VALIDATION & VERIFICATION REPORT

American Carbon Registry

ACR459
Bluesource – Klawock Heenya Improved Forest Management Project

Reporting Period:
27 July 2018 to 26 July 2019

Prepared for:
Bluesource LLC

06 March 2020

AMERICAN CARBON REGISTRY

ISO 14065 Greenhouse Gas Validation and Verification Body #0821

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Project Title	Bluesource – Klawock Heenya Improved Forest Management Project
Client	**Bluesource LLC**
Project Location	Southeastern Alaska
Reporting Period	27 July 2018 to 26 July 2019
Prepared by	SCS Global Services (SCS)
Date of Issue	06 March 2020
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Audit Team	Lead Auditor: James Cwiklik, Verification Forester Verifier: Michael Hoe, Verification Forester RPF#3058 Technical Reviewer: Zane Haxtema, Manager

Summary

SCS Global Services (SCS) has performed the validation and verification of the Bluesource – Klawock Heenya Improved Forest Management Project ("the Project") developed by Klawock Heenya Corporation ("the Project Proponent"). This assessment covers the Project's greenhouse gas emission reductions reported to the American Carbon Registry (the Registry or ACR) for the reporting period 27 July 2018 to 26 July 2019. This report presents the validation and verification process, the findings raised during the assessment, and the conclusion reached by SCS.

This validation and verification was undertaken to evaluate the representations provided in the project plan and monitoring report and assess whether the compiled data conforms to the assessment criteria. The evaluation was undertaken using the ACR Standard, Version 5.1, Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3, and the ACR Validation and Verification Guidelines, Version 1.1.

In the course of this assessment the SCS verifiers developed findings which included New Information Requests (NIRs), Non-Conformity Reports (NCRs) and Observations (OBSs). During this verification 22 findings were issued: 15 NCRs, 6 NIRs, and 1 OBSs. These findings are described in Appendix C. All NCRs and NIRs have been adequately responded to, resulting in their closure. OBSs are potential non-conformances that have been memorialized for future verifications.

SCS verified the adequacy of the information provided in the project plan and monitoring report, confirming that these documents meet the requirements of the assessment criteria. On the basis of the information made available to SCS and the analyses completed, SCS was able to reach a positive opinion, with a reasonable level of assurance, that the claimed emission reductions and removals presented by Bluesource meets the requirements of ACR. Thus, SCS has verified 69,327 metric tons of CO_2e reductions and removals from the Bluesource – Klawock Heenya Improved Forest Management Project for the reporting period of 27 July 2018 to 26 July 2019.

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1 Introduction

SCS Global Services (SCS) is a global leader in third-party certification, auditing, testing services, and standards. Established as an independent third-party certification firm in 1984, our goal is to recognize the highest levels of performance in environmental protection and social responsibility in the private and public sectors, and to stimulate continuous improvement in sustainable development. In 2012, Scientific Certification Systems, Inc. began doing business as SCS Global Services, communicating its global position with offices and representatives in over 20 countries. SCS is currently accredited to ISO 14065 for GHG Validation and Verification by the American National Standards Institute (ANSI) and offers carbon offset project validation and verification under the Verified Carbon Standard (VCS) and the American Carbon Registry (ACR). SCS also offers carbon offset verification under the Climate Action Reserve (CAR) and the Climate, Community and Biodiversity (CCB) standards.

SCS was commissioned by Bluesource to undertake the initial project validation and verification of the Klawock Heenya Improved Forest Management Project. The project is located on 8,619 acres of land consisting of western hemlock, Sitka spruce, and western red cedar forests on Prince of Whales Island, Southeast Alaska. The property is owned by the Klawock Heenya Corporation. They control the timber rights of the forestland. The forest management focuses on natural growth, noncommercial forest maintenance, and sustainable conservation efforts. This report covers the verification period of 27 July 2018 to 26 July 2019 as a project deliverable into the American Carbon Registry.

1.1 Project Description

The project is located on Prince of Wales Island in southeast Alaska. The project area is a portion of the temperate rainforest extending all along the Pacific Coast from Northern California to the Cook Inlet of Alaska. The area is characterized by abundant moisture and cool temperatures. The ecosystems in the area vary from wetlands, beach habitat, alpine environments, and forests. The diversity in ecosystems result in many habitat types and unique conditions for various species in the area. These include migrating bird populations, deer, bear, salmon and many other species.

The project area was largely composed of old growth forest as it was part of the Tongass National Forest prior to 1971. Sections were logged after that date and can be found as secondary growth. Occasional disturbances in the region such as windthrow and landslides can also be found. The harvesting that took place ceased in the year 2005. There is no ongoing or future commercial harvesting intended in the project area. Management options will focus on activites that promote uneven-aged silviculture practices. This includes noncommercial pruning that aids in the promotion of understory growth as it serves as habitat for Sitka black-tailed deer, black beer, moose, and other wildlife species.

The project will achieve GHG reductions through its commitment to maintaining its forest's CO_2 stocks above the regional baseline forest management levels. This will be achieved by implementing significantly lower harvesting levels through sustainable forest management practices which focus on natural growth and noncommercial forest maintenance activities. The project will allow the forest to progress naturally

with conservative sustainable harvesting, ensuring long-term sustainable management of the forest. Overall, providing climate benefits, conservation benefits, and recreational opportunities in the area.

1.2 Audit Team

The SCS audit team consisted of the following individuals:

Lead Verifier and Cruiser: James Cwiklik, SCS Global Services, Verification Forester

Mr. Cwiklik holds a Masters of Forestry from Michigan Technological University. He completed his undergraduate work at the University of Pittsburgh, receiving a B.A. in Environmental Studies, with a minor in Religious Studies and a certificate in Geographic Information Systems. Previously he has been a Lead Consulting Forester with Davey Tree's Resource Division supervising a team of foresters for Pacific Gas and Electric's (PG&E) Community Pipeline Safety Initiative (CPSI) project. Mr. Cwiklik is a certified Arborist and has contributed to the efforts of eradicating the Asian long horned beetle in southwestern Ohio as an Inventory Arborist and Quality Control Specialist. He has also worked with the Michigan Department of Natural Resources as a Forest Technician Crew Leader to lead forest inventories across northern Michigan with an emphasis on the spread of emerald ash borer and beech bark disease. Since joining SCS in February 2018, he has conducted multiple site visits under different standards to assist with data collection, analysis, and field training.

Verifier: Michael Hoe, SCS Global Services, Verification Forester

Mr. Hoe has a M.S. in Sustainable Forest Management, with a minor in Forest Biometrics, from Oregon State University, where he also received his B.S. As a Graduate Research Assistant for OSU he organized a field crew and measurement protocol to obtain high quality field data. Previously he served as a Forester with Mason, Bruce, & Girard Inc., assisting with project management, quality control, and timber cruising in the Pacific Northwest and California. Mr. Hoe has also conducted research with the Bureau of Land Management, obtaining data on tree growth and damage through extensive field work. In addition, he has taught Forest Mensuration and plans to publish two papers on quantifying post-fire basal area mortality with multi-temporal LiDAR. Mr. Hoe is a lead verifier with SCS and has conducted several forestry verifications. During his time with SCS, he has proven to be a well-rounded carbon auditor, possessing a full gamut of technical expertise ranging from forest biometrics, growth and yielding modeling, and timber cruising. Mr. Hoe is based in Eugene, Oregon.

Independent Reviewer: Zane Haxtema, SCS Global Services, Manager

Mr. Haxtema holds a M.S. in Forest Resources from Oregon State University (Corvallis, Oregon, USA) and a B.S. from The Evergreen State College (Olympia, Washington, USA). A well-rounded forestry professional, Mr. Haxtema held a wide variety of positions in forest research and management before coming to SCS, ranging from work on logging and tree planting crews to experience as a wildland firefighter and research assistant. A specialist in natural resource inventory, Mr. Haxtema holds significant expertise in sampling design, inventory management and growth modeling. Mr. Haxtema is well versed in a wide variety of methodological approaches for carbon accounting, having served as a lead auditor on a wide variety of projects under the Climate Action Reserve, the Verified Carbon Standard and the Climate, Community and Biodiversity Standards.

2 Assessment Details

2.1 Assessment Objectives

The objectives of validation are to evaluate:

- Conformance of the submitted Project Plan and Project Monitoring Report with the assessment criteria;
- GHG emissions reduction project planning information and documentation in accordance with the applicable methodology, including the project description, baseline, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures;
- Reported GHG baseline, *ex-ante* estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of verification are to evaluate:

- Reported GHG baseline, project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable);

2.2 Scope and Criteria

The scope of this assessment will be defined as the following:

- Assessment of the management systems, data handling and estimation methods used in calculating and reporting emissions data;
- Assessment of baseline methodology and determination;
- Assessment of and issuance of an opinion on issues of leakage and additionality;
- Assessment of data accuracy and any assumptions made in the manipulation of that data;
- Validation that the organization is operating according to the methodology approved by ACR;
- Determine whether the project could reasonably be expected to achieve the claimed GHG reduction/removals;
- Assessment of completeness of the inventory;
- Verification of emissions reductions and removals reported;
- Verification of the project boundaries and continuance;
- Verification that a measurement and monitoring system is in place that is capable of delivering high quality carbon stock data;
- Verification that the organization is operating according to the methodology approved by the ACR;
- Verification that the carbon stocks reported are real; and
- Conclusions developed on the declared tonnage for registration in ACR.

- The GHG sources, sinks and/or reservoirs that are applicable to the Project:
    - Baseline:
        - Above-ground biomass carbon
        - Below-ground biomass carbon
        - Standing dead wood
        - Harvested wood products
    - Project:
        - Above-ground biomass carbon
        - Below-ground biomass carbon
        - Standing dead wood
        - Harvested wood products
- The reporting period: 27 July 2018 to 26 July 2019

SCS conducted the verification assessment of the project and project documentation against the following criteria:

- American Carbon Registry Standard, Version 5.1
- ACR Approved Methodology: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3

As an ANSI-accredited verification body, SCS conducted the verification to the requirements of:

- American Carbon Registry Validation and Verification Guidelines, Version 1.1
- ISO 14064-3: 2006, Greenhouse Gases – Part 3: Specification with guidance for the validation and verification of GHG assertions

2.3 Level of Assurance and Materiality

SCS performed the assessment activities to a **reasonable level** of assurance in accordance with the assessment criteria. Reasonable assurance is attained by examining a sufficient amount of information, through document review, site visits, and interviews with personnel involved in the execution of the Project. SCS applied a materiality threshold of ***±5%***; meaning, the reported emissions were free of material misstatements, omissions, and errors achieving a minimum level of at least 95% accuracy, in accordance with ACR's materiality threshold.

3 Validation and Verification Process

3.1 Method and Criteria

SCS performed the validation and verification through a combination of document reviews, interviews with relevant personnel, and on-site inspections, as discussed in Section 3.3 through 3.6 of this report. At all times SCS assessed the Project's conformance to the criteria described in Section 2.2 of this report. As discussed in Section 3.6, the audit team issued findings to ensure that the project fully conformed to all requirements. The validation and verification activities included the following:

- Conflict of interest review and appointment of team;
- Kick-off meeting with Bluesource;
- Conducting a document review including the GHG Project Plan, and supporting data;
- Development of the verification and sampling plan;
- Site visits and execution of the sampling plan;
- Review and evaluation of raw data and emission reduction calculations;
- Follow-up of non-conformities and new information requests as needed; and
- Final statement and report development.

3.2 Assessment Summary

The validation and verification process consisted of the following:

1. **Project listed with the ACR**:
   The Klawock Heenya IFM Project is listed on the Registry website (08 January 2019). Bluesource selected SCS as their verification body.

2. **Conflict of Interest Review**.
   The conflict of interest assessment was conducted by SCS to identify any potential conflicts for the audit team and the COI form was submitted to ACR. No conflicts were identified and a determination of low potential for conflict of interest was received from ACR on 18 June 2019 prior to the commencement of verification activities.

3. **Appointment of Audit Team**
   This validation and verification was performed by James Cwiklik, SCS Lead Verifier, and reviewed by Zane Haxtema, SCS Internal Reviewer. Michael Hoe supported the Lead Verifier during verification services. James Cwiklik, Michael Hoe, and Zane Haxtema are lead verifiers approved by SCS.

4. **Project Kick-Off Meeting**
   A kick-off meeting was conducted between the verification team and Ben Parkhurst on 06 March 2019. The purpose of the meeting was to review the scope of validation/verification criteria; review the logistics of the site visit; review the timeline of the audit; discuss any changes in the

project related to the site, sources, GHG management systems; and to begin the information gathering process.

5. **Desk Review**
   SCS received and reviewed the project plan and supporting documentation. A risk assessment was conducted to identify key factors that impact the reported emission reductions and removals. An Audit Plan was designed to review all project elements in areas of high risk of inaccuracy or non-conformance.

6. **Site Visit**
   A site visit was conducted by the audit team on 14 August 2019 to 16 August 2019. The purpose of the site visit is to verify the project equipment, location and eligibility; to review and evaluate the project GHG management systems, data collection and handling, and emission reduction calculations and procedures in place; to assess the qualifications of relevant personnel; and to finalize the risk assessment and sampling plan.

7. **Quantitative Review**
   An assessment of the emission reduction calculation inputs and procedures was performed to review the quantitative analyses undertaken by Bluesource to convert the raw inventory data into emission reduction estimates.

8. **Findings**
   Throughout the verification, there is an iterative exchange between SCS and Bluesource to gather additional information for review and examination. This exchange includes the issuance of Findings—New Information Requests (NIR), Non-Conformity Reports (NCR) and Observations (OBS) — by SCS. The Project Proponent must respond to NIRs and NCRs in order for SCS to render a verification opinion. At this time all Findings have been appropriately addressed by Bluesource and subsequently closed by SCS. See section 3.5 for more information.

9. **Draft Report and Statement**
   This step in the verification process includes a final review of the submitted data, completion of the Verification Report, and drafting of the Verification Statement. A draft Verification Report and Statement are completed based on the results of the verification assessment.

10. **Technical Review**
    The draft report was presented to an SCS lead verifier, independent of the verification, who determined the Verification Statement to be justified given the evidence presented. The Verification Report and Verification Statement were then presented to Bluesource for review and comment.

11. **Final Report and Opinion**
    Once Bluesource approved these documents, SCS uploaded them to the Registry website for administrative review by ACR. Given a positive review, ACR will register the emissions reductions

for the project and issue carbon tonnes for a reporting period of period 27 July 2018 to 26 July 2019.

12. **Exit meeting with client:**
    The exit meeting entails a review of the assessment process, summary of the verification findings, and to initiate scheduling for the next verification period.

3.3 Document Review

SCS conducted a document review to inform the planning process prior to validation and verification activities. SCS carefully reviewed the initial GHG Project Plan (the "Plan") for conformance to the assessment criteria. The audit team also reviewed subsequent copies of the Plan as it was updated by Bluesource in response to findings issued by the team throughout the validation and verification process. A list of other documentation reviewed by the audit team is provided in Appendix B.

The validation and verification process is a risk based assessment aimed at identifying key factors that impact the reported emission reductions and removals. As a result of the document review and correspondence with project personnel, an audit plan and a sampling plan were developed for this engagement. An audit agenda was submitted prior to the site visit. SCS assessed the GHG Project Plan with actual project conditions, reviewed the baseline and project scenarios, assessed the eligibility, additionality, GHG emission reduction assertion and the underlying monitoring data to determine if either contained material or immaterial misstatements. The results of these reviews are discussed in greater detail below.

3.4 Interviews

Interviews constituted an important component of the audit process to help the audit team better understand the dynamics of the Project, the activities implemented in the Project, and how the reductions were real and accurate. The audit team interviewed the following personnel associated with the project proponent and any implementing partners. The phrase "Throughout audit" under "Date Interviewed" indicates that the individual in question was interviewed on multiple occasions throughout the audit process.

Individual	Affiliation	Date Interviewed
Ben Parkhurst	Bluesource, LLC	Throughout the audit
Dan Cummins	Terra Verde	14 August 2019 to 17 August 2019 (site visit)

3.5 Site Inspections

The objectives of the performed on-site inspection were to:

- Confirm the validity of the statements made in the Plan and associated project documentation;
- Interview project personnel to determine if the Plan correctly identifies project activity and assess project personnel competencies;
- Select samples of data from on-the-ground measurements for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the Project; and
- Perform a risk-based review of the project area to ensure that the Project is in conformance with the eligibility requirements of the validation/verification criteria.

In fulfilment of the above objectives, the audit team conducted an on-site inspection on 14 August 2019. The audit team performed an in-depth assessment of the conformance of the Project to the assessment criteria. The inspection included the review of records and discussing the project activities. While touring the project area, the audit team visually observed posted boundary signs, old fence lines, and other objects for reference/boundary trees. Finding #2 relates to issues discovered on site regarding the boundary of the project. This finding has been closed.

All strata and plots were included in the selection for resampling. Selected samples of inventory data were done using simple random selection methods. A total of four plots were resampled from three different strata. The on the ground measurements from these selected plots were then verified by running a paired sample t-test on the independently calculated MT CO2e/acre on each plot. The selected plots passed the t-test.

3.6 Resolution of Any Material Discrepancy

The Project Proponent and audit team resolved any potential or actual material discrepancies identified during the assessment process through the issuance of findings. SCS characterizes the types of findings it issued as follows:

Non-Conformity Report (NCR): An NCR signified a material discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a positive statement.

New Information Request (NIR): An NIR signified a need for supplementary information in order to determine whether a material discrepancy existed with respect to a specific requirement. Receipt of an NIR did not necessarily indicate that the Project was not in compliance with a specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a positive statement.

Observation (OBS): An OBS indicated an area that should be monitored or ideally, improved upon. OBSs were considered to be an indication of something that could become a non-conformity if not given proper attention, and were sometimes issued in the case that a non-material discrepancy was identified. OBSs were considered to be closed upon issuance.

All NCRs and NIRs issued by the audit team during the assessment process have been closed. Appendix C lists all findings issued during the validation and verification process.

4 Validation and Verification Assessment

4.1 Project Design

4.1.1 Project Proponent

As indicated within the ACR GHG Project Plan Eligibility Screening form, the Project Proponent is the Klawock Heenya Corporation. The Plan indicates that the ACR account holder is Bluesource, which SCS confirmed by reviewing the ACR website.

4.1.2 Project Title

The GHG Plan notes the Project title as the *"Bluesource – Klawock Heenya Improved Forest Management Project"*.

4.1.3 Project Type

The GHG Plan notes the Project type as Improved Forest Management. The Project follows the approved ACR methodology: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3, as stated in the GHG Plan.

4.1.4 Location

The GHG Plan indicates the Project site as 8,619 acres of forested land in Southeastern Alaska. The project is consisted of forested parcels owned by the Klawock Heenya Corporation. SCS confirmed the Project Location during the site visit by sampling plots, observing physical boundaries and landmarks, and assessing the Project Area via aerial imagery using GIS software. This meets the requirement that the Project be located in the United States.

4.1.5 Project Summary and Action

SCS confirmed the GHG Plan included a brief summary of the Project including the Project action. This project is owned by the Klawock Heenya Corporation. According to their stewardship plan, the corporation manages for the re-establishment of young growth stands of timber via natural generation while maintaining water quality and conserving critical wildlife habitat. The project allows the forest to progress naturally while providing significant climate benefits through carbon sequestration. This is done by committing to maintain forest CO_2 stocks above the regional baseline.

The project action will not include any commercial harvesting. Management considerations will promote uneven aged silvicultural activities. The corporation will only undertake non-commercial pruning to encourage understory growth for more suitable habitat for bird and mammal species.

During the site visit, the auditor observed older harvested areas, posted boundary signs, old fence lines, signs for reference/boundary trees, and management system in place for the Project activities. SCS confirmed the project consisted of long term sustainable management efforts.

4.1.6 Ex Ante Offset Projection

The Project Proponent provided ex-ante estimations of the baseline emissions avoided per each vintage of emission reductions, which SCS verified in its evaluation of data and calculations. See Section 4.3 below.

4.1.7 Scope

The Project is an Improved Forest Management project, as defined by ACR, within the Land Use Change and Forestry sector as defined by the methodology: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3. The Project complies fully with the criteria as set out in Section A.1 of the methodology.

4.1.8 Parties

SCS confirmed the GHG Project Plan contained the necessary list of parties and details of those roles.

4.1.9 Project Boundary

The Plan contains a description of the physical boundary, which is located just outside the town of Klawock in Southeast Alaska. This is the physical and geographic site where project activities occur. The audit team confirmed that this boundary was well documented throughout both the document review and site visit activities. A finding (#2) was issued upon completion of the site visit, which has been closed after updates to the boundary were made.

The GHG sources, sinks, and reservoirs associated with the baseline and project scenario are shown in the section 2 above.

The sources, sinks, and reservoirs of GHG emissions within the project boundary are listed in the table below. This is the case for both the baseline and project scenarios.

4.2 Project Applicability & Eligibility

The ACR methodology provides a series of requirements for scope and applicability in Section A.2, in addition to the latest ACR program eligibility requirements as found in the ACR Standard. SCS confirmed

that the GHG Project Plan indicates how each applicability condition is met including supplemental requirements stipulated by ACR.

Applicability Conditions

During the document review and site visit, SCS confirmed that the project scenario consists of maintaining above baseline CO2 stocks through carbon sequestration. The project scenario revolves around a sustainable natural management approach designed to maximize carbon sequestration and other benefits. These benefits include water quality protection and wildlife habitat preservation. The project ownership is non-federal U.S. forestland. The project proponent is an incorporated entity and a private forestland owner who controls the timber rights of the forestland. No commercial harvesting will occur on or after the project Start date.

4.2.1 Project Start Date

In accordance with Chapter 3 of the ACR Standard, the start date is defined as the date at which the project began to reduce GHG emissions against its baseline. SCS reviewed the GHG plan to confirm that the Project Activities for this Reporting Period began before the inventory was conducted in September 2018. January 8, 2019 is the date that Bluesource uploaded the listing form to the ACR registry. The number of plots put in were not enough to keep the total project uncertainty below 10% of the net anthropogenic greenhouse gas removals by sinks across the project. Which resulted in using uncertainty deductions. All permanent plots will be re-inventoried at least twice over the following decade to calibrate forest growth models and improve carbon sequestration projections. SCS concluded that the provided

Description	Included / Excluded	Gas	Justification
Above-ground biomass carbon	Included		Major carbon pool subjected to the project activity.
Below-ground biomass carbon	Included		Major carbon pool subjected to the project activity.
Standing dead wood	Included		Major carbon pool in unmanaged stands subjected to the project activity. Project Proponents may elect to include the pool in managed stands. Where included, the pool must be estimated in both the baseline and with project cases. For this Project, standing dead wood will be included in all stands.
Harvested wood product	Included		Major carbon pool subjected to the project activity
Burning of biomass	Included	CH_4	Non-CO2 gas emitted from biomass burning

documents supported the project start date listed in the Registry website, and the Project therefore meets the start date eligibility criteria of the ACR Standard.

4.2.2 Minimum Project Term

The minimum term is forty years. SCS confirmed the Project Proponent provided a timeline with a project term of 40 years, with annual monitoring, reporting and verification in the GHG Plan.

4.2.3 Crediting and Reporting Period

In ACR, the eligible crediting period for this type of project is listed as 20 years. SCS has confirmed the crediting period of 20 years, 27 July 2018 to 26 July 2038, was indicated in section H2 of the GHG plan. SCS has concluded that the reporting period verified in this report is within the applicable crediting period of the Project.

4.2.4 Offset Title

The forestlands in the project area are owned by the project proponent, Klawock Heenya Corporation. Bluesource LLC is the offset developer. This report covers the verification period of 27 July 2018 to 26 July 2019 as a project deliverable into the American Carbon Registry. The project proponent has provided documentation of undisputed title to all offsets that are clear, unique, and uncontested. Bluesource, LLC was responsible for calculating the Project's emission reductions, developing the GHG Project Plan, and listing the Project with ACR. Ownership was confirmed through review of the deeds provided, review of the physical property boundary on site, Klawock tax parcel information, and independently obtained GIS layer of ownership parcels. SCS confirmed that the project proponent retains full, legal, and beneficial title to the carbon offset credits being issued as a result of reductions in emissions from the Bluesource – Klawock Heenya Improved Forest Management Project.

4.2.5 Additionality

The audit team assessed the GHG Project Plan and supporting evidence to determine whether the Project sufficiently passed the approved performance standard, as defined in the applicable methodology, and a regulatory additionality test. The audit team determined that the Project's additionality was demonstrated in accordance with the requirements of the ACR Standard and ACR methodology. The specific evidence provided by the Project Proponent and the validation activities that the audit team performed are described in the sections below.

Regulatory Surplus

The Project Proponent must ensure that emission reductions achieved by the project activities would not have occurred in the baseline case due to federal, state, or local regulations. A regulatory review of the Project was conducted by the audit team. The results of the regulatory review indicated the Project is in compliance with Federal, State and Local regulations. There are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other

legally binding mandates requiring the project activities. SCS reviewed the Alaska Forest Resources and Practices Act and found no requirements that the project activities must take place.

SCS reviewed the Attestations of Regulatory Compliance ("2019-08-15 KHC Regulatory Compliance Attestation.pdf"), submitted by Teresa Fairbanks dated 15 August 2019 affirming the Project's compliance status throughout the reporting period. During the site visit and desk review activities, SCS was able to confirm to a reasonable level of assurance that the Project is in compliance with local, state and Federal regulations and had no material regulatory non-conformance events. SCS reviewed the Alaska Forest Resources and Practices Act, EPA Enforcement & Compliance History Online database (ECHO), and the Occupational Safety and Health Administration (OSHA) for the current Reporting Period and found no evidence of non-compliance.

Lastly, SCS also confirmed the Project's monitoring plan indicated that the Project was in compliance with Federal, State and Local regulations based on this review, SCS concludes the Project met the Regulatory Compliance requirements of the assessment criteria.

Based on its review, SCS determined that the Project Proponent provided clear evidence in the GHG Project Plan that the GHG reduction activity is not required by any applicable and enforced federal, state, or local laws, regulations, ordinances, consent decrees, or other legal arrangements besides as noted above.

Common Practice Test

The Bluesource – Klawock Heenya Improved Forest Management Project showed that similarities exist with the project and nearby industrial forestland. With the passing of the Alaska Native Claims Settlement Act in 1971, and the Alaska National Interest Lands Conservation Act (ANILCA) in 1980, significant sections of high-volume timber stands of the Tongass National Forest were withdrawn for Native settlements and wilderness protection. In 1980, Klawock Heenya entered into a timber harvesting and marketing contract with Sealaska Timber Corporation, a wholly owned subsidiary of the Native Regional Corporation, Sealaska. The arrangement was terminated in 1983. Between 1980 and 2005, virtually all the commercially operable timber on Klawock Heenya lands were harvested. The predominant management method was clear-cut either by cable or shovel yarding, with selective helicopter yarding utilized for steep slopes.

The Klawock Heenya Corporation Stewardship Plan states:

"Klawock Heenya Corporation Commercial Forestlands have been intensively managed for commercial timber harvest. 13,418 acres of commercial timber stands have been harvested. Harvested timber was manufactured primarily for the round-log export market. Minor volumes of logs have been locally manufactured into value-added products at local sawmills.

Non-Commercial Forest lands have not been intensively managed. To date, management has concentrated on maintaining these lands to provide water, recreation, fish and wildlife habitat and subsistence hunting, fishing, and gathering opportunities."

The project area contains a mix of heavily commercially cut areas and noncommercial areas. The forest management of the project could feasibly resemble that of other industrial forestland

owners in the region. By committing to maintain forest CO2 stocks above the baseline level, the project will provide climate benefits, conservation of vital habitat, and sustainable natural forest growth.

Performance Standard

The Bluesource – Klawock Heenya Improved Forest Management Project uses the three-pronged approach; therefore, this step is not required.

4.2.6 Regulatory Compliance

Projects must maintain material regulatory compliance. In order to maintain material regulatory compliance, a project must complete all regulatory requirements at required intervals. During the site visit and desk review activities, SCS was able to confirm to a reasonable level of assurance that the Project is in compliance with local, state, and federal regulations and had no material regulatory non-conformance events. SCS reviewed the EPA Enforcement and Compliance Online History database and found no violations in respect to Clean Air Act or RCRA compliance. In addition, SCS reviewed the Occupational Safety and Health Administration Website and confirmed no issues of non-compliance or violation. Lastly SCS reviewed the project proponent's Attestation of Regulatory Compliance, affirming the Project's compliance status throughout the reporting period. SCS also confirmed the Project's monitoring plan indicated that the Project was in compliance with Federal, State and Local regulations based on this review, SCS concludes the Project met the Regulatory Compliance requirements of the assessment criteria.

4.2.7 Permanence

Section B8 of the GHG Plan asserts that the total risk percentage is 18% based on a risk assessment using the ACR Tool for Risk Analysis and Buffer Determination as required by the ACR methodology. SCS confirmed the above via independent re-quantification of the risk value.

4.2.8 Leakage

Section E3 of the GHG Plan states:

> "Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond *de minimis* levels. Klawock Heenya Corporation does not commercially harvest timber; therefore, there is no activity-shifting leakage."

> "Market leakage was determined by quantifying the merchantable carbon removed in both the baseline and with-project cases. Carbon in long-term storage in in-use wood products and landfills, calculated above, was used to assess relative amounts of "total wood products produced" in the two scenarios. No timber harvest is projected to take place in the project scenario. The decrease in wood production relative to the baseline was then calculated and the applicable market leakage discount factor was determined."

Section 3 of the Monitoring Plan states:

"Quantification of leakage is limited to market leakage, as no activity-shifting leakage is allowed by the methodology beyond *de minimis* levels. All forestlands owned by the cities are included in the carbon project, therefore there is no activity-shifting leakage. As determined in the project GHG Plan, the applicable market leakage factor through the first crediting period is 0.4.

SCS confirmed the above via confirmation of total harvested wood products stored for 100 years within the Baseline and Project Scenario against the requirements in Sections D6 and D7 of the ACR methodology.

4.2.9 Independently Validated and Verified

SCS Global Services is a third-party validation and verification body approved by ACR and therefore meets this requirement.

4.2.10 Community and Environmental Impacts

SCS confirmed that the GHG Plan included an assessment of the potential community and environmental impacts due to the Project. There are no negative impacts identified and therefore no mitigation plan is necessary. The audit team agrees with the assertion by the Project Proponent that any community or environmental impacts associated with this Project would be net positive due to the focused project boundary and reduction of emissions.

4.3 Evaluation of Data and Calculations

4.3.1 Baseline Scenario

The methodology defines the baseline scenario as "project-specific and must describe the harvesting scenario that would maximize NPV of perpetual wood products harvests…" The discount rate assumptions for calculating NPV vary by ownership class (see table below). Given that the Bluesource – Klawock Heenya IFM Project is private industrial land, a 6% discount rate was used, as required.

The GHG Plan continues to state:

> "The Baseline Scenario represents an industrial harvest regime designed to maximize the 100-year Net Present Value (NPV) at a 6% discount rate, subject to operational considerations in the region. Only volume from merchantable species count toward costs and revenue for regeneration harvest i.e., hardwood species are not included). The acres to cut of each prescription by plot was determined using a linear programming model, which found the combination of prescriptions that maximizes the NPV over 100 years."

> "For growth and yield projections, we used the US Forest Service Forest Vegetation Simulator (FVS) Alaska (AK) variant. FVS-AK was calibrated to the project area. For hemlock and spruce species, an SDIMAX of 619 was used, based on results from a recent a regional study[8], instead of the default value for the FVS-AK variant. A site index for western hemlock of 80 was used for all strata and species. "

> "The scenarios were projected in FVS-AK for the 100 year scenario. Projections were annualized using linear interpolation. Direct biomass carbon estimates for live trees were output via FVS FFE carbon reports, using Jenkins et al 2003 biomass predictions in metric tons of carbon per acre, matching the calculations applied to the forest inventory measurements. "

Ownership	Annual Discount Rate
Private Industrial	6%
Private Non-Industrial	5%
Tribal	5%
Non-governmental organization	4%
Non-federal public lands	4%

The equations used to calculate the baseline emissions are the following (equation numbers correspond to the ACR methodology):

$$\Delta C_{BSL,TREE,t} = (C_{BSL,TREE,t} - C_{BSL,TREE,t-1}) \quad (1)$$

Where:

t: Time in years.

$\Delta C_{BSL,Tree,t}$: Change in the baseline carbon stock stored in above and below ground live trees (in metric tons CO_2) for year t.

$C_{BSL,Tree,t}$: Baseline value of carbon stored in above and below ground live trees at the beginning of the year t (in metric tons CO_2) and t-1 signifies the value in the prior year.

$$\Delta \boldsymbol{C_{BSL,DEAD,t}} = (\boldsymbol{C_{BSL,DEAD,t}} - \boldsymbol{C_{BSL,DEAD,t-1}}) \quad (2)$$

Where:

t: Time in years.

$\Delta C_{BSL,DEAD,t}$: Change in the baseline carbon stock stored in dead wood (in metric tons CO_2) for year t.

$C_{BSL,DEAD,t}$: Baseline value of carbon stored in dead wood at the beginning of the year t (in metric tons CO_2) and t-1 signifies the value in the prior year.

$$\overline{\boldsymbol{C}}_{\boldsymbol{BSL,HWP}} = \frac{\sum_{t=1}^{20} \boldsymbol{C_{BSL,HWP,t}}}{\boldsymbol{20}} \quad (3)$$

Where:

t: Time in years.

$\overline{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO_2).

$C_{BSL,HWP,t}$: Baseline value of carbon remaining in wood products 100 years after being harvested in the year t (in metric tons of CO_2).

$$\overline{\boldsymbol{GHG}}_{\boldsymbol{BSL}} = \frac{\sum_{t=1}^{20} (\boldsymbol{BS_{BSL,t}} * \boldsymbol{ER_{CH_4}} * \frac{\boldsymbol{16}}{\boldsymbol{44}} * \boldsymbol{GWP_{CH_4}})}{\boldsymbol{20}} \quad (4)$$

Where:

t: Time in years.

$\overline{GHG}_{BSL}$: Twenty-year average value of greenhouse gas emissions (in metric tons of CO_2) resulting from the implementation of the baseline.

$BS_{BSL,t}$: Carbon stock (in metric tons CO_2) in logging slash burned in the baseline in year t.

ER_{CH4}: Methane (CH4) emission ratio (ratio of CO2 as CH4 to CO2 burned). If local data on combustion efficiency is not available or if combustion efficiency cannot be estimated from fuel information, use IPCC default value17 of 0.012

16/44: Molar mass ratio of CH_4 to CO_2.

GWP_{CH4}: 100-year global warming potential (in CO2 per CH4) for CH4 (IPCC SAR-100 value of 21 per the Fourth Assessment Report)

$$\boldsymbol{C_{BSL,AVE}} = \frac{\sum_{t=0}^{20} (\boldsymbol{C_{BSL,Tree,t}} + \boldsymbol{C_{BSL,DEAD,t}})}{\boldsymbol{20}} + \overline{\boldsymbol{C}}_{\boldsymbol{BSL,HWP}} \quad (5)$$

Where:

t: Time in years.

$C_{BSL,AVE}$: 20-year average baseline carbon stock (in metric tons CO_2).

$C_{BSL,Tree,t}$: Baseline value of carbon stored in above and below ground live trees at the beginning of the year t (in metric tons CO_2).

$C_{BSL,DEAD,t}$: Baseline value of carbon stored in dead wood at the beginning of the year t (in metric tons CO_2).

$\overline{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO_2).

$$\Delta C_{BSL,t} = \Delta C_{BSL,TREE,t} + \Delta C_{BSL,DEAD,t} + \overline{C}_{BSL \cdot HWP} - \overline{GHG}_{BSL}) \quad (6)$$

Where:

t: Time in years.

$\Delta C_{BSL,t}$: Change in the baseline carbon stock (in metric tons CO2) for year t.

$\Delta C_{BSL,Tree,t}$: Change in the baseline carbon stock stored in above and below ground live trees (in metric tons CO_2) for year t.

$\Delta C_{BSL,DEAD,t}$: Change in the baseline carbon stock stored in dead wood (in metric tons CO_2) for year t.

$\overline{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO_2).

$\overline{GHG}_{BSL}$: Twenty-year average value of greenhouse gas emissions (in metric tons of CO_2) resulting from the implementation of the baseline.

If years elapsed since the start of the IFM project activity (t) is ≥T to compute long-term average stock change use:

$$\Delta C_{BSL,t} = 0 \quad (7)$$

$$UNC_{BSL} = \frac{\sqrt{(C_{BSL,TREE,1} * \epsilon_{BSL,TREE})^2 + (C_{BSL,DEAD,1} * \epsilon_{BSL,DEAD})^2 + (\overline{C}_{BSL,HWP} * \epsilon_{BSL,TREE})^2 + (\overline{GHG}_{BSL} * \epsilon_{BSL,TREE})^2}}{C_{BSL,TREE,1} + C_{BSL,DEAD,1} + C_{BSL,HWP} + \overline{GHG}_{BSL}} \quad (10)$$

Where:

UNC_{BSL}: Percentage uncertainty in the combined carbon stocks in the baseline.

$C_{BSL,TREE,t}$: Carbon stock in the baseline stored in above and below ground live trees (in metric tons CO_2) in year t.

$C_{BSL,DEAD,t}$: Carbon stock in the baseline stored in dead wood (in metric tons CO_2) in year t.

$\overline{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO_2).

$\overline{GHG}_{BSL}$: Twenty-year average value of greenhouse gas emissions (in metric tons of CO_2) resulting from the implementation of the baseline.

$\epsilon_{BSL,TREE}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in above and below ground live trees (in metric tons CO_2) for the initial inventory in year *1*.

$\epsilon_{BSL,DEAD}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in dead wood (in metric tons CO_2) for the initial inventory in

year *1*.

All of the data used for the baseline calculations above was made available to the audit team, and SCS confirmed the numbers by review of:

- KHC_100Yr_Calcs_12_17_19.xlsx
- KHC_RP_ERT_HWP_1_16_20.xlsx
- KHC_Start_RP_CO2_12_17_19.xlsx
- KHC_TimberPrices.xlsx
- KHC_IndTreeGrow.accdb
- KHC_INVENTORY.accb
- KHC_START.accb
- KHC_RHPCT12_3.accb

The audit team reproduced the Project Proponent's calculations and verified their accuracy based on the underlying data.

SCS concludes that the GHG Project Plan sufficiently assessed the baseline scenario and that the scenario is relevant, complete, consistent, accurate, transparent, and conservative.

4.3.2 Quantification of Project Emissions

The project scenario consists of a constrained conservation management regime with a goal to maximize carbon sequestration and other conservation benefits. Harvest scenarios assume there is no commercial timber harvesting.

The project prescription is only a no harvest scenario or "Grow" only.

4.3.3 Quantification of Emissions Reductions

Emission reductions are calculated using the following equations.

$$\Delta \boldsymbol{C_{P,TREE,t}} = (\boldsymbol{C_{P,TREE,t}} - \boldsymbol{C_{P,TREE,t-1}}) \quad (21)$$

Where:

t: Time in years.

$\Delta C_{P,Tree,t}$: Change in the project carbon stock stored in above and below ground live trees (in metric tons CO_2) for year t.

$C_{P,Tree,t}$: Project value of carbon stored in above and below ground live trees at the beginning of the year t (in metric tons CO_2) and t-1 signifies the value in the prior year.

$$\Delta \boldsymbol{C_{P,DEAD,t}} = (\boldsymbol{C_{P,DEAD,t}} - \boldsymbol{C_{P,DEAD,t-1}}) \quad (12)$$

Where:

t: Time in years.

$\Delta C_{P,DEAD,t}$: Change in the Project carbon stock stored in dead wood (in metric tons CO_2) for year t.

$C_{P,DEAD,t}$: Project value of carbon stored in dead wood at the beginning of the year t (in metric tons CO_2) and t-1 signifies the value in the prior year.

$$\boldsymbol{GHG_{P,t} = BS_{P,t} * ER_{CH_4} * \frac{16}{44} * GWP_{CH_4}} \quad (13)$$

Where:

t: Time in years.

$GHG_{P,t}$: Greenhouse gas emission (in metric tons CO2e) resulting from the implementation of the project in year (t).

$BS_{P,t}$: Carbon stock (in metric tons CO_2) in logging slash burned in the project in year t.

ER_{CH4}: Methane (CH4) emission ratio (ratio of CO2 as CH4 to CO2 burned). If local data on combustion efficiency is not available or if combustion efficiency cannot be estimated from fuel information, use IPCC default value17 of 0.012

16/44: Molar mass ratio of CH_4 to CO_2.

GWP_{CH4}: 100-year global warming potential (in CO2 per CH4) for CH4 (IPCC SAR-100 value of 21 per the Fourth Assessment Report)

$$\boldsymbol{\Delta C_{P,t} = \Delta C_{P,TREE,t} + \Delta C_{P,DEAD,t} + C_{P,HWP} - GHG_{P,t}} \quad (14)$$

Where:

t: Time in years.

$\Delta C_{P,t}$: Change in the project carbon stock and GHG emissions (in metric tons CO2e) for year t.

$\Delta C_{P,Tree,t}$: Change in the project carbon stock stored in above and below ground live trees (in metric tons CO_2) for year t.

$\Delta C_{P,DEAD,t}$: Change in the project carbon stock stored in dead wood (in metric tons CO_2) for year t.

$C_{P,HWP}$: Carbon remaining stored in wood products 100 years after harvest (in metric tons CO2) for the project in year t.

$GHG_{P,t}$: Greenhouse gas emission (in metric tons CO2e) resulting from the implementation of the project in year (t).

$$\boldsymbol{UNC_{P,t} = \frac{\sqrt{(C_{P,TREE,1} * \epsilon_{P,TREE})^2 + (C_{P,DEAD,1} * \epsilon_{P,DEAD})^2 + (C_{P,HWP,t} * \epsilon_{P,TREE})^2 + (GHG_{P,t} * \epsilon_{P,TREE})^2}}{C_{P,TREE,1} + C_{P,DEAD,1} + C_{P,HWP} + GHG_{P,t}}} \quad (18)$$

Where:

$UNC_{P,t}$: Percentage uncertainty in the combined carbon stocks in the project in year t.

$C_{P,TREE,t}$: Carbon stock in the project stored in above and below ground live trees (in

metric tons CO_2) in year t.$\Delta C_{BSL,Tree,t}$: Change in the baseline carbon stock stored in above and below ground live trees (in metric tons CO_2) for year t.

$C_{P,DEAD,t}$: Carbon stock in the baseline stored in dead wood (in metric tons CO_2) in year t.

$C_{P,HWP,t}$: Annual carbon (in metric tons CO_2) remaining stored in wood products in the project 100 years after harvest in year t.

$GHG_{P,t}$: Greenhouse gas emission (in metric tons CO_2e) resulting from the implementation of the project in year t.

$\epsilon_{P,TREE}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in above and below ground live trees (in metric tons CO_2) for the last remeasurement of the inventory prior to year t.

$\epsilon_{P,DEAD}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in dead wood (in metric tons CO_2) for the last remeasurement of the inventory prior to year t.

$$\boldsymbol{UNC_t = \frac{\sqrt{(\Delta C_{BSL,t} * UNC_{BSL})^2 + (\Delta C_{P,t} * UNC_{P,t})^2}}{\Delta C_{BSL,t} + \Delta C_{P,t}}} \quad (19)$$

Where:

UNC_t: Total project uncertainty in year t, in %.

$\Delta C_{BSL,t}$: Change in the baseline carbon stock and GHG emissions (in metric tons CO2) for year t.

UNC_{BSL}: Percentage uncertainty in the combined carbon stocks in the baseline.

$C_{P,DEAD,t}$: Carbon stock in the baseline stored in dead wood (in metric tons CO_2) in year t.

$C_{P,HWP,t}$: Annual carbon (in metric tons CO_2) remaining stored in wood products in the project 100 years after harvest in year t.

$GHG_{P,t}$: Greenhouse gas emission (in metric tons CO_2e) resulting from the implementation of the project in year t.

$\epsilon_{P,TREE}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in above and below ground live trees (in metric tons CO_2) for the last remeasurement of the inventory prior to year t.

$\epsilon_{P,DEAD}$: Percentage uncertainty expressed as 90% confidence interval percentage of the mean of the carbon stock in dead wood (in metric tons CO_2) for the last remeasurement of the inventory prior to year t.

If calculated UNC in equation (19) is <10%, then UNC shall be considered 0% in equation (20).

$$\boldsymbol{C_{ACR,t} = (\Delta C_{P,t} - \Delta C_{BSL,t}) * (1 - LK) * (1 - UNC_t) * (1 - BUF)} \quad (20)$$

Where:

$C_{ACR,t}$: Annual net greenhouse gas emission reductions (in metric tons CO2e) at time t.

$\Delta C_{P,t}$: Change in the project carbon stock and GHG emissions (in metric tons CO2e) for year

t.

$\Delta C_{BSL,t}$: Change in the baseline carbon stock (in metric tons CO2) for year t.

LK: Leakage discount.

BUF: The non-permanance buffer deduction. BUF will be set to zero if an ACR approved insurance product is used.

UNC_t: Total Project Uncertainty, (in %) for year t. UNCt will be set to zero if the project meets ACR's precision requirement of within ±10% of the mean with 90% confidence. If the project does not meet this precision target, UNCt should be the half-width of the confidence interval of calculated net GHG emission reductions.

Any negative project stock change ($C_{ACR,t}$) values from time t will carry over to the following year through a balance of negative emission reduction tons ($C_{NEG,t}$) which is calculated using equation 21.

$$\boldsymbol{C_{NEG,t} = C_{NEG,t-x} + C_{ACR,t}} \quad (21)$$

Where:

$C_{NEG,t}$: Negative balance of annual net greenhouse gas emission reductions (in metric tons CO2e) at time t.

$C_{NEG,t-x}$: Negative balance of annual net greenhouse gas emission reductions (in metric tons CO2e) at the last valid verification report x years ago (time t-x).

$C_{ACR,t}$: Annual net greenhouse gas emission reductions (in metric tons CO2e) at time t.

If the value of $C_{NEG,t}$ is less than zero in any year prior to the end of the Crediting Period, ERT values are calculated using equation 22, otherwise equation 23 is used.

$$\boldsymbol{ERT_t = 0} \quad (22)$$

$$\boldsymbol{ERT_t = C_{NEGmt-x} + C_{ACR,t}} \quad (23)$$

Where:

ERT_t: Emission Reduction Tons issued with vintage year t.

$C_{NEG,t-x}$: Negative balance of annual net greenhouse gas emission reductions (in metric tons CO2e) at the last valid verification report x years ago (time t-x).

$C_{ACR,t}$: Annual net greenhouse gas emission reductions (in metric tons CO2e) at time t.

All of the data used for the project calculations above was made available to the audit team, and SCS confirmed the numbers by review of:

- KHC_100Yr_Calcs_12_17_19.xlsx
- KHC_RP_ERT_HWP_1_16_20.xlsx
- KHC_Start_RP_CO2_12_17_19.xlsx
- KHC_IndTreeGrow.accdb
- KHC_INVENTORY.accb

- KHC_START.accb
- KHC_GROW.accb
- KHC_GROW.key
- KHC_GROW.out
- KHC_SoutheastAlaska_Cost_Value_12_17_19.xlsx

SCS concludes that the GHG Project Plan sufficiently assessed the emission reductions and calculated them accurately and correctly.

4.3.4 Monitoring Plan

The monitoring parameters and the quantification approach employed by the Project Proponent in the baseline and project scenarios conform to the parameters and quantification methods required by the Methodology. SCS determined that the Project Proponent sufficiently documented and quantified each parameter. Bluesource monitored each parameter throughout the reporting period, and the resulting data was subsequently provided to the audit team.

Data or Parameter Monitored	A1
Unit of Measurement	Acres
Description	Area of IFM Project
Data Source	GIS shape file derived from GPS coordinates
Measurement Methodology	Strata area figures adjusted based on stocking levels and species distribution projected in modeling and verified through inventory updates
Value applied:	8,619 acres
Monitoring Frequency	Every 5 years , following with inventory update
Reporting Procedure	Hand held GPS unit, GIS software
QA/QC Procedure	Meta data is kept current and uncorrupted
Purpose of Data	Calculation of project emissions
Calculation Method	Calculated in ArcGIS
Notes	

Data or Parameter Monitored	T
Unit of Measurement	Year(s)
Description	Number of years between monitoring time t and t1 (T = t2 – t1)
Data Source	Monitoring reports
Measurement Methodology	
Data Uncertainty	None
Monitoring Frequency	Calendar
Reporting Procedure	
QA/QC Procedure	All calculations double checked for accuracy prior to submission for verification

Purpose of Data	Calculation of project emissions
Calculation Method:	Subtraction
Notes	

Data or Parameter Monitored	Diameter at breast height of tree
Unit of Measurement	Inches (to 1/10th of an inch)
Description	Tree diameter measure 4.5 feet above ground
Data Source	Field measurement
Measurement Methodology	Measured with Loggers Tape or calipers
Monitoring Frequency	Every 5 years after the first inventory
Value Applied:	
Reporting Procedure	Hand held GPS unit or cruise tally sheet
QA/QC Procedure	Equipment will be maintained in excellent condition. Breast height marked with permanent paint on all record trees >5in in diameter
Purpose of Data	Calculations of project emissions
Calculation method:	N/A
Notes	

Data or Parameter Monitored	Tree Height (H)
Unit of Measurement	Feet
Description	Total height of tree and phantom height for broken tops
Data Source	Field measurements
Measurement Methodology	Measured with clinometer or hypsometer
Monitoring Frequency	Every 5 years after the first inventory
Value Applied	
Reporting Procedure	Hand held GPS unit or cruise tally sheet
QA/QC Procedure	Equipment will be maintained in excellent condition. All heights will be double checked for reasonableness prior to submission for verification
Purpose of Data	Calculations of project emissions
Calculation method:	N/A
Notes	

Data or Parameter Monitored	Decay class
Unit of Measurement	
Description	Qualitative degree of decomposition
Data Source	Forest Inventory
Measurement Methodology	Qualitative assessment of dead tree into 1 of 4 decay classes based on class descriptions

Data Uncertainty	None
Monitoring Frequency	Every 5 years after the first inventory
Value applied:	
Reporting Procedure	Hand held GPS unit or cruise tally sheet
QA/QC Procedure	Equipment will be maintained in excellent condition. All decay classes will be double checked for reasonableness prior to submission for verification
Purpose of Data	
Calculation method:	
Notes	

Data or Parameter Monitored	Tree Live or Dead Status
Unit of Measurement	
Description	Live or dead
Data Source	Forest Inventory
Measurement Methodology	Measure per the Klawock Heenya Carbon Plot Methodology
Data Uncertainty	None
Monitoring Frequency	Every 5 years after the first inventory
Value applied:	
Reporting Procedure	Hand held GPS unit or cruise tally sheet
QA/QC Procedure	Equipment will be maintained in excellent condition. All tree statuses will be double checked for reasonableness prior to submission for verification
Purpose of Data	
Calculation method:	
Notes	

Data or Parameter Monitored	Defect
Unit of Measurement	Percent (%)
Description	Qualitative percent of missing biomass
Data Source	Forest Inventory
Measurement Methodology	Tree defect is qualitatively assessed for missing biomass in the bole from 1 ft stump to total height. The exception is for broken tops below 4" DOB when the percent biomass missing is calculated from 1 ft stump to broken top. Top height and phantom height are measured and missing biomass in the broken portion is calculated post-inventory.
Data Uncertainty	None
Monitoring Frequency	Every 5 years after the first inventory
Value applied:	Tree-specific
Reporting Procedure	Hand held GPS unit or cruise tally sheet

QA/QC Procedure	Equipment will be maintained in excellent condition. All tree defects will be double checked for reasonableness prior to submission for verification.
Purpose of Data	
Calculation method:	
Notes	

Data or Parameter Monitored	Tree Species Composition
Unit of Measurement	Percent (%)
Description	Spp composition as a percentage of basal area.
Data Source	Forest Inventory
Measurement Methodology	Derived from basal area calculations from inventory data.
Data Uncertainty	None
Monitoring Frequency	Every 5 years after the first inventory
Value applied:	
Reporting Procedure	
QA/QC Procedure	Species identification is confirmed at verification.
Purpose of Data	Calculation of project emissions
Calculation Method	Basal Area = 0.005454 * DBH2
Notes	

Data or Parameter Monitored	Harvested Wood Products
Unit of Measurement	Metric tons CO2
Description	Carbon remaining in stored wood products 100 years after harvest for the project in year t.
Data Source	
Measurement Methodology	
Data Uncertainty	None
Monitoring Frequency	Annual data summed for the monitoring period, applied as average annual for the monitoring period
Value applied:	
Reporting Procedure	
QA/QC Procedure	No commercial harvesting.
Purpose of Data	
Calculation method:	
Notes	

Data or Parameter Monitored	Forest Carbon
Unit of Measurement	Metric tons of CO2
Description	Carbon stores in above and below ground live trees at the beginning of the year t.
Data Source	Forest Inventory
Measurement Methodology	Consistent with 'KHC_Carbon_Plot_Methodology.pdf'
Data Uncertainty	To be calculated as the mean +/- 90% confidence interval
Monitoring Frequency	Every 5 years or less, or at request for ERT issuance.
Value applied:	
Reporting Procedure	
QA/QC Procedure	Consistent with 'KHC_Carbon_Plot_Methdology.pdf' – The inventory will use a random sample design and remeasure the same permanent plots, which targeted a precision level of +/- 10% of the mean live tree biomass with 90% confidence.
Purpose of Data	
Calculation method:	
Notes	

4.3.5 Verification Body Data checks

The audit team assessed the Project Proponent's emission reduction calculation inputs and procedures to convert the raw inventory data into emission reduction estimates. This review included a detailed look at the Project's data aggregation and processing procedures, recordkeeping and data storage, and the quality control and assurance procedures. Additionally, the audit team conducted in person interviews with relevant personnel involved in these activities.

4.3.6 Parameters Monitored

SCS devoted a portion of the verification assessment to the review of the manner and propriety by which Bluesource quantified their net GHG reductions and removals. This assessment included a review of the baseline determination, review of project assumptions, raw data inputs and accuracy of calculations. The formulas and raw data inputs used to determine emission reduction calculations as described in the methodology and the calculation spreadsheets were first reviewed for compliance. The main parameters were verified via independent re-quantification and are listed in sections 4.3.1 and 4.3.3 of this report. In some cases, a random sample was selected as all of the data could not be examined during verification services.

Emission Reductions

The audit team verified that the Project Proponent used the appropriate emissions factors and GWP's to calculate total emission reductions, which is adherent to the ACR Methodology. The team recalculated the final emission reductions and confirmed that they are without material discrepancy.

The ERT's associated with the first reporting period are reported in the ERT workbook and are verified by the validation/verification team are as follows:

- Total: 69,327 tCO2e (Emissions reductions at the end of the current reporting period including deductions for uncertainty, risk, and leakage)
- 18% buffer contribution
- 40% Leakage deduction

Variances or Deviations

For this reporting period, there were no variances or deviations.

Uncertainty

The baseline uncertainty of 14.1% was verified within "ACR_BS_KHC_RP1_Uncertainty_V1-0_010920.xlsx", "Summary" tab via independent requantification (see table below).

Percentage uncertainty in the combined carbon stocks		
	14.1%	SCS Recalculated Value
UNC_{BSL}	14.1%	Client Value
	0%	*Difference*

The Project Uncertainty and Total Uncertainty are reported in "KHC_Start_RP_CO2_Stats_12_17_19.xlsx" – "Stats_RP" tab was confirmed to be consistent with the ACR methodology.

Materiality

$$\%\ Error = \frac{(Project\ Emission\ Reduction\ Assertion - Verifier\ Emission\ Reduction\ Recalculation)}{Verifier\ Emission\ Reduction\ Recalculation} * 100$$

$$\%\ Error = \frac{(69{,}327 - 69{,}480)}{69{,}480} * 100 = \frac{-154}{69{,}480} * 100 = -0.22\%$$

5 Validation Conclusion

SCS confirms that the GHG Plan for the Bluesource – Klawock Heenya Improved Forest Management Project conforms to the validation criteria, as set out in the ACR Standard, Version 5.1, Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands, Version 1.3, and the criteria referenced in

Section 2.2 of this report. No qualifications or limitations exist with respect to the validation opinion reached by the audit team.

6 Verification Conclusion

The audit team affirms with a reasonable level of assurance that the Bluesource – Klawock Heenya Improved Forest Management Project has been designed and, for the duration of the reporting period 27 July 2018 to 26 July 2019, implemented in accordance with the verification criteria, as set out in the documents referenced in Section 2.2 above.

On the basis of the information made available SCS and the analyses completed during the verification, SCS was able to reach a positive opinion, with a reasonable level of assurance, that the emission reductions represented by the project proponent during the monitoring period of 27 July 2018 to 26 July 2019 are free from material misstatement and in conformance with the assessment criteria.

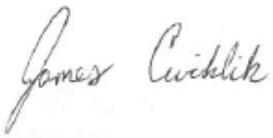
The following provides a summary of the verification results:

Reporting Period	Baseline Emissions tCO_2e	Project Emissions tCO_2e	Net GHG Emission Reductions tCO_2e
27 July 2018 to 26 July 2019	-131,101	28,769	69,327

Annual Emission Reduction in Metric Tons (tCO_2e)				
Reporting Period	**Vintage**	**Start Date**	**End Date**	**Net GHG Emission Reductions (tCO_2e)**
1	2018	27 July 2018	31 December 2018	30,037
1	2019	1 January 2018	26 July 2019	39,290

Annual Emission Reduction in Metric Tons (tCO_2e)					
Reporting Period	**Vintage**	**Start Date**	**End Date**	**Net GHG Emission Reductions (tCO_2e)**	**Quantity of Buffer Credits (tCO_2e)**
1	2018	27 July 2018	31 December 2018	36,631	6,594
1	2019	1 January 2018	26 July 2019	47,915	8,625

Note: final numbers are rounded for simplicity.

Lead Verifier's Approval	 James Cwiklik, 06 March 2020
Technical Reviewer's Approval	 Zane Haxtema, 06 March 2020

Appendix A: SCS Certification Mark

Congratulations on receiving a positive verification for the Bluesource – Klawock Heenya Improved Forest Management Project. Your project is now eligible to use the SCS Kingfisher Certification Mark B for Carbon Offset Project Verification, as represented on the cover page of this verification report. The SCS Kingfisher Certification Mark increases the recognition of your achievements with your verification carbon offset project.

Please refer to the *SCS Kingfisher Certification Mark Labeling and Language Guide: Mark B* provided to you by the GHG Verification Program staff for more information about your Mark and usage. Should you have any additional questions regarding your Mark, use, messaging, or other marketing opportunities, please contact the GHG Verification Team or SCS Marketing Staff at NRmarcom@scsglobalservices.com.

Appendix B: List of Documents Reviewed During Audit Proceedings

GHG Plan & Monitoring Report

- KlawockHeenya_GHG_Plan_1_16_20.pdf
- KlawockHeenya_MonitoringReport_1_16_19.pdf

GIS Information

- KHC_Boundary_9_20_19.shp
- KHC_Strata_9_20_19.shp
- KHC_Plots_7_16_19.shp
- KHC_RMZ_09_20_19.shp

FVS files (growth and yield modelling)

- KHC_GROW.accdb
- KHC_START.accdb
- KHC_INVENTORY.accdb
- KHC_IndTreeGrow.accdb
- KHC_GROW.key
- KHC_GROW.out
- KHC_RHPCT12_3.key
- KHC_RHPCT12_3.out

Quantification workbooks

- KHC_100Yr_Calcs_12_17_19.xlsx
- KHC_RP_ERT_HWP_1_16_20xlsx
- KHC_Start_RP_CO2_12_17_19.xlsx
- KHC_SiteIndex.xlsx
- KHC_TimberPrices.xlsx

Inventory workbooks

- KHC_Carbon_Plot_Methodology_09_24_19.pdf
- KHC Stratification Methodology.pdf

Title document

- Patent 50-07-0080(IC-348).pdf
- Patent 50-07-0080(IC-1395).pdf
- Patent 50-07-0080(Native Allotment).pdf
- Patent 50-80-0118.pdf

- Patent 50-82-0094.pdf
- Patent 50-88-0269.pdf

Supplemental documents (Certifications, Easements, Attestations, and Management Plans)

- FY16 Klawock Heenya Forest Stewardship Plan.pdf
- KHC_SoutheastAlaska_Cost_Value_7_17_19.xlsx
- 2019-08-15 KHC Regulatory Compliance Attestation.pdf
- Title Attestation KHC 8_15_19.pdf
- Voluntary Project Implementation - signed.pdf
- FW_ ACR IFM Request for Clarification.pdf
- ACR_Transition_to_20Yr_Avg_Baseline_1_14_20.pdf
- KlawockHeenya_ListingForm_1_8_19.pdf
- Bluesource KHC Forest Carbon Agreement Final 7_30_18_Redacted.pdf

****Please note that many of the quantification workbooks as well as the GHG plan and Monitoring Report have multiple versions, these were all examined but the final version listed here****

Appendix C: List of Findings

Please see Section 3.6 above for a description of the findings issuance process and the categories of findings issued. It should be noted that all language under "Client Response" is a verbatim transcription of responses provided to the findings by project personnel.

Reporting Period: 7/27/2018 - 7/26/2019

NCR 1 Dated 23 Aug 2019
Standard Reference: ACR Standard 5.1, section 2.B.6 Managing Data Quality
Document Reference: KlawockHeenya_MonitoringReport_072419.pdf
KlawockHeenya_ListingForm_1_8_19.pdf

Finding: Section 2.B.6 refers to managing data quality, specifically stating "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information…" This section is referenced in relation to the project title being inconsistent across documents submitted for verification. The GHG plan and monitoring report list the project name as "Bluesource - Klawock Heenya Improved Forest Management Project" while the listing doc and section 4 of the monitoring report refer to the "Blue Source - Klawock Heenya Improved Forest Management Project." Please update to one consistent project name across documents.
Project Personnel Response: The GHG plan and monitoring report will be updated to state 'Bluesource - Klawock Heenya Improved Forest Management Project' as the project title.
Auditor Response: Upon review of the updates made this finding is closed. The title has been updated appropriately.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 2 Dated 23 Aug 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, section 2.B.1.
Document Reference: KlawockHeenya_GHG_Plan_7_24_19.pdf
KHC_Boundary_7_16_19.shp
KHC_OwnershipMap.pdf
Finding: Section 2.B.1 refers to the Project Boundary, stating "GHG project boundaries include a project's physical boundary or implementation area, the GHG sources, sinks and reservoirs (or pools) considered, and the project duration." Section B1, also states "This methodology applies to non federal U.S. forestlands that are able to document 1) clear land title or timber rights and 2) offsets title. Projects must also meet all other requirements of the ACR Standard, Version 5.0." During the site visit it was discovered that a number of areas along the western edge (Wadleigh Island) include non forested areas, and further discovered that these areas were sold by the project proponent to other private land owners. Houses, boat docs, and other structures are built in these areas. The shapefile referenced includes the same areas as the project area. Please update the project boundaries removing any/all instances of other property owners as well as non forested areas to be in conformance with the standard and methodology.
Project Personnel Response: The project boundary has been updated to exclude these additional parcels which were incorrectly retained in the original project area. The Stewardship Plan was used to delienate these additional parcels for removal. All reporting documents and calculations have been updated to reflect the new acreage.
Auditor Response: The boundary has been updated to exclude the parcels which are not part of the carbon project. However, the audit team issued an NIR for additional data on these parcels to confirm that they have been accurately removed. The finding is open now but no response needed at this time. Instead it will be closed once the data is received and verified.

UPDATE: The client provided an explanation of how the GIS portion of the shareholders was removed. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NCR 3 Dated 23 Aug 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, section C.3.1.1
Document Reference: KlawockHeenya_GHG_Plan_7_24_19.pdf
Finding: Section 3.1.1 states that " A sampling plan must be developed that describes the inventory process including sample size, determination of plot numbers, plot layout and locations, and data collected." The GHG plan states "The inventory employed a sample of 70 nested, fixed-radius circular plots installed in a systematic grid across the project area." However, during the site visit it became clear that this was not a systematic grid of sample locations but rather random. Please update the GHG plan to the accurate sampling techniques.
Project Personnel Response: The GHG Plan has been corrected to state that the plot selection was random.
Auditor Response: The reference to a systematic grid has been updated to the actual plot selection (random). This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 4 Dated 23 Aug 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, section F2.
Document Reference: KHC_Carbon_Plot_Methodology_02_27_19.pdf
Finding: Section F2 states "Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions/removals, including estimating and accounting for any decreases in carbon pools and/or increases in GHG emission sources." In 2018, a random distribution of permanent inventory plots will be installed across the project area. The total number of plots sampled, 250..." In this case the random distribution is accurate compared to the GHG plan, however only 70 plots were installed, not 250. Please update the inventory methodology to accurately reflect the measurements taken during the inventory process.
Project Personnel Response: The total number of plots taken has been corrected to 70.
Auditor Response: The reference to 250 plots has been updated to 70. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 5 Dated 23 Aug 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, section F2.
Document Reference: KHC_Carbon_Plot_Methodology_02_27_19.pdf
Finding: Section F2 states "Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions/removals, including estimating and accounting for any decreases in carbon pools and/or increases in GHG emission sources." During the site visit and review of the inventory methodology, it was pointed out that the minimum mapping unit used for the project was 1 acre, while the inventory methodology states 2.5 acres. Please update the inventory methodology to accurately reflect how the inventory was conducted.
Project Personnel Response: This has been updated to state 1-acre minimum mapping units were employed.
Auditor Response: The reference to the minimum mapping unit has been updated to the accurate unit of 1 acre. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 6 Dated 23 Aug 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, section F2.
Document Reference: KHC_Carbon_Plot_Methodology_02_27_19.pdf
Finding: Section F2 states "Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions/removals, including estimating and accounting for any decreases in carbon pools and/or increases in GHG emission sources." During the site visit it became clear that the information in the inventory methodology was not accurate when referring to the phantom total heights taken. The inventory methodology states "Phantom Total Height – The height as tree originally stood (if tree is snapped or has missing segments). Please note that every phantom height should have a measured height recorded as well and will generally also have defect recorded.", however the contractor on site, Dan Cummins from Terra Verde, stated that the actual heights used were not recorded (where the break occurred) but rather where the live green part of the tree was. Please update the inventory methodology to accurately reflect how the inventory was completed in regard to actual/phantom height measurements.
Project Personnel Response: Clarification for phantom and total height measurements have been included in the inventory methodology.

Auditor Response: The total height description has been updated to include the highest green information that was given on site. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 7 Dated 23 Aug 2019
Standard Reference: N/A
Document Reference: KHC_Carbon_Plot_Methodology_02_27_19.pdf
Finding: The inventory methodology references a "KlawockHeenyaStratificationReport" in the stratification section. This new information request (NIR) refers to this document. Please provide for verification purposes.
Project Personnel Response: Please see "KHC Stratification Methodology".
Auditor Response: The document has been provided. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): NA

NCR 8 Dated 23 Aug 2019
Standard Reference: ACR Standard 5.1, section 2.B.6 Managing Data Quality
Document Reference: KlawockHeenya_MonitoringReport_072419.pdf
Finding: Section VI: GHG Emission Reductions and Removals states the start date as July 27, 2017. While in the beginning of the document it states July 27, 2018. Please update and remove any instances of incorrect start dates.
Project Personnel Response: The date has been corrected to July 27, 2018 in the Monitoring Plan.
Auditor Response: The reference to the 2017 start date has been updated to the accurate start date in 2018. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 9 Dated 17 Oct 2019
Standard Reference: ACR Standard 5.1, section 6.H Additional Required Documentation For Eligibility Screening , Section 10.A Double Use of Offsets
Document Reference: Patent 50-82-0094.pdf
Patent 50-07-0080(IC-1395).pdf
Finding: Section 6.H of the ACR Standard V5.1 states "ACR may require the following documentation as part of screening the GHG Project Plan for listing: Title documents or sample landowner agreements…" Section 10A states "ACR requires clear proof of ownership upon registration..."

The "Appendix A Ownership Docs" folder contains two pdf documents that reference patents in the area. However, the owner listed on the patents is "Sealaska Corporation". This does not satisfy the requirements of the standard as proof of ownership for Klawock Heenya Corporation. Please provide proper ownership documents to satisfy the requirements of the standard.
Project Personnel Response: The two of the provided patents that list Sealaska Corp are in reference to the subsurface owbership, not the surface estate. Specific details:

50-82-0094 - This is the subsurface estate patent granted to Sealaska Corporation where 50-82-0094 (2) conveyes the surface estate to KHC.
50-88-0269 - This is the subsurface estate patent granted to Sealaska Corporation where 50-88-0269.tif conveyes the surface estate to KHC. 50-88-0269.tif has now been provided.
50-07-0080 (IC-1395) - This is the subsurface estate patent granted to Sealaska Corporation where 50-070-0080 (IC_348) conveyes the surface estate to KHC.
Auditor Response: Thank you for clarifying the patents provided for the ownership check. After extensive checks by the audit team to confirm each patent, everything checks out. This finding has been closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NCR 10 Dated 17 Oct 2019
Standard Reference: ACR Standard 5.1, Chapter 3: Project Eligibility Requirements
Document Reference: N/A
Finding: Chapter 3, Table 2, Offset Title states "The Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration, including chain-of-custody documentation if offsets have been sold in the past."

Patents and Conveyances have been provided as documentation, but no attestation has been provided. Please provide this attestation as part of the ACR requirements.
Project Personnel Response: This attestation has now been provided.
Auditor Response: The attestation has been provided. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NCR 11 Dated 17 Oct 2019
Standard Reference: ACR Standard 5.1, Chapter 3: Project Eligibility Requirements
Document Reference: N/A
Finding: Chapter 3, Table 2, Regulatory Compliance section states "Project Proponents are required to provide a regulatory compliance attestation to a verification body at each verification. This attestation must disclose all violations or other instances of non compliance with laws, regulations, or other legally binding mandates directly related to Project Activities."

Please provide this attestation to be in compliance with the standard.
Project Personnel Response: This attestation has now been provided.
Auditor Response: The attestation has been provided. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NCR 12 Dated 17 Oct 2019
Standard Reference: ACR Standard 5.1, Chapter 3: Project Eligibility Requirements
Document Reference: N/A
Finding: Chapter 3, Table 2, Permanent section states "AFOLU Project Proponents shall assess reversal risk using ACR's Tool for Risk Analysis and Buffer Determination, and shall enter into a legally binding Reversal Risk Mitigation Agreement with ACR/Winrock that details the risk mitigation option selected and the requirements for reporting and compensating reversals."

Please provide the Risk Mitigation Agreement to be in conformance with this requirement.
Project Personnel Response: We will need to get the final version of the GHG Plan approved prior to signing the RMA as it requires the final date of the GHG Plan.
Auditor Response: This will be followed up upon completion of the GHG plan.
Bearing on Material Misstatement or Conformance (M/C/NA):

NCR 13 Dated 17 Oct 2019
Standard Reference: ACR Standard 5.1, Chapter 3: Project Eligibility Requirements
Document Reference: N/A
Finding: Chapter 3, Table 2, Environmental and Community Safeguards section states "Project Proponents shall disclose in their Annual Attestations any negative environmental or community impacts or claims thereof and the appropriate mitigation measure." The definition section states "Annual Attestation Statement: The statement that a Project Proponent provides annually to ACR relating to the continuance, ownership, and community and environmental impacts of a project. The Attestation is required to continue crediting."

Please provide the annual attestation to be in conformance with this requirement.
Project Personnel Response: This attestation has now been provided.
Auditor Response: The attestation has been provided. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NIR 14 Dated 17 Oct 2019
Standard Reference: ACR Validation and Verificaiton Standard V 1.1, Chapter 2: Validating Project Boundaries
Document Reference: N/A
Finding: The standard states "To validate project boundaries, the VVB shall confirm through a field visit, visual and/or photographic evidence, maps, Geographic Information System (GIS) files, operating logs, and/or interviews with site operations personnel the accuracy of the project boundaries as defined in the GHG Project Plan." During the site visit it was determined that land owned by the Klawock Heenya Corporation included shareholder subdivisions that should not be part of the project area. The project area has been updated in response to this discovery on site (finding#2).

This NIR is a request for any available subdivision or shareholder data that was used to update the project area. GIS data would be ideal to confirm that the project area was accurately updated, however any data used would be helpful for verification purposes.
Project Personnel Response: The GIS data for the shareholder subdivisions was unavailable. The subdivisions were identified in the FY16 Klawock Heenya Forest Stewardship Plan provided in the shared verification folder, pages 7- 9. These images were georeferenced to the boundary shapefile and the subdivisions were manually removed in ArcMap. We conservatively buffered around areas that were not clear in the imagery by removing just to the outside of the orange style lines on the maps.

Auditor Response: Upon review of the updated boundary, it appears that all of the subdivision areas have been accurately removed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NCR 15 Dated 11 Nov 2019
Standard Reference: Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, 3.2 Wood Products Calculations
Document Reference: KlawockHeenya_GHG_Plan_9_23_19.pdf
KHC_RP_ERT_HWP_9_23_19.xlsx
Finding: The methodology states " Multiply the total carbon weight (metric tons of carbon) for each group derived in Step 1 by the mill efficiency identified for the project's mill location(s) in the Regional Mill Efficiency Database, found on the Reference documents section of this methodology's website."

Upon review of this process it was found that the Harvested Softwood Pulp CO2 does not reference the correct mill efficiency. It currently assumes a mill efficiency of 0%. This is found in the Baseline_HWP_Step_1_2_3 tab in the ERT HWP workbook, also reflected in the GHG plan.

Please update to be in conformance with the methodology.
Project Personnel Response: The softwood mill efficiency has been updated in the Baseline_HWP_Step_1_2_3 tab.

Auditor Response: The client has updated the referenced mill efficiency for Pulp CO2. Even though the amount in the wood products is not applicable due to the lack of a pulp market.
Bearing on Material Misstatement or Conformance (M/C/NA):

NIR 16 Dated 27 Nov 2019
Standard Reference: ACR Standard 5.1, Chapter 4: Implementation Barriers Test - Financial Barriers
Document Reference: KHC_SoutheastAlaska_Cost_Value_7_17_19.xlsx
Finding: During the review of the calculated logging costs it was found that cross referencing the Forest Service equation used for $/MBF for the Cable clearcut, Old growth, long span (cell I32) is slightly incorrect.
The current equation reads:
=7012*(4.44+0.00279*1500+(27.6+(574052+701696*F32)/1500^2)/G32)/(68.08+827*F32)+66.21

While the Forest Service equation reads = 7562*
(4.44+0.00279*AYD+(27.6+(574052+7016196*sps)/AYD^2)/svpa)/(68.08+827*sps)+70.41+cem/TCNV

The SCS equation is taken from a newer version of the Forest Service's RV Appraisal (Nov. 11th 2019), but you'll note that the bold/underlined values are a decimal off, which will impact the overall cost.

This finding is highlighting the inaccuracy of this equation. Please revise to the reflect accurate logging costs.

Project Personnel Response: The logging cost equation has been updated to relect the newer version of the equation.
Auditor Response: The client has updated the equation to reflect the accurate cost assumptions. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NIR 17 Dated 27 Nov 2019
Standard Reference: ACR Standard 5.1, Chapter 4: Implementation Barriers Test - Financial Barriers
Document Reference: KHC_SoutheastAlaska_Cost_Value_7_17_19.xlsx
Finding: The KHC_Costs tab cell C11 references C53 in the R10 cost and value appraisal tab. This is the Young Growth Haul costs. This NIR is requesting information as to why the young growth haul costs are used when the rest of the costs are centered around old growth. Is there a particular reason why the young growth haul costs are used?
Project Personnel Response: The haul costs have been reflect to the old growth haul costs.
Auditor Response: The client responded to the finding by updating the cell reference for Haul costs, specifically changing it from young growth to old growth costs. This is more in line with what they have indicated is present on the ground. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

NIR 18 Dated 27 Nov 2019
Standard Reference: ACR Standard 5.1, Chapter 4: Implementation Barriers Test - Financial Barriers
Document Reference: KHC_SoutheastAlaska_Cost_Value_7_17_19.xlsx
Finding: The calculated road costs are taken from "Kleinhenz. Phone communication and 2006 Generalized Cost Analysis spreadsheet". Please provide any of these documents or information used to calculate the road construction costs for the project.
Project Personnel Response: We have updated the road cost assumptions in the latest version of the Cost_Value workbook. We assume that since the project has an exisiting road network, there would only be about 50% of the new road building costs needed to implement the baseline harvests.
Auditor Response: The client provided email correspondence with Brian Kleinhenz, an experienced forester in the region. He provided his rationale for the assumptions of road costs in the region (his personal experience with contracting these services in the region for private land owners). He also checked them against USFS records. The client updated road cost assumptions, specifically that 50% of new road construction is assumed due to the existence of a road network.This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA):

OBS 19 Dated 27 Nov 2019
Standard Reference: N/A
Document Reference: KHC_100Yr_Calcs_9_23_19.xlsx
Finding: This Observational finding is related to the HarvestRevenue tab in the referenced 100Yr workbook. A couple equations appear to be a bit incomplete or inaccurate with their cell references. Specifically, cell B5-L5 reference the Baseline MBF subtracting another cell, however the other cell references are blank.

=Baseline!WP10-Baseline!ACO16 (where ACO16 is blank).

Another observation in the same tab is cell C8 - the "$ Per Yr". (Avg $ per Yr/Project Acreage) is how the equation functions but is not $ Per Yr.

This is only an observational finding because it does not appear to affect any used values, simply has some odd cell references.

Project Personnel Response: The equations in cell B5-L5 were updated to remove the reference to empty cells. The values in these cells are unchanged.
Auditor Response:
Bearing on Material Misstatement or Conformance (M/C/NA):

NIR 20 Dated 27 Nov 2019
Standard Reference: ACR Standard 5.1, Chapter 4: Implementation Barriers Test - Financial Barriers
Document Reference: KHC_100Yr_Calcs_9_23_19.xlsx
Finding: This NIR is to request information on how Precommercial Thinning Costs were determined. Cell B3 in the Financial tab lists the expense as $375/acre per entry. Please provide information as to how that was calculated or determined.
Project Personnel Response: This came from Brian Kleinhenz, based on knowledge of PCT costs in the region.
Auditor Response: The client provided email correspondence with Brian Kleinhenz, an experienced forester in the region. He provided his rationale for the assumptions of PCT costs in the region (his personal experience with contracting these services in the region for private land owners). He also checked them against USFS records. The client provided information on how these costs were determined. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 21 Dated 10 Jan 2020
Standard Reference: ACR Standard 5.1 Section 2.B.4 Conservativeness.
Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non-Federal U.S. Forestlands v1.3, C3. Baseline Net Reductions and Removals
Document Reference: KHC_RP_ERT_HWP_12_17_19.xlsx
Finding: During the review of the Baseline Net Reductions and Removals the audit team noticed a slight deviation from the methodology in the use of the annual projected stocking levels. The methodology states "Annual projected stocking levels are used for the baseline stock change calculation until the projected stocking level reaches the long term average (time t = T)." It continues, "The following equations must be applied until year t equals T."

Referencing the KHC_RP_ERT_HWP workbook, ACR_IFM_ERT_Calcs tab, cell L17, is when the projected stocking level reaches the long term average (year 2026) in the baseline stock change calc. However, t = T is not applied until the following year, resulting a deltaCbaseline of -38,756 for year 2026. This is not in conformance with the methodology.

The ACR Standard 5.1 section 2.B.4 states "The methodology shall define assumptions and specify quantification methods and monitoring requirements to ensure that GHG emission reductions and removals are not overestimated, particularly in cases where estimation methods, not direct measurement, are used to populate parameters." The process by which the baseline stock change calculation was performed does not follow the wording of the Conservativeness section of the standard.

Project Personnel Response: We emailed ACR for clarification on this issue, along with a memo summarizing our interpretation of these calculations (provided separately), and he responded "I agree occurrence of t=T may fall within a reporting period duration, and accounting for baseline loss in this partial reporting period provides a more accurate calculation of ERTs. When this occurs, the remaining difference of baseline loss from the previous reporting period may be counted. In the subsequent reporting period (i.e. when year t > T), deltaCbsl,t becomes equal to zero as per the intent of the methodology." As a result, we have left the calculations the same.
Auditor Response: The client provided the email correspondence with ACR, justifying their approach to t=T calcs. This finding is now closed as ACR agreed with their updated approach.
Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 22 Dated 16 Jan 2020
Standard Reference: ACR Standard 5.1, section 2.B.6 Managing Data Quality
Document Reference: KlawockHeenya_MonitoringReport_12_17_19.pdf
Finding: Section 2.B.6 refers to managing data quality, specifically stating "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information…" This section is referenced in relation to instances of inaccurate information in the up to date monitoring report.

Section III: Project details references the project acreage of 8,985. This has changed since the start of the verification. This section also lists the total projected GHG removal as 664,332 mtCO2e, which has also changed.

Section IV: AFOLU Projects
Part 2 lists the carbon pools which appear inaccurate for the Live Tree tCO2e portion.
Project Personnel Response: We have updated the outdated acreage number. The 664,332 mtCO2e total projected GHG removals appears to be the updated value. This value is the sum of the emissions reductions without the buffer removed.

The live tree total CO2 value of 1,531,010 is the correct EORP value, which comes from cell R12 of the Stats_RP tab of the CO2 calcs file. However, this value should have been pasted into the ERT workbook because this is the verified EORP stock. This change has been made in the most current version of the ERT file, and the GHG and monitoring report have been updated accordingly.

Auditor Response: Upon review of the updates, the accurate acreage, total projected GHG removals, and EORP values are reported. This finding is now closed.
Bearing on Material Misstatement or Conformance (M/C/NA): C