana and the language in 'ACR888_Flathead_GHGPlan20240325', there appears to be a discrepancy in modeling targets. Class 1 and Class 2 streams should 'Retain at least 50% of the trees >=8 inches DBH on each side of the stream or 10 trees per 100-foot segment, whichever is greater' but the prescription is currently a thin from above to 50% BA. The BA in FVS is not necessarily only merchantable timber (>=8"), so there are instances where the equivalent of high grading is being modeled in the SMZ. See tab 'CR 38' for more information. Please clarify.	4.2	Thanks for the finding. We have made the recommended changes in the FVS modeling to retain at least 50% of the >=8" class in the selection Rx using the thinDBH keyword.	Thank you for making this change, it has been confirmed. This item may be closed.			Closed
CR 39	After review, there are harvest inspections for the Forrey ROW harvest, which do not correlate to a location on the shapefile. Where was this harvest, please provide updated documentation to support this. There is also a harvest being quantified in the 'FRR Product Recap By Setting' document called 'Tines Up' which does not have a corresponding block on the shapefile, nor Inspection reports. Please clarify.	5.2	The Forrey ROW project was a state timber permit (not on FRR lands) where we purchased the permit to remove right of way trees of MT state lands in our roadway and sell them to offset road building costs. That data should have been removed from the file for the carbon project and we apologize for not catching it. The Tines up data is from a timber sale that was harvested outside of RP1 but some products were cold decked (left through spring breakup) and shipped during RP1. This occurred due to a lack of available trucking and poor road conditions. Per the local Forester on site - If memory serves the total volume that was hauled during RP1 was very minimal.	If the Forrey ROW is to be excluded from the carbon project, please remove it from the current file structure. The Tines data if harvested outside of RP1 is not included within the quantified HWPs, correct? Please clarify.	The Forrey ROW harvest inspection reports were removed from the externally shared verification DropBox folder provided to avoid future confusion. The Tines data is actually included in harvested wood product accounting for RP1 because the material was left onsite until pickup and subsequently delivered to the mill during the reporting period. Once they were delivered to the mill, they were weighed and milled for further processing. We believe this is the most appropriate method to handle this single, immaterial load of logs.	Thank you for removing 'Forrey ROW' from the documentation, it has been confirmed. The Tines Up harvested wood products come from trees harvested from the property before the project start date, but their quantities amount to 0.1% of HWPs this reporting period. Therefore this may be considered nonmaterial and ignored.	Closed
CR 40	Upon review of 'PC476_F13_Flathead_NPVcalculation_03_20_2024' on the 'BL_40mmbf' tab the sum of each periods 'softwood stemwood co2 harvest volume' quantities add up to a different value than the 'BL_40mmbf' tab of 'PC476_F12_Flathead_Optimization_Outputs_03_11_2024'. Please clarify.	4.2	Thanks for this observation. The total softwood stemwood volumes now match between the worksheets where they are used.	Thank you for correcting these documents it has been confirmed. This item may be closed.			Closed

CR 41	Per the 'Flathead Ridge Ranch FMP 2024' document section 6.1, there was a 2021 standing stock of 148,500 MBF with an annual allowable cut (AAC) of 14 MMBF per year, and based off of recent inventory and analysis the standing volume appears closer to 350,000 MBF. The Baseline model is projecting 40 mmbf /year of harvest for the first 8 years of the project. Proportionally, the AAC by the FMP was 9.4% of standing stocks, but the proposed cut for the carbon project is 11.4% of standing stocks. As a 2024 FMP has not been generated providing guidance on an annual allowable cut, please clarify how a relative increase in harvested stocks by 20% each year follows the principal of conservatism.	4.2	The property AAC would allow for harvest of up to ~17MMBF/year in a sustainable 10 year average harvest. Given the land base history under other owners sustainable harvest was not a traditional management regime. It is not unreasonable to reduce all stocking in order to establish a new cohort of forest, which is better suited to current product breakdowns early in the ownership of a forested parcel. E.g. the landowner could remove all planted ponderosa pine stock and replace it with a more marketable western larch/Douglas-fir species mix. Under a strict fiscal forest management policy this would be a reasonable strategy. 24 StandIDs, totaling 11064.24 acres of potential Canadian Lynx habitat, were left untouched in the baseline model, demonstrating conservatism. The baseline is reflective of historical harvest conditions on the property. Anecdotally, actual historical harvesting was more intense and sustained than the baseline model over a longer period of time. The conservative baseline model appropriately included sideboards as well; limiting harvesting to far less than legally permissible, incorporating best management practices, and consideration of merchantability standards of wood products, among others.	The documentation suggests up to 16.4 MMBF per year after 20 years not 17 MMBF, but that is associated with growth of the standing stocks to support this level of harvest in time. As the proposed baseline cut is less severe than previous cuts on the property and total standing stocks are reduced by only 34.7% of start stocks at maximum, and only 23.1% as compared to the 20-yr average baseline, this baseline appears to be reasonable. This item may be closed.		Closed
CR 42	Upon review of the 'FRR_sps_composition' tab of 'PC476_F15_HWPcalcs_RP1_2024_01_17' the basal area composition in cells E:F (DF, LP, WL) do not match the basal area composition as seen in the 'Species Comp' tab of 'PC476_F00_FRR_Carbon_Inventory_03_11_2024'. These values are used to calculate harvested wood product variables in both the Actual and Baseline. Please clarify.	4.1	Thanks for the finding. The development team compared the basal by species composition and found them to match between the two worksheets. Clarification is requested as to the source of the discrepancy.	Upon further review the values captured in the 'FRR_sps_composition' tab of F15 are based off of the as-measured inventory which has been verified. There is still a discrepancy between the two previously mentioned tabs, please see the tab 'CR 42' for screen captures of the current versions as seen on the dropbox. Color coded boxes have been provided to clearly show the variation in values. As ACR does not require an explicit breakdown of species composition by BA in the GHG Plan/MR, and the inventory specific composition being utilized in the HWPs is confirmed, this item will transition to a Recommendation for Improvement (RFI), and may be		Closed

1	Per CR 43, please correct the 'Species Comp' tab of 'PC476_F00_FRR_Carbon_Inventory_03_11_2024' to match the as-measured finalized dataset.
2	Per ADR 12, please remove all references to a LiDAR analysis that was never completed from the Updated 2024 FMP.