

VALIDATION & VERIFICATION REPORT

American Carbon Registry

ACR398: Bluesource – Doe Mountain Improved Forest Management Project

Reporting Period:
10 October 2017 to 9 October 2018

Prepared for:

Bluesource

16 April 2019



AMERICAN CARBON REGISTRY



ISO 14065 Greenhouse Gas
Validation and Verification Body
#0821

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Project Title	Bluesource – Doe Mountain Improved Forest Management Project
Client	Bluesource
Project Location	Northeastern Tennessee
Reporting Period	10 October 2017 to 9 October 2018
Prepared by	SCS Global Services (SCS)
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Summary

SCS Global Services (SCS) has performed the validation and verification of the Bluesource – Doe Mountain Improved Forest Management Project (“the Project”) developed by Doe Mountain Recreation Authority (“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 10 October 2017 to 9 October 2018. 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 (January 2018), 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 (April 2018), the ACR Validation and Verification Guidelines, Version 1.1 (May 2018).

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 15 findings were issued: 10 NCRs, 4 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 125,848 metric tons of CO₂e reductions and removals from the Bluesource – Doe Mountain Improved Forest Management Project for the reporting period of 10 October 2017 to 9 October 2018.

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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 Bluesource – Doe Mountain Improved Forest Management Project. The project area had been mostly privately owned for generations and was slated for development until the land was purchased by state and local governments. The Nature Conservancy and the state of Tennessee collaborated to purchase the land. The Doe Mountain Recreation Authority (DMRA) was created by the state of Tennessee in 2012. They provided an outdoor recreation area and tourism attraction for Johnson County. The acquisition helped to conserve one of the largest remaining blocks of forest in private ownership in the Southern Blue Ridge region. The mountain forests harbour some 40 rare species of plants and animals as well as more common species like deer, turkey, and black bear. This report covers the verification period of 10 October 2017 to 9 October 2018 as a project deliverable into the American Carbon Registry.

1.1 Project Description

The Bluesource – Doe Mountain Improved Forest Management Project is located in northeast Tennessee. It is 8,485.58 acres in size. The forests are primarily mixed hardwoods, oak-hickory, and oak-pine. Predominant tree species include chestnut oak, red maple, scarlet oak, sourwood, eastern white pine, yellow poplar, sweet birch, northern red oak, blackgum, pitch pine, black oak, white oak, hickory, magnolia, and eastern hemlock. Wildlife present on site include deer, black bear, turkeys, and many mountain bird and mammal species.

The Project is one of the largest contiguously owned forested parcels in the state and region. It is primarily used for recreational opportunities such as ATV and biking trails. The forest management goals of the Project include management decisions that focus on sustainable, natural forest growth, and noncommercial maintenance harvests that emphasize forest health and safety (for recreational users). This is in contrast to the forest management practices of the area, which are characterized by shorter, even-aged rotations. High-grade logging practices and parcelization are also common. Doe Mountain Recreation Authority seeks to earn profit through recreation opportunities and conservation activities. Without the carbon project, alternative scenarios for the land include intensive silvicultural practices and

parcelization. This could also include the sale of different parts of the forest land for non-timber development.

The Bluesource – Doe Mountain Improved Forest Management Project will achieve GHG reductions through its commitment to maintaining its forest's CO₂ stocks above the baseline level. This will be achieved by implementing lower harvest levels and improved silvicultural practices such as precommercial thinning, wildlife management cuts, and promotion of early successional forests. With this commitment, the forest's carbon sequestration will provide climate benefits as well as forest health benefits.

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 has a Master 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 longhorned 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: Francis Eaton, SCS Global Services, Verification Forester

Francis Eaton holds a Masters of Forest Science from the Yale School of Forestry and Environmental Studies and received his B.S. in Forestry from Northern Arizona University. The focus throughout his studies was forest management with emphases on sampling design and statistical analysis. His studies in the Southwest United States were concentrated in ecological restoration, range management, and fire ecology. He spent three years working collecting field data and completing data analysis on forest restoration projects utilizing thinning treatments and prescribed fire with the Ecological Restoration Institute. His work experience also includes complete biophysical inventories, estimation of timber volume, and wildfire risk assessments for two 3000 acre properties, as a forest consultant in northern New Mexico. Mr. Eaton has a long history of working with cattle and grazing lands and has spent over a decade working in the cattle production industry for the second largest cattle operation in the U.S. Mr. Eaton currently works as a verification forester for SCS and has experience auditing AFOLU projects under the Verified Carbon Standard (VCS) and Climate, Community, and Biodiversity Alliance (CCB) standards, as well as Improved Forest Management projects under the standards of the Climate Action Reserve (CAR), including seven projects in east Africa in Miombo, Mopane, Acacia, and Camiphora forest types. Finally, Mr Eaton is an accredited as lead verifier, U.S Forest Offset and Urban Forest project specialist.

Technical Expert: 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: Letty Brown, SCS Global Services, Verification Forester

Dr. Brown holds a Ph.D. in Forest Science from the University of California, Berkeley, and a Masters in Science in Range Ecology. Prior to joining SCS, Dr. Brown worked as a Forest Scientist at URS, where she led forest carbon offset project development and management of forest inventory for various clients. In this role she also worked on methodology development with the Verified Carbon Standard, developing methods for crediting wetland conservation projects in their Technical Working Group. Upon receiving her Ph.D. in 2007, Dr. Brown was a Fulbright Scholar and Postdoctoral Researcher in Brazil, designing and implementing remote-sensing and ground-based research to map and designate conservation targets for a portion of the Brazilian Atlantic Forest. Her background also includes forest restoration and ecological analysis, having created habitat conservation plans in California and managed teams of field researchers throughout her career. She has extensive experience using GIS software, database software, and statistical software. Dr. Brown is proficient in Portuguese, French, and Spanish, in addition to her English fluency.

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: 10 October 2017 to 09 October 2018

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

- American Carbon Registry Standard, Version 5.1 (July 2018)
- 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 (April 2018)
- ACR Validation and Verification Standard Version 1.1 (May 2018)

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 $\pm 5\%$; 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 American Carbon Registry:

The Bluesource - Doe Mountain Improved Forest Management project is listed on the Registry website (10 October 2018). 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 4 October 2018 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 Letty Brown, SCS Internal Reviewer. Francis Eaton performed the site visit portion. Michael Hoe supported the Lead Verifier during verification services. Michael Hoe, Francis Eaton, and Letty Brown are lead verifiers approved by SCS.

4. Project Kick-Off Meeting

A kick-off meeting was conducted between the verification team and Cakey Worthington, and Sharada Vadlamani of Bluesource on 24 October 2018. The purpose of the kick-off meeting was to review the timeline of audit; confirm verification criteria; determine any changes in the site, sources, GHG management systems or personnel; and to begin gathering information.

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 31 October 2018 to 2 November 2018. 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 team 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 10 October 2017 to 09 October 2018.

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
Cakey Worthington Carlos Silva	Bluesource	Throughout the audit
Sharada Vadlamani Ian Anderson Tate Davis	Bluesource Ecoforesters Doe Mountain Recreation Authority	31 October 2018 – 2 November 2018

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 31 October 2018. 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 thinning treatments, posted boundary signs, old fence lines, monumented corners, and metal tags for reference/boundary trees.

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 Doe Mountain Recreation Authority. 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 – Doe Mountain 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 (December 2018), as stated in the GHG Plan.

4.1.4 Location

The GHG Plan indicates the Project site as 8,485.58 acres of mixed hardwoods in northeast Tennessee. The project location is Johnson County at 1203 Harbin Hill Rd, Mountain City, TN 37683. 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. Doe Mountain is a contiguous parcel used as a conservation and recreation-based property. It is one of the largest contiguously owned forested parcel in the state and region. The ownership seeks to earn profit through recreation opportunities and conservation activities on the property. The recreational opportunities primarily involve hiking, biking, and ATV trails. The conservation activities primarily involve carbon offsetting. The logging practices around the project area includes heavy high grading logging and parcelization. Forestlands owned by Doe Mountain will not have commercial harvesting will take place.

The project action will be minimal due to the lack of commercial harvests. Management will focus on sustainable, natural forest growth and non-commercial maintenance harvests for forest health and to reduce hazards for recreation users. Additionally, the proposed project activities will lead to significant increases in the carbon storage and conservation value relative to typical private sector industrial management in the region. This project ensures conservative/sustainable management of the forests, which otherwise under existing state and regional timber harvest regulations, could undergo intensive industrial harvesting. Without funding from the carbon project, alternative scenarios include intensive silvicultural practices or parcelization and sale of the forestland to owners for intensive management or development.

During the site visit, the audit team observed thinning treatments, posted boundary signs, old fence lines, monumented corners, metal tags for reference/boundary trees, and management system in place for the Project activities. SCS confirmed the project consists of activities with an emphasis on recreational opportunities and conservation efforts such as forest health.

4.1.6 Ex Ante Offset Projection

Bluesource 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 (December 2018). 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 in Johnson County, Tennessee. 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.

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.

Description	Included / Excluded	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

Gas	Source	Included / Excluded	Justification / Explanation of choice
CO ₂	Burning of biomass	Excluded	However, carbon stock decreases due to burning are accounted as a carbon stock change.
CH ₄	Burning of biomass	Included	Non-CO ₂ gas emitted from biomass burning.
N ₂ O	Burning of biomass	Excluded	Potential emissions are negligible.

Applicability Conditions

During the document review and site visit, SCS confirmed that the project scenario consists of growing the forestland with non-commercial harvesting maintaining carbon removals above the annual allowable cut. The project scenario is an assumption of single tree selection harvest on no more than 10% of the project area. Ex-ante projections can be found in the GHG plan.

The project is located in Johnson County, Tennessee and therefore meets the criteria requirement. SCS confirmed the location during the document review and site visit. The project proponent successfully established that the project area lies on private land and demonstrated that they maintain ownership of timber rights as of the project State Date.

4.2.1 Project Start Date

In accordance with Chapter 3 of the ACR Standard, the start date is defined as the date which coincides with the signing of the Carbon Marketing & Development Agreement between Doe Mountain Recreation Authority and Bluesource. SCS reviewed the GHG plan to confirm that the Project Activities for this Reporting Period began on 10 October 2017. SCS concluded that the documents provided 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 40 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, 10 October 2017 to 09 October 2037, 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 Doe Mountain Recreation Authority is the owner of the Bluesource – Doe Mountain IFM Project. The Doe Mountain Recreation Authority is the sole owner of the GHG offsets generated during the course of the Project activities. The document *DoeMountain_OffsetsTitle_Attestation_2018_signed.pdf* provides proof of undisputed title to all offsets that are clear, unique, and uncontested. Doe Mountain Recreation Authority was confirmed as the Project Proponent. Ownership was confirmed through review of the deeds provided by Doe Mountain Recreation Authority as well as review of the physical property boundary on site, and Johnson County tax parcel information. SCS confirmed the Doe Mountain Recreation Authority retains full, legal, and beneficial title to the carbon offset credits being issued as a result of reductions in emissions from the Bluesource – Doe Mountain IFM 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 Best Management Practices in Tennessee (BMPs) Manual and found no requirements that the project activities must take place.

SCS reviewed the Attestation of Regulatory Compliance submitted by Daniel Reese dated 8 January 2019 ("*DoeMountain_Regulatory_Compliance_Attestation_2018_signed*"), 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

also reviewed the 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 its review, SCS determined that the Bluesource 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.

Performance Standard

The Bluesource – Doe Mountain 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 regulatory compliance attestation submitted by Bluesource confirming the facility was in material compliance during the reporting period. SCS also confirmed the Project's monitoring plan contained procedures for maintaining and monitoring regulatory compliance and that the procedures were being properly followed the results of the regulatory review 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

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:

“To prevent activity-shifting leakage, Doe Mountain will not conduct harvests on other lands under its ownership that would offset the harvest reductions attributable to the project. Therefore, leakage is limited to market leakage. We conservatively assume market leakage of 40%. “

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 – Doe Mountain Improved Forest Management Project is Private Non-Industrial timberland, a 5% discount rate was used,

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

as required.

The GHG Plan continues to state:

“The ACR protocol defines the baseline as the mix of harvest prescriptions that maximizes the net present value (NPV) of timber revenues over a 100-year period. We determined this mix by projecting 100-year timber revenues across a range of common harvest practices in the region (Table E1.e). We consulted with Jake Almond (American Forest Management), a local forester, to identify these harvest practices.”

“Our consultations with local forester, Jake Almond (American Forest Management), indicated that variable harvest costs of \$4.26 per green ton of saw timber and \$0.5 per green ton of pulpwood are typical for the region. Our forester consultations also indicated typical fixed management costs of \$6.43 per acre. We subtracted these costs from timber revenues prior to computing the net present value of 100-yr baseline cash flows. We computed NPV using a 5% discount rate, the rate specified for private non-industrial forestlands such as clubs, associations, and nonprofits in the ACR protocol.”

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 CO₂) 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 CO₂) and t-1 signifies the value in the prior year.

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

Where:

t: Time in years.

$\Delta C_{BSL,DEAD,t}$: Change in the baseline carbon stock stored in dead wood (in metric tons CO₂) 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 CO₂) and t-1 signifies the value in the prior year.

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

Where:

t: Time in years.

$\bar{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO₂).

$C_{BSL,HWP,t}$: Baseline value of carbon remaining in wood products 100 years after being harvested

in the year t (in metric tons of CO₂).

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

Where:

t: Time in years.

\overline{GHG}_{BSL} : Twenty-year average value of greenhouse gas emissions (in metric tons of CO₂) resulting from the implementation of the baseline.

$BSL_{t,t}$: Carbon stock (in metric tons CO₂) in logging slash burned in the baseline in year t.

ER_{CH_4} : 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 CH₄ to CO₂.

GWP_{CH_4} : 100-year global warming potential (in CO₂ per CH₄) for CH₄ (IPCC SAR-100 value of 21 per the Fourth Assessment Report)

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

Where:

t: Time in years.

$C_{BSL,AVE}$: 20-year average baseline carbon stock (in metric tons CO₂).

$C_{BSL,Tree,t}$: Baseline value of carbon stored in above and below ground live trees at the beginning of the year t (in metric tons CO₂).

$C_{BSL,DEAD,t}$: Baseline value of carbon stored in dead wood at the beginning of the year t (in metric tons CO₂).

$\overline{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO₂).

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

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 CO₂) for year t.

$\Delta C_{BSL,DEAD,t}$: Change in the baseline carbon stock stored in dead wood (in metric tons CO₂) 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 CO₂).

\overline{GHG}_{BSL} : Twenty-year average value of greenhouse gas emissions (in metric tons of CO₂) resulting from the implementation of the baseline.

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

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

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

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 CO₂) in year t.
- $C_{BSL,DEAD,t}$: Carbon stock in the baseline stored in dead wood (in metric tons CO₂) in year t.
- $\bar{C}_{BSL,HWP}$: Twenty-year average value of annual carbon remaining stored in wood products 100 years after harvest (in metric tons of CO₂).
- \overline{GHG}_{BSL} : Twenty-year average value of greenhouse gas emissions (in metric tons of CO₂) 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 CO₂) 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 CO₂) 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:

- DoeMountain_100Yr_Calcs_2_7_18_Solved.xlsx
- DoeMountain_Regeneration_Calcs_12_4_18.xlsx
- DoeMountain_RP_ERT_HWP_2_21_18.xlsx
- DoeMountain_Start_RP_CO2_2_5_18.xlsx
- DoeMountain_TimberPrices_2_5_18.xlsx
- DoeMountain_GHG_Plan_3_13_19.pdf

The audit team reproduced Bluesources' 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 GHG plan states: "The project scenario consists of simulating the forestland with non-commercial harvesting maintaining carbon removals above the annual allowable cut. The project action will allow

the forest to progress naturally with no commercial harvesting. Management decisions of the forest focus on sustainable, natural forest growth and maintenance harvests for essential activities and forest health. The project ensures long-term sustainable management of the forests.”

Harvest scenarios were limited in the project scenario, using only GROW and STS (single tree selection). No clearcut or diameter limit scenarios were used. The goal is conservation based.

The GHG plan also states: “To prevent activity-shifting leakage, Doe Mountain will not conduct harvests on other lands under its ownership that would offset the harvest reductions attributable to the project. Therefore, leakage is limited to market leakage. We conservatively assume market leakage of 40%.”

4.3.3 Quantification of Emissions Reductions

Emission reductions are calculated using the following equations.

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

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 CO₂) 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 CO₂) and t-1 signifies the value in the prior year.

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

Where:

t: Time in years.

$\Delta C_{P,DEAD,t}$: Change in the Project carbon stock stored in dead wood (in metric tons CO₂) 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 CO₂) and t-1 signifies the value in the prior year.

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

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 CO₂) in logging slash burned in the project in year t.

ER_{CH_4} : 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 CH₄ to CO₂.

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

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

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 CO₂) for year t.

$\Delta C_{P,DEAD,t}$: Change in the project carbon stock stored in dead wood (in metric tons CO₂) 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).

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

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 CO₂) 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 CO₂) for year t.

$C_{P,DEAD,t}$: Carbon stock in the baseline stored in dead wood (in metric tons CO₂) in year t.

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

$GHG_{P,t}$: Greenhouse gas emission (in metric tons CO₂e) 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 CO₂) 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 CO₂) for the last remeasurement of the inventory prior to year t.

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

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 CO₂) in year t.
- $C_{P,HWP,t}$: Annual carbon (in metric tons CO₂) remaining stored in wood products in the project 100 years after harvest in year t.
- $GHG_{P,t}$: Greenhouse gas emission (in metric tons CO₂e) 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 CO₂) 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 CO₂) 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).

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

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-permanence 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. UNC_t will be set to zero if the project meets ACR's precision requirement of within $\pm 10\%$ of the mean with 90% confidence. If the project does not meet this precision target, UNC_t 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.

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

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.

$$ERT_t = 0 \quad (22)$$

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

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:

- DoeMountain_100Yr_Calcs_2_7_18_Solved.xlsx
- DoeMountain_Regeneration_Calcs_12_4_18.xlsx
- DoeMountain_RP_ERT_HWP_2_21_18.xlsx
- DoeMountain_Start_RP_CO2_2_5_18.xlsx
- DoeMountain_TimberPrices_2_5_18.xlsx
- DoeMountain_GHG_Plan_3_13_19.pdf

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/Doe Mountain Recreation Authority monitored each parameter throughout the reporting period, and the resulting data was subsequently provided to the audit team.

<i>Data or Parameter Monitored</i>	A1
<i>Unit of Measurement</i>	Acres

<i>Description</i>	Area of IFM Project
<i>Data Source</i>	GIS shape file derived from GPS coordinates
<i>Measurement Methodology</i>	Strata area figures adjusted based on stocking levels and species distribution projected in modeling and verified through inventory updates
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years , following with inventory update
<i>Reporting Procedure</i>	Hand held GPS unit, GIS software
<i>QA/QC Procedure</i>	Meta data is kept current and uncorrupted
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	T
<i>Unit of Measurement</i>	Year(s)
<i>Description</i>	Number of years between monitoring ($T = t_2 - t_1$)
<i>Data Source</i>	Monitoring reports
<i>Measurement Methodology</i>	
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Annually
<i>Reporting Procedure</i>	
<i>QA/QC Procedure</i>	All calculations double checked for accuracy prior to submission for verification
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Diameter at breast height of tree
<i>Unit of Measurement</i>	Inches (to 1/10th of an inch)
<i>Description</i>	Tree diameter measure 4.5 feet above ground
<i>Data Source</i>	Field measurement
<i>Measurement Methodology</i>	Measured with Loggers Tape or calipers
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	Hand held GPS unit or cruise tally sheet
<i>QA/QC Procedure</i>	Equipment will be maintained in excellent condition. Breast height marked with permanent paint on all record trees >5in in diameter
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Tree Height (H)
<i>Unit of Measurement</i>	Feet
<i>Description</i>	Height of tree
<i>Data Source</i>	Field measurements

<i>Measurement Methodology</i>	Measured with clinometer or hypsometer
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	Hand held GPS unit or cruise tally sheet
<i>QA/QC Procedure</i>	Equipment will be maintained in excellent condition. All heights will be double checked for reasonableness prior to submission for verification
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Decay class
<i>Unit of Measurement</i>	
<i>Description</i>	Qualitative degree of missing biomass
<i>Data Source</i>	Forest Inventory
<i>Measurement Methodology</i>	Qualitative assessment of dead tree into 1 of 4 decay classes based on class descriptions
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	Hand held GPS unit or cruise tally sheet
<i>QA/QC Procedure</i>	Equipment will be maintained in excellent condition. All decay classes will be double checked for reasonableness prior to submission for verification
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Tree Live or Dead Status
<i>Unit of Measurement</i>	Tree life status
<i>Description</i>	Live or dead
<i>Data Source</i>	Forest Inventory
<i>Measurement Methodology</i>	Measured per the DM_Carbon_Plot_Methodology_3_16_18.docx
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	Hand held GPS unit or cruise tally sheet
<i>QA/QC Procedure</i>	Equipment will be maintained in excellent condition. All tree statuses will be double checked for reasonableness prior to submission for verification
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Defect
<i>Unit of Measurement</i>	Percent (%)
<i>Description</i>	Qualitative percent of missing biomass
<i>Data Source</i>	Forest Inventory

<i>Measurement Methodology</i>	Qualitative assessment of tree assessed by thirds for the % missing biomass from each third. Post-inventory weighting conducted for each third of tree (Bottom 65%, Middle 25%, Top 10%)
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	Hand held GPS unit or cruise tally sheet
<i>QA/QC Procedure</i>	Equipment will be maintained in excellent condition. All tree defects will be double checked for reasonableness prior to submission for verification.
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Tree Species Composition
<i>Unit of Measurement</i>	Percent (%)
<i>Description</i>	Spp composition as a percentage of basal area.
<i>Data Source</i>	Forest Inventory
<i>Measurement Methodology</i>	Derived from basal area calculations from inventory data.
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Every 5 years after the first inventory
<i>Reporting Procedure</i>	
<i>QA/QC Procedure</i>	Species identification is confirmed at verification.
<i>Purpose of Data</i>	Calculation of project emissions
<i>Calculation Method</i>	Basal Area = $0.005454 \times \text{DBH}^2$
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Harvested Wood Products
<i>Unit of Measurement</i>	Metric tons CO ₂
<i>Description</i>	Carbon remaining in stored wood products 100 years after harvest for the project in year t.
<i>Data Source</i>	Harvest slips and reports produced by Doe Mountain.
<i>Measurement Methodology</i>	Wood volumes harvested will be monitored using the whichever recordation system is appropriate for the harvest (lump sum v. pay as cut).
<i>Data Uncertainty</i>	None
<i>Monitoring Frequency</i>	Annual data summed for the monitoring period, applied as average annual for the monitoring period
<i>Reporting Procedure</i>	
<i>QA/QC Procedure</i>	Harvest volumes cut and delivered to the mill will be either (1) weighed at the mill on scales tested annually by the state of Tennessee (or neighboring state) and

	converted to wood volume in an appropriate software, or (2) directly scaled to volume by log scalers certified by the state of Tennessee (or neighboring state).
<i>Notes</i>	

<i>Data or Parameter Monitored</i>	Forest Carbon
<i>Unit of Measurement</i>	Metric tons of CO ₂
<i>Description</i>	Carbon stores in above and below ground live trees at the beginning of the year t.
<i>Data Source</i>	Forest Inventory
<i>Measurement Methodology</i>	Consistent with DM_Carbon_Plot_Methodology_3_16_18.docx
<i>Data Uncertainty</i>	To be calculated as the mean +/- 90% confidence interval
<i>Monitoring Frequency</i>	Every 5 years or less, or at request for ERT issuance.
<i>Reporting Procedure</i>	
<i>QA/QC Procedure</i>	Consistent with Doe Mountain Carbon Plot Methodology.docx. The inventory will use a random sample design and re-measure the same permanent plots established in 2018, which targeted a precision level of +/- 10% of the mean live tree biomass with 90% confidence.
<i>Notes</i>	

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:

- Year 2018: 125,848 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 6.85% was verified within "ACR_BS_DM_RP1_Uncertainty_V1-0_022619.xlsx", "DoeMountain_RP_ERT_HWP_2_21_18.xlsx", and "DoeMountain_Start_RP_CO2_2_5_18.xlsx" "Stats_StartDate" tab via independent re-quantification (see table below).

	SCS Value	Client Value	
UNC _{BSL}	6.83%	6.85%	
		0.02%	Difference

The Project Uncertainty and Total Uncertainty are reported in "DoeMountain_Start_RP_CO2_2_5_18.xlsx" "Stats_StartDate" tab and were confirmed to be consistent with the ACR methodology.

Materiality

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

$$2018 \% \text{ Error} = \frac{(125,848 - 126,079)}{125,848} * 100 = \frac{-230}{125,848} * 100 = -0.18\%$$

5 Validation Conclusion

SCS confirms that the GHG Plan for the Bluesource – Doe Mountain Improved Forest Management Project conforms to the validation criteria, as set out in the ACR Standard, Version 5.1 (July 2018), 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 (April 2018), 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 – Doe Mountain Improved Forest Management Project has been designed and, for the duration of the reporting period 10 October 2017 to 09 October 2018, 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 10 October 2017 to 09 October 2018 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 ₂ e	Project Emissions tCO ₂ e	Net GHG Emission Reductions tCO ₂ e	Gross GHG Emission Reductions tCO ₂ e
10 October 2017 to 09 October 2018	-220,109	35,683	125,848	153,475

Note: final numbers are rounded for simplicity.

Buffer Contribution = 27,627

Leakage = 83,899

Lead Verifier's Approval	 James Cwiklik, 16 April 2019
Technical Reviewer's Approval	 Letty Brown, 16 April 2019

Appendix A: SCS Certification Mark

Congratulations on receiving a positive verification for the Bluesource – Doe Mountain 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

- DoeMountain_GHG_Plan_3_13_19.v6pdf
- DoeMtn_RP1_MonitoringReport_3_14_19.pdf

GIS Information

- Doe_Boundary_5_18_18.shp
- Doe_Plots_5_18_18.shp
- soildb_US_2003.mdb

FVS files (growth and yield modelling)

- DoeMountain_START.accdb
- DoeMountain_CC.accdb
- DoeMountain_CC.out
- DoeMountain_CC.KEY
- DoeMountain_DL.out
- DoeMountain_DL.KEY
- DoeMountain_GROW.out
- DoeMountain_GROW.KEY
- processFVSoutput.R

Baseline and Project Scenario quantification workbooks

- DoeMountain_100Yr_Calcs_2_7_18_Solved.xlsx
- DoeMountain_Regeneration_Calcs_12_4_18.xlsx
- DoeMountain_RP_ERT_HWP_2_21_18.xlsx
- DoeMountain_Start_RP_CO2_2_5_18.xlsx
- DoeMountain_TimberPrices_2_5_18.xlsx

Title document

- DMRA-DEED.pdf
- Doe Mountain Title Policy issued to TNC.pdf

Supplemental documents

- DM_Carbon_Plot_Methodology_3_16_18.pdf
- Timber Mart South Annual 2016.pdf
- RE Forest PestsDisease in Johnson County (email)
- Doe Mountain CDMA Executed 10-3-17_Redacted.pdf

- ACR AFOLU Carbon Project Reversal Risk Mitigation Agreement 2018_unsigned.pdf
- Annual-Project-Attestation_2018_signed.pdf
- DoeMountain_OffsetsTitle_Attestation_2018_signed.pdf
- DoeMountain_Regulatory_Compliance_Attestation_2018_signed.pdf
- DoeMountain_ListingForm_10_20_17.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.

NCR 1 Dated 30 Nov 2018

Standard Reference: ACR Standard v5.1 Chapter 3

ACR Validation and Verification Standard v1.1 section 6.D Offset Title

Document Reference:

Finding: The standard 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. Title to offsets shall be clear, unique, and uncontested. " Please provide this attestation to be compliant with the standard.

Project Personnel Response: An offsets title attestation has been provided in the shared folder.

Auditor Response: Upon issuance of the finding, an offsets title attestation has been provided. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 2 Dated 30 Nov 2018

Standard Reference: ACR Standard v5.1 Chapter 3

Document Reference:

Finding: The standard 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 conformance with the standard.

Project Personnel Response: A regulatory compliance attestation has been provided in the shared folder.

Auditor Response: Upon issuance of the finding, a regulatory compliance attestation title has been provided. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 3 Dated 30 Nov 2018

Standard Reference: ACR Validation and Verification Standard v1.1 section 6.E Impermanence and Risk Mitigation

Document Reference:

Finding: The standard states "For projects with a risk of reversal of GHG emission reductions/removals, Project Proponents must assess risk using an ACR-approved risk assessment tool and enter into a legally binding Reversal Risk Mitigation Agreement with ACR." Please provide this agreement to be in compliance with the standard.

Project Personnel Response: The Risk Mitigation Agreement will be provided upon finalization of the GHG Plan after verification and ACR review, per the requirements of the attestation. An unsigned copy has been provided in the meantime, per ACR's request.

Auditor Response: Upon issuance of the finding, an unsigned risk mitigation agreement was issued. The finding is closed but the document will need to be signed upon completion of the verification.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 4 Dated 30 Nov 2018

Standard Reference: ACR Standard v5.1 Chapter 3

Document Reference:

Finding: The standard states "ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices...Project Proponents shall disclose in their Annual Attestations any negative environmental or community impacts or claims thereof and the appropriate mitigation measure. ACR reserves the right to refuse to list or issue credits to a project based on community or environmental impacts that have not or cannot be mitigated, or that present a significant risk of future negative environmental or community impacts." Please provide the required attestation to be in conformance with the standard.

Project Personnel Response: The Annual Attestation, which covers all these items, has been provided in the shared folder.

Auditor Response: Upon issuance of the finding, an annual project attestation was provided for reference. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 5 Dated 30 Nov 2018**Standard Reference:** ACR Standard v5.1

Chapter 4.A.3 Implementation Barriers Test

Document Reference: DoeMountain_GHG_Plan_10_4_18_v1.pdf

Finding: The standard states "FINANCIAL BARRIERS include high costs, limited access to capital, or an internal rate of return in the absence of carbon revenues that is lower than the Project Proponent's established and documentable minimum acceptable rate. Financial barriers can also include high risks such as unproven technologies or business models, poor credit rating of project partners, and project failure risk. If electing the financial implementation barrier test, Project Proponents shall include solid quantitative evidence such as net present value and internal rate of return calculations."

Currently the GHG plan states "Carbon funding is reasonably expected to incentivize the project's implementation. The implementation of the carbon project represents an opportunity cost to lost revenue associated with the potential timber harvesting that could legally and feasibly occur on the property in the lifetime of the carbon project. A financial feasibility assessment is provided separately for verification demonstrating the financial barrier carbon funding overcomes in project implementation." Please provide the referenced assessment to for verification purposes and to comply with the standard.

Project Personnel Response: The financial feasibility assessment can be found in the DoeMountain_100Yr_Calcs_12_4_18.xlsx in the "Financials" tab (3rd from the right).

Auditor Response: The financial feasibility assessment was located in the referenced document. The finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

OBS 6 Dated 30 Nov 2018**Standard Reference:****Document Reference:** DoeMountain_GHG_Plan_10_4_18_v1.pdf

Finding: The description of the land use history in section A6 states "The history of the entire property is not well documented as ownership has changed hands throughout years of active forest management. The last large-scale commercial timber harvest on Doe Mountain began in the late 1960s and ended in 1972. There have been no commercial timber harvests on the property since then. During that large-scale operation, a majority of the mountain was logged except for the steepest and rockiest areas. This information comes word-of-mouth from a seasoned forester who lives in the Johnson County."

The information above is useful but does not reference any recent activity (80s, 90s, 2000s). It would be useful to have information in the last few decades to get a more complete picture of how the property was used.

Project Personnel Response: There has not been much written history on the property, however as referenced in section A6, there has been no written record of commercial harvesting since 1972. In the 2000s, the property was purchased by a large real estate developer with the intention to subdivide and develop all of the property. The real estate developer went bankrupt and the property was acquired by the State of Tennessee in that process through the help of The Nature Conservancy. The activities on the property since then primarily include hunting and recreational use of ATV and hiking trails.

Auditor Response:**Bearing on Material Misstatement or Conformance (M/C/NA):** NA

NIR 7 Dated 30 Nov 2018

Standard Reference: ACR Tool for Risk Analysis and Buffer Determination V1.0

ACR Validation and Verification Standard v1.1 section 6.E Impermanence and Risk Mitigation

Document Reference: DoeMountain_GHG_Plan_10_4_18_v1.pdf

Finding: The ACR Tool for Risk Analysis and Buffer Determination states " Natural Disaster risks: These risks are applicable depending on the specific project type. These risks are associated with natural events that lead to unintentional reversals. Some risk categories allow projects to claim a lower risk score (as noted) by providing evidence in support of the claim. Evidence may include written communication from State, Federal or Local independent experts in the applicable field, peer reviewed literature, or other scientific documentation or reports. This evidence must be current at the time of verification. Evidence must be verifiable and presented to a verification body at the time of GHG Project Plan validation, and during subsequent full verifications (every 5 years)."

The selection of a 4% Default Value for Diseases and Pests (Category F) does not provide evidence. Please provide verifiable evidence that 4% is accurate and correct to be in conformance with the standard.

Project Personnel Response: Danny Osborn, Area Forester for Johnson County, and Nathan Hoover, Forest Health Specialist, both with the State of Tennessee Division of Forestry have confirmed that there are no epidemic disease or pest outbreaks in, on, or around Doe Mountain. An email correspondence from both Danny and Nathan have been provided in the shared verification folder: "RE Forest PestsDisease in Johnson County" and "RE Forest PestsDisease in Johnson County2". Additionally, after discussions with Quincey Oliver from ACR and the verifier, James Cwiklik, all parties have agreed that the USFS Insect and Disease survey have insufficient information to be a reliable source of data. The attestation from the area forester of no epidemic level pests or diseases is sufficient for use of the default Pest and Disease Risk Tool Rating.

Auditor Response: Upon issuance of the finding, the project proponent provided the email correspondence with Danny Osborn, Area Forester. Relying on his expert knowledge of the area and our own observations in the field this finding has been verified and closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 8 Dated 30 Nov 2018

Standard Reference:

Document Reference: DoeMountain_GHG_Plan_10_4_18_v1.pdf
Section H2

Finding: The GHG Plan, Section H2 of the project timeline references as proof of the Project Start Date, "CDMA contract signing". Please submit the CDMA contract to the audit team.

Project Personnel Response: The redacted CDMA has been added to the shared Dropbox folder: "Doe Mountain CDMA Executed 10-3-17_Redacted".

Auditor Response: Upon issuance of the finding the CDMA contract has been issued for review. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 9 Dated 30 Nov 2018

Standard Reference: ACR Validation and Verification Standard v1.1 section 4.B Common Practice Test

Document Reference: DoeMountain_GHG_Plan_10_4_18_v1.pdf

Section C2

Finding: The GHG Plan, Section ... states "The geographic region for timber is referred to as "Appalachia" in the annual Timber Mart-South Report, which includes eastern Tennessee, western North Carolina, southwestern Virginia." Please submit this report to the audit team for verification.

Project Personnel Response: The Timber Mart South 2016 Annual Summary Report has been added to the shared Dropbox folder in the subfolder "Project Supporting Docs". Page 19 of the report details the "Appalachia region" in the map at the bottom of the page.

Auditor Response: The Timber Mart South 2016 Annual Summary Report has been provided for review. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 10 Dated 30 Nov 2018

Standard Reference: ACR Standard v5.1 Section 2.B.6

ACR Validation and Verification Standard v1.1 Chapter 11 Quality Assurance and Quality Control

Document Reference: DoeMountain_GHG_Plan_10_4_18_v1.pdf

Section C2

Section A1. Project Title

Finding: Chapter 2 Section G states "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information..." During our qualitative review, it was found that the project title was not consistent within the GHG Plan. The title on the front page reads "Bluesource - Doe Mountain Improved Forest Management Project" while in section C2 it reads "Blue Source - Doe Mountain Improved Forest Management Project". Please update all references to the project title to the correct title.

Project Personnel Response: The GHG Plan has been updated accordingly:
DoeMountain_GHG_Plan_1_7_19.

Auditor Response: The project title has been updated to the correct title. The finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 11 Dated 30 Nov 2018**Standard Reference:** ACR Standard v5.1

Applicability (page 10)

Document Reference: DoeMtn_RP1_MonitoringReport_11_15_18.pdf

Section II: Offset Project Information

Finding: The standard states "The ACR Standard v5.1 supersedes the ACR Standard v5.0 (February 2018). Any project listed subsequent to August 1, 2018, must follow all requirements of and be validated against the ACR Standard v5.1." The Monitoring Plan lists the "ACR Standard Version at time of listing/initial submittal" as ACR Standard Version 5.0. The time of the listing is dated to October 2018. Please update the monitoring plan to the correct standard to be in conformance with the standard.

Project Personnel Response: The monitoring report has been updated accordingly:

DoeMtn_RP1_MonitoringReport_12_17_18.pdf

Auditor Response: The ACR Standard reference has been updated accordingly. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C**NCR 12 Dated 30 Nov 2018****Standard Reference:** acr-template-for-ghg-project-plans (5)**Document Reference:** DoeMountain_GHG_Plan_10_4_18_v1.pdf

Page 4

Finding: The GHG plan contains a blank page on page 4. Referencing the GHG template, there is no blank page. Please update to be in conformance with the template.

Project Personnel Response: The GHG Plan has been updated accordingly.

Auditor Response: Upon issuance of the finding, the blank page has been removed from the GHG plan. The finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 13 Dated 30 Jan 2019

Standard Reference: ACR 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 - Section C

Document Reference: DoeMountain_100Yr_Calcs_12_4_18.xlsx

Timber Mart South Annual 2016.pdf

DoeMountain_GHG_Plan_1_7_19_v3.pdf

Finding: The standard states "Required inputs for the project NPV calculation include the results of a recent timber inventory of the project lands, prices for wood products of grades that the project would produce, costs of logging, reforestation and related costs, silvicultural treatment costs, and carrying costs." During review of the NPV calculations it was found that the stumpage prices referenced in 'StumpagePrices' tab of DoeMountain_100Yr_Calcs_12_4_18 do not match the state where the project is located. Specifically, the Pulpwood per ton values for mixed softwood and mixed hardwood. When checking the associated timber report the values only match for saw timber in the state of Tennessee. Please update to the proper stumpage prices to accurately reflect harvest revenues.

Project Personnel Response: The stumpage prices have been updated and the model has been reoptimized and updated as well. All subsequent reporting forms have been updated to reflect these changes.

Auditor Response: Upon issuance of this finding the stumpage prices were accurately updated to TN values.

Bearing on Material Misstatement or Conformance (M/C/NA): M

NCR 14 Dated 14 Feb 2019

Standard Reference: The American Carbon Registry Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on Non Federal US Forestlands V 1.3

Document Reference: DoeMountain_RP_ERT_HWP_2_8_18

Finding: The methodology states: "The uncertainty in the baseline scenario should be defined as the square root of the summed errors in each of the measurement pools. For modelled results use the confidence interval of the input inventory data. For wood products and logging slash burning emissions use the confidence interval of the inventory data. The errors in each pool shall be weighted by the size of the pool so that projects may reasonably target a lower precision level in pools that only form a small proportion of the total stock." Currently, the Uncertainty in the baseline does not incorporate the twenty-year average value of annual carbon remining in stored wood products 100 years after harvest. This is not in conformance with the methodology, please update accordingly to be in conformance.

Project Personnel Response: The baseline uncertainty calc equation has been updated accordingly in the ERT workbook. The monitoring report has also been updated to reflect these changes.

Auditor Response: Upon issuance of this finding, the uncertainty equation was updated to include HWP Baseline value. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): M

NCR 15 Dated 1 Mar 2019**Standard Reference:** ACR Standard v5.1

Chapter 3

Document Reference: DoeMountain_GHG_Plan_3_1_19.pdf

Finding: Chapter 3 of the standard states "ACR defines the Start Date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline." Currently the GHG plan refers to a different start date (June 30, 2017) than the monitoring report (October 10, 2017). The October date is the date used in calculations as well. Please update to the proper start date to be in conformance with the standard. Also, note that sections A3, H1, and H2 use the June date.

Project Personnel Response: The GHG Plan has been updated to reflect the correct October 10, 2017 start date.

Auditor Response: Upon issuance of this finding, the start date has been updated to the correct day in the GHG plan. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C**NCR 16 Dated 14 Mar 2019****Standard Reference:** ACR Standard v5.1

Section 2.B.6

Document Reference: DoeMountain_GHG_Plan_2_8_19_v4.pdf

Finding: The standard states "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information, including the assessment of uncertainty in the project and baseline scenarios. QA/QC procedures shall be outlined in the GHG Project Plan." The GHG plan currently states that "All forestlands owned by Doe Mountain have been certified by the Forest Stewardship Council (FSC)." After speaking with Liz Lott of Bluesource it became clear that the property does not have this certification. Please update the GHG plan accordingly.

Project Personnel Response: The GHG Plan has been updated removing the inaccurate reference to FSC certification.

Auditor Response: The GHG plan has been properly updated to accurately reflect the FSC status for the project. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): NA

NCR 17 Dated 14 Mar 2019**Standard Reference:** ACR Standard v5.1

Section 2.B.6

Document Reference: DoeMtn_RP1_MonitoringReport_2_8_19.pdf

Finding: The standard states "The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information, including the assessment of uncertainty in the project and baseline scenarios. QA/QC procedures shall be outlined in the GHG Project Plan." This finding is related to the monitoring report stating "The Bluesource – Doe Mountain Improved Forest Management Project is located on over 8,500 acres..." This statement is not true as the project area is only 8,485.58 acres in size. Please update to reflect the accurate project size.

Project Personnel Response: The Monitoring Report has been updated to reflect the true project acreage.

Auditor Response: The issue regarding the acreage in the monitoring report have been updated. This finding is now closed.

Bearing on Material Misstatement or Conformance (M/C/NA): NA