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Offset Verification Report

Green Diamond Resource Company/Peak Carbon LLC –
Humboldt Mixed Forest Improvement Project
CAR1339 / CAFR6339

Reporting Period:
November 1, 2021 – October 31, 2022

Prepared for:

Peak Carbon LLC

&

Green Diamond Resource Company

May 13, 2024

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1.0 Introduction

Ruby Canyon Environmental, Inc. (RCE) and FRST Corp (FRST) were contracted to perform the verification of the CAR1339 / CAFR6339 Green Diamond Resource Company/Peak Carbon LLC – Humboldt Mixed Forest Improvement Project (Project) for the reporting period 4 from November 1, 2021 to October 31, 2022 to the California Air Resource Board's (ARB) Compliance Offset Protocol for U.S. Forest Projects (June 15, 2015) (Protocol). Finite Carbon (Finite) served as a technical consultant to the Project. RCE is an accredited verification body (H2-19-008) under the California Cap-and-Trade Program and this verification was conducted under Regulation requirements in addition to the requirements of the Protocol. The Project is currently listed on the Climate Action Reserve (Reserve), an ARB-approved Offset Project Registry (OPR). This verification is for the Project's fourth reporting period.

RCE teamed with FRST as subcontractors to assist in the completion of this verification. During the course of the verification Ruby Canyon Environmental as well as FRST completed a legal integration with TÜV SÜD America, Inc.

1.1 Project Background & Site Description

The Project entails improved forest management (IFM) on 33,217.5 acres in Humboldt County, California. The Project area consists of industrially-managed forestlands dominated by forests native to the region primarily including tanoak and Douglas fir as well as other native conifers and hardwoods.

1.2 Responsible Parties

<u>Offset Project Operator (OPO)</u>
Green Diamond Resource Company
1301 Fifth Avenue, 27th Floor
Seattle, WA 98101

<u>APD</u>
Peak Carbon LLC (Peak Carbon)
1000 Second Ave Ste 3200
Seattle, WA 98104

<u>Technical Consultant</u>
Finite Carbon (Finite)
435 Devon Park Drive, 700 Building
Wayne, PA 19087

1.3 Verification Team

The Verification Team consisted of the following individuals:

Lead Verifier, Project Specialist, Professional Forester: Christian Eggleton, FRST (CA RPF ID: 3073, ARB ID: H2-18-220)
Biometrician: Andrea Eggleton, FRST (CA RPF ID: 3003, SAF CF ID: 169646, ARB ID: H2-20-194)
Professional Forester (for purposes of site visit for RP5): Noam Knopf-Boyer, FRST (CA RPF ID: 3136)
Project Specialist (for purposes of site visit for RP5): Andrew Russo, FRST (ARB ID: H2-24-252)
Team Members: Zach Eyler, RCE (H2-19-116), Tim Facemire, FRST (ARB ID: H2-20-248)
Independent Reviewer: Bonny Crews, RCE (ARB ID: H2-19-113)

1.4 Objectives

The goal of the verification activities was to ensure that the OPO's total reported GHG reductions are free of offset material misstatement (as defined in the Regulation §95802(a)(244)), and that the Forest Project Monitoring Report and the Offset Project Data Report (OPDR) conform to the requirements of the Protocol and the Regulation.

1.5 Scope

The scope of the verification consisted of the following independent and objective activities:

- Review the Project documentation against the Verification Criteria listed in Table 1 and develop a verification plan and sampling plan
- Review Project ownership documentation
- Review Project eligibility
- Check calculation results and methods to assess the correctness of the emission reductions from sequestration activities
- Desktop Verification Activities:
    - Review data management and monitoring systems
    - Check calculation results and methods to assess the correctness of the baseline and emission reductions claimed
    - Review records and additional documentation (permits, legal documentation, harvest support data, etc.)
    - Assess Project for compliance to the Protocol and the Regulation
    - Review Offset Project Data Report for compliance to the Protocol and the Regulation
- Submit requests for corrective actions, non-material findings, additional documentation and clarifications, as necessary, and document all items in the Issues Log; and,
- Issue an Offset Verification Report (OVR), Issues Log, and Offset Verification Statement (OVS) to the OPO/TC and Reserve.

1.6 Verification Criteria

Table 1 – Verification Criteria

Criteria	Details
Standard of Verification	• Compliance Offset Protocol for U.S. Forest Projects (June 15, 2015) • Final Regulation Order, Subchapter 10 Climate Change, Article 5, Title 17, California Code of Regulations, Sections 95800-96022 (April 1, 2019)
Guidance Documents	• ARB Technical Guidance for Offset Verifiers Verification of Offset Project Data Reports (October 2013) • Compliance Offset Program for U.S. Forest Offset Protocol Frequently Asked Questions (October 29, 2013)
Level of Assurance	Reasonable assurance
Inventory Minimum Quality Standard	Inventory must pass the sequential sampling requirements found in Section 10 of the Protocol.
Offset Material Misstatement (ARB)	A discrepancy, omission, misreporting, or aggregation of the three, identified in the course of offset verification services that leads an offset verification team to believe that an OPDR contains errors resulting in an overstatement of the reported

	total GHG emission reductions or GHG removal enhancements greater than 5 percent. Forest Projects are not eligible to receive a qualified positive verification statement.

2.0 Verification Activities Summary

As the first step in verification activities, RCE developed a verification plan (Appendix A) to be followed throughout the verification. The verification plan consisted of the following activities:

- RCE submitted the COI and NOVS forms to Reserve, ARB and the OPO on October 17, 2023. Reserve approved the forms on November 1, 2023. RCE submitted revised forms during the verification process.
- RCE/FRST held a verification kickoff meeting on November 2, 2023. This meeting was the start of verification activities and was after the OPDR was submitted. During the kickoff meeting, RCE reviewed the verification objectives, verification process, and the verification schedule. This meeting was attended by:
    - FRST
        - Christian Eggleton
    - Peak Carbon
        - Dan Barry
    - Finite Carbon
        - Brandon Vickery
        - Cat Carlisle
- RCE/FRST held a verification closing meeting on April 29, 2024. The meeting was attended by:
    - FRST
        - Christian Eggleton
    - Peak Carbon
        - Dan Barry
    - Finite Carbon
        - Cat Carlisle
- The Verification Team performed a strategic review and risk assessment of the received data and support documents in order to understand the scope and areas of potential risk in the GHG emissions reductions. Specifically, the Verification Team determined the following risks:

Table 2 – Risk Identification

#	Identified areas of risk:	Qualitative narrative for reason that risk exists	Level of Risk (high, med, low)
1	Data acquisition equipment	Risk is more related to human error/inconsistencies in using measuring equipment (clinometers/ dbh tape, etc.) than in the equipment itself.	Medium
2	Data sampling and frequency	Plot data must be updated on a 12-year basis, or up to 18-years given certain restrictions.	Medium

3	Data processing and tracking	Data tracking is complex and involves several steps. Info taken by hand in electronic devices, transferred into databases and excel, which is transformed into CO2 data through calculations	Medium
4	Project baseline and annual GHG emissions, GHG reductions, and GHG removal enhancement calculations	Were calculations performed according to Protocol equations?	Medium
5	Data reporting	Has the project provided all the required documentation for verification to the OPR and ARB?	Low
6	Nat. forest mgmt. requirements	Must meet NFM requirements provided in protocol.	Low
7	Sustainable harvest requirements	Forestry only. Harvests are ongoing, must meet SFM. Third-party certification of these timberlands results in a low risk.	Low
8	Management policies or practices in developing Offset Project Data Reports	Does the report contain any material misstatements? Does it contain all required sections?	Medium
9	Regulatory Compliance	Were there any violations during the reporting period?	Medium
10	Harvesting	The Project includes active harvests and needs to ensure the final use of harvested wood products is a GHG reservoir for sequestration. Updates to the standing stock inventory due to harvesting must be in accordance with COP.	Medium

- Pursuant to §95977.1(b)(3)(G)(2) of the Regulation, the Verification Team developed a ranking of GHG emissions sources, GHG sinks, and GHG reservoirs (SSRs) within the offset Project boundary by percent contribution to total CO_2e emissions, GHG reductions, and GHG removal enhancements. The Verification Team also ranked GHG emissions sources, GHG sinks, and GHG reservoirs by calculation uncertainty. RCE used these rankings to target areas for document reviews and data checks. The methods of the reviews and checks were noted, and the information analyzed was summarized in the sampling plan. The full SSR table in the sampling plan can be found in Appendix B.
- Pursuant to §95977.1(b)(3)(G) of the Regulation, RCE developed a risk-based sampling plan based upon the strategic review and risk assessment. The verification plan and sampling plan were used throughout the verification and were revised as needed based upon additional risk assessments.
- The Verification Team reviewed a variety of documents and files provided by Peak Carbon and Finite throughout the verification process. These documents were provided at the start of verification activities or were provided to RCE in response to items noted in the Issues Log. All documents and files reviewed by the Verification Team as part of the verification can be found in Appendix C. RCE retains sampling plans for a minimum of 15 years, per §95977.1(b)(3)(K) of the regulation.

- Pursuant to §95977.1(b)(3)(D)(2)(f) of the Regulation, the Verification Team performed a comprehensive desk review of the submitted verification documents and relevant regulations and to confirm that the Project complied at all times with all local, state, or federal environmental regulatory requirements, including health and safety regulations.
- Pursuant to §95977.1(b)(3)(L), the Verification Team performed data checks (more detail on data checks performed is provided in following report sections). The minimum data checks pursuant to section 95977.1(b)(3)(L)(3) were completed.
- Pursuant to §95977.1(b)(3)(O) and 95977.1(b)(3)(M) of the Regulation, the Verification Team submitted corrective action requests (CARs), non-material findings (NMs), additional documentation requests (ADRs) and clarification requests (CRs) to Finite as necessary throughout the verification and all requests are documented in the Issues Log.
- Pursuant to §95977.1(b)(3)(R)(2) of the Regulation, RCE's Independent Reviewer conducted a review of all verification activities, verification sampling, data checks, verification Issues Log, OVR, and OVS. The Independent Reviewer maintained independence from the offset verification services prior to conducting the review.
- The Verification Team produced a final OVR and OVS.
- Pursuant to §95977.1(b)(3)(D)(4)(d) of the Regulation, RCE held a verification exit meeting with Peak Carbon and Finite.

3.0 Project Overview

3.1 Assessment of the GHG Reduction Project Operations

The Project entails improved forest management (IFM) on 33,217.5 acres in Humboldt County, California. The Project area consists of industrially-managed forestlands dominated by forests native to the region primarily including tanoak and Douglas fir as well as other native conifers and hardwoods.

3.2 GHG Project Boundary (sources, sinks and/or reservoirs)

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. Secondary effects made up of un-intentional GHG emissions from the Project (e.g. harvest leakage to non-Project lands) are also taken into account. Net GHG reductions and removals for each year are the sum of the Project's primary and secondary effects.

According to the Protocol, carbon dioxide (CO_2) is the only GHG considered within the boundary for the baseline and Project activities. Table 3 lists the sources of GHG emissions that RCE confirmed during the verification of the Project as required by the Protocol and §95977.1(b)(3)(D)(2)(a) of the Regulation.

Table 3 Project GHG Sources, Sinks, and Reservoirs for IFM Projects

Activity	GHG Sources, Sinks & Reservoirs
Baseline	• IFM-1: Modeled standing live carbon (CO_2) in all portions of living trees. • IFM-3: Modeled standing dead carbon (CO_2) in all portions of dead, standing trees. • IFM-7: Modeled estimates of carbon (CO_2) in in-use forest products (100-yr average).

	• IFM-8: Modeled estimates of carbon (CO_2) from forest products stored in landfills (100-yr average). • IFM-17: Biological emissions from decomposition of forest products.
Project	• IFM-1: Measured standing live carbon (CO_2) in all portions of living trees. • IFM-3: Measured standing dead carbon (CO_2) in all portions of dead, standing trees. • IFM-7: Estimates of carbon (CO_2) in in-use forest products (100-yr average). • IFM-8: Estimates of carbon (CO_2) from forest products stored in landfills (100-yr average). (Included as harvesting is below the baseline) • IFM-14: Biological emissions from changes in harvesting on forestland outside the Project area (default 20% leakage). • IFM-17: Biological emissions from decomposition of forest products.

3.3 Project Type – Improved Forest Management

The Project meets the definition and requirements of an IFM Project as specified in the Protocol. It meets the requirements because:

1. The Project takes place on land that has greater than 10 percent canopy cover.
    a. This was verified through on-site reconnaissance during the verification site visit for RP5, review of aerial photography, and verification sampling of the inventory.
2. The Project employs natural forest management practices, as defined in the Protocol.
    a. See Sections 4.6 and 4.7 of this report for documented verification of this requirement.
3. The Project does not employ broadcast fertilization.
    a. The APD has attested to this in the Initial OPDR. Further, FRST witnessed no evidence of broadcast fertilization during the RP5 verification site visit.

4.0 Eligibility Rules and Other Requirements

The Protocol specifies eligibility rules and other requirements that a Forest Project must meet in order to register reductions with ARB: Additionality, Offset Project Commencement, Project Crediting Period, Project Life and minimum Time Commitment, Project Location, Regulatory Compliance, Sustainable Harvesting Practices, and Natural Forest Management. The Project meets all the rules specified in the Protocol. Below is a summary of the Project's compliance to each requirement.

4.1 Additionality

IFM Projects are considered additional if they meet the legal requirement and the performance tests. The Legal Requirement Test requires that forest Projects achieve GHG reductions and removals beyond those that would result from state, federal or local laws, regulations and ordinances. There are no legal requirements requiring activities that maintain or enhance forest carbon stocks in California. By passing the Protocol's legal requirement test, the Project also meets the regulatory additionality requirements pursuant to §95973(a)(2)(A) of the Regulation.

The Performance Test requires all Improved Forest Management Projects to achieve GHG reductions and removals beyond those resulting from "business as usual" activities defined in the Protocol. Under the Protocol, all IFM Projects that meet the requirements for baseline estimation pass the performance

standard test. This Project meets the Protocol baseline estimation requirements (see Section 6.1 of this report), so the Project passes the performance test.

4.2 Offset Project Commencement, Crediting Period and Project Life

The Project was initially listed with the Reserve on May 1, 2019, which is a qualifying action for offset project commencement. The Project was never previously registered as an early action project. Project crediting period and Project life are tied to the initial reporting period under the Compliance Protocol and the Project's crediting period is 5/1/2019 to 4/30/2044.

4.3 Project Location and Project Area

RCE/FRST verified that the Project is located in Humboldt County, California. RCE/FRST also reviewed maps submitted to the OPR as part of the Application for Listing documentation to confirm that the maps provided meet Protocol requirements.

4.4 Regulatory Compliance

Section 3.7 of the Protocol and §95977.1(b)(3)(D)(2)(f) of the Regulation require that all Projects follow applicable laws during all periods for which they attempt to claim credit. FRST confirmed that the Project received no violations during the reporting period through a review of EPA ECHO and OSHA databases. Additionally, FRST also confirmed the Project's regulatory compliance through a data request from the California Department of Forestry and Fire Protection.

OSHA and California Forest Practice Rules violations were identified, however, it was confirmed that none were associated with the Project.

4.5 Forest Owner & OPO

RCE/FRST reviewed deeds and documents demonstrating Green Diamond Resource Company's (GDRCo) ownership of the Project land, thus documenting they had the authority to operate as the OPO.

4.6 Sustainable Harvesting Practices

The Protocol requires that, at the time commercial harvesting is either planned or initiated within a Project area, that the Project meets certain sustainable harvest requirements. The verification team confirmed that GDRCo has maintained Forest Stewardship Council (FSC) (FSC-C110720) certification during the reporting period.

4.7 Natural Forest Management

The Protocol requires that all Projects promote and maintain a diversity of native species and utilize management practices that promote native, natural forests diverse in structure, species composition and age class.

RCE/FRST confirmed that the Project meets the native species requirement that forest projects must consist of at least 95% native species based on a review of the inventory tree list. Additionally, RCE/FRST confirmed the Project has met the requirement that no single species exceeds the "Species Diversity Index" value "measured as the percent of the basal area of all live trees in the project area" as quoted from the 2015 COP. However, the project acknowledged in the RP1 Annual OPDR and in subsequent OPDRs that the Species Diversity Index value is exceeded if the analysis is isolated to the Northern California Coast Assessment Area.

RCE/FRST confirmed that the Project meets the "Distribution of Age Classes/Sustainable Management" requirement in Table 3.1 of the Protocol through third party certification as discussed in section 4.6 of this report.

RCE/FRST confirmed that the Project meets the requirement for age distribution during the site visit for this reporting period, aerial imagery, and an analysis of stand age provided as a part of the RP1 verification which was updated for this reporting period.

Finally, RCE/FRST confirmed that the Project meets the requirements for diversity of natural structural elements across the forested landscape, manifested by maintaining sufficient levels of standing and lying dead wood. The Project demonstrated that current standing dead stock is 2.2 mt C/acre and 2.5% of standing live carbon stocks, meeting the Protocol requirements.

4.9 Balancing Age and Habitat Classes

RCE/FRST confirmed that the Project area meets the requirements of COP 3.1.a.(4) including even-aged silvicultural practices, as defined in the 2015 COP, on stands >40 acres. This is achieved by no even-aged harvest exceeding 40 acres and those harvests being separated by at least 300 feet in all directions. Clearcuts >40 ac are prohibited by the CA Forest Practice Rules and are monitored by the CA Department of Forestry and Fire Protection (CALFIRE). Stocking requirements in the 2015 COP are commensurate with the CA Forest Practice Rules and compliance is also monitored by CALFIRE. In addition to review of harvest areas on the site visit, assessment of silvicultural methods as identified in publicly available GIS data provided by CALFIRE, FRST also requested all CALFIRE-issued violations potentially associated with the project area. After reviewing numerous reports as listed in the data checks, it was confirmed that none were either associated with the project area or reporting period.

5.0 Interviews

RCE and FRST held a number of interviews with Finite Carbon throughout the verification process. Discussions included an overview of their data management system, their inventory calculations, and modeling, pursuant to §95977.1(b)(3)(D)(2)(b) and §95977.1(b)(3)(D)(2)(c) of the Regulation. These overviews enabled the Verification Team to undertake an independent review of their modeling procedure, inventory process and calculations. These interviews allowed FRST to ground-truth elements of inventory data management and modeling, Project management, non-Project activities that may affect carbon stocking, and application of the inventory field methodology.

6.0 Quantitative Review of Emission Reductions/Removals Enhancements Assertion

Pursuant to §95977.1(b)(3)(L) of the Regulation, several elements of the Project were reviewed by RCE/FRST to ensure Project compliance with the Protocol's guidance for determining emission reduction and removal enhancements. The primary components of this review are confirmation of on-site inventory sequential sampling, inventory and project carbon calculation review, review of the risk of reversal rating, assessment of GHG emission reduction calculations, and the assertions made in the OPDR. Each of these elements is described below.

6.1 Baseline Modeling

The baseline modeling was not reviewed in this verification. The baseline values remained unchanged from RP1 and the initial verification.

6.2 Inventory and Modeling Updates

The Project's carbon stocks were calculated based on the project's original inventory from its network of sampleplots completed in 2019. Carbon calculations were performed in accordance with the COP 2015 procedures for individual trees based on the 2019 measurements and for modeled measurements grown 5 years in the regionally appropriate FVS variant. mtCO2e was compiled at the plot-level for the 2019 and 2024 data and an annual increment was derived between the two time periods. FRST confirmed that 2019 measurements aligned with the end of RP1 such that RP4 was estimated by adding three years of growth per plot. All aspects of the quantification reflect the removal of any carbon reflected in dead trees <5" in DBH. IFM-3 was held constant from the estimates that align with the end of RP1 except for adjustments to remove carbon in dead trees <5" DBH.. A portion of IFM-1 was subject to mortality modeled in FVS, but conservatively was not included in IFM-3.

CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v3.0_20240403.pdf includes a Change Log to identify updates to project methodologies. FRST reviewed these for consistency and compliance with 2015 COP requirements. Change Log items include an update of the Professional Forester associated with the project, tree status coding in the inventory tree list, removal of dead trees from onsite stock estimates per ARB guidance, aggregation of site class modeling, and creation of a zero-carbon strata for overlapping acreage with other COP projects found during the RPs 2-5 verification. FRST reviewed all changes for being in accordance with the 2015 COP and ARB guidance.

6.3 Actual Harvested Wood Product

As harvests are ongoing in the project scenario, it was necessary to verify harvest volumes and the methods and calculations associated with updated onsite stock estimates for carbon removed due to harvesting. RCE/FRST reviewed the scale slips submitted for the harvests across the property and independently calculated the harvested wood products (HWPs). FRST also completed a GIS analysis to confirm the proration of harvest volumes based in proportion to a harvest area's particular overlap with the project area. During RPs 2-4 it was conservatively assumed that any acres associated with harvesting depleted all carbon stocks.

6.4 On-site Inventory Verification Check

No site visit was conducted for RP4, however, verification services were combined for RPs 2-5 which included a site visit associated with RP5.

6.5 Inventory and Calculation Review

RCE and FRST conducted a risk-based review of the Project inventory and emission reduction calculations to ensure conformance with Protocol requirements and agreement with emission reductions/removals reported in the OPDR. Tree volumes are converted to biomass and carbon CO_2 equivalents based on the suite of equations provided by ARB or separately approved by ARB in cases where equation documentation/versioning varies. RCE/FRST confirmed that the baseline values were correct.

RCE and FRST confirmed the confidence deduction from RP1 (0.7%) was used for this RP for the calculation of Total Net GHG Reductions and GHG Removal Enhancements (QRy) since this RP was not subject to a full verification.

6.6 Forest Offset Reversal

No reversal was observed for this reporting period.

6.7 Project Reversal Risk Rating

RCE and FRST reviewed the eight individual types of risk identified in the Protocol; ensuring the correct default or assessment area-specific factors were applied and then recalculated the Project's reversal risk rating. RCE/FRST confirmed the Project's use of 17.59% reversal risk rating.

6.8 Assessment of GHG Emissions Reductions Calculation and OPDR

Pursuant to §95977.1(b)(3)(L) of the Regulation, RCE and FRST used data checks to ensure that the appropriate methodologies and GHG emission factors were applied in calculating the Project's baseline GHG emissions, annual GHG emissions, Project emissions, and GHG reductions. RCE and FRST's emission reduction calculations assessment included a check of the inputs into the Offset Project Data Report uploaded to the OPR for the reporting period. RCE and FRST confirmed that Finite appropriately filled out the worksheet based on its baseline and Project calculations for all required pools. RCE and FRST separately recalculated the total GHG emission reductions and compared the results to the Project's calculations. See Appendix D for recalculations. RCE and FRST found one discrepancy (due to rounding) and no omissions or misreporting. RCE concludes that the Project's emission reductions calculation and OPDR is free of any Offset Material Misstatement.

<u>RCE/FRST Recalculations</u>

Total emission reductions/removals confirmed: 117,194 tCO_2e

Buffer Pool Contribution: 20,615tCO_2e

Net emission reductions: 96,579 tCO_2e

% Error = ([∑Discrepancies+∑Omissions+∑Misreporting] x 100%) / Total Reported Emission Reductions and Removal Enhancements

% Error = [-204 + 0 + 0] x 100% / 117,194= **-0.17%**

6.9 Offset Project Data Report

RCE/FRST confirmed that the OPDR was submitted by the OPO/APD within four months after the end of the reporting period. During the verification, Finite/Peak Carbon submitted multiple updates to the originally submitted OPDR. RCE/FRST reviewed the Listing Form and final version of the OPDR to confirm its accuracy.

7.0 Issues Log

During the verification process, RCE/FRST submitted non-material findings (NMs), additional documentation requests (ADRs), and clarification requests (CRs) to Finite. The OPO/APD sufficiently addressed all items and the details of the requests are documented in the Issues Log shown in Appendix E. The Issues Log for this reporting period was combined with RPs 2,3 and 5.

8.0 Conclusion

RCE conducted a risk-based analysis of the CAR1339/CAFR6339: GDRCo/Peak Carbon LLC – Humboldt Mixed Forest Improvement Project including a strategic review of the Project data and evidence. Based upon the processes and procedures and the evidence reviewed, RCE concludes with a reasonable level of assurance that the Project emission reductions resulting from the Project activities during the reporting period from November 1, 2021 through October 31, 2022 are:

- In conformance with the ARB's Compliance Offset Protocol for U.S. Forest Projects (June 15, 2015)

- In conformance with Final Regulation Order, Subchapter 10 Climate Change, Article 5, Title 17, California Code of Regulations, Sections 95800-96022,
- Without Offset Material Misstatement, and
- Verified to a reasonable level of assurance.

Table 4 – GHG Reductions & Removal Enhancements (tCO_2e)

Reporting Period	Total GHGs
November 1, 2021 – October 31, 2022	117,194

Lead Verifier Signature

Independent Reviewer Signature

Christian Eggleton

Bonny Crews

Appendix A – Verification Plan

CAFR6339 – CAR1339 Humboldt Mixed Forest Improvement Project Verification Sampling Plan for Reporting Period 9/1/2020 – 8/31/2021

Timing of Offset Verification Services	Proposed Date
Contract award	4/17/2023
Submit COI and NOVS forms to OPR/ARB	10/17/2023
Planning meeting	11/2/2023
Site visit	11/27/23 - 12/1/23
Provide Issues Log to OPO	1/8/2024
Complete Issues Log	4/12/2024
Provide draft deliverables to OPO	4/19/2024
Final meeting and submittal of deliverables to OPR/ARB	4/24/2024

Information Requirement	Information Provided by the OPO/APD
Information to allow the offset verification team to develop a general understanding of offset project boundaries, operations, project baseline emissions, and annual GHG reductions and GHG removal enhancements	Growth model, OPDR, other supporting documentation.
Information regarding the training or qualifications of personnel involved in developing the Offset Project Data Report	Dan Barry; previous preparer for RP1 which has successfully received ARBOCs
The name and date of the Compliance Offset Protocol used to quantify and report project baselines, GHG reductions, GHG removal enhancements, and other required data as applicable in the Compliance Offset Protocol;	US Forest Projects, 2015
Information about any data management system, offset project monitoring system, and models used to track project baselines, GHG reductions, GHG removal enhancements, and other required data as applicable in the Compliance Offset Protocol.	Growth model, OPDR, other supporting documentation.

Pre-Engagement	
RCE Management has completed and signed the V&V team selection form	Complete

Complete the Evaluation of Conflict of Interest for Offset Projects form and submit to Offset Project Registry	Complete
Individual COIs for all team members (and subcontractors) are in the folder for this client	Complete
Save COI-Determination letter and or renewal email received from the OPR/ARB	Complete
Send the Notice of Offset Verification Services form to the OPR and ARB at least 10 days prior to beginning verification	Complete
Non-Disclosure Agreement (NDA) - execute agreement (Both parties agree to the NDA)	N/A
Create Verification Service Agreement (VRSA)	
The original proposal is included as an exhibit with the correct scope of work defined in the Assumptions table.	Complete
Both parties agree to and sign the VRSA	Complete
Planning meeting and required documents	
OPDR has been uploaded to the Registry website	Complete
Planning meeting agenda sent to client	Complete
Verification Process Overview (with terms and definitions table correctly completed)	Complete
Team Roster	Complete
Schedule provided to client	Complete
Request data and supporting documentation (if applicable)	Complete
Record minutes of planning meeting & save in Project file	Complete
Verification Plan and Sampling Plan	
Created sampling plan based on the project assumptions	Complete
Ranking of GHG emission sources, GHG sinks, and GHG reservoirs	Complete
Qualitative narrative of uncertainty risk assessment	Complete
Identification of sources, sinks, and reservoirs targeted for document reviews and explanation of why they were chosen	Complete
Summary of information analyzed in data checks and document reviews	Complete
Samples identified in the sampling plan	Complete
Data checks	Complete
Verification of GHG assertion with any discrepancies identified and percent error calculated	Complete
Approved and protected by the Lead Verifier	Complete
Issues Log	

All Corrective Actions are closed or the status is marked appropriately	Complete
All Clarifications are addressed	Complete
All document requests are received	Complete
Verification Documents	
Issue Verification Report and Statement	Complete
Emission totals match in Report and Statement	Complete
Report and Statement signed by both Lead Verifier and Independent Reviewer	Complete
Independent Review	
Mandatory items approved and all findings closed by Independent Reviewer	Complete

Appendix B – SSR Ranking and Review

SSR #	SSR Description	Ranking and Reason	Ranking for Uncertainty	Selected for Document Review	Selected for Data Checks/Calc Review	Method	Summary of Review	Quantity of Data Reviewed	Documents Reviewed	Discrepancies Identified	Discrepancy Description & Reason
IFM Reservoir											
IFM - 1	Standing live carbon in all portions of living trees	#1 This SSR generates the majority of project emission reductions (~97.2%) and presents permanence risks.	1	Yes	Yes	Recalculate all tree lists for project from 2023 remeasurement and 2028 model. Incorporated strata level stocking changes due to lump sum HWP harvesting.	IFM-1 was recalculated from the project inventory data.	100% of inventory data	Inventory methodology and sampling design. Growth databases. Carbon calculation databases.	Yes	Minor discrepancies in rounding and constants for conversion.
IFM - 3	Standing dead carbon in all portions of dead, standing trees	#2 This SSR can be significant based on forest type (~2.8%)	3	Yes	Yes	Recalculate all tree lists for project from 2023 remeasurement and 2028 model. Incorporated strata level stocking changes due to lump sum HWP harvesting.	IFM-3 was recalculated from the project inventory data.	100% of inventory data	Inventory methodology and sampling design. Growth databases. Carbon calculation databases.	Yes	Minor discrepancies in rounding and constants for conversion.
IFM - 7	Carbon in in-use forest products	#3 This SSR be a significant carbon storage pool, dependent on harvest levels and product types (<1%)	2	Yes	Yes	Utilize process in Appendix C. Review harvest reporitng by aligning GIS, requesting raw harvest data, assess scaling methods, etc.	Minor discrepancies in conversions.	All product calculations.	Calculation workbooks.	None.	N/A
IFM - 8	Forest product carbon in landfill	#4 This SSR is related/proportional to harvest levels (<1%)	4	Yes	Yes	Utilize process in Appendix C. Review harvest reporitng by aligning GIS, requesting raw harvest data, assess scaling methods, etc.	Minor discrepancies in conversions.	All product calculations.	Calculation workbooks.	None.	N/A
Sources											
IFM - 14	Biological emissions/ removals from changes in harvesting on forestland outside the Project Area	#5 This SSR is not significant and is not measured independently.	5	Yes	Yes	ARBOC calc sheet automatically calculates.	Concurrence between OPO and verifier for all calcs.	All calculations in ARBOC sheet.	Calculation workbooks.	None.	N/A
Sinks											
N/A											

Appendix C – Documents/Files Reviewed

#	Document	Reviewed By	Reviewed At
1	2028_021_StartingTreeList_Final_withDeadSaplings_v2.xlsx	Verification Team	Desk Review
2	272101B1_SUPPRO_Nov2021-Oct2022.pdf	Verification Team	Desk Review
3	272101B1_TICKET LISTING_Nov2021-Oct2022.pdf	Verification Team	Desk Review
4	272101B2_SUPPRO_Nov2021-Oct2022.pdf	Verification Team	Desk Review
5	272101B2_TICKET LISTING_Nov2021-Oct2022.pdf	Verification Team	Desk Review
6	481601B1_SUPPRO_Nov2019-Oct2020.pdf	Verification Team	Desk Review
7	481601B1_TICKET LISTING_Nov2019-Oct2020.pdf	Verification Team	Desk Review
8	511706F2_SUPPRO_Nov2020-Oct2021.pdf	Verification Team	Desk Review
9	511706F2_TICKET LISTING_Nov2020-Oct2021.pdf	Verification Team	Desk Review
10	561704B_Product Recap by Species_Nov2022 to Oct 2023.pdf	Verification Team	Desk Review
11	561704B_Ticket Listing Nov2022 to Oct 2023.pdf	Verification Team	Desk Review
12	CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED (1).pdf	Verification Team	Desk Review
13	CAR1339 OPDR RP1 Attachment A v1.2_20200211.pdf	Verification Team	Desk Review
14	CAR1339 OPDR RP1 Attachment E and F Maps v1.3_20200911.pdf	Verification Team	Desk Review
15	CAR1339 OPDR RP1 Initial v1.3_20201027_SIGNED (1).pdf	Verification Team	Desk Review
16	CAR1339 OPDR RP2 Annual v3.0_20240412_SIGNED.pdf	Verification Team	Desk Review
17	CAR1339 OPDR RP3 Annual v3.0_20240412_SIGNED.pdf	Verification Team	Desk Review
18	CAR1339 OPDR RP4 Annual v3.0_20240412_SIGNED.pdf	Verification Team	Desk Review
19	CAR1339 OPDR RP5 Annual v3.0_20240412_SIGNED.pdf	Verification Team	Desk Review
20	CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v3.0_20240403.pdf	Verification Team	Desk Review
21	CAR1339 OPDR RP5 Project Inventory Methodology v1.0.pdf	Verification Team	Desk Review
22	CAR1339 RP2 HWP Calculations v3.0_20240402_SERIES.xlsx	Verification Team	Desk Review
23	CAR1339 RP3 HWP Calculations v4.0_20240402_SERIES.xlsx	Verification Team	Desk Review
24	CAR1339 RP4 HWP Calculations v4.0_20240402+SERIES.xlsx	Verification Team	Desk Review
25	CAR1339 RP5 ARBOC Calculations v6.0_20240412_SERIES.xlsx	Verification Team	Desk Review
26	CAR1339 RP5 HWP Calculations v3.0_20240402_SERIES.xlsx	Verification Team	Desk Review
27	CAR1339 RP5 OPDR Calculations_v9.0_20240326_SERIES.xlsx	Verification Team	Desk Review
28	CAR1339_2015COP_Standing Dead Sapling Baseline Analysis.xlsx	Verification Team	Desk Review
29	CAR1339_RP2_HU.shp	Verification Team	Desk Review
30	CAR1339_RP3_HU.shp	Verification Team	Desk Review
31	CAR1339_RP4_HU.shp	Verification Team	Desk Review
32	CAR1339_RP5_HU.xlsx	Verification Team	Desk Review
33	FVS_TreeList.xlsx	Verification Team	Desk Review
34	GD Humboldt Audit Summary.xlsx	Verification Team	Desk Review

#	Document	Reviewed By	Reviewed At
35	Haynes_ConversionFactors_rm_gtr199.pdf	Verification Team	Desk Review
36	Humboldt Plot 472 AG-BG Cairns Analysis 02072024.xlsx	Verification Team	Desk Review
37	Humboldt Plot 472 AG-BG Cairns Analysis 2024.xlsx	Verification Team	Desk Review
38	Humboldt Plot 472 AG-BG Cairns Analysis Version2.0 02162024.xlsx	Verification Team	Desk Review
39	Humboldt RPs 2-5 Issues Log - 4.0_Fcresponses.xlsx	Verification Team	Desk Review
40	Humboldt_RP5_SiteVisit.gdb	Verification Team	Desk Review
41	Humboldt_UpdatedProjectArea.shp	Verification Team	Desk Review
42	MasterPlotGrid.shp	Verification Team	Desk Review
43	pnw_rb168.pdf	Verification Team	Desk Review
44	RP5_HU.shp	Verification Team	Desk Review
45	TIMBER PRODUCTS MONITORING_Unit of Measure Conversion Factors for Roundwood Receiving Facilities_USDA_2020.pdf	Verification Team	Desk Review
46	Timestamped_FSC-C110720.pdf	Verification Team	Desk Review

Appendix D – Recalculations

Calculating GHG Reductions/Removals for Onsite Carbon Stocks - All Project Types	OPO/TC	RCE/FRST
Sampled Onsite Carbon Stocks (metric tons CO2e)	10,541,180	10,541,867
Confidence Deduction	0.7%	0.7%
Adjusted Sampled Onsite Carbon Stocks (adjusted for confidence deduction) (metric tons CO2e)	10,467,392	10,468,074
Soil Carbon Emissions		-
Increment in Actual Onsite Carbon Stocks (metric tons CO2e)	179,528	179,537
Baseline Onsite Carbon Stocks (metric tons CO2e)	7,094,598	7,094,599
Increment in Baseline Onsite Carbon Stocks (metric tons CO2e)	-	-
Quantified GHG Reductions / Removals for Onsite Carbon Stocks (metric tons CO2e)	179,528	179,537
Calculating Carbon Stored in Wood Products Including Market Effects and Leakage - All Project Types		
Actual Carbon in Trees Harvested for Wood Products (metric tons CO2e)	37,299	37,831
Baseline Carbon in Trees Harvested for Wood Products (metric tons CO2e)	186,407	186,407
Actual Carbon in Harvested Wood Delivered to Mills (metric tons CO2e)	20,500	20,792
Baseline Carbon in Harvested Wood Delivered to Mills (metric tons CO2e)	102,452	102,452
Actual Carbon Stored Long-term in Wood Products (tonnes CO2e) - Excl Landfill	6,182	6,276
Actual Carbon Stored Long-term in Wood Products (tonnes CO2e) - Incl Landfill	10,166	10,320
Baseline Carbon Stored Long-term in Wood Products (tonnes CO2e) - Excl Landfill	30,896	30,922
Baseline Carbon Stored Long-term in Wood Products (tonnes CO2e) - Incl Landfill	50,806	50,849
Diff Between Actual and Baseline Carbon in Harvested Wood (tonnes CO2e) - Excl Landfill	(24,714)	(24,647)
Difference Between Actual and Baseline Carbon in Harvested Wood (tonnes CO2e) - Incl Landfill	(40,640)	(40,530)
Difference in Actual and Baseline Carbon Stored in Wood Products (tonnes CO2e) - Landfill Adj	(40,640)	(40,530)
GHG Reductions / Removals for Carbon Stored in Wood Products (tonnes CO2e) w/ mkt response	(32,512)	(32,424)
Calculating Other Secondary Effects - Improved Forest Management Projects		
Difference Between Actual and Baseline Carbon in Trees Harvested for Wood Products (tonnes CO_2e)	(149,108)	(148,576)
Other Secondary Effects Emissions (shifting activities/materials) IFM Projects (tonnes CO_2e)	(29,822)	(29,715)
Quantified GHG Reductions and Removals		
Annual GHG Reductions/Removals Net of Discounts and Secondary Effects (tonnes CO_2e)	117,195	117,399
Cumulative GHG Reductions/Removals; not incl.neg. carryover or reversals (tonnes CO_2e)	3,144,848	3,145,656
Cumulative Negative Carryover from Prior Year (tonnes CO_2e)	0	0
ARBOCs Issued - Net of Negative Carryover, bef. Buffer or adjust for Reversals (tonnes CO2e)	117,194	117,398
Calculation of Buffer Pool Contribution		
Project Specific Reversal Risk Rating	17.59%	17.59%
Buffer Pool Contribution	20,615	20,650
Accounting for Reversals		
Annual Reversals (metric tons CO2e)	0	0
Offset Credits Issued to Offset Project Operator		
Annual Offset Credits Issued to Offset Project Operator (metric tons CO2e)	96,579	96,748

Appendix E – Issues Log

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Issues Log version:	**FINAL**
Project Name:	**Humboldt Mixed Forest Improvement Project**
Project ID:	**CAR1339 / CAFR6339**
OPO/APD	**Green Diamond Resource Company / Peak Carbon LLC**

Corrective Action Request, Non-Material Finding, Additional Documentation Request, or Clarification Request ID#	Finding	Section of Regulation or COP	Offset Material Misstatement (OMM) or Conformance (C)	OPO/APD response	RCE response	Additional OPO/APD response	Additional RCE response	Open or Closed
CAR 1	It appears 11.4 ac of the project area overlaps with the Lord Ellis (CAFR5378) project area as well as some minor overlap with the Pine Creek IFM project (CAFR6368). Please address.	7.1.1(33)	C	This is most likely an issue with the spatial representation of the project area boundaries in the GIS shapefiles. Because all GIS systems have some inherent level of error, the overlap shown on the spatial representation does not necessarily imply that there are overlapping project boundaries in reality.	In the past, projects have opted to reclassify overlaps as a zero carbon stratum. We would like to know if we should reach out to the Registry or ARB to seek guidance on the desired procedure.	The OPO confirmed with us that Green Diamond Resources Company is the owner of the Lord Ellis project. As part of the acquisition of the Lord Ellis project, the OPO feels confident that the on the ground boundary delineation is accurate. The extent of the spatial overlap with Pine Creek is not material. If at any point in time in the future that hte ownership boundary lines do not align on the grounds, adjustments to the project strata will be made at that time.	Unfortunately, in the past, we have been provided guidance that these overlaps must be addressed. Given that the overlap with Lord Ellis is >11 ac, this presents a potential material difference. We are willing to reach out for additional guidance.	**Closed**
CAR 1 (Line 2)				We have now removed the 12.19 acres of overlap with the Lord Ellis (CAFR5378) and Pine Creek (CAFR6368) projects across the Klamath, Korbel, and WLPZ project strata. We have incorporated those 12.19 acres of overlap into a new stratum, which we have named "Zero-stocked". Weighted averages and total carbon stocking across all strata has been updated according to the new acreages by stratum for RP2, RP3, RP4, and RP5, in addition to the "10 Percent Canopy Cover" and the "RP5 Confidence Deduction" calculations. These adjustments are reflected in the "CAR1339 RP5 OPDR Calculations_v9.0_20240326.xlsx", the "CAR1339 RP5 ARBOC Calculations v5.0_20240326.xlsx", and the RP2-RP5 updated OPDR documents.	These updates have been confirmed. Please add this to the Change Log as well as provide an updated spatial file. Once provided, this item may be closed.	We have provided the spatial file of the updated project area ("Humboldt_UpdatedProjectArea.zip") and updated the Change Log with the acreage adjustment ("CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v3.0_20240403.pdf")	This has been confirmed. This item may be closed.	
CAR 2	It appears that RPs 2-4 growth calculations are based on weighted averaging of growth using 3 site index categories. This was not done for RP5 growth adjustments to the new inventory. Please add this approach to the project's Change Log including a description of how this "achieve[s] an equal or greater accuracy relative to the original sampling design."	6(e)	C	We have retroactively modified the RP2-4 growth calculations after collapsing the three site index categories for each strata to be consistent with RP5 calculations. We have now provided the updated OPDR Calculations workbook ("CAR1339 RP5 OPDR Calculations_v3.0_20240111.xlsx").	Thank you for the provided updated calculations. Please see ADR 2 and ADR 9 for followup on the changes to the methdology and BG calculations. This item may be closed.			**Closed**
CAR 3								
NM 1	Approximately 4.5 MBF of firewood is reported in the RP 5 HWPs. The verifier has removed this volume from the calculation of IFM-7 and IFM-8. It is acknowledged that these removals are accounted for in the calculation of IFM 1 and IFM-3.	App C	C	The 4.5 MBF of firewood does not contribute to our calculations of IFM-7 and IFM-8 (see the attached "CAR1339 RP5 HWP Calculations v2.0_20240124.xlsx" workbook and the corresponding IFM-7 and IFM-8 values present within both tabs of the "CAR1339 RP5 ARBOC Calculations v5.0_20240326.xlsx" workbook).	Apologies for missing this. Thank you!			**Closed**
NM 2								
NM 3								
ADR 1	In order to check the completeness of the plot grid, please provide a spatial file of the original project grid that was intersect with the project area and a description of how plot locations were allocated.	8.1(b)(2)(A)(1)	C	Plots were allocated using a systematic sampling grid with random starting point (Master Grid). To reach target number of sample points, 218 sample points were selected for the project using this systematic sampling procedure. We have provided a shapefile of the original, master plot grid used in our systematic sampling ("MasterPlotGrid.zip").	Thank you for the clarification. The verifier confirmed the completeness of MasterPlotGrid.zip and confirmed that the 218 project plots are equivalent to an intersection of MasterPlotGrid.zip and the project area. This item may be closed.			**Closed**

ADR 2	CAR1339 OPDR RP5 Project Inventory Methodology v1.0.pdf does not have any entries in the Change Log. Please clarify why there is an "RP5" specific inventory methodology if there have been no changes to the project (Please see CAR 2). Please also provide the RP1 inventory methodology.	App A (b)(9)	C	We created the CAR1339 OPDR RP5 Project Inventory Methodology v1.0.pdf for the purpose of getting the inventory specifications to you in a more concise way than sending the full Appendix A. We have now provided the Appendix A with the change log documenting changes to inventory specifications.	Thank you for providing the referenced document and the explanation for extracting the inventory methodology. Pages 40-41 describe the project methods from RP1 in which three site indices are used to model each plot's growth and then averaged. Since this is not longer implemented, please add the new approach in the Change Log. Please also clarify how the change "achieve[s] an equal or greater accuracy relative to the original sampling design," per COP item 6(e).	The three site class categories were intended to only be used in RP1 modeling in order to fit baseline modeling constraints. We have added language on page 42 that states that it was our intent to collapse the site class categories for all subsequent monitoring and reporting. This is also detailed in Change Log item #4.	Thank you for identifying the areas in which these items are addressed. They have been found in CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v2.0_20240207.pdf. Given the verifier's previous experience, we feel it is important to address in the project documentation that the COP language that requires the change "achieve[s] an equal or greater accuracy relative to the original sampling design," per COP item 6(e).	**Closed**
ADR 2 (Line 2)				We have added to the "Change_Description" column of Change Log item #4 which states the following: "This change achieves equal or greater accuracy to the original sampling design since the underlying inventory sampling design established in the original reporting period remains the same. The only change is related to the site index parameters utilized for the growth and yield modeling." See pg. 68 of the updated "CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v3.0_20240403.pdf" for the updated language.	This has been confirmed. This item may be closed.			
ADR 3	Please provide a description of the development of the project boundary in addition to documents substantiating the OPO's ownership.	8.1(b)(2)(A)(1)	C	The project area was identified as a logical management unit (LMU) consisting land utilized for Timber, wildlife, and water quality enhancement. We have now provided the RP1 Attachment A (Deed/Legal Description of Property) and Attachment E-F (Project Area maps) that substantiate the OPO's ownership. See attached files: "CAR1339 OPDR RP1 Attachment A v1.2_20200211.pdf" & "CAR1339 OPDR RP1 Attachment E and F Maps v1.3_20200911.pdf"	Thank you for the ownership documentation and description. This item may be closed.			**Closed**
ADR 4	Please provide the spatial files that identify the RP 2, RP 3, and RP 4 harvest areas. Please also confirm these are accounted for in the IFM-1 and IFM-3 calculations by assuming total depletion of the associated acreage.	8.1(b)(2)(A)(7)	C	We have provided the spatial files for the RP2, RP3, and RP4 harvest areas (CAR1339_RP2_HU.zip, CAR1339_RP3_HU.zip, CAR1339_RP4_HU.zip). We confirm that we assumed total depletion of harvested acreage and accounted for depletions in IFM-1 and IFM-3 calculations for the associated reporting periods (see "EndOfRP2", "EndOfRP3", and "EndOfRP4" tabs in the attached "CAR1339 RP5 OPDR Calculations_v3.0_20240111.xlsx")	Thank you for the provided files. The verifier performed an intersection with the project area strata, re calculated acres, and compared to the depletion identified on the appropriate tabs. Our RP4 calculation matched, however, 424.55 ac was calculated for RP2 and 310.44 for RP3.	We have recalculated the harvest unit acres for RP2 and RP3. They now match your calculated values of 424.55 for RP2 and 310.44 for RP3. The appropriate tabs in the RP5 OPDR have been updated accordingly.	Thank you for this update. This item may be closed.	**Closed**
ADR 5	Please provide the RP 5 HWP data.	8.1(b)(2)(A)(7)	C	We have provided the spatial and tabular RP5 HWP data ("CAR1339_RP5_HU.zip", "CAR1339_RP5_HU.xlsx"). We are currently working with Green Diamond to acquire by-HWP product harvested volume data for each harvest unit. Upon receiving the data, we will be able to complete the RP5 HWP Calculations workbook.	Thank you for the update. We will wait for the HWP calculations. Please see the Harvest Verif RP5 tab for a scale ticket request.	We have attached the log accounting records for the specified harvest unit (GDRC #561704, Unit B, Harvest Unit ID #1122425).	Thank you for this information. The subsample as requested has been confirmed in the project HWP calcs. This item may be closed.	**Closed**
ADR 6	Please see the next tab for a request of harvest data for verification of reported volumes.	8.1(b)(2)(A)(7)	C	We have attached the log accounting records for the three specified harvest units (GDRC #'s 481601, 511706, and 272101). One unit (272101 B) has 2 sets of reports because the volume was delivered using two tracking codes: 272101 B1 and B2). These reports show the volume produced for the unit during the reporting period. Since each of these units only partially overlapped the project area, the gross volume production has to pro-rated by multiplying by the percent of overlap as provided in the table to get the volume allocated to the project area.	Thank you for the provided data. The requested sale data matches the HWP calculation inputs. This item may be closed.			**Closed**
ADR 7	Please provide evidence of implementation of the project's QA/QC procedures.	8.1(b)(2)(A)(8)	C	We conducted a third party audit following the RP5 inventory. We have now provided the results from the Audit Summary in tabular form ("GD Humboldt Audit Summary.xlsx")	CAR1339 OPDR RP5 Appendix A Project Inventory Modeling Methodology v1.0_20240117.pdf states that a minimum of 7% of samples will be audited. The provided information indicates 8.25% of the plots were audited (18/218). It appears the procedure was followed. This item may be closed.			**Closed**
ADR 8	Please provide evidence of sustainable long-term harvesting practices (FSC, SFI, etc) for RPs 2-5.	3.0(a)(2)(C)	C	We have provided the updated FSC certification for Green Diamond Resource Company, which is valid until February 7, 2028 (see attached: "Timestamped_FSC-C110720.pdf).	Thank you for the provided documentation. This item may be closed.			**Closed**

ADR 9	Please provide the 2019 and 2024 tree lists with the three site class variations provided. Additionally, please address that the current data in CAR1339 RP5 OPDR Calculations_v2.0_20231116.xlsx (TreeCarbon2019 and TreeCarbon 2024) has each tree 4x (3x expected) and the 2024 trees seem to have one version of the Site Class V and Site Class IV growth and duplicates of the Site Class II-III growth (the tree that has the best growth is duplicated). See example tree 69_13 to the right.	8.1(b)(2)(A)(7)	C	After modifying the RP2-4 growth calculations by collapsing the three site index categories for each strata, tree records are no longer replicated. See "Trees2019" and "Trees2024" tabs in the updated OPDR Calculations workbook: "CAR1339 RP5 OPDR Calculations_v3.0_20240111.xlsx".	Please provide plot level summaries for these years and address BG calculation issues identified in the accompanying Issues Log 2.0 email.	Plot-level summaries for the years 2019 and 2024 have been included in the updated OPDR workbook v8.0. The previous discrepancy in BG calculations is a result of the following: the 2023 dead trees were included in the 2028 belowground standing dead carbon calculations. Likewise, the 2019 dead trees were included in the 2024 belowground standing dead carbon calculations. Cairns BG was calculated in each year of the FVS projection based on current year TPA and MortPA estimation of aboveground biomass (ABD) from the FVS Tree List year. That meant that the 2023 inventory dead trees had a different ABD basis than the 2028 live and dead trees. The same principle applied to the different ABD basis between the 2019 and 2024 live and dead trees. The Cairns routine ran before the snag model in our carbon tool. Thus, the 2024/2028 plot level and tree-level standing dead belowground carbon (sdDRYBIOBG) were standing dead belowground left from the 2019/2023 inventory trees calculated via Cairns on a 2019/2023 aboveground biomass basis, multiplied by however many trees are left standing, as predicted by the snag model. The sdDRYBIOBG from the new 2024/2028 mortality, calculated on a 2024/2028 aboveground biomass basis, was then added. We have adjusted our calculations for 2024 & 2028 tree-level ABD so that they are now ABD is calculated on the same basis as the 2019 & 2023 inventoried trees. This resulted in tree-level and plot-level belowground biomass values that aligned	The verifier has been able to recalculate all RP's onsite stocks. This item may be closed.	**Closed**
ADR 10	Appendix D states that for a 2% contribution to the Reversal Risk Rating for Natural Disturbance Risk I – Wildfire, the project "has conducted fire risk reduction work on the project area that contributed to lowering the fire risk for the entire project area as confirmed in the form of written communication from either the local or state fire protection agency who has direct responsibility for fire protection over the project area." Please provide this documentation and spatial files of work completed. From recent VB experience it is important that this written communication be relevant for all RP dates and make the distinction that the work affects the entire project area. It should be noted that business-as-usual slash disposal has not qualified as fire risk reduction work.	App D	C	Green Diamond informed us that they have not conducted specific fuels reduction work outside of the harvest units within the project area. We have increased the contribution to the "Reversal Risk Rating for Natural Disturbance Risk I - Wildfire" to 4%, accordingly.	Thank you for the update. This item may be closed.			**Closed**
ADR 11	Please provide a reference for the conversion factors of boardfeet to cubic feet used in the HWP calculations. Please address the use of long-log scribner scale in this region.	App C	C	For a reference to the boardfeet to cubic feet conversion factors we applied in our HWP calculations, see the attached "Haynes_ConversionFactors_rm_gtr199.pdf" ("An Analysis of the Timber Situation in the United States: 1989-2040, 1990"). Table B.9 on pg. 273 displays the MBF to cubic foot conversion factor for each softwood and hardwood product by region. For confirmation that the appropriate set of regional conversion factors has been applied in our calculations, see pg. 6 of the attached "pnw_rb168.pdf" ("Forest Statistics of the United States, 1987"). The map on this page displays the spatial extent of each of the RPA Assessment Regions. For the Humboldt HWP volume conversions, we are using the conversion factors caclulated for the Pacific Southwest Region. It assumed that the conversion factors incorporate differences between short and long log scaling to arrive at a regional average conversion factor.	The reference states: "Thousand board feet, International 1/4-inch log scale." The verifier is fairly certain that Scribner long-log scale is used by private markets in this region which is significantly different than International 1/4-inch. Please provide substantiation from GDRCo that addresses the scaling rules for both hardwoods and softwoods (since they are currently calculated differently).	We received clarification from GDRCo that the harvested volumes were reported in Scribner short-log scale. To address this discrepancy, we first converted those reported harvested volumes to MBF International 1/4" using the regional conversion factors reported in the publication "TIMBER PRODUCTS MONITORING:Unit of Measure Conversion Factors for Roundwood Receiving Facilities" (USDA, 2020) for western states (Tables 7, 11, 15, 34). After converting harvest volumes from MBF Scribner short-log to MBF International 1/4" units, we were then able to apply the conversion factors found within Table B.9 of "An Analysis of the Timber Situation in the United States: 1989-2040" (1990) publication as we had done previously. We have now provided the updated CAR1339 HWP Calculations workbooks for RP2-5.	This has been confirmed. Thank you for the update.	**Closed**
CR 1	In the HWP calculations, specific gravities are based on hardwood or softwood based on the BA ratios of the project inventory. It appears that this is done because there is not a breakdown by species for pulpwood vs sawlogs. Is this data available? Additionally, what are the pulp products in the area? Finally, it appears alder is being accounted for as a softwood, please clarify.	8.1(b)(2)(A)(7)	C	We are currently working with Green Diamond to acquire by-HWP product harvested volume data for each harvest unit. Upon receiving this data, we can update our HWP calculations workbooks. Thank you for noting that red alder was being accounted for as a softwood within the HWP calculations. We will rectify that issue as we finalize our workbooks for RP2, RP3, RP4, and RP5.	Thank you for the update. We will wait for the updated HWP calculations.	We have received the by-HWP product harvested volume data for RP2, RP3, RP4, and RP5 from Green Diamond. We have updated the RP2, RP3, RP4, and RP5 HWP calculation workbooks and RP5 ARBOC workbook accordingly. Alder is now appropriately accounted for as a hardwood species in our calculations.	Thank you for this information. The HWP calculations have been confirmed. We are still interested in the wood products associated with the pulp loads. These volumes must not be included in the HWPs if used for firewood or biomass to energy.	**Closed**

CR 1 (Line 2)				All volumes associated with pulp logs are not used for biomass or energy but rather for pulp and other secondary markets for wood chips, such as mulch, etc.	The verifier reviewed a description of GDRCo's chip export market here: https://www.greendiamond.com/businesses/chips. This item may be closed.			
CR 2	Please confirm no changes to project stratification have occurred since RP1.	8.1(b)(2)(A)(5)	C	We confirm that there have been no changes in project stratification since RP1.	Thank you for the clarification. This item may be closed.			**Closed**
CR 3	Given that the project boundary does often does not follow the OPO's property boundary, please describe how it is ensured that the volumes reported in the HWP calculations come wholly from the project area. For example, the area depicted to the right in Sections 22 & 23, T6N R3E HBM to the right is only part of Unit A from the THP. How is it known that only the portion of harvest from the project area is accounted for in the HWPs? The VB notes in the HWPs that the proportion is based on an OPO assessment. Please provide the raw data and explanation to verify this.	8.1(b)(2)(A)(7)	C	The OPO provides the pro-rated harvest volumes based on their analysis of acreage inside and outside of the project area for each of the harvest units. As such, the OPO reported harvest volumes represent harvested wood products within the carbon project. We are working with Green Diamond so that they can provide us with the gross harvested volume for each harvest unit to demonstrate that the volume used in the HWP calculations has been pro-rated appropriately.	Thank you; the verifier had intended to request additional information regarding GDRCo's proration as a follow up question.	The gross volumes for each unit harvested during RP2, RP3, RP4, and RP5 have now been included on the by-species and by-product tabs of the four HWP calculations workbooks in columns titled "Tot_Gross_BF".	Thank you for this information. The HWP calculations have been confirmed. However, we would still like to review the pre-clipped version of the spatial files for all 4 RPs' harvests in order to verify the proration. As well, please provide an explanation and/or supporting data that confirms spatial areas are allocated to the correct RP.	**Closed**
CR 3 (Line 2)				To clarify, the OPO provides Finite with the harvest areas already clipped to the project area. In accordance to their robust data management internal procedures, we do not have access to the requested spatial data. The harvest spatial data is provided by the OPO at the end of each reporting period for annual monitoring and reporting. Any overlap in harvest units has been attributed to the subsequent reporting periods.	Understood. To confirm, the verifier chose a Timber Harvesting Plan from the RP4 HWP calcs in which there was only one associated unit: 1-18-00176-HUM. This was reported at 3.3 ac net in the calcs and 40.4 ac gross. The verifer confirmed 3.3 ac in the project area and then found the unit from the publicly available spatial data from CalFire. The gross size for this unit was found to be 40.6 ac. Given projection and potential CalFire digitization discrepancies, this is reasonable. The verifier also chose at least one other harvest from RP2, RP3, and RP5. No significant discrepancies were found. This item may be closed.			
CR 4	Please clarify how 2028 MortPA for 2023 dead trees is determined. I still cannot replicate these calculations because I do not believe the TPA is still 20 in the dead trees 5 years later. Please provide these values. Please reach out to the VB to discuss if need be.	8.1(b)(2)(A)(7)	C	We were hoping to discuss this item next week to get clarification on what exactly is being asked.	This item was discussed over a phone call in order to understand the reduction in TPA among the dead trees modeled into the future. It will remain open until concurrence in calculations is achieved.	We have now provided the "Standing_Dead_Density" values in the "Trees2024" and "Trees2028" tabs of the RP5 OPDR v4.0, which represents the modeled reduction in TPA among the dead trees.	The verifier has been able to recalculate all RP's onsite stocks. This item may be closed.	**Closed**
CR 5	For RPs 2-4 the harvests' affect on onsite stocking is accounted for by depleting all harvested acres to zero. RP5 does not appear to reflect harvest depletion, however, the 2023 reinventory was performed 136-103 days prior to the end of RP5, encompassing most of the 2023 summer. Did harvesting occur after the 2023 inventory effort? Please clarify the approach to accounting for the effects of harvesting on the RP5 onsite stocks.	8.1(b)(2)(A)(7)	C	No plots were harvested after the inventory data was collected. Therefore, this inventory represents stocking at the end of RP5.	Thank you for the clarification. This item may be closed.			**Closed**
CR 6	CAR1339 OPDR RP1 Appendix A Project Inventory Modeling Methodology v1.2_20200911.pdf notes a plan to track disturbances including observations during inventory efforts. Please describe how this was implemented for each RP.	8.1(b)(2)(A)(8)	C	We request information from the OPO on an annual basis after the end of the reporting period, which includes questions regarding disturbances within the project area. Finite also performs cursory due diligence around disturbances other than harvesting.	Thank you for the clarification. This item may be closed.			**Closed**
CR 7	CAR1339 RP5 OPDR Calculations_v6.0_20240214.xlsx identifies the 2019 IFM-1 as 9,760,272 and IFM-3 as 260,570, however CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED.pdf notes that IFM-1 is 9,754,023 and IFM-3 is 339,214. The discrepancy in IFM-3 is presumably due to removal of the dead saplings from the inventory. Please clarify, however, the discrepancy in IFM-1. Please also clarify if the 2019 treelist (TreeCarbon2019) aligns with the EORP1 or if adjustments were required.	8.1(b)(2)(A)(7)	C	The increase in IFM1 between the "CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED.pdf" values and the 2019 IFM1 values calculated in the new "CAR1339 RP5 OPDR Calculations_v8.0_20240313.xlsx" is due to the changes in Standing Live Belowground mtCO2e ("DRYBIO_BGCO2epa") values. This can also be attributed to the removal of dead saplings. Since dead saplings were removed in the new "CAR1339 RP5 OPDR Calculations_v8.0_20240313.xlsx" 2019 calculations, more belowground biomass was allocated to the remaining live trees.	It is our understanding that quantities in previously verified RPs shall not change. Changes to the baseline may be required subject to 5.2.1(h), but this would only be for subsequent RPs. It does not appear that the GHG Reductions and RE tab need correcting if I am not mistaken? It appears these are the values in CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED.pdf, correct? These should be used in the OPDR form. Please also clarify if the 2019 treelist (TreeCarbon2019) aligns with the EORP1 or if adjustments were required.	Values in the current GHG Reductions and RE tab are the same as those reported in the "CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED.pdf". The 2019 treelist has been adjusted by removing standing dead saplings. This adjusted 2019 treelist informs the PAI for estimating on-site carbon stocks of RP2, RP3, and RP4. The adjusted 2019 tree list does not have any implications on the previously verified 2019 treelist as part of RP1.	Use of the baseline and EORP1 IFM-1 and IFM-3 values from CAR1339 OPDR RP1 Annual v1.3_20201027_SIGNED.pdf has been confirmed. Regarding the adjustments, thank you for clarifying the adjustments to the 2019 are only removal of dead saplings. To confirm, the 2019 list is representative of EORP1? We were looking to confirm no seasonal adjustments were needed to get the 2019 list to align with EORP1.	**Closed**
CR 7 (Line 2)				Yes, we confirm that the 2019 tree list is representative of EORP1. No seasonal adjustments were made.	Thank you for this confirmation. This item may be closed.			

CR 8	Please provide demonstration (such as the proportion of dead saplings in IFM-1 + IFM-3 at EORP1), that changes to the baseline are not required per 5.2.1(h).	5.2.1(h)	C	We have now provided the workbook "CAR1339_2015COP_Standing Dead Sapling Baseline Analysis.xlsx" that demonstrates that the change in 100-year average carbon stocks resulting from removal of standing dead saplings from the baseline compared to the original baseline is less than the 5% threshold which would trigger the need to re-model the baseline. The percent change in 100-year average carbon stocks from the original baseline to the revised baseline with the IFM3 % adjustment for dead saplings removal is only 1.11%.	Thank you for this analysis; the verifier has confirmed the calculations. The approach matches previously verified and ARB approved COP 2015 projects with the same issue.			**Closed**
CR 9	Please confirm the appropriate product for HWD_Hardwood_BF on OPO_RP4_VolumeByProduct is sawlogs.	App C	C	After contacting GDRCo, they informed us that the appropriate product for the HWD_Hardwood_BF column is actually pulpwood. We have addressed this by incorporating the change into the updated RP4 HWP workbook ("CAR1339 RP4 HWP Calculations v3.0_20240327.xlsx").	Thank you for the clarification. The verifier has updated their calculation as well. This item may be closed.			**Closed**
Recommendations for Improvement								
1								
2								