FIRST ASSESSMENT REPORT FOR THE "PROTOCOL FOR THE CREATION OF FOREST CARBON OFFSETS IN BRITISH COLUMBIA (FCOP)"

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Methodology Title	Protocol for the Creation of Forest Carbon Offsets in British Columbia (FCOP)	
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Methodology Category	Methodology	X
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	Module	
	Tool	
Sectoral Scope(s)	Sectoral scope 14 (AFOLU)	

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Summary:

This report describes the first assessment of the "Protocol for the Creation of Forest Carbon Offsets in British Columbia (FCOP)" ("the methodology"), which was developed for the purpose of providing a methodological framework for the quantification and reporting of GHG emission reductions and removals attributable to a wide array of forestry-related projects in British Columbia, Canada. The purpose of the assessment is to assess the conformance of the methodology to the VCS rules and current best practices for quantification of GHG emission reductions and removals. The assessment was performed through a desk review of the methodology and other relevant documents. The criteria for the assessment was the VCS Version 3. The conclusion of the draft assessment report is as stated in Section 4 below, and the conclusion of the final assessment report is as stated in Section 5 below. No uncertainties are associated with the assessment. A total of 141 findings were issued during the course of the assessment.

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1 INTRODUCTION

1.1 Objective

The purpose of the audit activity was to conduct a first assessment of the methodology "Protocol for the Creation of Forest Carbon Offsets in British Columbia (FCOP)" ("the methodology") in accordance with the guidance documents listed in Section 2.1 of this report.

1.2 Summary Description of the Methodology

The methodology covers a wide range of project activities, including those relating to avoided deforestation (REDD), afforestation/reforestation (ARR), and forest management regimes that increase carbon stocks (IFM), within the Province of British Columbia, Canada.

2 ASSESSMENT APPROACH

2.1 Method and Criteria

In accordance with the Methodology Approval Process, the scope of the assessment included the following:

- Applicability conditions: Assessment of whether the proposed methodology's applicability conditions are appropriate, adequate and in compliance with the VCS rules.
- Project boundary: Assessment of whether an appropriate and adequate approach is provided for the definition of the project's physical boundary and sources and types of GHGs included.
- Procedure for determining the baseline scenario: Assessment of whether the approach for determining the baseline scenario is appropriate, adequate and in compliance with the VCS rules.
- Procedure for demonstrating additionality: Assessment of whether the approach/tools for determining whether the project is additional are appropriate, adequate and in compliance with the VCS rules.
- Baseline emissions: Assessment of whether the approach for calculating baseline emissions is appropriate, adequate and in compliance with the VCS rules.
- Project emissions: Assessment of whether the approach for calculating project emissions is appropriate, adequate and in compliance with the VCS rules.
- Leakage: Assessment of whether the approach for calculating leakage is appropriate, adequate and in compliance with the VCS rules.
- Quantification of net GHG emission reductions and/or removals: Assessment of whether the approach for calculating the net GHG benefit of the project is appropriate, adequate and in compliance with the VCS rules.
- Monitoring: Assessment of whether the monitoring approach is appropriate, adequate and in compliance with the VCS rules.

- Data and parameters: Assessment of whether the specification for monitored and not monitored data and parameters is appropriate, adequate and in compliance with the VCS rules.

- Adherence to the project principles of the VCS Program: Assessment of whether the methodology adheres to the VCS Program principles set out in the VCS Standard.

- Relationship to approved or pending methodologies: Assessment of whether any existing methodology could reasonably be revised to serve the same purpose as the proposed methodology.

The proposed revision was assessed for conformance against the VCS Version 3, including the following documents:

- VCS Standard, Version 3.4

- Agriculture, Forestry and Other Land Use Projects (AFOLU) Requirements, Version 3.4

- Methodology Approval Process, Version 3.5

- Program Definitions, Version 3.5

- Validation and Verification Manual, Version 3.0

- VCS Methodology Template, Version 3.3

Please note that the assessment criteria have changed over the course of the assessment. Therefore, while the assessment conclusion stated in Section 5 below refers to the versions of the VCS Program documents as noted above, many of the findings documented in Appendix A below refer to previous versions of said documents.

The primary method used for this assessment was document review, as described in Section 2.2 of this report. In addition, the assessor took into consideration the comments received during the public comment period from 13 December 2011 until 12 January 2012.

2.2 Document Review

The assessment activity included a detailed review of the methodology against the criteria of the guidance documents listed in Section 1.2 of this report. In addition, the proposed methodology was assessed for logical coherence, internal consistency, completeness, and consistency with current best practices for quantification of emission reduction and removals.

Review of the methodology was complemented by a review of the published literature relevant to the development of the methodology. The following articles were reviewed in order to ensure the conformance of the proposed revision with the guidance documents listed in Section 1.2 of this report:

Caren C. Dymond, Forest carbon in North America: annual storage and emissions from British Columbia's harvest 1965 - 2065, Carbon Balance and Management 7:8, 2012

J.S. Gonzalez. Wood density of Canadian tree species. Forestry Canada, Northwest Region, Northern Forestry Centre, (1990)

Jack K. Winjum, Sandra Brown and Bernhard Schlamadinger, Forest Harvests and Wood Products: Sources and Sinks of Atmospheric Carbon Dioxide, Forest Science 44:2, 1998

K.E. Skog, Sequestration of carbon in harvested wood products for the United States, Forest Products Journal 58:6, 2008.

Murray, B.C., B.A. McCarl, and H. Lee. Estimating Leakage from Forest Carbon Sequestration Programs. Land Economics 80(1):109-124, 2004.

2.3 Interviews

Several interviews were held during the course of the assessment with Robert Seaton, whose information is provided below.

Individual	Affiliation	Role
Robert Seaton	Brinkman Earth Systems	Project Analysis

2.4 Assessment Team

Zane Haxtema led the assessment and performed or directly supervised all aspects of the work, including assessment, issuance and resolution of findings and report writing. 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. Mr. Haxtema is a Registered Professional Forester in the state of California, USA.

Larry Wilson assisted with many aspects of the assessment, including assessment, issuance and resolution of findings. Mr. Wilson holds a Bachelor's degree in Ecology and a Master's degree in Forestry, and is a Registered Professional Forester in California, RPF # 2563. He has 18 years' experience as a forest biometrician and growth and yield modeling specialist. Mr. Wilson has worked for the USDA Forest Service as vegetation modeling specialist on several regional scale ecosystem management analysis projects dating back to 1993 and has 5 years' experience with a major forestry consulting firm working primarily with private industry. He is also an accomplished database analyst and computer programmer. Mr. Wilson's areas of expertise include forest inventory data processing, stand based forest inventory management, growth and yield simulation modeling, development of computerized calculation and classification algorithms, and systems analysis.

Letty B. Brown served as the "appropriately qualified, independent technical reviewer" as requested by Section 5.1.2 of the Validation and Verification Manual. Dr. Brown holds a Ph.D. in Forest Science from the University of California, Berkeley, where she also completed her Master's 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 is trained as an Arborist, and 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.

2.5 Resolution of Findings

Potential material discrepancies identified during the assessment process were resolved through the issuance of findings. The types of findings issued by SCS were characterized as follows:

Non-Conformity Reports (NCRs) were issued in response to material discrepancies in the proposed revision. A material discrepancy could be defined as one of the following:

- An instance of nonconformance to the guidance documents listed in Section 1.2 of this report;
- An instance where the language of the methodology required clarification in order to avoid ambiguity;
- An instance where the proposed methodology lacked internal consistency; or
- An instance where formulae in the proposed revision were not consistent with mathematical convention.

An adequate response for each issued NCR, including evidence of corrective action, was required before a positive assessment opinion could be reached. A total of 134 NCRs were issued during the assessment.

New Information Requests (NIRs) were issued to the client when more information was needed to determine whether a material discrepancy existed. Issuance of an NIR did not necessarily signify the presence of a material discrepancy. However, an adequate response to all issued NIRs was required before an assessment opinion could be reached. A total of seven NIRs were issued during the assessment.

All issued findings are described in Appendix A below.

As initially submitted to the assessment team, the methodology was, with the exception of some changes made in response to submitted public comments, equivalent to the "Protocol for the Creation of Forest Carbon Offsets in British Columbia (FCOP)" ("the Protocol"), as adopted for use under British Columbia Emission Offsets Regulation on 12 August 2011. While technically sound in many respects, the

methodology (as initially submitted to the assessment team) was, on a large number of points, not wholly consistent with the assessment criteria. Therefore, the main points of discussion with the project developer related to those aspects of the methodology that required modification in order to achieve full compliance with the assessment criteria. On every point at which the methodology was originally at odds with the assessment criteria, the methodology was revised to conform fully to the assessment criteria, except as is described in Section 3.9.1 below.

3 ASSESSMENT FINDINGS

Because the methodology covers multiple project categories and sub-categories, the assessment team ensured that the methodology complies in full to Section 4.1.3 of the AFOLU Requirements. The assessment team can confirm that, in all instances where it is not possible to provide specific guidance for each category or sub-category, as applicable, the methodology universally applies the most restrictive requirement(s) (e.g., those requirements which would require the greatest amount of documentation or the lowest quantification of GHG emission reductions and/or removals).

3.1 Relationship to Approved or Pending Methodologies

Through review of the VCS Program website, the assessment team confirmed that the methodology contains an exhaustive list of all VCS-approved methodologies that fall under the same AFOLU project categories covered by the methodology. While only one pending methodology is listed, the audit team confirmed that this was the only pending methodology falling under the same AFOLU project categories covered by the methodology that was available 60 days before it was submitted to the VCSA, as documented below.

Title of Pending Methodology	Date on Which Public Comment Period Began
Methodology for Improved Forest Management in Non-industrial Private Forests	19 August 2013
Reduced Impact Logging Practices that Reduce Carbon Emissions (RIL-C) Methodology	14 January 2014
Reduced Impact Logging Practices that Reduce Carbon Emissions (RIL-C) Performance Method Module	14 January 2014
AFOLU Project Market Leakage	29 May 2014
Revision to REDD Modules: REDD + Modules	8 August 2013
Revision to VM0007: REDD + Methodology Framework	8 August 2013

The methodology clearly states that “The FCOP does not use, include, refer to or rely on all or part of any of these existing methodologies” and that “The FCOP does not use, include, refer to or rely on all or part

of any of these methodologies under development". The assessment team agrees that this is true, as evidenced by the independent development of the methodology under the BC Emission Offsets Regulation. Therefore, no further assessment under Section 5.2 of the Methodology Approval Process is required.

3.2 Stakeholder Comments

The tool has been satisfactorily revised to address all stakeholder comments. An explanation of whether and how the developer has taken due account of all comments received during the public stakeholder consultation is contained within Appendix B below.

3.3 Structure and Clarity of Methodology

The methodology is written in a clear, logical, concise and precise manner. Procedures and criteria are logically presented and easily understood. The methodology contains a high level of internal consistency. Equations are mathematically sound and parameters are presented consistently throughout the text of the methodology (e.g., there are no inconsistencies between the symbolization of the parameters in Sections 9.1 and 9.2 and the symbolization in the rest of the methodology). Furthermore, this report affirms that:

- **The developer has followed the instructions in the methodology template and ensured that the methodology's various criteria and procedures are documented in the appropriate sections of the template**. It should be noted that many of the requirements within methodology template (in particular, requirements pertaining to definitions in Section 3, applicability conditions in Section 4 and data and parameters monitored in Section 9) are subject to interpretation. However, the methodology complies with a reasonable interpretation of these requirements, as informed by guidance received from the VCSA.

- **The terminology used in the methodology is consistent with that used in the VCS Program, and GHG accounting generally**. All definitions are consistent with those in the VCS program definitions, ISO 14064-2:2006, or other VCS guidance documents (e.g., the AFOLU Requirements).

- **The key words must, should and may have been used appropriately and consistently to denote firm requirements, (non-mandatory) recommendations and permissible or allowable options, respectively.** This convention is intentionally followed throughout the methodology.

- **The criteria and procedures are written in a manner that can be understood and applied readily and consistently by project proponents**. The methodology has been constructed so as to be as accessible as possible to a "lay" audience, and includes much information that is not strictly required by the VCS rules but that may assist the reader in understanding and applying core concepts in GHG accounting.

- **The criteria and procedures are written in a manner that allows projects to be unambiguously audited against them.** The criteria and procedures are not, in many cases, highly prescriptive; however, they are sufficiently prescriptive as to allow unambiguous assessment of projects, particularly in combination with other VCS requirements. For example, the methodology does not prescribe the use of any specific model for use in quantifying carbon stocks in SSPs PP1 through PP7, but it does contain some guidance for model selection, and

further criteria and procedures are provided in Section 3.1.4 (and clauses referenced therein) of the VCS Standard.

Due to the similarity in accounting procedures between quantification of baseline and project emissions, the methodology is structured such that generic procedures (applicable to both baseline and project quantification) are set out in the root of Section 8, and specific procedures for quantification of baseline and project emissions are set out in Sections 8.1 and 8.2, respectively. The assessment team affirms that this structural approach conforms to the assessment criteria (including the VCS Methodology Template) and has resulted in the methodology being relatively easy-to-use.

In conclusion, the methodology is structurally sound and of adequate clarity.

3.4 Definitions

The assessment team concludes, overall, that the definitions for terms used by methodology, as set out in Section 3, are appropriate and in conformance with the VCS rules. A further justification of the conformance of the definitions with the requirements of the VCS Methodology Template follows.

- **Definitions of key terms and acronyms used in the methodology are provided in alphabetical order**. The assessment team confirmed that the definitions are in alphabetical order

- **All defined terms are used, and consistently defined, throughout the methodology.** No terms exist within Section 3 of the tool that are not used within the tool. Usage of defined terms is consistent throughout the tool. The definitions provided are clear and consistent.

- **Terms already defined under the VCS are not included**. The methodology does not include any terms formally defined in the VCS Program Definitions. While the methodology does include terms defined under ISO 14064-2:2006 and terms described within the AFOLU Requirements, the assessment team received guidance from the VCSA (via an email sent by Andrew Beauchamp on 25 September 2014) that such terms may be included so long as the definition given in the methodology does not conflict with the definition as provided elsewhere under the VCS Program. The assessment team can confirmed that all definitions provided in the methodology are consistent with definitions and/or descriptions as provided elsewhere under the VCS Program.

3.5 Applicability Conditions

The assessment team concludes, overall, that the applicability conditions are appropriate and in conformance with the VCS rules.

3.5.1 Assessment of Conditions as a Whole

An assessment of the applicability conditions, as a whole, follows.

Criterion	Assessment findings
Are the applicability conditions appropriately specified?	**Yes**; as described for each condition in Section 3.5.2 below, all conditions are specified with appropriate clarity and precision

Are the applicability conditions appropriate for the project activities targeted by the methodology and the quantification procedures set out within the methodology?	**Yes**; the conditions ensure the following: 1) Applicability of methodology is restricted to geographic area (Province of British Columbia, Canada) to which accounting procedures are fully applicable 2) Project activities fall within VCS-defined categories covered under scope of methodology
Are the applicability conditions as a whole sufficiently clear for determining which project activities are eligible under the methodology, and which are not?	**Yes**; the conditions make use of clear and commonly-used terminology to clarify which project activities are eligible
How do the applicability conditions address environmental integrity and practical considerations?	Conditions 5 and 6 explicitly preclude project activities that would alter site hydrology or involve irresponsible planting practices

3.5.2 Assessment of Each Applicability Condition

An identification and discussion of each conditions follows.

		Explanation of whether…	
#	**Overall comments**	**The applicability condition is written in a sufficiently clear and precise manner**	**Conformance with the applicability condition can be demonstrated at the time of project validation**
1	Restricts geographic scope of methodology	Condition is very clear and precise, as “Province of British Columbia, Canada” has clearly defined geographic boundaries	Demonstration of compliance can be readily performed at validation by cross-checking project area boundaries against maps and, where available, on-the-ground evidence of provincial boundaries
2	Imposes what appears, on its face, to be an “additional” (not VCS-related) requirement regarding start date	Condition is appropriately clear and precise, as “project start date” and “validated”	As project start dates are typically assessed at validation, it will be possible to demonstrate

		Explanation of whether…	
#	**Overall comments**	**The applicability condition is written in a sufficiently clear and precise manner**	**Conformance with the applicability condition can be demonstrated at the time of project validation**
	("project start date must be after November 29 2007") but is in fact not additional to requirement stated in Section 3.7.4 of VCS Standard	have precise meanings under VCS Program	conformance at time of validation
3	Imposes an "additional" (not VCS-related) requirement to comply with BC Emissions Offset Regulation	Condition is appropriately clear and precise, as BC Emissions Offset Regulation is publically available document, "project activity" is defined under VCS Program Definitions and "compliance" is a well-understood concept	As project activities are required to be documented in project description at validation, it will be possible to demonstrate conformance at time of validation
4	Paraphrases Section 4.6.3 of VCS Standard	Condition is appropriately clear and precise, as all terms are either defined under VCS Program Definitions or universally understood terms within English language	Corresponding comments relating to (3) above apply here as well
5	Mitigates potential environmental impacts by precluding impacts to site hydrology	Condition is appropriately clear and precise, as all terms are either defined under VCS Program Definitions or well-understood terms within natural resources disciplines	Corresponding comments relating to (3) above apply here as well
6	Mitigates potential environmental impacts by ensuring proper planting stock selection	Condition is appropriately clear and precise, as BC Chief Forester's Standards for Seed Use is a publically available resource and, while "genetically diverse" and "productive" are somewhat open to interpretation, assessment is unable to	Corresponding comments relating to (3) above apply here as well, as it should be evident at validation whether project activity involves planting

		Explanation of whether…	
#	**Overall comments**	**The applicability condition is written in a sufficiently clear and precise manner**	**Conformance with the applicability condition can be demonstrated at the time of project validation**
		imagine a situation where stock planted in accordance with a reasonable interpretation of these requirements would lead to non-compliance with VCS rules	
7	Restricts applicability of methodology to project categories covered under methodology	Condition is appropriately clear and precise, as all terms are clearly described under AFOLU Requirements	Corresponding comments relating to (3) above apply here as well, as it should be known at validation whether project activities fall under a certain VCS project category
8(ARR)(a)	Imposes requirement for number of years project area has not been forestland	Condition is appropriately clear and precise, "forest land" is defined in methodology and "project commencement" is a readily understood term	As date of project commencement is reported in project description and as historical land cover of project area should be readily known using historical remote sensing products and other means, it should be quite possible to demonstrate conformance at time of validation
8(ARR)(b)	Further interprets (4) within context of ARR projects	Corresponding comments relating to 8(ARR)(a) above apply here as well	Corresponding comments relating to 8(ARR)(a) above apply here as well
8(IFM)(a)	Ensures consistency with Section 4.2.3 of AFOLU Requirements, which states that "Eligible IFM activities are those that	Corresponding comments relating to 8(ARR)(a) above apply here as well	Corresponding comments relating to 8(ARR)(a) above apply here as well

		Explanation of whether…	
#	**Overall comments**	**The applicability condition is written in a sufficiently clear and precise manner**	**Conformance with the applicability condition can be demonstrated at the time of project validation**
	increase carbon sequestration and/or reduce GHG emissions on **forest lands** [emphasis added]…"		
8(REDD)(a)	Ensures consistency with Section 4.2.5 of AFOLU Requirements, which states that "Eligible REDD activities are those that reduce net GHG emissions by reducing deforestation and/or degradation of **forests**… The project area shall meet an internationally accepted definition of forest… and shall qualify as forest for **a minimum of 10 years before the project start date**… [emphasis added]"	Corresponding comments relating to 8(ARR)(a) above apply here as well	Corresponding comments relating to 8(ARR)(a) above apply here as well

3.6 Project Boundary

The approach for identifying the project boundary is appropriate for the project activities covered by the methodology. The assessment team concludes, overall, that the specification of the project boundary is of adequate clarity and in conformance with the VCS rules. Further identification and discussion of the project boundary is provided below.

3.6.1 Identification of the Project Area

The identification of the project area is described in Section 5.1 of the methodology.

The methodology refers to the BC Emissions Offset regulation as a source of information regarding the delineation of the project area. The assessment team located the BC Emissions Offset regulation (most recently accessed via http://www.bclaws.ca/civix/document/id/complete/statreg/393_2008#section3 on 9 March 2015) and confirmed that Section 3(2)(f) contains the requirement to provide "project identification information, including geographical information about the location where the project will be carried out

and any other information allowing for the unique identification of the project". In general, Section 3 contains many requirements for information to be provided within the project description (the project description is referred to as the "project plan" by the methodology). While these requirements are additional to the VCS rules, they do not, in any way, conflict with the VCS rules. The other requirements are generally consistent with best practices for display of the project area. These requirements are additional to VCS requirements regarding the project boundary (e.g., the requirement to provide a KML file in Section 3.10.1(2) of the VCS Standard).

The methodology provides additional clarification regarding what constitutes "control" within context of "Crown" (government-owned) land in British Columbia. The assessment team agrees that the rights described within the methodology are adequate to demonstrate control over the project area, which will assist with interpretation of Section 3.4.2 of the AFOLU Requirements within this context. The assessment team notes that none of the requirements within the methodology conflict with, or replace, those requirements pertaining to right of use under Section 3.11.1 of the VCS Standard.

Finally, the methodology provides appropriately clear criteria requiring that "the project proponent must also provide evidence that the project area is designated, sanctioned or approved for wood product management". This is consistent with the description of the IFM project category, in Section 4.2.3 of the AFOLU Requirements, as occurring "on forest lands managed for wood products such as sawtimber, pulpwood and fuelwood".

3.6.2 Included Carbon Pools and Greenhouse Gases

Section 5.2 of the methodology contains (in Figure 1) a diagram showing the "general flow of inputs, onsite processes, and outputs by which forestry projects impact SSPs" and Section 5.2.1 of the methodology contains a listing of the SSPs that are "possibly accounted under this protocol" in Tables 2 and 3. The resources noted above primarily serve informational purposes (as opposed to establishing criteria and procedures that must be complied with). However, the assessment team confirmed that the information is clearly conveyed, and that the descriptions provided for each SSP that is a carbon pool is consistent with the definition of the carbon pool as provided by the VCS Program Definitions.

The procedures for the selection of carbon pools, in Table 5 in Section 5.2.2 of the methodology, is consistent with the requirements of the VCS rules (specifically, Table 2 of Section 4.3.1 of the AFOLU Requirements), as justified below.

Tables 5 and 6 use shorthand nomenclature drawn from the AFOLU Requirements (i.e., "IFM-RIL" in place of "Improved Forest Management – Reduced Impact Logging). The nomenclature used by the methodology is explained in condition 7 in Section 4.1 of the methodology, which will ensure that readers are able to cross-reference the terminology used in the methodology with the AFOLU Requirements. With some careful study, Tables 5 and 6 are clear enough to be readily understood by the reader.

The codes "Y", "S", "N" and "O" are described below Table 5. The descriptions of codes "Y", "S" and "O" are consistent with those used in Table 2 of the AFOLU Requirements. The description of code "N" is made more restrictive within the methodology (it is changed from "Carbon pool does not have to be included, because it is not subject to significant changes or potential changes are transient in nature" to "In general, the carbon pool or emission need not be accounted, unless failure to account the pool or emission would result in an overestimation of the GHG benefits of the project").

The description of how the requirements of each code, as used in Table 2 of the AFOLU Requirements, have been complied with is provided below.

- All carbon pools denoted "Y" in Table 2 of the AFOLU Requirements are denoted "Y" in Table 5 of the methodology. The list of SSP-category combinations for which the above is relevant is as follows:
    - PP1 and ARR
    - PP1 and IFM (all types)
    - PP1 and REDD (all types)
    - PP4/PP5 and IFM-RIL
    - PP4/PP5 and LtPF
    - PP8/PP9 and IFM-RIL (with at least 25% reduction in timber extracted)
    - PP8/PP9 and IFM-LtPF
- Carbon pools denoted "S" in Table 2 of the AFOLU Requirements are handled in one of two ways:
    - In most cases, they are denoted "S" in Table 5 of the methodology. This places the onus on the project proponent to determine whether it is appropriate to include the pool (using the criteria set out in the methodology). In this case, the requirement to "justify the exclusion or inclusion of the pool in the project boundary" is not applicable, as the methodology is not, strictly speaking, either excluding or including the pool. The list of SSP-category combinations for which the above is relevant is as follows:
        - PP2 and ARR
        - PP3 and ARR
        - PP6 and ARR
        - PP4/PP5 and ARR
        - PP7 and ARR
    - With respect to the REDD project category, the harvested wood products pool is denoted "Y", indicating that the pool is included. The methodology justifies inclusion of the pool, as a controlled SSP, in footnote 25 (within Section 5.2.1), stating that "HWP carbon pools (in-use HWPs and landfilled HWPs) are considered controlled carbon pools for the purposes of the protocol. This reflects that HWPs are directly controlled by forest project proponents during harvesting and up to the point of initial sale, which plays a significant role in determining the ultimate fate of the wood product and associated permanence of the removals." The assessment team agrees that this is appropriate, as project activities under the REDD project category are likely, in many contexts, to significantly reduce the pool (i.e., to significantly reduce the flow of harvested wood products to in-use and landfill contexts). This also serves to ensure compliance with Section 4.4.7(1)(a) of the AFOLU Requirements. The list of SSP-category combinations for which the above is relevant is as follows:
        - PP8/PP9 and REDD-APD (all categories)
- Carbon pools denoted "N" in Table 2 of the AFOLU Requirements denoted "N", "S", "O" or "Y" in Table 5 of the methodology. The guidance provided beneath Table 2 for each code constitutes "criteria and procedures to set out when a project proponent may include the pool", as required. The list of SSP-category combinations for which the above is relevant is as follows:
    - PP2 and IFM (all types)
    - PP6 and IFM (all types)

  - PP6 and REDD (all types)
  - PP7 and IFM-RIL
  - PP7 and IFM-LtPF
  - PP7 and IFM-ERA
  - PP7 and REDD-APD (with pasture grass as the land cover in the baseline scenario)
- Carbon pools denoted "O" in Table 2 of the AFOLU Requirements denoted "S", "O" or "Y" in Table 5 of the methodology. The guidance provided beneath Table 2 for each code constitutes "criteria and procedures to set out when a project proponent shall or may include the pool", as required. The list of SSP-category combinations for which the above is relevant is as follows:
  - PP2 and REDD (all types)
  - PP3 and IFM (all types)
  - PP3 and REDD (all types)
  - PP4/PP5 and IFM-ERA
  - PP4/PP5 and IFM-LtHP
  - PP4/PP5 and REDD (all types)
  - PP7 and IFM-LtHP
  - PP7 and REDD-APD (with annual crop as the land cover in the baseline scenario)
  - PP8/PP9 and ARR
  - PP8/PP9 and IFM-ERA
  - PP8/PP9 and IFM-LtHP

An identification of how the included, excluded and optional GHG sources (also known as SSPs, as outlined in Table 6) is appropriate to the project activities covered by the methodology is provided in the below table. A fundamental premise of the discussion in the below table is that it is always appropriate to include GHG sources potentially relevant to the project and baseline scenarios (so long as accounting as carried out for both project and baseline scenarios), consistent with the principle of "completeness" as set out in Section 2.4.1 of the VCS Standard. It is also understood that, per Section 4.3.4 of the AFOLU Requirements, it is always appropriate to exclude GHG sources where emissions from such sources can be known at the outset, from reasoning or empirical data, to be less under the project scenario than under the baseline scenario.

SSP(s)	**Project category**	**Assessment comments**
PE3, PE4	ARR	• Inclusion "where project activities may significantly reduce the pool or increase the emission" and/or where "project emissions exceed baseline emissions" is appropriate as it ensures conservative GHG accounting • Possible inclusion is appropriate as planting operations may result in fossil fuel emissions from sources such as worker transport and seedling production, and baseline land uses would likely also result in fossil fuel emissions
PE3, PE4	IFM (all types)	• Same as for first bullet point regarding PE3/PE4 and ARR • Possible inclusion is appropriate as forest management operations may result in fossil fuel emissions from sources such as worker

SSP(s)	Project category	Assessment comments
		transport and logging emissions
PE3, PE4	REDD-APD (all types)	• Same as for PE3/PE4 and IFM (all types)
PE6, PE7	ARR	• Inclusion is appropriate as planting operations may result in fossil fuel emissions from sources such as worker transport and seedling production, and baseline land uses would likely also result in fossil fuel emissions
PE6, PE7	IFM-RIL	• Same as for PE3/PE4 and IFM (all types)
PE6, PE7	IFM-LtPF	• Same as for PE3/PE4 and IFM (all types)
PE6, PE7	IFM-ERA	• Same as for PE3/PE4 and IFM (all types)
PE6, PE7	IFM-LtHP	• Inclusion is appropriate as forest management operations may result in fossil fuel emissions from sources such as worker transport and logging emissions, and this is particularly the case where forest management practices are intensified (as is likely to be the case when attempting to increase productivity of forests)
PE6, PE7	REDD-APD (all types)	• Inclusion "where project activities may significantly reduce the pool or increase the emission" is appropriate as it ensures conservative GHG accounting • Possible inclusion is appropriate as forest management operations may result in fossil fuel emissions from sources such as worker transport and logging emissions
PE9	ARR	• Inclusion is appropriate as planting operations may result in emissions from use of chemical fertilizers
PE9	IFM-RIL	• Inclusion if "failure to account the pool or emission would potentially result in an overestimation of the benefits of the project" is appropriate as it ensures conservative GHG accounting • Potential inclusion is appropriate as forest management operations may result in emissions from use of chemical fertilizers
PE9	IFM-LtPF	• Same as for PE9 and IFM-RIL

SSP(s)	Project category	Assessment comments
PE9	IFM-ERA	• Same as for PE9 and IFM-RIL
PE9	IFM-LtHP	• Inclusion is appropriate as forest management operations may result in emissions from use of chemical fertilizers, and this is particularly the case where forest management practices are intensified (as is likely to be the case when attempting to increase productivity of forests)
PE9	IFM-APD	• Same as for PE9 and IFM-RIL
PE8, PE10	All categories	• Inclusion "if project emissions from biomass burning exceed baseline emissions from biomass burning" is appropriate as it ensures conservative GHG accounting, given that (1) prescribed is a common forest management practice in some contexts, (2) baseline land uses may also result in emissions from biomass burning and (3) unplanned fire (e.g., due to a lightning strike) may occur within project area
PE11	ARR	• Same as for first bullet point regarding PE3/PE4 and ARR • Potential inclusion is appropriate as planting operations may result in production of merchantable timber that may be harvested for use in wood products, and baseline land uses may also result in production of wood products (although such is not likely to occur)
PE11	IFM-RIL	• Inclusion is appropriate as production of harvested wood products from wood originating within project boundary typically requires use of fossil fuel emissions for (1) transport from project area to processing facilities and (2) manufacture of harvested wood products
PE11	IFM-LtPF	• Same as for PE11 and IFM-RIL
PE11	IFM-ERA	• Same as for PE11 and IFM-RIL
PE11	IFM-LtHP	• Same as for first bullet point regarding PE3/PE4 and ARR • Potential inclusion is appropriate as production of harvested wood products from wood originating within project boundary typically requires use of fossil fuel emissions for (1) transport from project area to processing facilities and (2) manufacture of harvested wood products
PE11	REDD-APD (all types)	• Same as for PE11 and IFM-RIL

SSP(s)	Project category	Assessment comments
PE12	ARR	• Same as for PE11 and ARR
PE12	IFM-RIL	• Same as for PE11 and IFM-RIL
PE12	IFM-LtPF	• Same as for PE11 and IFM-RIL
PE12	IFM-ERA	• Same as for PE11 and IFM-RIL
PE12	IFM-LtHP	• Same as for PE11 and IFM-LtHP
PE12	REDD-APD (all types)	• Same as for PE11 and IFM-RIL
PE15	ARR	• Same as for first bullet point regarding PE3/PE4 and ARR • Potential inclusion is appropriate as planting operations may result in production of merchantable timber that may be harvested for use in wood products, and baseline land uses may also result in production of wood products (although such is not likely to occur); such wood products and residual material are subject to anaerobic decay over time
PE15	IFM-RIL	• Inclusion is appropriate as harvested wood products and residual material produced from wood originating within project boundary are subject to anaerobic decay over time
PE15	IFM-LtPF	• Same as for PE15 and IFM-RIL
PE15	IFM-ERA	• Same as for PE15 and IFM-RIL
PE15	IFM-LtHP	• Same as for first bullet point regarding PE3/PE4 and ARR • Potential inclusion is appropriate as harvested wood products and residual material produced from wood originating within project boundary are subject to anaerobic decay over time
PE15	REDD-APD (all types)	• Same as for PE15 and IFM-RIL
PE16 (activity shifting)	ARR	• Inclusion if “failure to account the pool or emission would potentially result in an overestimation of the benefits of the project” is appropriate as it ensures conservative GHG accounting (although assessment team notes that activity shifting leakage attributable to ARR project activities is not very likely to occur within geographic scope of methodology)

SSP(s)	Project category	Assessment comments
PE16 (activity shifting)	IFM (all types)	• Inclusion "where the project results in a decrease in HWP production relevant [i.e., relative] to the baseline" is appropriate as it ensures conservative GHG accounting • Potential inclusion is appropriate as project activities may result in a decrease of production of harvested wood products
PE16 (activity shifting)	REDD (all types)	• Inclusion is appropriate as project activities typically withhold land from baseline land use(s), potentially resulting in land use(s) being shifted outside project boundary
PE16 (market)	ARR	• Inclusion is appropriate, noting that, per Section 8.3.1.2, "where baseline HWP production is zero (e.g. typically in ARR projects), market leakage would be zero"; assessment team agrees that baseline harvested wood products production is likely to be zero for ARR project activities
PE16 (market)	IFM-RIL	• Inclusion is appropriate as project activities may result in decreased production of harvested wood products, leading to upwards adjustments in supply levels elsewhere to satisfy market demand
PE16 (market)	IFM-LtPF	• Same as for IFM-RIL
PE16 (market)	IFM-ERA	• Same as for IFM-RIL
PE16 (market)	IFM-LtHP	• Inclusion if "failure to account the pool or emission would potentially result in an overestimation of the benefits of the project" is appropriate as it ensures conservative GHG accounting • Potential inclusion is appropriate as project activities may result in decreased production of harvested wood products, leading to upwards adjustments in supply levels elsewhere to satisfy market demand (although LtHP project activities may actually result in increased production of harvested wood products)
PE16 (market)	REDD (all types)	• Same as for IFM-RIL

It should be noted that there is no category within Table 2 of the AFOLU Requirements corresponding to the category "REDD-APD (Urban development/infrastructure as baseline)". However, the assessment team can confirm that, in the absence of prescriptive guidance from the AFOLU Requirements regarding

this project category, the methodology contains appropriate guidance to ensure that non-conservative quantification of GHG emission removals is avoided.

The determination of included GHG sources, sinks and reservoirs, in Tables 5 and 6 of the methodology, is also in conformance with all potentially applicable requirements (based on the project categories covered by the methodology) of Sections 4.3.7 to 4.3.25 of the AFOLU Requirements, as further justified below.

Section of AFOLU Requirements	**Assessment comments**
4.3.3	• Methodology has established, in Section 5.2.2.1 (with additional guidance provided in Section 5.2.2), criteria and procedures by which a pool or GHG source may be determined to be de minimis; these criteria and procedures are consistent with definition of de minimis as "less than five percent of the total GHG benefit generated by the project" as provided by AFOLU Requirements • Methodology does not account for "N2O emissions from project activities that apply nitrogen containing soil amendments and N2O emissions caused by microbial decomposition of plant materials that fix nitrogen", as allowed by AFOLU Requirements • Methodology does not account for "GHG emissions from the removal or burning of herbaceous vegetation and collection of non-renewable wood sources for fencing of the project area.", as allowed by AFOLU Requirements • Methodology does not account for "N2O emissions from project activities that apply nitrogen containing soil amendments and N2O emissions caused by microbial decomposition of plant materials that fix nitrogen", as allowed by AFOLU Requirements • Fossil fuel combustion from transport and machinery use in project activities (represented by SSPs PE7, PE11 and PE 12 by methodology) are either denoted as "Y" or as "S" with a further note stating that accounting is "required if project emissions exceed baseline emissions", thus complying with requirement that "where machinery use for selective harvesting activities may be significant in IFM project activities as compared to the baseline… emissions shall be accounted for if above de minimis, in accordance with this Section 4.3.3"
4.3.4	• Descriptions of codes "S" and "N", below Tables 5 and 6 of methodology, contain required "criteria and procedures by which a project proponent may determine a carbon pool or GHG source to be conservatively excluded"
4.3.5	• Methodology contains procedures to account for reductions of CH4 and N2O emissions relating to reductions of burning (SSP PE8) and nitrogen fertilization (SSPs PE4 and PE9) in Sections 8.0.2.3, 8.0.2.6 and 8.0.2.7

4.3.6	• Methodology contains procedures to account for reductions of CH4 emissions relating to reduction of burning (SSP PE8) in Section 8.0.2.6
4.3.7	• Pools in question are denoted "Y" or "S" in Table 5 of methodology; this ensures that they are accounted in all cases where project activities may reduce pool above de minimis (with de minimis designation provided in Section 5.2.2.1 of methodology)
4.3.12	• Harvested wood products are required to be accounted for in all cases (as set out in Table 5 of methodology), unless designation as de minimis can be demonstrated per Section 5.2.2.1 of methodology
4.3.13	• Although this requirement does not require inclusion of soil in project boundary, Table 5 of methodology requires such inclusion "if the project exceeds the soil disturbance limits set out in Section 35 (3), Part 4, Practice Requirements, Division 1 – Soils of the Forest and Range Practices Act", and is thus more restrictive than (and inherently compliant with) this requirement
4.3.14	• Table 5 of methodology requires inclusion of dead wood carbon pool for projects in RIL and LtPF categories
4.3.15	• Table 5 of methodology indicates that inclusion of dead wood carbon pool is optional for projects in ERA category
4.3.16	• Harvested wood products are required to be accounted for in all cases (as set out in Table 5 of methodology), unless designation as de minimis can be demonstrated per Section 5.2.2.1 of methodology
4.3.17	• Although this requirement does not require inclusion of soil in project boundary, Table 5 of methodology requires such inclusion "if the project exceeds the soil disturbance limits set out in Section 35 (3), Part 4, Practice Requirements, Division 1 – Soils of the Forest and Range Practices Act", and is thus more restrictive than (and inherently compliant with) this requirement
4.4.6	• Methodology contains, in Section 5.2.2, guidance to enforce this requirement

It may be noted that the methodology uses the terms "insignificant" (the opposite of "significant", as used in the notes below Tables 5 and 6) and "de minimis" interchangeably. This is considered acceptable by the assessment team, given the generally understood convention within GHG accounting that "insignificant" is read as the English-language translation of "de minimis".

3.7 Baseline Scenario

The criteria and procedures for determining the baseline scenario, within Steps 1 through 3 of Section 7.1 of the methodology, are appropriate for the project activities covered by the methodology. The assessment team concludes, overall, that the criteria and procedures for determining the baseline scenario are in conformance with the VCS rules.

The procedures for determining the baseline scenario specifically address potential land-use within the project area (thus, in the context of the categories to which the methodology is applicable, taking into account "identified GHG sources, sinks and reservoirs" as discussed in Section 3.6.2 above, per Section 4.5.1(1) of the VCS Standard). The procedures for determining the baseline scenario generally align with the VCS-approved tool VT0001 ("Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Activities"), Version 3.0. The major difference is that, while the tool VT0001 refers back to the methodology for procedures to identify the baseline scenario, stating in Section 2.1.3 that "The baseline methodology that would use this tool shall provide for a stepwise approach justifying the selection and determination of the most plausible baseline scenario", the approach undertaken by the methodology is a comprehensive approach to both the determination of the baseline scenario and the demonstration of additionality. While the methodology was not formally assessed against VT0001, as a VCS-approved tool and as a work product of the VCSA, VT0001 was viewed as exemplary of best practice in identification of alternative land-use scenarios and demonstration of additionality, and the methodology was seen as compliant with the assessment criteria in any area where it followed the approach set out in VT0001 and did not violate any requirements of the assessment criteria.

An identification of the criteria and procedures for determining the baseline scenario, and an assessment of how they are appropriate for the project activities and project categories covered by the methodology, follows.

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
1	• Provide high-level requirements for identification of alternative scenarios with respect to previous land ownership (included for purpose of complying with various requirements of AFOLU Requirements)	• Requirement that "where the proponent has a history of managing the project area, the proponent must provide documented evidence of the project proponent's operating history, such as five or more years of management records, to provide evidence of normal historical practices, and this information must be considered in defining and evaluating the alternative baseline scenarios" ensures compliance with first two sentences of Section 4.4.4(1) of AFOLU Requirements in the situation where a history of management practices exist • Requirement that "for REDD projects, where ownership has not changed, the proponent must provide evidence to demonstrate, based on government plans (for publicly owned and managed lands), community plans (for publicly owned and community managed lands), licensee plans (for publicly owned lands managed by

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
		licensees) or landowner plans (for privately owned lands), that the project area was intended to be cleared" ensures compliance with Section 4.4.7(1) of AFOLU Requirements • Requirement that "where the project proponent is a new owner or manager, for REDD, RIL and LtPF projects, the baseline scenario must be based on the projected management activities of the most likely owner or manager or class of owner or manager who would have managed the project area in the absence of the project, providing that these actions were consistent with law, government land use planning, and other constraints" (and following requirements) ensures compliance with Sections 4.4.4(1)(a) and 4.4.7(1)(b) (for IFM-RIL/IFM-LtPF and REDD-APD project sub-categories, respectively) • Requirement that "In cases where a specific 'most likely owner or manager' cannot be identified, the baseline scenario must be based on the common characteristics and rates of deforestation for the most likely types of owners or manager expected to manage the project area" (and following requirements) ensures compliance with Section 4.4.7(1)(c) of AFOLU Requirements • Requirement that "for other project types, the baseline scenario must reflect at minimum the local common practices for areas comparable to the project area, and must not result in projected baseline GHG emissions from the project area greater than those that would occur under the relevant local common practice" (and following requirements) ensures compliance with Section 4.4.4(1)(b) of AFOLU Requirements
1a	• Provide criteria which must be met by all alternative land use scenarios (first four numbered points) • Provide criteria for scenarios which must, at a minimum, be included	• First four numbered points provide helpful clarifying guidance for identification of land use scenarios, requiring that all scenarios are distinct, feasible on project area given owner or class of owners in question and based on common practice • Requirement that all alternative scenarios are "based on environmental practices not less rigorous than common practice among forest managers in the area" ensures compliance with Section 4.4.4(3) of AFOLU Requirements

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
	(categories S1 though S5) • Provides clarifying guidance where project activity includes different facilities or (as is more likely to be appropriate) land areas • Provides criteria for analysis and documentation to be provided	• Types S1 through S5 ensure presence of all categories set out in Sub-step 1a of VT0001 (but breaks categories in VT0001 down to a finer scale of detail), as follows: o S1 maps to VT0001 category ii o S2 maps to VT0001 category ii o S3 maps to VT0001 category i o S4 maps to VT0001 category i o S5 generally maps to VT0001 category iii • Types S1 and S2 take into account the "existing and alternative project types, activities and technologies providing equivalent type and level of activity of products or services to the project", per Section 4.5.1(2) of VCS Standard • Type S5 takes into account "Other relevant information concerning present or future conditions, such as legislative, technical, economic, socio-cultural, environmental, geographic, site-specific and temporal assumptions or projections, per Section 4.5.1(4)
1b	• Provide criteria to ensure that all scenarios comply with any legal requirements, and clarifies outcome in event that only one scenario complies with all applicable requirements	• Ensure conformance with Section 4.4.4(2) of AFOLU Requirements • Ensure conformance with Section 4.6.3 of VCS Standard (as any situation in which only one land use scenario is compliant with all applicable requirements is also a scenario in which project activities are "mandated by any law, statute or other regulatory framework", as precluded by Section 4.6.3)
2a	• Provide guidance on identification of barriers which may preclude implementation of alternatives	• Barriers listed are similar to those identified as examples in Sub-step 3a in VT0001 (but with more detail provided regarding certain potential barriers, such as investment and technological barriers, and elimination of other types of barriers, such as "Barriers related to local tradition" and "Barriers due to local ecological conditions", that are unlikely to be important in context of geographic scope of methodology and project activities applicable under it (this is appropriate, as decision regarding land-use investments within British Columbia are likely to be predominately affected by investment or technological barriers as opposed to

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
		certain other types of barriers that may be more of an issue elsewhere)
2b	• Provide guidance on elimination of procedures prevented by any barrier(s) identified in Step 2a	• Provide clear guidance on identification of alternatives that are not prevented by barriers, with further guidance provided to ensure that any decisions are justifiable, transparent and supported by empirical data • Provides clear guidance on procedures to follow in case (1) there is only one scenario not prevented by any barrier or (2) more than one scenario is not prevented by any barrier (directing user to Step 3 under some variations of latter case) • Ensure conformance with Section 4.6.4 of VCS Standard • Ensure compliance with Section 4.5.1(3) of VCS Standard by ensuring that available data are conservatively interpreted
3a	• Provide guidance on identification of financial indicator to use	• Approach generally aligns with a combination of Options II and III under Step 3 of VT0001, but with additional guidance provided to facilitate interpretation of procedures • Procedures clearly outline steps to be undertaken, with additional guidance (above and beyond guidance provided in VT0001, which contains more generic procedures) for following situations, which will facilitate use of procedures in context of geographic scope and activities covered under methodology: o Alternative scenarios S2 and S3 do not involve costs or revenues o Sensitivity analysis is inconclusive • Ensure compliance with Section 4.5.1(3) of VCS Standard by ensuring that available data are conservatively interpreted (for example, that most conservative alternative is selected in case data limitations result in lack of clarity regarding most financially attractive alternative
3b	• Provide guidance on determination of which alternative is most financially attractive (or, if it is unclear which alternative is most financially attractive, which alternative results in most conservative quantification of GHG emission reductions/removals)	
4	• Provides for a “common practice” analysis	• Ensure compliance with Section 4.6.5 of VCS Standard, as follows: o Per Section 4.6.5(1), determination that project is not common practice is based on guidance provided in The GHG Protocol for Project

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
		Accounting, Chapter 7, which provides very high-level and generic guidance for identification of common practice o By comparing project activity with "similar activities" in region, and looking for whether any "essential distinctions" exist, procedures comply with Section 4.6.5(1) (except under certain circumstances, as addressed below) o In case project activity is common practice, requirement that "proposed project activity is not additional, unless it can be demonstrated that material and lasting changes in conditions have occurred since similar projects were carried out, which make it unlikely that further projects of this type would be implemented in the absence of incentives for GHG benefits" is compliant with Section 4.6.5(2)

3.8 Additionality

The criteria and procedures for determining additionality are appropriate for the project activities covered by the methodology. The assessment team concludes, overall, that the criteria and procedures for determining additionality are in conformance with the VCS rules.

A full and detailed procedure for demonstrating and assessing additionality has been developed directly within Section 7 of the methodology, per Section 4.6.2(2) of the VCS Standard. Steps 1 through 3 of Section 7.1.2 of that procedure, and an assessment of how they are appropriate for the project activities covered by the methodology, is provided in Section 3.7 above. An identification of Step 4 of that procedure, and an assessment of it is appropriate for the project activities covered by the methodology, follows.

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
4	• Provides for a "common practice" analysis	• Ensure compliance with Section 4.6.5 of VCS Standard, as follows: o Per Section 4.6.5(1), determination that project is not common practice is based on guidance provided in The GHG Protocol for Project Accounting, Chapter 7, which provides very high-level and generic guidance for identification of common practice

Step	Summary of criteria and procedures	Assessment of appropriateness for project activities and project categories covered by methodology
		o By comparing project activity with "similar activities" in region, and looking for whether any "essential distinctions" exist, procedures comply with Section 4.6.5(1) (except under certain circumstances, as addressed below) o In case project activity is common practice, requirement that "proposed project activity is not additional, unless it can be demonstrated that material and lasting changes in conditions have occurred since similar projects were carried out, which make it unlikely that further projects of this type would be implemented in the absence of incentives for GHG benefits" is compliant with Section 4.6.5(2)

The methodology contains, in Section 7.1.3, criteria for documentation of the determination of the baseline scenario and the demonstration of additionality. While documentation as required by the methodology is not required to be provided by the VCS rules, the requirements provided within Section 7.1.3 are appropriate and adequate to ensure a high level of transparency regarding the determination of the baseline scenario and the demonstration of additionality.

The methodology also contains further guidance, in Section 7.2, for performing the barrier analysis required under Step 2 of Section 7.1.2. This guidance is simply interpretive guidance regarding the criteria and procedures set out in Section 7.1.2 (i.e., it does not establish additional criteria and procedures). However, the guidance provides further clarification regarding interpretation of the general principles of barrier analysis within the context of natural resources management within British Columbia, and is, therefore, specifically appropriate to the project activities covered under the methodology.

3.9 Quantification of GHG Emission Reductions and Removals

As discussed under Section 3.3 above, the methodology is structured such that generic procedures (applicable to both baseline and project quantification) are set out in the root of Section 8, and specific procedures for quantification of baseline and project emissions are set out in Sections 8.1 and 8.2, respectively. The generic procedures in the root of Section 8 of the methodology, as well as the procedures set out in Section 8.1 of the methodology, are discussed in Section 3.9.1 below. The procedures set out in Section 8.2 of the methodology are discussed in Section 3.9.2 below.

3.9.1 Baseline Emissions

The assessment team concludes, overall, that the procedures for calculating baseline emissions and removals are in conformance with the VCS rules, **except that the requirement of Section 4.1.7(2)(b) of the VCS Standard is not fully complied with** (as is further discussed below).

An assessment of the criteria and procedures for calculating baseline emissions and removals, as a whole, follows.

Criterion	**Assessment findings**
Are procedures for calculating baseline emissions and removals appropriate for the project activities covered by the methodology?	**Yes**; procedures comply with all VCS rules for the category of project activities covered by the methodology, as further described below
Are all algorithms, equations and formulas used appropriate and without error?	**Yes**; assessment team carefully reviewed procedures and confirmed that all equations are appropriate and without mathematical errors; equations are consistent with best practices for GHG accounting, as found in relevant IPCC guidance documents
Do procedures for calculating baseline emissions and removals cover all GHG sources, sinks and reservoirs (and carbon pools) included in the project boundary?	**Yes**; procedures include SSPs included in project boundary, as listed below (the methodology section containing said procedures is in quotes): • PP1, PP2, PP3, PP4, PP5, PP6, PP7 (8.0.1.1) • PP8, PP9 (8.0.1.2) • PE3 (8.0.2.2) • PE4 (8.0.2.3) • PE6 (8.0.2.4) • PE7 (8.0.2.5) • PE8 (8.0.2.6) • PE9 (8.0.2.7) • PE10 (8.0.2.8) • PE11 (8.0.2.9) • PE12 (8.0.2.10) • PE15 (8.0.2.11) • PE16 (8.3)
Are all models or default factors used are appropriate and in conformance with VCS requirements on same?	See below
Are procedures for estimating parameters related to quantification of baseline emissions appropriate?	**Yes**; see Section 3.10 below for more details

Regarding the question "Are all models or default factors used are appropriate and in conformance with VCS requirements on same?" the assessment team has the following findings:

- No models are specifically used (i.e., required for use) by the methodology, but the methodology contains appropriate guidance for model selection, as discussed in more detail below.
- Default factors are required throughout the methodology in order to convert between different units (e.g. the factor 22/12 is used to convert from tonnes of biomass to tonnes of CO2-equivalent in Section 8.0.1.2; this is equal to the product of 0.5, the implied carbon fraction used by the methodology, and 44/12):
    - The carbon fraction of 0.5 is sourced from the IPCC 2003 Good Practice Guidelines for LULUCF ("IPCC 2003 GPG"), and is therefore compliant with all relevant criteria of Section 4.5.6 of the VCS Standard
    - Default factors for conversion to CO2 are (e.g., 44, 12) are consistent with Section 3.1.7 of the IPCC 2003 GPG and therefore compliant with all relevant criteria of Section 4.5.6 of the VCS Standard
- The default factors in Tables 8 and 13 of the methodology are required for use by the methodology, and have been established by the methodology (i.e., they have been compiled, by the methodology developer, for use by the methodology), and therefore the audit team confirmed the conformance of these factors with Section 4.1.7(2) of the VCS Standard, as follows:
    - The factors comply with each applicable requirement of Section 4.5.6, as follows:
        - Per Section 4.5.6(2), they are compiled from a secondary source (Gonzalez 1990) that is a recognized, credible source that is published by a government agency
        - Per Section 4.5.6(5), the factors, as well as the Gonzalez (1990) publication, are publically available
        - Per Section 4.5.6(6), a spreadsheet detailing the derivation of the factors was provided to the assessment team to allow reproduction of the derivation
        - Per Section 4.5.6(7), compiled values are species-specific and are also specific to British Columbia (with an exception for aspen, where that proved infeasible, as noted in Appendix D of the methodology)
        - Per Section 4.5.6(8), compiled values are based on empirical data and are not directly based on expert judgment
    - The methodology has, in Appendix D, described in detail the method used to establish the default factors.
- The default factors in Tables 9, 11, 14 and 16 of the methodology are required for use by the methodology, and have been established by the methodology (i.e., they have been compiled, by the methodology developer, for use by the methodology), and therefore the audit team confirmed the conformance of these factors with Section 4.1.7(2) of the VCS Standard, as follows:
    - The factors comply with each applicable requirement of Section 4.5.6, as follows:
        - Per Section 4.5.6(2), they are compiled from three secondary sources: Dymond (2012); Winjum et al. (1998) and Skog (2008); all articles were published in known scientific journals with a peer review process and thus can be considered to be recognized, credible sources that were reviewed for publication by appropriate peer review group
        - Per Section 4.5.6(5), the factors, as well as the publications in question, are publically available

- Per Section 4.5.6(6), a spreadsheet detailing the derivation of the factors was provided to the assessment team to allow reproduction of the derivation
- Per Section 4.5.6(7), all source values are appropriate to the region in which wood products are assumed to be utilized, based on product destination (reasonable assumptions have been made regarding the region in which products will be utilized, based on typical destinations of material flowing from British Columbia)
- Per Section 4.5.6(8), compiled values are mainly based on empirical data and expert judgment was only applied where assumptions were necessary in the face of limited data

o The methodology has, in Appendix F, described the method used to establish the default factors. In addition, the assessment team understands that a workbook (as of the issuance of Version 1-0 of this report, this workbook had the file name “Dymond based HWP model for FCOP final 1.2 annotated.xlsx”) is planned to be published on the VCS website as an appendix to the methodology, should the methodology by approved by the VCSA. The workbook contains comments and other information to help the user understand the derivation of the values in the above tables. **However, Appendix F and the workbook identified above fail to “describe in detail” the method used to establish the default factors.** The reasons for this are detailed in NCR 2012.137 in Appendix A below and are also reprinted below for the convenience of the reader.

- “The reason for the sourcing of a value of 30%, rather than 31%, from the Skog paper is adequately explained in Appendix F. However, no additional information is provided regarding the source of the value of 4% from the Dymond paper, either in Appendix F or in the workbook. The assessment team has been unable to identify the source of the 4% value through review of page 5 of the Dymond paper.”
- “While some additional information has been provided in Appendix F regarding the values in Table 37, the information provided is insufficient to transparently describe the source of the values, particularly since the values are hard-pasted into the workbook (i.e., there is no code in the workbook for the reader to trace).”
- “The assessment team has discovered that no information has been provided regarding the derivation of the values in Table 11 and 16, by altering the default wood products mixes as contained in cells M6:M9 of worksheet "Dymond" and cells D9:D12 of worksheet "Winjum", respectively, in either Appendix F or the workbook.”

o The methodology has correctly identified these factors, in Section 9.1.1, as factors which may become out of date

- The default factors in Tables 9, 11, 14 and 16 of the methodology are required for use by the methodology, and have been established by the methodology (i.e., they have been compiled, by the methodology developer, for use by the methodology), and therefore the audit team confirmed the conformance of these factors with Section 4.1.7(2) of the VCS Standard, as follows:

o The factors comply with each applicable requirement of Section 4.5.6, as follows:

- Per Section 4.5.6(2), they are compiled from several secondary sources that were published in known scientific journals with a peer review process and thus can be considered to be recognized, credible sources that were reviewed for publication by appropriate peer review group

        - Per Section 4.5.6(5), the factors, as well as the publications in question, are publically available
        - Per Section 4.5.6(6), Appendix A details the derivation of the factors at a level that should allow reproduction of the derivation
        - Per Section 4.5.6(7), all source values are appropriate to the region in which wood products are assumed to be utilized, based on product destination
        - Per Section 4.5.6(8), compiled values are mainly based on empirical data and expert judgment was only applied where assumptions were necessary in the face of limited data
    - The methodology has, in Appendix A, described in detail the method used to establish the default factors.
    - The methodology has correctly identified the factors in Table 17, in Section 9.1.1, as factors which may become out of date
- Default factors throughout the methodology are sourced from IPCC sources; these conform to Section 4.5.6 (and, therefore, to Section 4.1.7(1)) as described for each parameter in Section 3.10 below
- While Sections 8.0.2.2, 8.0.2.3, 8.0.2.4, 8.0.2.5, 8.0.2.6, 8.0.2.8, 8.0.2.9 and 8.0.2.10 require selection of default emission factors, the methodology never requires use of any one specific factor or set of factors, and therefore the sources suggested by the methodology were not formally assessed against Sections 4.1.7(1) and 4.5.6 of the VCS Standard; the specific factors used by a project proponent will need to be assessed against these requirements at validation or verification, per Section 3.1.5 (but the assessment team notes, informally, that the sources suggested by the methodology, as official government and/or IPCC sources, are likely to be highly compliant with these requirements)

Further identification and discussion of the procedures for calculating baseline emissions and removals is provided below.

Procedure	**Section**	**Assessment findings**
Overall quantification of emissions	8	• Approach follows accepted principles of GHG accounting by summing emissions by greenhouse gas, multiplying each quantity by its corresponding global warming potential and summing across products
Stratification procedure as part of “Option A”	8.0.1.1.1	• Stratification procedure follows “Approach 3”, as set out in Section 2.3.2.3 of IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry (“IPCC 2003 GPG”), per Section 4.5.1 of AFOLU Requirements
Sampling approach as part of “Option A”	8.0.1.1.1	• VRI and NFI are high-quality, official (published by the Canadian government) standards for collection of inventory data • Requirements for use of a “qualified registered professional”, location of sample plots using a

Procedure	Section	Assessment findings
		"justified statistically valid approach appropriate for the project site" and comparability in sampling methods all serve to ensure provision of high-quality measured/monitored data • Requirement to sample every 10 years, and to use methods in "Option B" to keep inventory accurate in between sampling events, ensure that inventories are kept up-to-date and as accurate as is feasible (sample frequency of 10 years is within range of industry standard practices)
Quantification of uncertainty as part of "Option A"	8.0.1.1.1	• Methodology requires uncertainty deduction in case that "the width of the 90 percent confidence interval of the sampled data exceeds +/-10% of the estimated value", and thus exceeds Section 4.1.4 of VCS Standard (which only requires uncertainty deduction in case that "a methodology applies a 90 percent confidence interval and the width of the confidence interval exceeds 20 percent of the estimated value") • Approach of adding confidence interval to estimate for baseline quantification, and subtracting for project quantification, is consistent with approach undertaken in VCS-approved methodology VM0006 and appropriate to ensure conservative quantification • Methodology requires that "Methods used for estimating uncertainty must be based on recognized statistical approaches such as those described in the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories" and thus enforces requirement of Section 4.1.4 of VCS Standard • Guidance regarding effect of stratification on uncertainty is consistent with statistical theory • Guidance is also provided to ensure that uncertainty in modeling is considered (consistent with overall QA/QC approach set out in IPCC 2006 Guidelines for National GHG Inventories ("IPCC 2006 Guidelines")
"Option B"	8.0.1.1.1	• Data from Vegetation Resource Inventory (VRI) is an official work product of Canadian government

Procedure	Section	Assessment findings
		and is considered appropriate to provide high-quality base data • Requirement for statistical validity in ground sample data also ensures provision of high-quality data • Findings regarding inventory update procedures are same as stated with respect to sampling approach as part of "Option A", above • Requirement for a sensitivity analysis is consistent with suggestions made in Section 6.9 of Volume 1, Chapter 6 of IPCC 2006 Guidelines • While formal estimation of a confidence interval is not carried out under Option B, it is not required in all cases; rather, Section 4.1.4 of VCS Standard requires that estimation of a confidence interval be carried out "where applicable" • As it would be infeasible to require construction of a procedure for error propagation when assessing combination of uncertain inventory data and uncertain modeling output, appropriate procedures are provided to address uncertainty and ensure conservative quantification
Guidance for model selection	8.0.1.1.2	• While methodology does not mandate use of any specific models (and therefore was not assessed against Section 4.1.6 of VCS Standard), methodology does provide clear and appropriate criteria for selection of models in context of geographic scope of methodology • Application of guidance in Section 8.0.1.1.2 will ensure selection of a model appropriate to project circumstances (and it should be noted that any model selection by project proponents will also be assessed Section 4.1.6(2)-(6) of VCS Standard, via Section 3.1.4 of VCS Standard, at validation) • All requirements of Section 4.5.3 of AFOLU Requirements are satisfied, as follows: o Regarding requirement that "it shall not be assumed that all GHG emissions from these carbon pools in the project categories specified below occur instantaneously or within a short period of time", all models specifically named by methodology, which quantify changes in

Procedure	Section	Assessment findings
		belowground biomass and/or dead wood, comply by modeling decay over a reasonable period of time; models not named by methodology must satisfy requirement that "The model must not assume that such changes take place instantaneously or within a short period of time" o Regarding the requirements that "…methodologies shall apply an appropriate decay model (such as a linear or exponential decay function) that is scientifically sound, based on empirical evidence and not likely to overestimate early carbon losses" and "Where appropriate, belowground biomass, soil carbon and dead wood decay models shall be calibrated": ▪ Where a model listed under "Growth and yield models" are used, methodology states that "any project-specific parameters / variables used by any selected model(s) must be independently validated for appropriateness and consistency throughout the project" (in addition, all models listed are scientifically sound and based on empirical evidence) ▪ Where a model listed under "Ecosystem carbon projection models" are used, methodology provides requirements for calibration (in addition, all models listed are scientifically sound and based on empirical evidence) ▪ Where an alternative model is used, methodology provides a set of bullet-point criteria to ensure these requirements are complied with
Ex-ante estimation of harvest flow	8.0.1.1.3	• Contains additional procedures to estimate harvest flow in baseline and project scenarios on

Procedure	Section	Assessment findings
		Crown (i.e., government-owned land); these procedures are appropriate to ensure that predicted harvest flow is accurate and subject to reasonable constraints to ensure that outputs are appropriate
Modeling PP7 (soil carbon)	8.0.1.1.4	• Contains appropriate criteria to ensure that modeled output for PP7 is as accurate as possible • Contains appropriate guidance to suggest that PP7 be deemed not relevant where it cannot be accurately measured/monitored
Quantifying loss events	8.0.1.1.5	• Contains high-level requirements for monitoring "loss events" (as defined by methodology, generally consistent with, although not equivalent to, definition in Program Definitions); all requirements are consistent with assessment criteria • Approach of modeling impact of loss events on baseline, where carbon pools would also be impacted in baseline, is appropriate and compatible with assessment criteria • Definition of "reversal", as provided by methodology, is equivalent to definition provided by Program Definitions
Default approach to quantification of PP8 and PP9	8.0.1.2	• Methodology sets out a detailed approach for harvested wood products quantification • Consistent with Section 4.5.12 of AFOLU Requirements, procedures reference Dymond (2012) and Winjum et al. (1998), which are "sources published in scientific peer-reviewed literature" • Methodology contains appropriate procedures for estimation of harvest flow and use of established wood densities (discussed above) and other factors to convert from volume to tonnes of biomass • Methodology contains appropriate procedures to calculate tonnes of CO2-equivalent stored in harvested wood products, using values in Table 9; as described above, values has been derived using scientific peer-reviewed literature sources and justifiable assumptions

Procedure	Section	Assessment findings
		• Determination of "short-term", "medium-term" and "long-term wood" has followed Section 4.5.3 of AFOLU Requirements as closely as possible (although not all suggestions of Section 4.5.3 have been followed)
Advanced approach to quantification of PP8 and PP9	8.0.1.2	• All comments made directly above apply here as well • "Advanced approach" provides for a more accurate method than "default approach" where a good estimate of wood products mix exists and can be validated, using values in Table 11; as described above, values has been derived using scientific peer-reviewed literature sources and justifiable assumptions
Quantification of PE3	8.0.2.2	• Approach follows Equation 3.2.1 from Section 3.2.1.1, Chapter 3, Volume 3 of IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements
Quantification of PE4	8.0.2.3	• Approach follows generic approach for quantification of emissions, as sourced from IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements
Quantification of PE6	8.0.2.4	• Approach follows Equation 3.2.6 from Section 3.2.1.1, Chapter 3, Volume 3 of IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements
Quantification of PE7	8.0.2.5	• Same as for Section 8.0.2.2
Quantification of PE8	8.0.2.6	• Approach follows Equation 3.2.20 from Section 3.2.1.4.2.1 of IPCC 2003 GPG, per Section 4.5.1 of AFOLU Requirements
Quantification of PE9	8.0.2.7	• Approach directly follows Equations 11.2, 11.9 and 11.10 from Chapter 11, Volume 4 of IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements

Procedure	Section	Assessment findings
Quantification of PE10	8.0.2.8	• Approach follows Equation 3.2.20 from Section 3.2.1.4.2.1 of IPCC 2003 GPG, per Section 4.5.1 of AFOLU Requirements
Quantification of PE11	8.0.2.9	• Same as for Section 8.0.2.4
Quantification of PE12	8.0.2.10	• Same as for Section 8.0.2.3
Quantification of PE15	8.0.2.11	• Same as for Section 8.0.1.2, except that references to Tables 9 and 11 are replaced to references to Tables 14 and 16 default and advanced approaches, respectively
Overall quantification of baseline emissions	8.1	• Approach follows "stock change approach" set out in Equation 2.5 from Chapter 2, Volume 2 of IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements • Guidance for quantification of parameter "GHGj, Baseline Forest Pools,t" clarifies that equivalent methods must be used for baseline and project quantification, except that Option B (modelling approach) will be required for projection of carbon stocks after project start date; this makes sense, as baseline carbon stocks after project start cannot be measured (as baseline scenario, by definition, does not occur) • Carbon stock change in harvested wood products is added in separately, which is appropriate, given that CO2-equivalent in harvested wood products pool is known (from reasoning) to be zero at project start date and a known quantity of CO2-equivalent will be added to this pool in each reporting period • Emissions from emission sources are deducted separately, which is consistent with overall best practice for GHG accounting

3.9.2 Project Emissions

The assessment team concludes, overall, that the procedures for calculating project emissions and removals are in conformance with the VCS rules, **except that the requirement of Section 4.1.7(2)(b) of the VCS Standard is not fully complied with** (as is discussed in Section 3.9.1 above).

An assessment of the criteria and procedures for calculating project emissions and removals, as a whole, follows.

Criterion	**Assessment findings**
Are procedures for calculating project emissions and removals appropriate for the project activities covered by the methodology?	See corresponding text in table in Section 3.9.1 above
Are all algorithms, equations and formulas used appropriate and without error?	See corresponding text in table in Section 3.9.1 above
Do procedures for calculating project emissions and removals cover all GHG sources, sinks and reservoirs (and carbon pools) included in the project boundary?	See corresponding text in table in Section 3.9.1 above
Are all models or default factors used are appropriate and in conformance with VCS requirements on same?	See corresponding text in table in Section 3.9.1 above
Are procedures for estimating parameters related to quantification of project emissions appropriate?	**Yes**; see Section 3.10 below for more details

An identification and assessment of the procedures for calculating project emissions and removals as contained within the root of Section 8 of the methodology may be found in Section 3.9.1 above. An identification and assessment of the procedures for calculating project emissions and removals as contained within Section 8.2 of the methodology follows.

Procedure	**Section**	**Assessment findings**
Overall quantification of project emissions	8.2	• Approach follows “stock change approach” set out in Equation 2.5 from Chapter 2, Volume 2 of IPCC 2006 Guidelines, per Section 4.5.1 of AFOLU Requirements • Guidance for quantification of parameter “GHGj, Baseline Forest Pools,t” clarifies that equivalent methods must be used for baseline and project quantification, except that Option B (modelling approach) will be required for projection of carbon stocks after project start date; this makes sense, as baseline carbon stocks after project start cannot be measured (as baseline scenario, by definition, does not occur)

Procedure	Section	Assessment findings
		• Carbon stock change in harvested wood products is added in separately, which is appropriate, given that CO2-equivalent in harvested wood products pool is known (from reasoning) to be zero at project start date and a known quantity of CO2-equivalent will be added to this pool in each reporting period • Emissions from emission sources are deducted separately, which is consistent with overall best practice for GHG accounting • Leakage emissions (as discussed in Section 3.9.3 below) are deducted separately; consistent with overall best practice for GHG accounting • While location of procedures for accounting for leakage emissions in Section 8.1 is unusual (it is typical practices to locate such procedures in Section 8.4), it does not constitute a non-conformity to assessment criteria, as no specific rules mandate that procedures for this accounting be located in a specific place in methodology
Summation of carbon stock changes within project area	8.2.1	• Provides appropriate procedures for summation of carbon stocks within project area across pools

3.9.3 Leakage

The assessment team concludes, overall, that the procedures for calculating leakage emissions are in conformance with the VCS rules. An identification of these procedures, and an assessment of how they are appropriate for the project activities covered by the methodology and comply with the VCS rules for the relevant AFOLU project categories, follows.

It should be noted that procedures for leakage quantification exceed the guidance of Section 4.6.5 of the AFOLU Requirements by requiring that leakage outside of Canada be accounted where applicable. This is considered appropriate by the assessment team, given the strong linkage in wood products markets between Canada and the United States (in the North American market) and Canada and Asia (in the international market) as well as fact that land is entities which own and/or manage land commonly sometimes have holdings in both Canada and the United States. It is also strongly conservative, relative to the requirements of Section 4.6.5 of the AFOLU Requirements.

Procedure	Section	Assessment findings
Differentiation between activity shifting leakage and market leakage	8.3.1	• Descriptions of activity shifting and market leakage are consistent with descriptions as provided in Section 4.6.1 of AFOLU Requirements but provide helpful interpretation and clarification within context of project activities covered by methodology
Summation of leakage emissions	8.3.1	• Provides appropriate guidance for summation across types of leakage
Criteria for exclusion of leakage accounting	8.3.1	• Provides appropriate criteria by which it may be determined that leakage has not occurred • Criteria provided, if satisfied, effectively preclude all activity shifting leakage (both "internal" and "external", in terminology of methodology) from occurring and ensure that market leakage is de minimis, and therefore result in leakage emissions being zero • Determination that leakage that is de minimis (in combination with other potentially excluded sources) may be excluded from accounting is allowed for by Section 4.6.2 of AFOLU Requirements
Demonstration that no internal activity shifting leakage has occurred	8.3.1.1(1)	• Complies with Section 4.6.13 of AFOLU Requirements by repeating that section almost verbatim
Determination of whether leakage agent can be identified	8.3.1.1(2)	• Provides guidance (appropriate to project activities covered by methodology) for how to determine whether leakage agent can be identified
Assess impacts of leakage mitigation measures	8.3.1.1(3)	• Provides criteria by which it may be ensured that any potential leakage has been mitigated by project proponent through project design • Criteria provided are appropriately prescriptive to ensure that leakage accounting is not erroneously omitted (i.e., leakage accounting is not excluded where leakage actually occurs) • Assessment team agrees that criteria, if satisfied, are sufficient to ensure that leakage has been to zero for remainder of project, since, as all project activities covered under scope of methodology are

Procedure	Section	Assessment findings
		planned activities, it should be possible for potential leakage impacts across lifetime of project to be known, and planned for, in advance
Estimate emissions from identified leakage agents	8.1.1.1(4)	• Steps (a) and (b) are compliant with requirement of Section 4.6.15(1)(a) of AFOLU Requirements that "where the specific deforestation agent can be identified, leakage need not be considered where it can be demonstrated that the management plans and/or land-use designations of the deforestation agent's other lands (which shall be identified by location) have not materially changed as a result of the project (eg, the deforestation agent has not designated new lands as timber concessions, increased harvest rates in lands already managed for timber, cleared intact forests for agricultural production or increased fertilizer use to enhance agricultural yields)". • Step (c) is compliant with requirement of Section 4.6.15(1)(a) that "where management plans and/or land-use designations of the deforestation agent's other lands have materially changed, leakage shall be quantified by directly monitoring the activities of the deforestation agent" (although such procedures are somewhat irrelevant as, per Section 8.3.1.1(1) of methodology, internal activity shifting leakage is not allowed and so any project causing such leakage would be fundamentally non-compliant with methodology)
Estimate emissions from unidentified leakage agents	8.1.1.1(5)	• Procedure is compliant with requirement of Section 4.6.15(1)(b) of AFOLU Requirements that "where the specific deforestation agent cannot be identified, leakage shall be quantified based upon the difference between historic and with-project rates of deforestation by the identified most-likely-class of deforestation agent within the region" • Methodology uses a "leakage zone" approach, as is common in REDD methodologies for estimation of leakage emissions • While leakage emissions are not quantified solely as a function of difference between historic and with-project rates of deforestation (or other baseline activity), the requirement of methodology

Procedure	Section	Assessment findings
		to base modeling on "factors such as… historic trends" is considered appropriate to ensure compliance with requirement that leakage emissions are quantified based on "the difference between historic and with-project rates of deforestation" • While methodology does not provide fully prescriptive criteria for establishment of a leakage zone, factors to be considered when establishing such a zone are appropriately set out • Methodology provides, in step (c), a prescriptive approach for quantification of leakage emissions; this approach is not as specifically set out as is common in REDD methodologies for estimation of leakage emissions, but is considered to be sufficiently prescriptive to fulfill requirements of assessment criteria • If followed in conjunction with other VCS requirements (e.g., requirement for conservativeness in Section 2.4.1 of VCS Standard), approach is adequate to ensure conservative accounting of leakage emissions
Estimate market leakage emissions	8.3.1.2	• Provides criteria for quantification of market leakage emissions, consistent with Section 4.6.4 of AFOLU Requirements • Approach provided is highly detailed and provides for a fine-grained assessment of market leakage attributable to reduction in output of harvested wood products • Approach complies with Section 4.6.14(2) of AFOLU Requirements by directly accounting for leakage at country-scale for comparable forest types and markets, based on methods for quantifying leakage from scientific peer-reviewed journal sources (including Murray et al. (2004), which is specifically referenced by Section 4.6.4(2) as a paper that "may be helpful in assessing market leakage" • Approach takes into account supply and demand elasticities for the commodity affected, and thus complies with Section 4.6.15(1)(b) of AFOLU Requirements

3.9.4 Net GHG Emission Reductions and Removals

The assessment team concludes, overall, that the procedures for calculating net GHG emission reductions and removals are in conformance with the VCS rules.

An assessment of the criteria and procedures for calculating net GHG emission reductions and removals, as a whole, follows.

Criterion	Assessment findings
Are procedures for calculating net GHG emission reductions and removals appropriate for the project activities covered by the methodology?	**Yes**; procedures comply with all VCS rules for the categories of project activities covered by methodology, as described below
Are all algorithms, equations and formulas used appropriate and without error?	**Yes**; assessment team carefully reviewed procedures and confirmed that all equations are appropriate and without mathematical errors; equations are consistent with best practices for GHG accounting, as found in relevant IPCC guidance documents
Are uncertainties associated with the quantification of net GHG emission reductions addressed appropriately?	**Yes**; uncertainties are addressed through explicit accounting and through procedures for selection of conservative output regarding baseline and project carbon stocks, as described in Section 3.9.1 above

Further identification and discussion of the procedures for calculating net GHG emission reductions and removals is provided below.

Procedure	Sec.	Assessment findings
Calculation of net GHG emissions reductions	8.4	• Equation 37 is a mathematically correct equation for calculation of emission reductions/removals that is consistent with Section 4.7.1 of AFOLU Requirements
Calculation of net change in carbon stocks	8.4.1	• Equation 38 is a mathematically correct equation for calculation of net change in carbon stocks, as required by Section 4.7.1 of AFOLU Requirements (and consistent with guidance in Sections 4.7.2 and 4.7.3 of AFOLU Requirements)

Procedure	Sec.	Assessment findings
Constraining to long-term average GHG benefit	8.4.2	• Contains a procedure to constrain credit issuance based on long-term average GHG benefit, per Section 4.5.5 of AFOLU Requirements, as follows: o Text above Equation 39 is an almost verbatim replication of introductory text of Section 4.5.5 and Section 4.5.5(1) (but should be readily understood by user of methodology o Equation 39 implements requirements in Section 4.5.5(2)-(5) while also complying with requirement of Section 4.5.5 that "the GHG benefit of a project is the difference between the project scenario and the baseline scenario of carbon stocks stored in the selected carbon pools and adjusted for any project emissions of N2O, CH4 and fossil-derived CO2, and leakage emissions" (noting that non-CO2 emissions are incorporated into "Baseline emissions of GHG j n the period beginning at time t-1 and ending at time t" and "Project emissions of GHG j in the period beginning at time t-1 and ending at time t, including leakage", and that leakage emissions are included in latter variable)
Calculate number of credits	8.4.3	• Provides mathematically correct equations to calculate number of credits, per Section 4.7.2 of AFOLU Requirements (and also compliant with Section 4.5.5(6) of AFOLU Requirements)

3.10 Monitoring

The assessment team concludes, overall, that the procedures for monitoring are in conformance with the VCS rules. The procedures for monitoring are appropriate for the project activities covered by the methodology, as further described for each data/parameter below.

Note that the procedures in Section 9.3 contain minimal guidance in terms of direct monitoring procedures. However, the methodology is seen by the assessment team to conform to Section 4.8.4(2)-(4) of the VCS Standard because it contains, in Section 9.2 (and sections incorporated by reference therein) appropriate criteria and procedures for monitoring the parameters in question, as further explained below regarding specification for monitored data/parameters.

Further identification and discussion of the procedures for monitoring is provided below.

Procedure	Sec.	Assessment findings
Requirements for monitoring plan	9.3	• Purpose of monitoring, as required by Section 4.8.4(1) of VCS Standard, is provided in first paragraph • Prescriptive requirements for a monitoring plan are provided that are consistent with general best practices in VCS methodology development and will be sufficient to ensure high-quality documentation of monitoring plans • IPCC 2006 Guidelines are cited for quality assurance/quality control (QA/QC) guidance, per Section 4.5.1 of AFOLU Requirements • Helpful criteria are provided regarding selection of default factors are provided that are consistent with (but do not substitute for) those provided in Section 4.5.6 of VCS Standard • Requirement that "when standards or factors have a high degree of uncertainty, conservative values must be selected to ensure that quantification does not lead to an over-estimation of GHG emission reductions or removals" is consistent with Section 4.8.2 of VCS Standard
Monitoring of project implementation	9.3.1	• Provides appropriate guidance regarding procedures to be contained in monitoring plan for monitoring of project implementation
Monitoring accounted pools and emissions	9.3.2	• Provides appropriate guidance regarding procedures to be contained in monitoring plan for monitoring of baseline, project and leakage emissions
Monitoring of natural disturbances	9.3.3	• Provides appropriate guidance regarding procedures to be contained in monitoring plan for monitoring of natural disturbances • General guidance provided for monitoring of areas affected by natural disturbance is consistent with overall best practices
Monitoring of leakage	9.3.4	• Provides appropriate guidance regarding procedures to be contained in monitoring plan for monitoring of leakage

Procedure	Sec.	Assessment findings
Monitoring, assessing, and managing reversal risk	9.3.5	• Provides guidance regarding monitoring and mitigation of reversal risk that, while not required by assessment criteria, will help to reduce risk of a reversal

An identification of each data/parameter available at validation, and an assessment (as requested) of how each piece of information provided in the parameter table is appropriate, is provided below.

Data / Parameter	*%LeakageMarket*
Data unit	Quantification as a percent is consistent with overall calculation approach and approach set out by Section 4.6.14(1) of AFOLU Requirements
Source of data	As parameter is set by methodology, Appendix A provides "justification for the method used" as required
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	As parameter is set by methodology, Appendix A provides "justification for the method used" as required
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	C_R & C_N
Data unit	As defined under the Le Système international d'unités ("SI system"), the tonne is an internationally recognized unit of weight that is commonly used in GHG accounting
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly specified
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	*dqx, qx*
Data unit	[no comments]
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	*e*
Data unit	[no comments]
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	*E*
Data unit	[no comments]
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	*EF1*
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	*EF4*
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	EF5
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	fC, wood
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	fC, wood
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	FracGASM
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	FracLEACH-(H)
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	Value applied is correctly reported from data source; value complies with each applicable requirement of Section 4.5.6 of VCS Standard as follows: (2) IPCC documentation is assumed to be a recognized, credible source that has been reviewed for publication by an appropriately qualified, independent organization (3) as factor is unlikely to change substantively over time, data are assumed to be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector (5),(6) data are publically available (7) data are universally appropriate (i.e., applicability is not restricted to a specific area (8) data are based primarily on empirical data
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	GWPj
Data unit	Data unit is consistent with specification in data source
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Assessment team agrees that, per Section 4.8.3 of VCS Standard, it is required to use "100 year global warming potentials derived from the IPCC's Second Assessment Report (which are also available and reprinted in the Fourth Assessment Report)"
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline, project and leakage emissions

Data / Parameter	HWPCH4factX,t-y
Data unit	Data unit is consistent with usage in equations in methodology
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	HWPfactNA,t-y
Data unit	Data unit is consistent with usage in equations in methodology
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	HWPfactO,t-y
Data unit	Data unit is consistent with usage in equations in methodology
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions

Data / Parameter	Tx
Data unit	[no comments]
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of leakage

Data / Parameter	wdfs
Data unit	Data unit is consistent with usage in equations in methodology
Source of data	Source of data is correctly indicated
Value applied:	As various values are applied, specification is appropriate
Justification of choice of data or description of measurement methods and procedures applied	Justification of data source is appropriately provided
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline, project and leakage emissions

An identification of each data/parameter monitored, and an assessment (as requested) of how each piece of information provided in the parameter table is appropriate, is provided below.

Data / Parameter	*ALb, t*
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Field measurement is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	VCS module VMD0031 constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	It is appropriate to monitor whenever a combustion event occurs
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	VCS module VMD0031 constitutes an appropriate calculation method to be followed for monitoring this parameter

Data / Parameter	*ALf,t*
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Records of purchase/inventory are an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task and existence of standardized accounting procedures, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Frequency is appropriate; assessment team agrees that monitoring should not be done more frequently than annually and that there would be no sense in monitoring on an interval shorter than a reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	Calculation method is appropriately specified and consistent with measurement methods and procedures

Data / Parameter	*ALf,e,t & ALfu,t*
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Records of fuel usage are an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter, assessment team agrees that flexibility regarding specific data sources is appropriate, given wide array of data formats that are potentially appropriate
Frequency of monitoring/recording	Continuous monitoring of fuel usage is appropriate to monitoring task
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	$AL_{ff,t}$
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Calculations based on measurement/modeling is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	VCS module VMD0031 constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	It is appropriate to monitor whenever a combustion event occurs
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	VCS module VMD0031 constitutes an appropriate calculation method to be followed for monitoring this parameter

Data / Parameter	*ALH, t*
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Scaling records are best source of data for this parameter, as they represent an impartial and well-respected estimate of harvested wood products available from logs
Description of measurement methods and procedures to be applied	BC Scaling Manual, as a standardized, government source, constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	It is sensible to monitor at every harvest event
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	It is correct that data must be summed from recorded volumes

Data / Parameter	*Alm,t*
Data unit	Data unit is appropriately generic to accept a wide variety of inputs (it will be incumbent upon user of methodology to ensure that inputs match equations such that units cancel out correctly)
Source of data	Monitoring of activities is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Continuous monitoring of transportation is appropriate to monitoring task
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	It is correct that data must be summed from recorded amounts

Data / Parameter	*Cap,t*
Data unit	Data unit is consistent with calculation approach
Source of data	Sampling/modeling is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Assessment team agrees that detailed procedures are provided in Section 8 of methodology
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as monitored data at end of each reporting period are used to determine carbon stock change during reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	Section 8 constitutes an appropriate calculation method to be followed for monitoring this parameter

Data / Parameter	Cm,g, t
Data unit	Data unit is appropriately generic to accept a wide variety of inputs (it will be incumbent upon user of methodology to ensure that inputs match equations such that units cancel out correctly)
Source of data	Monitoring of activities is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Continuous monitoring of transportation is appropriate to monitoring task
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	It is correct that data must be summed from recorded amounts

Data / Parameter	Dm,g
Data unit	Data unit is consistent with calculation approach
Source of data	Monitoring of shipping/trucking distance is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Frequency is appropriate; assessment team agrees that monitoring should not be done more frequently than annually and that there would be no sense in monitoring on an interval shorter than a reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	EFb,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.6 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Sources given are appropriate for this parameter, as all are government or otherwise official sources
Description of measurement methods and procedures to be applied	Section 8.0.2.6 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter; assessment team agrees that it is appropriate to first refer to British Columbia-specific sources where feasible
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	EFf,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.3 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Sources specified in Section 8.0.2.3 of methodology are appropriate for this parameter, as all are government or otherwise official sources (order of preferences is also appropriate)
Description of measurement methods and procedures to be applied	Section 8.0.2.3 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter; assessment team agrees that it is appropriate to first refer to British Columbia-specific sources where feasible
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	EFf,e,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.5 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Source specified in Section 8.0.2.5 of methodology are appropriate for this parameter, as it is an official government source
Description of measurement methods and procedures to be applied	Section 8.0.2.5 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	EFff,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.8 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Sources specified in Section 8.0.2.8 of methodology are appropriate for this parameter, as all are government or otherwise official sources (order of preferences is also appropriate)
Description of measurement methods and procedures to be applied	Section 8.0.2.8 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter; assessment team agrees that it is appropriate to first refer to British Columbia-specific sources where feasible
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	Effu,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.2 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Sources specified in Section 8.0.2.2 of methodology are appropriate for this parameter, as all are government or otherwise official sources (order of preferences is also appropriate)
Description of measurement methods and procedures to be applied	Section 8.0.2.2 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter; assessment team agrees that it is appropriate to first refer to British Columbia-specific sources where feasible
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	EfH,j
Data unit	Data unit is consistent with calculation approach; Section 8.0.2.10 of methodology contains guidance to ensure that units match with calculation approach
Source of data	Sources specified in Section 8.0.2.10 of methodology are appropriate for this parameter, given that "provincially or nationally approved standardized emission factors" relevant to British Columbia are specifically mentioned; assessment team agrees it would be necessary to develop factors in event that no applicable factors are available
Description of measurement methods and procedures to be applied	Section 8.0.2.10 of methodology provides appropriate guidance for selection of default factors and therefore constitutes an appropriate standard or protocol to be followed for monitoring this parameter; assessment team agrees it would be necessary to develop factors in event that no applicable factors are available
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as factors are unlikely to change on a more frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	Efm,j
Data unit	Data unit is appropriately generic to accept a wide variety of inputs (it will be incumbent upon user of methodology to ensure that inputs match equations such that units cancel out correctly)
Source of data	Records of fuel usage are an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Assessment team agrees that monitoring at most every five years is appropriate, as fuel economies are unlikely to change on a short time-scale
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	Calculation method is appropriately specified

Data / Parameter	GHGj, Baseline Forest Pools, t
Data unit	Data unit is consistent with calculation approach
Source of data	Sampling/modeling is an appropriate source of data for this parameter
Description of measurement methods and procedures to be applied	Section 8.0.1.1 of methodology contains detailed modeling procedures and constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Monitoring every reporting period is appropriate, as monitored data at end of each reporting period are used to determine carbon stock change during reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline emissions
Calculation Method	Section 8 of methodology contains detailed procedures for calculating this parameter

Data / Parameter	GHGj, Project Forest Pools, t
Data unit	Data unit is consistent with calculation approach
Source of data	Sampling/modeling is an appropriate source of data for this parameter
Description of measurement methods and procedures to be applied	Section 8.0.1.1 of methodology contains detailed modeling procedures and constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Continuous monitoring of transportation is appropriate to monitoring task
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of project emissions
Calculation Method	Section 8 of methodology contains detaled procedures for calculating this parameter

Data / Parameter	Lm,g
Data unit	Specification is consistent with quantification procedures set out in methodology; flexibility is appropriate, given uncertainty regarding exact unit to be used
Source of data	Given that variation in loading is likely to be small, industry average is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Assessment team agrees that monitoring at most every five years is appropriate, as industry averages are unlikely to change on a short time-scale
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	mhs
Data unit	Data unit is consistent with calculation approach
Source of data	As empirical data is best source of data for this parameter, data source is appropriate
Description of measurement methods and procedures to be applied	BC Scaling Manual, as a standardized, government source, constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Assessment team agrees it is only necessary to monitor this parameter when harvest parameters are significantly adjusted
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of project emissions
Calculation Method	Averaging is an appropriate method for this parameter

Data / Parameter	MOFj,t
Data unit	Data unit is consistent with calculation approach
Source of data	Records of purchase/inventory are an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task and existence of standardized accounting procedures, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Frequency is appropriate; assessment team agrees that monitoring should not be done more frequently than annually and that there would be no sense in monitoring on an interval shorter than a reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	Calculation method is appropriately specified and consistent with measurement methods and procedures

Data / Parameter	MSFi,t
Data unit	Data unit is consistent with calculation approach
Source of data	Records of purchase/inventory are an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task and existence of standardized accounting procedures, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Frequency is appropriate; assessment team agrees that monitoring should not be done more frequently than annually and that there would be no sense in monitoring on an interval shorter than a reporting period
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	Calculation method is appropriately specified and consistent with measurement methods and procedures

Data / Parameter	NCOFj
Data unit	Data unit is consistent with calculation approach
Source of data	Estimation from manufacturer's specifications is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Measurement from manufacturer specifications is best source of data for this parameter
Frequency of monitoring/recording	Annual monitoring is appropriate for this parameter (values are unlikely to be updated more frequently)
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	NCSFj
Data unit	Data unit is consistent with calculation approach
Source of data	Estimation from manufacturer's specifications is an appropriate data source for this parameter
Description of measurement methods and procedures to be applied	Measurement from manufacturer specifications is best source of data for this parameter
Frequency of monitoring/recording	Annual monitoring is appropriate for this parameter (values are unlikely to be updated more frequently)
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

Data / Parameter	Vols,y,d
Data unit	Data unit is consistent with calculation approach
Source of data	Measurement from delivery records is best source of data for this parameter
Description of measurement methods and procedures to be applied	Given simplicity of monitoring task, brief description provided constitutes an appropriate standard or protocol to be followed for monitoring this parameter
Frequency of monitoring/recording	Continuous monitoring is appropriate for this parameter, as new information is likely to become available on a very frequent basis
QA/QC procedures to be applied	Procedures, while generic, are appropriate to monitoring task
Purpose of Data	Specification is appropriate, as parameter is used for calculation of baseline and project emissions
Calculation Method	N/A

4 ASSESSMENT CONCLUSION

The assessment team was unable to conclude, as of the issuance of Version 1-0 of this report, that the methodology is in full compliance with the assessment criteria as described in Section 1.2 of this report. The specific reasons for the limitations regarding the assessment team's opinion are stated in Section 3.9.1 of this report.

5 REPORT RECONCILIATION

Subsequent to issuance of Version 1-0 of this report, the assessment team received email guidance from the VCSA, in an email dated 13 May 2015, to the effect that "Upon review by VCS, as the methodology uses default factors developed and included in a peer reviewed study, these default factors are in line with Section 4.1.7(1) of the VCS Standard and therefore are not required to be described further as required by Section 4.1.7(2)." SCS received further guidance from the VCSA, in an email dated 5 June 2015, indicating the following: "Section 4.1.7(1) allows for default factors to be determined from sources that meet the requirements of Section 4.5.6. As the default factors were pulled from peer reviewed studies, these studies meet the requirements of Section 4.5.6(2)."

On the basis of the above guidance, the assessment team understands that the values in Tables 9, 11, 14 and 16 are considered by the VCSA to constitute "third party default factors", as opposed to default factors that are established by the "methodology itself". On this basis, the assessment team understands that it is appropriate to assess the default factors in question against the requirements of Section 4.1.7(1) of the VCS Standard (which invokes the requirements of Section 4.5.6 of the VCS Standard), rather than Section 4.1.7(2) of the VCS Standard. As the default factors in question comply with all applicable requirements of Section 4.5.6, mutatis mutandis, the factors in question comply with Section 4.1.7(1). Given this understanding, the assessment team agrees that the default factors in question are fully compliant with the VCS rules, as interpreted with the assistance of the VCSA. Therefore, the assessment team agrees that the methodology is in full compliance with the assessment criteria as described in Section 1.2 of this report.

6 EVIDENCE OF FULFILMENT OF VVB ELIGIBILITY REQUIREMENTS

The following evidence of fulfillment of SCS' eligibility requirements is presented in accordance with Section 4.2 of the Methodology Approval Process.

SCS has completed ten project validations under sectoral scope 14 (AFOLU). A summary of the first ten project validations performed by SCS is as follows:

Project and Project ID	**Date validation report issued**	**Date project registered**	**Name of GHG program under which project registered**
INFAPRO Rehabilitation of logged-over dipterocarp forest in Sabah, Malaysia (672)	31-Aug-2011	2-Sep-2011	Verified Carbon Standard

Project and Project ID	Date validation report issued	Date project registered	Name of GHG program under which project registered
Natural High Forest Rehabilitation Project on degraded land of Kibale National Park (673)	6-Sep-2011	6-Sep-2011	Verified Carbon Standard
Protection of a Tasmanian Native Forest (Project 3: Peter Downie) (587)	18-Mar-2011	7-Apr-2011	Verified Carbon Standard
Redd Forests Grouped Project: Protection of Tasmanian Native Forest (641)	13-May-2011	1-Jul-2011	Verified Carbon Standard
Protection of a Tasmanian native forest – Project 1 – REDD Forests Pilot (605)	18-Mar-2011	3-May-2011	Verified Carbon Standard
Boden Creek Ecological Preserve Forest Carbon Project (647)	24-Jun-2011	18-Jul-2011	Verified Carbon Standard
Peri-urban bamboo planting around South African townships (Project ID confidential)	8-Aug-2011	8-Dec-2011	Verified Carbon Standard
Tree planting in South African townships (Project ID confidential)	2-Sep-2011	8-Dec-2011	Verified Carbon Standard
Rimba Raya Biodiversity Reserve Project (674)	31-Aug-2011	7-Sep-2011	Verified Carbon Standard
Reforestation Across the Lower Mississippi Valley (774)	20-Apr-2011	14-Feb-2012	Verified Carbon Standard

Note that the above is not necessarily an exhaustive list of all validations performed by SCS.

A VCS expert was not utilized in the course of the assessment.

7 SIGNATURE

Signed for and on behalf of:

Name of entity: SCS Global Services

Signature:

Name of signatory: Christie Pollet-Young

Date: XXXXXX

APPENDIX A

The following tables include all findings issued during the course of the methodology assessment. It should be noted that all language under “Client Response” is a verbatim transcription of responses provided by the methodology developer. Note that finding NCR 2012.137 remained open as of the date of issuance of Version 1-0 of this report.

NCR 2012.1 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for ARR projects, the above-ground non-tree biomass pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'S', as applicable to above-ground non-tree biomass for ARR projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether the justification for including or excluding the above ground non-tree biomass pool in the project boundary for ARR projects conforms to VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.2 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for LtHP projects, the above-ground non-tree biomass pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology has not established criteria and procedures to set out when a project proponent may include the pool for LtHP projects. The requirement that the pool be included in all cases does not conform to the VCS AFOLU Requirements.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'N', as applicable to above-ground non-tree biomass for LtHP projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether adequate criteria and procedures for determining whether the pool may be included in the project boundary have been added to the Methodology. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'N' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.3 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for all IFM projects, the above-ground non-tree biomass pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology has denoted the pool as optional, but has not established criteria and procedures to set out when a project proponent may include the pool for IFM projects other than LtHP.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'N', as applicable to above-ground non-tree biomass for IFM projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether adequate criteria and procedures for determining whether the pool may be included in the project boundary have been added to the Methodology. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'N' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.4 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for APD projects where an annual crop or pasture grass is the land cover in the baseline scenario, the above-ground non-tree biomass pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology element denotes the pool as "optional", but does not establish criteria and procedures to set out when a project proponent shall or may include the pool for APD projects where an annual crop or pasture grass is the land cover in the baseline scenario.

The VCS AFOLU Requirements states that, for APD projects where a perennial tree crop is the land cover in the baseline scenario, the above-ground non-tree biomass pool "shall be included in the project boundary". The methodology element does not require that the above-ground non-tree biomass pool be included in the project boundary for APD projects where a perennial tree crop is the land cover in the baseline scenario.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. The table indicates that for REDD-APD projects, the above-ground non-tree biomass pool is optional. However, the methodology does not include criteria and procedures that set out when the above-ground non-tree biomass pool may be included in the project boundary for APD projects. The finding remains open.

Client Response 2: Finding now closed

Auditor Response 2: This finding should have been closed previously, and was left open by mistake. It is the current understanding of the assessment team that the indication that a pool is optional constitutes criteria and procedures to set out when a project proponent may include the pool. Therefore, the non-conformity was previously resolved, and the finding may be closed.

NCR 2012.5 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for ARR projects, the below-ground biomass pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'S', as applicable to below-ground non-tree biomass for ARR projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether the justification for including or excluding the below ground non-tree biomass pool in the project boundary for ARR projects conforms to VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.6 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for LtHP projects, the below-ground biomass pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology element has not established criteria and procedures to set out when a project proponent shall or may include the pool for LtHP projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: As with NCR 2011.24, this finding can be closed on the basis of a logical extension of guidance received from the VCSA. The statement that "accounting is optional" constitutes criteria and procedures to set out when a project proponent may include the pool (in this case, indicating that a project proponent may include the pool under all circumstances). Therefore, as the methodology contains criteria and procedures to set out when a project proponent may include the pool, the finding can be withdrawn.

NCR 2012.7 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for all IFM projects, the below-ground biomass pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology element has not established criteria and procedures to set out when a project proponent shall or may include the pool for IFM projects other than LtHP.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: As with NCR 2011.24, this finding can be closed on the basis of a logical extension of guidance received from the VCSA. The statement that "accounting is optional" constitutes criteria and procedures to set out when a project proponent may include the pool (in this case, indicating that a project proponent may include the pool under all circumstances). Therefore, as the methodology contains criteria and procedures to set out when a project proponent may include the pool, the finding can be withdrawn.

NCR 2012.8 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for APD projects, the below-ground biomass pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology element has not established criteria and procedures to set out when a project proponent shall or may include the pool for APD projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: As with NCR 2011.24, this finding can be closed on the basis of a logical extension of guidance received from the VCSA. The statement that "accounting is optional" constitutes criteria and procedures to set out when a project proponent may include the pool (in this case, indicating that a project proponent may include the pool under all circumstances). Therefore, as the methodology contains criteria and procedures to set out when a project proponent may include the pool, the finding can be withdrawn.

NCR 2012.9 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP4/BP4 Standing Dead Trees", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ARR projects, the dead wood pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'S', as applicable to Dead Wood for ARR projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether the justification for including or excluding the Dead Wood biomass pool in the project boundary for ARR projects conforms to VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.10 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP4/BP4 Standing Dead Trees", as defined by the methodology element.

The VCS AFOLU Requirements states that, for LtHP projects, the dead wood pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for LtHP projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'N', as applicable to the Dead Wood pool for LtHP projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether adequate criteria and procedures for determining whether the pool may be included in the project boundary have been added to the Methodology. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'N' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.11 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP4/BP4 Standing Dead Trees", as defined by the methodology element.

The VCS AFOLU Requirements states that, for APD projects, the dead wood pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for APD projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: As with NCR 2011.24, this finding can be closed on the basis of a logical extension of guidance received from the VCSA. The statement that "accounting is optional" constitutes criteria and procedures to set out when a project proponent may include the pool (in this case, indicating that a project proponent may include the pool under all circumstances). Therefore, as the methodology contains criteria and procedures to set out when a project proponent may include the pool, the finding can be withdrawn.

NCR 2012.12 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP5/BP5 Lying Dead Wood", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ARR projects, the dead wood pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'S', as applicable to the Lying Dead Wood pool for ARR projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether the justification for including or excluding the Lying Dead Wood pool in the project boundary for ARR projects conforms to VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.13 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP5/BP5 Lying Dead Wood", as defined by the methodology element.

The VCS AFOLU Requirements states that, for IFM projects other than LtHP and ERA, the dead wood pool "shall be included in the project boundary." The methodology element is not permitted to develop criteria and procedures whereby the dead wood pool may be excluded from the project boundary for these projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 specifies Code 'Y' for Dead Wood for RIL and LtPF. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception). In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Has been changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.14 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP5/BP5 Lying Dead Wood", as defined by the methodology element.

The VCS AFOLU Requirements states that, for APD projects, the dead wood pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool."The methodology has denoted the pool as optional, but has not established criteria and procedures to set out when a project proponent may include the pool for APD projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: As with NCR 2011.24, this finding can be closed on the basis of a logical extension of guidance received from the VCSA. The statement that "accounting is optional" constitutes criteria and procedures to set out when a project proponent may include the pool (in this case, indicating that a project proponent may include the pool under all circumstances). Therefore, as the methodology contains criteria and procedures to set out when a project proponent may include the pool, the finding can be withdrawn.

NCR 2012.15 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for ARR projects, the litter pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'S', as applicable to the Litter pool for ARR projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether the justification for including or excluding the Litter pool in the project boundary for ARR projects conforms to VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.16 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for LtHP projects, the litter pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology is not permitted to require that the litter pool be included for LtHP projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. For the Litter and forest floor pools for the LtHP project type, Table 5 specifies code 'S' and Note 2. However, the explanatory text in the table footnotes for both of these items does not display properly in the version of the document submitted for verification; the text appears to be cut off. It is therefore not possible to evaluate whether the provisions conform to the VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined and the text of footnote 2 is clearly displayed. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.17 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for all IFM projects, the litter pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology is not permitted to require that the litter pool be included for all IFM projects other than LtHP.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. For the Litter and forest floor pools for IFM project types, Table 5 specifies code 'S' and Note 2. However, the explanatory text in the table footnotes for both of these items does not display properly in the version of the document submitted for verification; the text appears to be cut off. It is therefore not possible to evaluate whether the provisions conform to the VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined and the text of footnote 2 is clearly displayed. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.18 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for APD projects, the litter pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology has not established criteria and procedures to set out when a project proponent may include the pool for APD projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. However, the section of Table 5 that defines Code 'N', as applicable to the litter pool for APD projects is not displayed properly in the version of the document submitted for assessment; the line of text appears to be cut off. If is therefore not possible to evaluate whether adequate criteria and procedures for determining whether the pool may be included in the project boundary have been added to the Methodology. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'N' is now clearly defined. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.19 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for ARR projects, the soil pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'S' and Note 3 for the Soil pool for ARR projects. However, the explanatory text in the table footnotes for both of these items does not display properly in the version of the document submitted for verification; the text appears to be cut off. It is therefore not possible to evaluate whether the provisions conform to the VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined and the text of footnote 3 is clearly displayed. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.20 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for IFM projects other than LtHP, the soil pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology has established criteria and procedures to set out when a project proponent shall include the pool, rather than establishing criteria and procedures to set out when a project proponent may include the pool.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'S' and Note 3 for the Soil pool for IFM projects. However, the explanatory text in the table footnotes for both of these items does not display properly in the version of the document submitted for verification; the text appears to be cut off. It is therefore not possible to evaluate whether the provisions conform to the VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined and the text of footnote 3 is clearly displayed. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.21 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The VCS AFOLU Requirements states that, for APD projects where a perennial tree crop or pasture grass is the land cover in the baseline scenario, the soil pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology has established criteria and procedures to set out when a project proponent shall include the pool, rather than establishing criteria and procedures to set out when a project proponent may include the pool.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'S' and Note 3 for the Soil pool for APD projects. However, the explanatory text in the table footnotes for both of these items does not display properly in the version of the document submitted for verification; the text appears to be cut off. It is therefore not possible to evaluate whether the provisions conform to the VCS requirements. The finding remains open.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'S' is now clearly defined and the text of footnote 3 is clearly displayed. Therefore, the necessary criteria are in place and the non-conformity has been resolved.

NCR 2012.22 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP8/BP8 Harvested Wood Products In Use", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ARR projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' Harvested Wood Projects In Use pool for ARR projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception).In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.23 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP8/BP8 Harvested Wood Products In Use", as defined by the methodology element.

The VCS AFOLU Requirements states that, for LtHP projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for LtHP projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' Harvested Wood Projects In Use pool for LtHP projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception).In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit.

The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.24 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP8/BP8 Harvested Wood Products In Use", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ERA projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for ERA projects.

The VCS AFOLU Requirements states that, for RIL projects with no or minimal (<25%) effect on total timber extracted, the wood products pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology is not permitted to require that the wood products pool be included for these projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Guidance received from the VCSA subsequent to issuance of this finding indicates that a methodology may require that the wood products pool be included for ERA and RIL projects and that 'required' can be considered as a criterion to set out when a project proponent shall or may include the pool. Therefore, the methodology has established criteria to set out when a project proponent shall include the pool, and the finding can be withdrawn.

NCR 2012.25 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP8/BP8 Harvested Wood Products In Use", as defined by the methodology element.

The VCS AFOLU Requirements states that, for APD projects, the wood products pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' for the Harvested Wood Products in Use pool for APD projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception).In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.26 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP9/BP9 Harvested Wood Products in Landfill", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ARR projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for ARR projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' for the Harvested Wood Products in Use pool for ARR projects. The wording of the explanatory text for code 'Y', "except where specific criteria are identified for cases where it may not be" is not equivalent to the meaning of Code 'Y' in Table 2 of the AFOLU requirements, which is "shall be included in the project boundary" (without exception). In order for the assessment team to be able to determine whether the methodology's standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.27 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP9/BP9 Harvested Wood Products in Landfill", as defined by the methodology element.

The VCS AFOLU Requirements states that, for LtHP projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for LtHP projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' for the Harvested Wood Products in Landfill pool for LtHP projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception). In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.28 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP9/BP9 Harvested Wood Products in Landfill", as defined by the methodology element.

The VCS AFOLU Requirements states that, for ERA projects, the wood products pool "is optional and may be excluded from the project boundary. Where the pool is included in the methodology, the methodology shall establish criteria and procedures to set out when a project proponent shall or may include the pool." The methodology has not established criteria and procedures to set out when a project proponent shall or may include the pool for ERA projects.

The VCS AFOLU Requirements states that, for RIL projects with no or minimal (<25%) effect on total timber extracted, the wood products pool "does not have to be included, because it is not subject to significant changes or potential changes are transient in nature. The pool may be included in the project boundary because of positive impacts to reducing or removing emissions. Where the carbon pool is included in the project boundary, methodologies shall establish criteria and procedures to set out when a project proponent may include the pool." The methodology is not permitted to required that the wood products pool be included for these projects.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' for the Harvested Wood Products in Landfill pool for ERA and RIL projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception). In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.29 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.3.1

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: This NCR is written with respect to the inclusion procedures and criteria for "PP9/BP9 Harvested Wood Products in Landfill", as defined by the methodology element.

The VCS AFOLU Requirements states that, for APD projects, the wood products pool "shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.24. The methodology shall justify the exclusion or inclusion of the pool in the project boundary." The methodology has not justified the exclusion or inclusion of the pool in the project boundary.

Client Response: A table has been added to the protocol defining whether pools and sources are required, optional, etc., and a de minimus rule has been included.

Auditor Response: Section 5.4.2.3 of the methodology, including Table 7, which were referenced in the NCR, have been deleted. A new Section 5.2.2 has been added in version 1.1 of the methodology which includes Table 5 defining whether pools and sources are required, conditionally required, optional, or not accounted. Table 5 indicates Code 'Y' for the Harvested Wood Products in Landfill pool for APD projects. The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception). In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit. The finding remains open.

Client Response 2: Changed to read "Must be accounted".

Auditor Response 2: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.30 dated 04-16-2012

Standard Reference: VCS Standard V3.2, Section 2.4.1

Document Reference: methodology element (3/13/12)

Finding: Throughout the methodology document, table lack an appropriate identifier. For example, the third paragraph of Section 5.2.3, states "...The result is a single set of potentially relevant SSPs that cover all eligible project types (illustrated in Figure 2, and described in detail in Table through Table)...".

In addition, other deviations from conventional practice exist with respect to table numbering in the document. The following are examples of such deviations:

- The numbering system applied to the tables repeats mid-way through the document. There are two tables identified as "Table 2", two tables identified as "Table 3", and so on.

- There is a gap in the numbering between Tables 11 and 16.

All tables must be numbered consecutively, according to common practice, in order to ensure that the methodology includes "all relevant information to support criteria and procedures" (VCS Standard V3.2, Section 2.4.1).

Client Response: Tables will be numbered consecutively. (actually, they were in this version too - something happened in sending this file to you. Very strange.)

Auditor Response: All of the Tables in version 1.1 of the Methodology are identified, however, there remain some cases of duplicate Table numbers. For example, a duplicate use of Table 1 on page 57, a duplicate use of Table 2 on page 85, a duplicate use of Table 3 on page 94, a duplicate use of Table 4 on page 97, and a duplicate use of Table 5 on page 99. The finding remains open.

Client Response 2: ??? Not in my version - possibly a Word feature???

Auditor Response 2: The assessment team can confirm, through review of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that tables are now numbered consecutively through the document, from Table 1 through Table 30. Therefore, the non-conformity has been resolved.

NCR 2012.31 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 2

Document Reference: methodology element (3/13/12), Section 2.0

Finding: The VCS Methodology Template requires that the methodology "Indicate in the table below whether the methodology uses a project, performance or activity method for determining additionality, and a project or performance method for determining the crediting baseline", and includes a template for a table where the above should be indicated. The methodology does not indicate whether the methodology uses a project, performance or activity method for determining additionality in conformance with the procedure specified by the VCS Methodology Template.

Client Response: added at the beginning of section 2

Auditor Response: A table indicating the method for determining additionality and the crediting baseline conforming to the Methodology template has been added to section 2.0 of the Methodology.

NCR 2012.32 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 2

Document Reference: methodology element (3/13/12), Section 2.0

Finding: The VCS Methodology Template requires that the methodology "Indicate in the table below whether the methodology uses a project, performance or activity method for determining additionality, and a project or performance method for determining the crediting baseline", and includes a template for a table where the above should be indicated. The methodology does not indicate whether the methodology uses a project or performance method for determining the crediting baseline in conformance with the procedure specified by the VCS Methodology Template.

Client Response: Repeat of finding #31

Auditor Response: A table indicating the method for determining additionality and the crediting baseline conforming to the Methodology template has been added to section 2.0 of the Methodology.

NCR 2012.33 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 2

Document Reference: methodology element (3/13/12), Section 2.0

Finding: The VCS Methodology Template indicates that "a brief summary description of the methodology/revision, including the main methodological steps", be provided within Section 2. It is not intended that Section 2 contain language against which projects using the methodology must be assessed.

Section 2.4 of the methodology states "Legal requirements and climate change incentives listed in this section shall be considered by project proponents when determining and justifying that the project is surplus / additional, and that the project conforms to the requirements of the BC Emission Offset Regulation." As a stated requirement, the above does not belong within Section 2.

In addition, Section 2.4 of the methodology states "Forest offset projects must also comply with all other municipal, provincial and Federal laws that apply to the project area and activity. These are not itemized here." As an applicability condition, the above does not belong within Section 2.

Client Response: section 2.4 has been moved to the supplement, as guidance regarding the applicability requirement that projects conform to the law.

Auditor Response: A summary of the Methodology has been added to section 2.0 identifying the main methodological steps. Section 2.4 has been removed.

NCR 2012.34 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 8

Document Reference: methodology element (3/13/12), Section 8.0

Finding: The VCS Methodology Template requires that "the criteria and procedures, including relevant equations, for the quantification of GHG emissions and/or removals for the selected GHG sources, sinks and/or reservoirs for the baseline scenario" be described in Section 8.1 and that "the criteria and procedures, including relevant equations, for the quantification of GHG emissions and/or removals for the selected GHG sources, sinks and/or reservoirs for the project" be described in Section 8.2. The methodology is not permitted to deviate from the required structure, but must conform to the requirements of the VCS Methodology Template.

Client Response: Equations and guidance for estimation of GHGs in accounted pools and sources have been re-organized to conform to the VCS template

Auditor Response: Equations and guidance for quantification of GHG emissions and reductions are in Section 8 of the Methodology, with baseline emissions methods described in Section 8.1 and Project emissions methods described in section 8.2, and leakage emissions methods described in section 8.3. Subsequent to the issuance of this finding, SCS received clarification from VCS indicating that instructional text within VCS templates does not constitute auditable guidance. The finding can be closed

NCR 2012.35 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Sections 9.1 and 9.2

Document Reference: methodology element (3/13/12), Section 9.0

Finding: The VCS Methodology Template requires that "specification for data and parameters not monitored (ie, that will be available at validation)" be provided in Section 9.1. The VCS Methodology Template requires that "specification for data and parameters monitored" be provided in Section 9.2. The methodology does not address data and parameters not monitored, and data and parameters monitored, within the separate sections required by the VCS Methodology Template. In addition, the methodology does not utilize the required table, which must be copied "for each data unit/parameter"

Client Response: Done

Auditor Response: A table of Data and Parameters available at Validation has been added in Section 9.1 of version 1.1 of the Methodology and a table of Data and Parameters Monitored has been added in Section 9.2. The respective tables appear to contain all of the information required by Section 4.8 of the VCS Standard. The finding is closed.

NCR 2012.36 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 9.3

Document Reference: methodology element (3/13/12)

Finding: The VCS Methodology Template requires that "the criteria and procedures for obtaining, recording, compiling and analyzing data and information important for quantifying and reporting GHG emissions and/or removals relevant for the project and baseline scenario" be described within Section 9.3 of the methodology.

Client Response: Section has been corrected, and procedures and criteria added.

Auditor Response: A Description of the Monitoring Plan has been added as section 9.3 of version 1.1 of the Methodology. In accordance with clarification received from VCS subsequent to issuance of this finding indicating that instructional text within VCS templates does not constitute auditable guidance, the requirement that the criteria and procedures for obtaining, recording, compiling and analyzing data and information important for quantifying and reporting GHG emissions and/or removals relevant for the project and baseline scenario be described within Section 9.3 of the methodology is waived and the finding can be closed.

NCR 2012.37 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 10

Document Reference: methodology element (3/13/12), Section 10

Finding: The VCS Methodology Template requires that "any relevant references and any other information relevant to the methodology/revision" be included within Section 10. In non-conformance to this requirement, Section 10.0 of the methodology contains requirements for "managing the risk of reversal".

Client Response: Section 10 now contains only the references

Auditor Response: Section 10.0 of version 1.1 of the Methodology contains a list of references. The finding is closed.

NIR 2012.38 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.2, definition of "forest"

Document Reference: methodology element (3/13/12), Section 4.1

Finding: The VCS Program Definitions define "forest" as the following:

"Land with woody vegetation that meets an internationally accepted definition (eg, UNFCCC, FAO or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests"

Please provide evidence that the definition of "forest" provided by the methodology meets an internationally accepted definition of what constitutes a forest.

Client Response: definition of "forest land" meets the Canadian definition of a forest, as elected under UNFCC rules. Definition has been added to section 3.

Auditor Response: The finding requests that the methodology developer provide evidence that the definition of "forest" meets an internationally accepted definition. The developer's response is to declare that the definition of "forest land" meets the Canadian definition of a forest, as elected under UNFCC rules; however, the developer provided no evidence of such. The assessment team acknowledges that a definition of "forest land" has been included in Section 3 of the Methodology. The finding remains open.

Client Response 2: Reference and updating procedure added

Auditor Response 2: The assessment team can confirm, through review of footnote 21 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the footnote provides a link to the website of the Canadian governmental agency Natural Resources Canada. This website (http://cfs.nrcan.gc.ca/pages/97; accessed 6 September 2012) describes the definition of forest as used by the government of Canada for UNFCC reporting. The definition provided by the website is consistent with the definition provided in Section 3 of the methodology document. Therefore, requested evidence has been provided.

NCR 2012.39 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.2, definition of "forest"

Document Reference: methodology element (3/13/12), Section 4.1

Finding: The methodology states the following:

"Harvested wood products may be counted as long term carbon pools in this protocol only under specific situations described more fully elsewhere in this protocol. In particular, where wood is harvested for use as biofuel or where the creation of specific kinds of HWPs cannot be verifiably demonstrated, the associated carbon is assumed lost to the atmosphere."

This requirement does not conform to the VCS definition of "wood products", which is as follows:

"Products derived from wood harvested from a forest, including fuelwood and logs and the products derived from them such as sawn timber, plywood, wood pulp, paper". The VCS definition of wood products clearly includes biofuel.

Client Response: The FCOP definition of HWP is in this respect more conservative than the VCS definition. In keeping with general guidance from VCS, where FCOP is more conservative we are electing to maintain the FCOP definition or standard.

Auditor Response: The Methodology is seeking approval under the VCS Program. The VCS Program Definitions provides the definitions for terms used in the VCS Program documents. The Validation and Verification Manual, Version 3.0, requires that ""Where methodologies include definitions, VVBs must ensure that the definitions are consistent with VCS definitions" (page 46). Therefore, as the methodology uses a term that is defined in the VCS Program Definitions, the definition of that term must be consistent with the definition in the VCS Program Definitions. The finding remains open.

Client Response 2: Definition of HWP from the VCS Definitions has been added. Note that the text quoted was not actually defining HWPs, it was simply indicating that some types of HWPs are accounted as emitted immediately

Auditor Response 2: The assessment team can confirm, through review of Section 3 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of "harvested wood products" that has been added is consistent with the VCS Program Definitions. Therefore, the non-conformity has been resolved.

NCR 2012.40 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.2, definition of "afforestation"

Document Reference: methodology element (3/13/12)

Finding: Section 4.1.1 of the methodology defines afforestation as "the direct human-induced conversion of land that has not been Forest Land for at least 20 years prior to project commencement to Forest Land through planting, seeding and/or human-induced promotion of natural seed sources". This is not consistent with the definition of the term within the VCS Program Definitions, which is as follows:

"The direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources"

The methodology must be reconciled with the VCS rules in this regard at every point at which the number of years in which the project area must not have been forested prior to project commencement is explicitly stated.

Client Response: For the purposes of VCS, we are using the term "ARR". We recognize that the FCOP term "afforestation" does not conform to the VCS 50 year rule. However, we also note that there are no functional differences in VCS between "afforestation" and "reforestation", and thus that the effective ARR rule in VCS is ten years. In light of the fact that we are no longer using the term "reforestation", but rather "replanting" for re-establishment of trees on land which has been deforested for less than 20 years, and are including that activity in IFM, our definition of "afforestation" effectively becomes more restrictive than the VCS definition of ARR. In keeping with the general principle that being more restrictive is permissable, we would prefer to keep our definitions.

Auditor Response: The Methodology is seeking approval under the VCS Program. The VCS Program Definitions provides the definitions for terms used in the VCS Program documents. The Validation and Verification Manual, Version 3.0, requires that ""Where methodologies include definitions, VVBs must ensure that the definitions are consistent with VCS definitions" (page 46). Therefore, as the methodology uses a term that is defined in the VCS Program Definitions, the definition of that term must be consistent with the definition in the VCS Program Definitions. The finding remains open.

Client Response 2: Definitions have either been made the same as the VCS defs, or made consistent with but not using exactly the same words, in order to maintain consistency with all of VCS, BC EOR, and BC Forest Act and related legislation and regulations.

Auditor Response 2: The definition of "Afforestation, Reforestation and Revegetation (ARR)", as set out within Section 3 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", remains inconsistent with the VCS definition of "afforestation", as the VCS definition of "afforestation" requires that land have been non-forested for at least 50 years in order for project activities to be considered "afforestation". The non-conformity has not been resolved.

Client Response 3: Note that ARR is defined in the AFOLU Requirements section 4.2.1. No 50 year requirement is given in that section, as VCS recognizes that there is no programmatically material difference between afforestation and reforestation at this time. Thus VCS itself does not conform to the substance of this NCR. FCOP has chosen to more conservatively require that land for ARR projects not have been cleared of native ecosystem within a 20 year period, instead of the 10 year period identified in AFOLU Requirements 4.2.1 and 3.1.5. As previously discussed, our communications with VCS indicate that standards which are more conservative than those required by VCS are acceptable.

Auditor Response 3: Subsequent to issuance of the third Client Response, a conversation with the VCSA was held and written guidance was sought on the topic of the disagreement. VCSA personnel indicated, in an email dated 29 July 2014, that "For the VCS requirements, land must have been degraded for a minimum of 10 years prior to the ARR project activity. Adding a requirement of land being degraded for a minimum of 20 years is more conservative than the VCS requirements and can be allowed. " In addition, the updated version of the methodology ("2011 02 28 VCS MED for BC FCOP - SCS round 4") includes a requirement that "(Note that to be considered “afforestation” the land must have been deforested for at least 50 years.)" Therefore, the specific non-conformity pertaining to the 50-year requirement of the VCS Program Definitions has been resolved.

NCR 2012.41 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.2, definition of "reforestation"

Document Reference: methodology element (3/13/12), Section 4.1.2

Finding: The VCS Program Definitions define reforestation as the following:

"The direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources on land that was once forested but has been converted to non-forested land"

The methodology states that the reforestation project type is "(included within VCS project type LtHP)". However, the VCS AFOLU Requirements V3.2, Section 4.2.3 states that "The baseline and project scenarios for the project area shall qualify as forests remaining as forests" for LtHP and all other IFM project types.

As the VCS term "reforestation" is not consistent with VCS project type LtHP, the methodology must use a different term when referring to LtHP projects.

Client Response: Term has been changed to "replanting"

Auditor Response: Use of the term "replanting" does not introduce any contradiction with terms specifically defined in VCS Program Definitions. The finding can be closed.

NCR 2012.42 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.2.3

Document Reference: methodology element (3/13/12), Section 4.1.2

Finding: The VCS AFOLU Requirements state that, for LtHP and all other IFM project types "The baseline and project scenarios for the project area shall qualify as forests remaining as forests, such as set out in the IPCC 2006 Guidelines on National GHG Inventories, and the project area shall be designated, sanctioned or approved for wood product management by a national or local regulatory body (eg, as logging concessions or plantations)." This is not consistent with the following requirements of the methodology for LtHP projects:

- "The project lands must have been forest land in the recent past"--as per the requirement above, the project lands must be forested at project start

- "There are no legal requirements to reforest the project lands"--as per the requirement above, the project lands must be forested at project start

Client Response: The VCS AFOLU guidelines do not actually state that the project lands must be forested at project start, but that they must be forests remaining forests. The IPCC Guidelines definition of a forest includes areas which are "temporarily unstocked as result of human action", without giving any temporal limit to the word "temporarily". FCOP uses the same approach.

Auditor Response: The criteria for "forest land" no longer implies that the area in question may not be forested as of the project start date, and therefore the non-conformity has been resolved.

NCR 2012.43 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Sections 4.2.3 and 4.2.4

Document Reference: methodology element (3/13/12), Sections 4.1.2 and 4.1.3

Finding: The VCS AFOLU Requirements indicates that LtHP (Low-Productive to High-Productive Forest) is a subset of IFM (Improved Forest Management). Therefore, it is not appropriate to separate LtHP projects from IFM projects, as the methodology does. It is also not appropriate to state "Where the project also involves improved forest management on project lands that are being reforested, all activities, including reforestation, must be treated as an improved forest management project according to the requirements of this protocol and not a reforestation project", as is stated in Section 4.1.3 of the methodology.

Client Response: LtHP has been clarified as being a subset of IFM. In general, this section has been edited and shortened, and is now clearly marked as applicable only to projects not validating under VCS. The VCS criteria have been given elsewhere.

Auditor Response: In Section 4.1 of version 1.1 of the Methodology, the eligible project types are clearly labeled as VCS project categories. The finding can be closed.

NCR 2012.44 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 3

Document Reference: methodology element (3/13/12)

Finding: The VCS Methodology Template requires that "definitions of key terms and acronyms that are used in the methodology/revision" be provided in Section 3. The following terms and acronyms are used by the methodology but are never defined:

- "BC"

- "project period"

- "project plan"

- "project report"

- "emission reduction report"

- "registered professional"

Client Response: defined terms italicized

Auditor Response: "BC" is identified as "British Columbia" in section 2.0; the term "project period" has been removed; the term "project report" has been removed; the non-conformance with respect to these terms has been resolved. However, the terms "project plan", "emission reduction report" and "registered professional" are not defined in either the VCS Program definitions nor in the body of the Methodology. The finding remains open.

Client Response 2: Project plan has been defined. Emission reduction report is now "project report", to be consistent with the BC EOR, and has been defined. "Registered professional" has been defined.

Auditor Response 2: The assessment team can confirm, through review of Section 3 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the term "project plan" is defined in a manner that is consistent with common VCS usage of the term "project document", and the linkage is appropriately made explicit in the definition. A definition for the term "project report" is also provided, and the term "emission reduction report" has been removed from the methodology. Finally, a definition of the term "registered professional forester has been provided. Therefore, the non-conformity has been resolved.

NCR 2012.45 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.1, definition of "aboveground biomass"

Document Reference: methodology element (3/13/12), Section 5.2.5, Table 3

Finding: The methodology states that "Standing live trees include the stem, branches, and leaves or needles of all above ground live biomass, regardless of species." This definition is not completely consistent with the following VCS definition of aboveground biomass, which also includes bark and seeds: "Living biomass above the soil, including the stem, stump, branches, bark, seeds and foliage"

Client Response: definition corrected

Auditor Response: The updated definition of standing Live Trees in Table 2, version 1.1 of the Methodology is consistent with "aboveground biomass" per VCS Program Definition.

NCR 2012.46 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.1, definition of "dead wood"

Document Reference: methodology element (3/13/12), Section 5.2.5, Table 3

Finding: The methodology states that "Stumps are not considered standing dead stocks." This is not consistent with the following VCS definition of dead wood, which explicitly includes stumps: "Non-living woody biomass not contained in the litter, either standing, lying on the ground or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10cm in diameter or any other diameter used by the host country for its UNFCCC national inventory accounting."

Client Response: FCOP contains two categories of deadwood, standing and lying, consistent with Vegetation Resource Inventory methods. We have now included stumps in lying deadwood.

Auditor Response: The updated definition of Stumps in version 1.1 of the Methodology is consistent with the VCS definition of dead wood.

NIR 2012.47 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.1, definition of "dead wood"

Document Reference: methodology element (3/13/12), Section 5.2.5, Table 3

Finding: The VCS classifies dead wood as including "wood lying on the surface, dead roots, and stumps larger than or equal to 10cm in diameter or any other diameter used by the host country for its UNFCCC national inventory accounting." The methodology states that "Lying dead wood is all dead tree material with a minimum average diameter of 12.5cm and a minimum length of 2.4m. Anything not meeting the measurement criteria for lying dead wood will be considered litter." As 12.5cm is not equal to 10cm, please provide evidence that 12.5cm is a diameter used by Canada for its UNFCCC national inventory accounting.

Client Response: changed to 10.0 centimeters

Auditor Response: As the definition of dead wood now includes a threshold minimum average diameter of 10 centimeters, this New Information Request is no longer relevant and will be withdrawn.

NCR 2012.48 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.1, definition of "leakage"

Document Reference: methodology element (3/13/12)

Finding: The VCS Program Definitions defines leakage as "Net changes of anthropogenic emissions by GHG sources that occur outside the project boundary, but are measurable and attributable to the project". The VCS rules do not support the characterization of leakage as a project or baseline carbon pool. Therefore, the characterization of leakage as a carbon pool by the methodology is not consistent with the VCS rules.

Client Response: changed

Auditor Response: The revised Table 5, identified in Version 1.1 of the methodology as Table 4, no longer refers to leakage as a carbon pool. The finding can be closed.

NCR 2012.49 dated 04-16-2012

Standard Reference: VCS Standard V3.2, Section 2.4.1

Document Reference: methodology element (3/13/12), Section 6

Finding: The methodology requires that the "WRI/WBCSD GHG Protocol November 2005" be referenced by the methodology user. However, the November 2005 version of the WRI/WBCSD GHG Protocol does not appear to be readily available on the internet. Therefore, the methodology does not "Include all relevant information to support criteria and procedures", in conformance with the VCS Standard, Section 2.4.1.

Client Response: Corrected

Auditor Response: In version 1.1 of the Methodology the WRI/WBCSD GHG Protocol is listed among the general GHG quantification guidance document, but it is not required that it be referenced by the Methodology user. The finding can be closed.

NCR 2012.50 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.7.1

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements requires that "Methodologies shall... establish procedures for quantifying the net change in carbon stocks, so that the number of buffer credits withheld in the AFOLU pooled buffer account and market leakage emissions may be quantified for the project." The methodology does not establish procedures for quantifying the net change in carbon stocks.

Client Response: Added as section 8.2.1

Auditor Response: Section 8.2.1 of version 1.1 of the Methodology sets out procedures for calculating total carbon contained in carbon pool under the project scenario at a point in time. This is not equivalent to quantifying net change in carbon stocks. The finding remains open.

Client Response 2: See equation 37

Auditor Response 2: As stated within the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", Equation 37 is not appropriate to quantify the net change in carbon stocks for the following reasons:

- It is not clearly specified, as there are several square boxes in the methodology document where it appears there should be mathematical operators.

- In addition to carbon stock changes, it includes emissions from greenhouse gas sources.

Therefore, the non-conformity has not been resolved.

Client Response 3: Section 8.4.1 and equation 38 have been added to address this issue.

Auditor Response 3: As indicated, Equation 38, which has been added to the updated methodology entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", correctly calculates the net change in carbon stocks. Therefore, the non-conformity has been resolved.

NCR 2012.51 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.7.2

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements requires that "The number of GHG credits issued to projects is determined by subtracting out the buffer credits from the net GHG emission reductions or removals (including leakage) associated with the project. The buffer credits are calculated by multiplying the non-permanence risk rating (as determined by the AFOLU Non-Permanence Risk Tool) times the change in carbon stocks only." The methodology does not contain a procedure to quantify the number of GHG credits issued to projects in conformance with the above requirement.

Client Response: This requirement is programmatic, and is not require to be contained in the methodology.

Auditor Response: Section 4.7.1 of VCS AFOLU Requirements states "Methodologies shall establish procedures for quantifying net GHG emission reductions and removals ..." and provides guidance on how this requirement is to be implemented. All of the requirements of Section 4.7.1 must be satisfied within the methodology. The finding remains open.

Client Response 2: I believe that these items are covered in equations 1 through 4, and equation 37.

Auditor Response 2: Through review of Equations 1-4 and Equation 37 within the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", it is clear to the assessment team that the matter has not been appropriately resolved. None of the equations indicated above contain procedures to satisfy the following requirement of Section 4.7.2 of the AFOLU Requirements: "The number of GHG credits issued to projects is determined by subtracting out the buffer credits from the net GHG emission reductions or removals (including leakage) associated with the project. The buffer credits are calculated by multiplying the non-permanence risk rating (as determined by the AFOLU Non-Permanence Risk Tool) times the change in carbon stocks only." Therefore, the non-conformity has not been resolved.

Client Response 3: Section 8.4.3 and equation 40 have been added to address this issue.

Auditor Response 3: As indicated, Equation 40, which has been added to the updated methodology entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", calculates the number of VCUs to be issued to a project. Therefore, the non-conformity has been resolved. However, NCR 2012.113 has been opened to address lack of clarity relating to the quantification of VCUs for projects other than ARR or IFM projects where the project scenario includes harvesting.

NCR 2012.52 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.5.1

Document Reference: methodology element (3/13/12), Section 8.1.1

Finding: The VCS AFOLU Requirements requires that "Methodologies shall establish procedures to quantify the GHG emissions or removals for the project and baseline scenario." The methodology has not established procedures to quantify the GHG emissions or removals for project and baseline pools PP1/BP1 through PP7/BP7.

Client Response: Guidance has been added on quantification of pools using the combination of field data and models, or inventory data and models. An equation has been added regarding the summation of pool data.

Auditor Response: Version 1.1 of the Methodology includes the following guidance regarding quantification of carbon stocks based on forest inventory measurements: "Results of the sampling must be converted into amounts of stored carbon in relevant forest carbon pools using a forest carbon model (see Section 8.1.1.3)". However there is no such section in version 1.1 of the Methodology and no guidance on what carbon models are acceptable or parameters by which a carbon model might be judged acceptable. Procedures to quantify the GHG emissions or removals have not been established in accordance with the principles of Completeness and Transparency. The finding remains open.

Client Response 2: The correct section reference was 8.1.1.1.2, Changed. Parameters for selction of models are given in Section 8.1.1.1.2.

Auditor Response 2: As indicated, Section 8.1.1.1.2 of the methodology entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1" contains requirements for forest models, and this section is appropriately linked from Section 8.1.1.1.1. Therefore, the non-conformity has been resolved.

NCR 2012.53 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 5

Document Reference: methodology element (3/13/12), Section 8.1.1

Finding: The VCS Methodology Template indicates that "the GHG sources, sinks and reservoirs included or excluded from the project boundary" must be identified in Section 5 of the methodology. The methodology states in Section 8.1.1 that "In cases of large uncertainty or where uncertainty cannot be effectively managed, and where soil carbon is an optional pool in Table 8, this carbon pool should be deemed not relevant."

Section 5, rather than Section 8, is the appropriate location for criteria and procedures to set out when a project proponent shall or may (as applicable) include the soil carbon pool.

Client Response: Criteria for all pools have been included in section 5

Auditor Response: Criteria and procedures to set out when a project proponent shall or may include the soil carbon pool have been included in section 5 of version 1.1 of the Methodology. The finding may be closed. Note, however, the issues surrounding Table 5 identified in NCR 75. The appropriateness of the criteria and procedures pertaining to the soil carbon pool have not been determined.

NCR 2012.54 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.5.16

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements states that "Where harvesting is allowed in the project scenario (eg, the project activity reduces deforestation but selective harvesting is allowed), the methodology shall include criteria and procedures to quantify GHG emissions/removals from such harvesting. The methodology shall also include criteria and procedures by which the change in carbon stocks from such harvesting may be deemed de minimis (as set out in Section 4.3.3) or conservatively excluded (as set out in Section 4.3.4)." The methodology does not include criteria and procedures in accordance with the above.

Client Response: This criteria appears to actually be a little confused. Since aboveground live woody biomass is always accounted in these methodologies, removals due to harvesting are automatically accounted, and the de minimus rule applies to changes in that pool, although a project which deemed that pool de minimus would probably not be undertaken. No action on this item.

Auditor Response: Note that with the 4 October 2012 update to the VCS AFOLU Requirements v3.3, the Document Reference cited in the original finding is changed to Section 4.5.17. The requirement is specific to REDD projects. It is required that where harvesting is allowed in the project scenario, the methodology shall include criteria and procedures to quantify GHG emissions/removals from such harvesting. The Methodology must also include criteria and procedures by which the change in carbon stocks from such harvesting may be deemed de minimis or conservatively excluded. The finding remains open.

Client Response 2: 4.5.17 was reviewed. Unfortunately, this still appears to be difficult to implement, and specifically, appears to create conflict with your guidance in NCR 13 above, which has led to the removal of any optionality for above ground biomass in particular... which would be the largest pool impacted by harvesting. It is difficult to see how the aboveground biomass pool could be quantified without taking into account harvesting. We are happy to discuss this further. A joint discussion with VCS may be in order.

Auditor Response 2: Subsequent to issuance of the second Client Response, a conversation with the VCSA was held and written guidance was sought on the topic of the disagreement. VCS personnel indicated, in an email dated 29 July 2014, that Section 4.5.17 of the AFOLU Requirements "is meant to state where methodologies might allow projects to deem the pool di minimus, a procedure must be included to do that. However, because it would be more conservative to require that carbon stock changes from harvesting be quantified in all scenarios (ie, not allowing harvesting to be deemed de minimus) it is allowed." Thus, the assessment team understands that it is acceptable to not, under any circumstances, allow GHG emissions/removals from harvesting to be treated as de minimis or conservatively excluded. In addition, the assessment team notes that Section 8.1 of the methodology does contain procedures to quantify emissions/removals from harvesting. Therefore, the non-conformity has been resolved.

NCR 2012.55 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.5.3

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements, Section 4.5.3, states that "Where carbon would have been lost in the baseline scenario due to land use conversion or disturbance, GHG emissions from soil carbon, belowground biomass, wood products and dead wood carbon pools generally occur over a period of time following the event. It shall not be assumed that all GHG emissions from these carbon pools in the project categories specified below occur instantaneously or within a short period of time." The Requirements then sets out specific guidance for the quantification of GHG emissions in the baseline scenario. The methodology does not conform to this guidance.

Client Response: The requirements set out options for either modeling the losses, or using fixed linear decay or loss rates. This methodology uses models to estimate these losses… which is good because some of the fixed linear decay rates are significantly problematic and may over-estimate carbon benefits in some ecosystems.

Auditor Response: The VCS AFOLU Requirements specify that "it shall not be assumed that all GHG emissions from these carbon pools in the project categories specified below occur instantaneously of within a short period of time". The criteria set forth in the Methodology version 1.1 do not preclude such an assumption. In addition, section 4.5.3 includes specific requirements regarding soil models that they be "scientifically sound" and "based on empirical evidence". While the Methodology requires that models "have the capability to quantify changes in soil carbon between the project and baseline over time", it is not clear that all of the requirements of section 4.5.3 will be satisfied by this criterion.

Client Response 2: This NCR appears not to have taken into account the bullets in section 8.1.1.1.2. However, for greater certainty, the specific language has been added to those bullets. I would re-iterate that this methodology does not use the default rates given in section 4.5.3 of the AFOLU requirements because they can be spectacularly non-conservative.

Auditor Response 2: Through review of Section 8.1.1.1.2 of the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", it is clear that the methodology now contains appropriate criteria to ensure that modeling is scientifically sound and based on empirical evidence. However, the methodology continues to allow for the assumption of instantaneous or short-term GHG emissions from the soil carbon, belowground biomass, wood products and dead wood carbon pools, under some circumstances, by stating that "The model must not assume that such changes take place instantaneously or within a short period of time, except where rate data is not available, and the assumption of instantaneous or near instantaneous processes is clearly conservative." (Section 4.5.3 of the AFOLU Requirements does not allow this assumption under any circumstance, even when it is arguably "clearly conservative".) Therefore, the non-conformity has not been fully resolved.

Client Response 3: Language has been changed to address this issue.

Auditor Response 3: The qualifier "… except where rate data is not available, and the assumption of instantaneous or near instantaneous processes is clearly conservative" has been removed from Section 8.1.1.1.2 of the updated methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1". Therefore, the non-conformity has been fully resolved.

NCR 2012.56 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.5.4

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements states that "Where ARR or IFM projects include harvesting, the loss of carbon due to harvesting shall be included in the quantification of project emissions. The maximum number of GHG credits available to projects shall not exceed the long-term average GHG benefit. The GHG benefit of a project is the difference between the project scenario and the baseline scenario of carbon stocks stored in the selected carbon pools and adjusted for any project emissions of N2O, CH4 and fossil-derived CO2, and leakage emissions." The Requirements then sets out specific guidance for the quantification of the long-term average GHG benefit for ARR and IFM projects. The methodology does not conform to this guidance.

Client Response: Added as section 8.4.1

Auditor Response: Section 8.4.1 describing quantification of the long term average GHG benefit has been added in version 1.1 of the Methodology. Note however, that the graphic depicting equation 46 runs into the label and caption for equation 46. Equation 46 conforms to the requirements of section 8.4.1 for calculation of long-term average net GHG benefit. However, there are additional requirements in section 8.4.1 regarding determination of the "established time period" that are not addressed in the Methodology as well as a requirement regarding the calculation of long-term average change in carbon stock that is not addressed by version 1.1 of the Methodology. The finding remains open.

Client Response 2: This appears to be a request to repeat more or less verbatum the text already given in the AFOLU requirements and cited in the methodology. Therefore, the text regarding the timeperiod is now included word for word.

Auditor Response 2: Through review of Section 8.1.1.1.2 of the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the assessment team can confirm that the procedure of Section 8.4.1 is now fully consistent with the requirements of Section 4.5.5 of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NIR 2012.57 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.5.1

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements requires that "The IPCC Guidelines shall… be followed in terms of quality assurance/quality control (QA/QC) and uncertainty analysis." Please provide evidence that the IPCC Guidelines were followed in terms of quality assurance/quality control and uncertainty analysis.

Client Response: Text added in the description of the monitoring plan to ensure that QA/QC procedures are consistent with the 2006 IPCC Guidelines.

Auditor Response: Version 1.1 of the Methodology includes language in section 9.3 requiring that "appropriate Quality Assurance and Quality Control (QA/QC) procedures, consistent with those laid out in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories are followed".

NCR 2012.58 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 9.3

Document Reference: methodology element (3/13/12), Sections 8.1.1.4 and 9.0

Finding: The VCS Methodology Template indicates that the criteria and procedures for ex post monitoring must be described in Section 9.3 of the methodology. However, certain criteria and procedures for monitoring are located within Sections 8.1.1.4 and 9.0 of the methodology. Any criteria and procedures for monitoring must be located within Section 9.3 of the methodology, in conformance with the VCS Methodology Template.

Client Response: Section 9.3 provides the guidance for preparing the monitoring plan, and has been rewritten. However, we would note that it is normal practice for information relevant to monitoring techniques and approaches to be contained in other parts of a methodology, as is the case in 8.1.1.4

Auditor Response: Subsequent to the issuance of this finding, SCS received clarification from VCS indicating that instructional text within VCS templates does not constitute auditable guidance. The finding is withdrawn.

NCR 2012.59 dated 04-16-2012

Standard Reference: VCS Program Definitions V3.1, definition of "reversal" and "catastrophic reversal"

Document Reference: methodology element (3/13/12), Section 8.1.1.4

Finding: The methodology defines a reversal as "significant disturbances that are not anticipated based on the normal incidence of reversals for the project area." This is not necessarily consistent with the following VCS definition of a reversal: "A situation where the net GHG benefit, taking into account project emissions, removals and leakage, in any monitoring period is negative".

Client Response: Wording in this section has been changed to distinguish between a "loss"and a "reversal".

Auditor Response: Section 8.1.1.4 does not exist in version 1.1 of the Methodology. It has been renumbered to section 8.1.1.1.5 and retitled 'Quantifying Loss Events'. The definition of reversal in section 8.1.1.1.5 is consistent with the VCS definition.

NCR 2012.60 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 3.7

Document Reference: methodology element (3/13/12), Sections 8.1.1.4 and 10.0

Finding: The VCS rules with respect to non-permanence risk are set out in the VCS AFOLU Requirements, Section 3.7. Non-permanence risk is handled at a programmatic level by the VCSA, and therefore it is not within the scope of an individual methodology element to set out requirements with respect to non-permanence risk, is as done by the methodology. Sections 8.1.1.4 and 10.0 of the methodology contain numerous nonconformities with respect to the VCS rules for non-permanence risk. Even in the case where the requirements set out by the methodology are consistent with those set out by the VCS rules, discrepancies may emerge in the future in the event that there is any change to the VCS rules. The methodology must not set out requirements with respect to the mitigation of non-permanence risk.

Client Response: The last sentence of 8.1.1.4, which was the element that contained programatic information, has been removed from the methodology, as has the information in section 10.0

Auditor Response: In version 1.1 of the Methodology, Language pertaining to non-permanence risk assessment has not been removed as the Client Response suggests; rather it has been moved from section 10 to section 9.3.5. Section 9.3.5 of version 1.1 of the Methodology implies that that use of the AFOLU Non-Permanence Risk Tool and reporting using the VCS Non-Permanence Risk Report Template are optional. The VCS AFOLU Requirements Section 3.7.3 is clear in that use of the Non-Permanence Risk Tool and the Report Template are required. Alternative methods for Non-Permanence Risk Assessment and reporting are not allowed. The finding remains open.

Client Response 2: Section 9.3.5 changed to make the tool and template mandatory

Auditor Response 2: Section 9.3.5 of the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" has been revised to ensure that the VCS rules mitigation of non-permanence risk are followed at all times. The methodology enforces additional requirements, related to the development of a "Risk Mitigation and Contingency Plan", which are not inconsistent with the VCS rules. Therefore, the non-conformity has been resolved.

NCR 2012.61 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.13

Document Reference: methodology element (3/13/12)

Finding: The types of leakage classified by the methodology as "internal harvest shifting" and "internal land use shifting" are classified as activity shifting leakage by the VCS AFOLU Requirements, which states "Leakage in IFM projects can result from activities shifting within the project proponent's operations. It shall be demonstrated that there is no leakage to areas that are outside the project area but within the project proponent's operations, such as areas where the project proponent has ownership of, management of, or legally sanctioned rights to use forest land within the country. It shall be demonstrated that the management plans and/or land-use designations of all other lands operated by the project proponent (which shall be identified by location) have not materially changed as a result of the project activity (eg, harvest rates have not been increased or land has not been cleared that would otherwise have been set aside). Where the project proponent is an entity with a conservation mission, it may be demonstrated that there have been no material changes to other lands managed or owned by the project proponent by providing documented evidence that it is against the policy of the organization to change the land use of other owned and/or managed lands including evidence that such policy has historically been followed."

The methodology must contain criteria and procedures in accordance with the above.

Client Response: This qualification has been added to both sections of the methodology dealing with internal leakage.

Auditor Response: Section 4.6.13 of the AFOLU Requirements requires a specific demonstration "that there is no leakage to areas that are outside the project area but within the project proponent's operations". Please explain exactly where in the sections on leakage this requirement is expressed. Include the words used to express the requirement and explain how the intent of section 4.6.13 is addressed by such language.

Client Response 2: Unfortunately, the reviewer is quite correct. This language had been added, but then it got edited out again during a subsequent re-organization. It has now been added for both activity shifting and market leakage

Auditor Response 2: Section 8.3.1.1 of the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" contains requirements that are consistent with those of Section 4.6.13 of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.62 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.8

Document Reference: methodology element (3/13/12), Section 8.3.1.1

Finding: The VCS AFOLU Requirements states that "Activity shifting leakage in ARR projects can result from, inter alia, the shifting of grazing animals, shifting of households or communities, shifting of agricultural activities or shifting of fuelwood collection (from non-tree sources). Leakage emissions may also result from transportation and machinery use." The criteria for when it can be assumed that "internal land use shifting" leakage will not occur are not consistent with the statement of the VCS AFOLU Requirements.

Client Response: All of the examples given are examples of external land use shifting leakage, not internal land use shifting leakage, and are dealt with in that section.

Auditor Response: There is no section of the Methodology version 1.1 that is identified as applying to "external land use shifting leakage". The client's response cannot be evaluated.

Client Response 2: In the redrafted leakage section the category "external land use shifting" has been redefined as "Activity shifting" per VCS norms. Internal land use shifting is not allowed (see NCR 61 above). As regards the examples given by the VCS, these have little or no relevance in a BC setting. The primary form of activity shifting leakage in BC will be shifting of development from one area to another. There is a small possibility of shifting of grazing use resulting in loss of carbon from carbon pools. However, the rate of clearance of new pasture in BC is essentially zero.

Auditor Response 2: The conformance of the criteria and procedures for leakage accounting to the VCS rules are clarified through the adoption of VCS terminology. While some leakage due to shifting of agricultural activities could conceivably take place, the generic procedures within the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" are sufficient to capture this and other types of activity shifting leakage. Therefore, the non-conformity has been resolved.

NCR 2012.63 dated 04-16-2012

Standard Reference: ISO 14064-2:2006, Section 2.19

Document Reference: methodology element (3/13/12), Section 8.3.1.1

Finding: The methodology states that "Internal leakage is to be addressed by the proponent as follows: For afforestation and reforestation projects, if it can be shown that there was no baseline use of the project lands , then internal leakage can be assumed to be zero for the duration of the project". The use of the term "baseline" in this context is not consistent with the following ISO 14064-2:2006 definition of baseline: "hypothetical reference case that best represents the conditions most likely to occur in the absence of a proposed greenhouse gas project". Since the baseline is a hypothetical case, it is not something that occurred in the past, and therefore the statement "there was no baseline use of the project lands" is without meaning.

Client Response: Wording has been changed.

Auditor Response: The use of the term "baseline" in the modified language is no longer inconsistent with the ISO definition.

NCR 2012.64 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (3/13/12), Section 8.3

Finding: The VCS AFOLU Requirements states that "Methodologies shall establish procedures to quantify all significant sources of leakage." The methodology has not established procedures to quantify activity shifting leakage, where applicable.

Client Response: We believe that activity shifting leakage is covered by external land use shifting leakage.

Auditor Response: There is no section in Methodology version 1.1 that covers external land use shifting leakage. Client's response does not address the issue.

Client Response 2: Activity shifting leakage is now a defined category with clear procedures and methods for quantification in the methodology.

Auditor Response 2: As indicated, the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" contains procedures to quantify activity shifting leakage. Therefore, the non-conformity has been resolved.

NCR 2012.65 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements indicates that "Leakage is defined as any increase in GHG emissions that occurs outside the project boundary (but within the same country), and is measurable and attributable to the project activities." The methodology does not currently specify that leakage only be accounted for within the same country as the project boundary, in conformance with the VCS rules. Specific examples of nonconformities to this requirement are:

- When accounting for activity shifting leakage, project proponents are required to "justify an appropriate geographic area for assessment of land-use shifting", but the requirement that the assessment be limited to the same country as the project is not enforced.

- Option 2 for quantifying market leakage does not require the only within-country leakage be accounted for. Furthermore, Option 2 recommends the use of variables used in the "Provincial Base Case Approach for Estimating Leakage", which clearly considers leakage to the North American lumber market as a whole (including the United States).

Client Response: In discussions with VCS, we have clarified that while VCS does not require leakage to be accounted beyond national borders, it also does not prohibit such accounting. Given the nature of the market for BC's forest products, and the potential range of producers who could provide replacement products, we believe that external harvest shifting leakage, in particular, must be accounted beyond national borders to provide a conservative assessment of GHG benefits of projects.

Auditor Response: Section 4.6.5 of the AFOLU requirements states that "Leakage occurring outside the host country ... does not need to be quantified, suggesting that VCSA's position in this regard may indeed be more flexible than the wording in Section 4.6.1 suggests. Please provide evidence to support the assertion that "we have clarified" [with VCS] "that while VCS does not require leakage to be accounted beyond national borders, it also does not prohibit such accounting".

Client Response 2: Please see attached e-mail from VCS regarding this issue.

Auditor Response 2: Subsequent to issuance of the second Client Response, a conversation with the VCSA was held and written guidance was sought on the topic of the disagreement. VCS personnel indicated, in an email dated 29 July 2014, that "The VCS rules require that leakage occurring within the country must be accounted for, but does not prohibit leakage outside of the country to be accounted. As accounting for leakage outside of the country would be conservative, this is allowed by the VCS rules." Therefore, the assessment team agrees that the finding was inappropriately issued, and it will be withdrawn.

NCR 2012.66 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (3/13/12), Section 8.3.1.2

Finding: The VCS AFOLU Requirements states that "leakage in IFM projects is predominantly attributable to market leakage (market effects), which shall be quantified by either of the following:

1) Applying the appropriate market leakage discount factor identified in Table 3 to the net change in carbon stock associated with the activity that reduces timber harvest.

2) Directly accounting for market leakage associated with the project activity. Where directly accounting for leakage, market leakage shall be accounted for at the country-scale applied to the same general forest type as the project (ie, forests containing the same or substitutable commercial species as the forest in the project area) and shall be based on methods for quantifying leakage from scientific peer-reviewed journal sources."

Option 1 (use of provincial base case leakage estimates) for quantification of external harvest shifting leakage does not conform to either of the above options, and therefore is not in conformance with the VCS rules.

Client Response: After discussions with VCS, the harvest leakage section has been reordered, and significant redrafting has been undertaken, to meet these requirements while maintaining the accuracy of the leakage research undertaken by the Government of BC. Not all changes in this section have been flagged with comments, as much of the sectin would be so flagged.

Auditor Response: It has not been demonstrated that the provincial base case estimator complies with the VCS requirement that market leakage accounting "be based on methods for quantify leakage from scientific peer-reviewed journal sources".

Client Response 2: The provincial base case estimator is based on methods developed in Murray, Brian C., Bruce A. McCarl, and Heng-Chi Lee. 2002. "Estimating Leakage from Forest Carbon Sequestration Programs." Working Paper 02-06, Environmental and Natural Resource Economics Program, RTI International. http://www.rti.org/pubs/rtipaper_02_06.pdf

Auditor Response 2: The information provided in the internet link (accessed 6 September 2013) is sufficient to demonstrate that the provincial base case estimator is derived from the article by Murray et al. 2002. However, it is not clear that the publication of Murray et al. 2002 is a peer-reviewed journal source. Please provide evidence of this.

Client Response 3: Article in question is Murray, B., et al. 2004. "Estimating Leakage from Forest Carbon Sequestration Programs". Land Economics 80(1): 109-124. (See footnote 59) Land Economics is a peer reviewed journal published by the University of Wisconsin.

Auditor Response 3: For accounting purposes, this finding has been closed and a new finding (NIR 2011.112) opened to address the same request.

The Client's response has not adequately addressed the finding. NIR 2011.112 has been opened to address the same issue.

NCR 2012.67 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (3/13/12), Section 8.3.1.2

Finding: The VCS AFOLU Requirements states that "Leakage in IFM projects is predominantly attributable to market leakage (market effects), which shall be quantified by either of the following:" and continues to set out two options for quantifying market leakage due to IFM projects.

The methodology states "If it can be verifiably shown that demand for wood products that are no longer produced by the project relative to the baseline during the reporting period is satisfied or removed in some way by or due to the actions of the project proponent that does not involve increasing harvesting outside the project area, then external leakage can be assumed to be zero for that reporting period."

The approach permitted by the methodology for quantification of market leakage is not consistent with the VCS rules for IFM projects.

Client Response: VCS both permits and encourages leakage mitigation measures, which are what is discussed in this section. Sentence has been rephrased to make this clearer.

Auditor Response: The proposed language is in effect creating a method for determining leakage for IFM projects, that is to assume a value of zero based on unspecified actions by the project proponent, that is not consistent with the VCS rules for IFM projects.

Client Response 2: In the redrafted leakage section the language referred to is in the section on activity shifting leakage. We believe that this language is fully compliant with VCS standards for leakage mitigation measures, and does not contradict any of the requirements for leakage quantification set out by the VCS

Auditor Response 2: As redrafted, Section 8.3.1.2.3 of the methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" no longer contains language indicating that market leakage can be assumed to be zero, but rather suggests that, where "demand for wood products that are no longer produced by the project relative to the baseline during the reporting period can potentially be verifiably reduced or removed using leakage mitigation measures undertaken by the project proponent", a project-specific quantification approach be adopted. This is not inconsistent with Section 4.6.14(2) of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.68 dated 04-16-2012

Standard Reference: VCS Methodology Template V3.1, Section 5

Document Reference: methodology element (3/13/12), Section 5

Finding: The VCS Methodology Template requires that Section 5 of the methodology "identify the GHG sources, sinks and reservoirs included or excluded from the project boundary". The Template explicitly requires the methodology to identify the GHG sources, sinks and reservoirs that are included or excluded from the project boundary. The methodology identifies the GHG sources, sinks and reservoirs that are considered relevant, but does not specifically identify the GHG sources, sinks and reservoirs that are included or excluded.

Client Response: The methodology now uses a table in the same format as that given in the AFOLU guidelines to define the pools and sources that must be, may be, or usually won't be, accounted.

Auditor Response: The table has been added to version 1.1 of the proposed Methodology. However, the text describing Codes 'Y, 'S', and 'N' and Notes 2 & 3 appears to have been cut off, making it impossible to evaluate the content.

Client Response 2: Tables checked and changed to show all text.

Auditor Response 2: Tables 5 and 6 of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" have been revised so as to avoid cutting off the descriptions mentioned in the previous Auditor Response. Therefore, the non-conformity has been resolved.

NCR 2012.69 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.15(1)(b)

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements requires that, for APD projects, "Where the deforestation agent cannot be specifically identified, leakage shall be quantified based upon the difference between historic and with-project rates of deforestation by the identified most-likely-class of deforestation agent within the region. Alternatively, where such agents are driven by the demand for market commodities, the project may directly account for market leakage associated with the specific project activity. Where directly accounting for leakage, market leakage shall be accounted for at the country-scale, taking into account the supply and demand elasticities for the commodity affected, and shall be based on methods for quantifying leakage from scientific peer-reviewed journal sources, as described above in Section 4.6.14." The methodology does not conform directly to the above.

Client Response: This section of the AFOLU Requirements is somewhat opaque. Presumably part a) of this section refers primarily to activity shifting leakage, and part b), referenced in this finding, refers to either activity shifting or market leakage, depending on the modality driving the leakage. The first sentence in the quoted AFOLU Requirements text points to a reference region approach. Guidance for this approach is gven in significant detail in 8.3.1.1 2.ii. The second sentence of the quoted section of the AFOLU Requirements points to the use of a market leakage approach, which is extensively detailed in section 8.3.1.2.

Auditor Response: Section 4.6.15 of the AFOLU Requirements is clear in that the quantification of leakage for APD projects shall be based upon the difference between historic and with-project deforestation rates in cases where the specific agent of deforestation cannot be identified. Version 1.1 of the Methodology does not propose this method for quantification of leakage for APD projects and is therefore not in conformance with the VCS requirements. The alternative market-driven approach is only applicable when the most -likely class of deforestation agent is driven by the demand for market commodities.

Client Response 2: A section has been added for case where activity shifting leakage occurs as a result of an unknown agent. This section uses the standard "leakage zone" approach, consistent with other VCS methodologies, and compliant with the text quoted.

Auditor Response 2: As indicated, Section 8.3.1.1 of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx" contains a procedure to quantify activity shifting leakage in the event that the specific agent of deforestation is not identified. However, this procedure does not specifically conform to the requirement of Section 4.6.15 of the AFOLU Requirements that "Where the specific deforestation agent cannot be identified, leakage shall be quantified based upon the difference between historic and with-project rates of deforestation by the identified most-likely-class of deforestation agent within the region." The procedure states that "This modelling should be based on an assessment of factors such as... Historic trends", but does not specifically require that the quantification of leakage be based upon the difference between historic and with-project rates of deforestation. Therefore, the non-conformity has not been resolved.

Client Response 3: Section 8.3.1.1 - 5.c. first paragraph specifically requires that "activity shifting leakage must be quantified based upon the difference between historic and with-project rates of activity by the identified class of agents within the region." The methodology then gives instructions for the determination of the historic rate, based on historic trends and existing drivers and limits. The VCS guidance does not address the issue of what is meant by "historic rates of activity" - Average? Trend? Over how many years? Taking into account drivers and limits? We believe that by giving specific guidance on these issues we have provided an appropriate method to achieve the VCS goals. The attached e-mail from VCS includes further clarification of this issue.

Auditor Response 3: Subsequent to issuance of the third Client Response, a conversation with the VCSA was held and written guidance was sought on the topic. VCSA personnel indicated, in an email dated 29 July 2014, that "You should use an approach similar to what was done for the project baseline when determining the leakage zone baseline". Although this seems (given the procedures used to determine the project baseline) to be at slight odds with a literal reading of the requirement, it appears to be approved by the VCSA. Although the procedures referenced for activity shifting leakage in the text of the finding are not equivalent to those used to determine the baseline in all cases--for REDD, RIL and LtPF projects, where the specific leakage agent cannot be identified, the methodology actually does require to be "based on an analysis of the recent historic practices of this type of owner or manager within the region around the project area". However, the approach undertaken for leakage can be considered "similar" to the approach used to determine the baseline. Therefore, the non-conformity appears to have been resolved.

NCR 2012.70 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (3/13/12)

Finding: The VCS AFOLU Requirements defines three types of leakage. External land use shifting leakage, as defined by the methodology, does not correspond to an applicable VCS leakage category except for in APD projects where the deforestation agent cannot be specifically identified, as in Section 4.6.15(1)(b). Internal harvest shifting leakage, as defined by the methodology, does not correspond to an applicable VCS leakage category.

Client Response: For the project types covered by this methodology, VCS identifies 2 types of leakage : activity shifting and market, based on the leakage modality. FCOP identifies 2 types of leakage, land use shifting leakage, and harvest shifting leakage, based on the impact modality. Both of these approaches have merit, and cover the same territory. As FCOP demonstrates, external land use shifting leakage corresponds to activity shifting leakage, and uses a reference region approach commonly used in this sort of leakage where the agents cannot be tracked. Internal harvest shifting leakage does not correspond to a VCS category because it is not allowed in VCS projects. Text has been added to FCOP to disallow projects where this sort of leakage occurs.

Auditor Response: The Methodology is proposing categories of leakage that are not consistent with the VCS AFOLU Requirements for Methodologies. Section 4.6.1 of the AFOLU Requirements specify that there are 3 types of leakage and identifies the 3 allowed categories. The proposed Methodology must conform to the VCS Requirements notwithstanding the merits of the FCOP approach.

Client Response 2: Categories have been changed to match the VCS categories.

Auditor Response 2: Through review of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the assessment team can confirm that the classification system employed in Section 8.3.1 is consistent with the VCS categories of leakage, as set out in Section 4.6.1 of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.71 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.15

Document Reference: methodology element (3/13/12), Section 5.4.2.3, Table 7

Finding: The methodology indicates that it is "Virtually impossible to monitor affected emissions" from internal land use shifting leakage, and that the proponent should "use conservative estimates and assumptions instead." For APD projects where a single baseline deforestation agent can be identified, this statement does not conform to the VCS AFOLU Requirements, which states "Leakage shall be quantified by directly monitoring the activities of the deforestation agent identified in the baseline scenario".

Client Response: The text in question probably referred specifically to external land use shifting leakage, not internal. As can be seen in the leakage section of the methodology, the methodology does not assume that either is "impossible to monitor", so this text has been removed.

Auditor Response: The language describing leakage pools as "impossible to monitor" has been removed. The finding can be closed.

NCR 2012.72 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.4.8

Document Reference: methodology element (3/13/12), Section 6.1.4.4

Finding: For APD projects, the VCS AFOLU Requirements requires that "The criteria and procedures for identifying the baseline scenario shall require the project proponent to provide verifiable evidence to demonstrate, based on government plans (for publicly owned and managed land), community plans (for publicly owned and community-managed land), concessionary plans (for publicly owned and concession-holder managed) or landowner plans (for privately owned land), that the project area was intended to be cleared." The requirements of the methodology are not entirely consistent with the above.

Client Response: Text has been added to cover this issue.

Auditor Response: For operational purposes, this finding has been closed and NCR 2012.88 has been opened to address the same issue.

NCR 2012.73 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.4.8

Document Reference: methodology element (3/13/12), Section 6.1.4.4

Finding: For APD projects where the baseline agent of deforestation is not the landowner, the VCS AFOLU Requirements requires that "Where the agent of deforestation is not the landowner (eg, in situations where the project proponent successfully outcompeted other agents to acquire a government concession or privately-owned lands) and the project can identify the most-likely agent of deforestation, the baseline scenario shall be determined based on the activities of the most-likely agent who would have acquired control of and cleared the project area." The requirements of the methodology are not entirely consistent with the above.

Client Response: Text has been added to cover this issue.

Auditor Response: For operational purposes, this finding has been closed and NCR 2012.88 has been opened to address the same issue.

NCR 2012.74 dated 04-16-2012

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.4.8

Document Reference: methodology element (3/13/12), Section 6.1.4.4

Finding: The VCS AFOLU Requirements requires that "Where the agent of deforestation is not the landowner and cannot be specifically identified, the criteria and procedures for identifying the baseline scenarios may be determined based on the most-likely-class of deforestation agents and the intent to deforest. This may be demonstrated through a historical analysis of similar deforestation within the region by the identified most-likely class of deforestation agents. The most-likely-class of deforestation agents are the entities (eg, individuals, companies or associations) classified based on common characteristics and rates of deforestation that would have been likely to undertake deforestation activities and post-deforestation land-use practices in the project area. The annual rate of forest conversion shall be based on the recent historical practice of the most-likely class (ie, how much forest is typically cleared each year by similar baseline activities) and projection of the rate of their deforestation activities in the area." The methodology contains no procedure in conformance with the above.

Client Response: Section 6.1.4.4 provides details on requirements for assessing impacts of deforestation agents which are considerably more restrictive than the VCS text quoted.

Auditor Response: For operational purposes, this finding has been closed and NCR 2012.88 has been opened to address the same issue.

NCR 2012.75 dated 05-24-2013

Standard Reference: VCS AFOLU Requirements V3.3, Section 4.3.1

Document Reference: Methodology version 1.1, Section 5.2.2 Table 5

Finding: While the developer has included Table 5 listing the GHG pools and codes indicating whether a given pool is required, optional, or not required for a given project type, the sections of the table that describes the meaning of the codes in the Word document submitted for verification does not include the entire explanatory text for 3 of the 4 codes; nor is the full text of the explanatory Notes visible in the current version of the table. It is therefore not possible to evaluate whether the justification for including or excluding various pools from various project types conforms to the VCS requirements.

Client Response: Tables checked and changed to show all text.

Auditor Response: Through review of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the assessment team can confirm that Table 5 now contains all the necessary information. Therefore, the non-conformity has been resolved.

NCR 2012.76 dated 05-24-2013

Standard Reference: VCS AFOLU Requirements V3.3, Section 4.3.3

Document Reference: Methodology version 1.1, Section 3.0

Finding: Section 3.0 of Methodology v1.1 defines de minimis as follows: "A carbon pool or GHG source may be deemed de minimus and do not have to be accounted for if the total decrease in carbon stocks or increase in GHG emissions under the project scenario as compared with the baseline scenario for that pool or source amounts to less than 5% of the total GHG benefit generated by the project". This definition does not conform to Section 4.3.3 of the VCS AFOLU Requirements which specifies that carbon pools and GHG sources "may be deemed de minimis and do not have to be accounted for if together the omitted decrease in carbon stocks (in carbon pools) or increase in GHG emissions (from GHG sources) amounts to less than five percent of the total GHG benefit generated by the project".

Client Response: Definition changed

Auditor Response: Through review of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the assessment team can confirm that the definition of "de minimus" [sic] has been modified for full consistency with Section 4.3.3 of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.77 dated 05-24-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 5.2.2, Table 6

Finding: Table 6 was added to version 1.1 of the Methodology listing emissions sources by project type along with Codes and Notes described in the footnotes that explain the requirements. However, the text associated with Codes 'S' and 'N' appears to be cut off, making it impossible to determine the intended interpretation of the code. Please make sure all relevant text is displayed.

Client Response: Tables checked and changed to show all text.

Auditor Response: Through review of the updated methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the assessment team can confirm that Table 6 now contains all the necessary information. Therefore, the non-conformity has been resolved.

NCR 2012.78 dated 05-24-2013

Standard Reference: VCS AFOLU Requirements Section 4.3.1

Document Reference: Methodology version 1.1, Section 5.2.2 Table 5

Finding: The wording of the explanatory text for code ‘Y’, “except where specific criteria are identified for cases where it may not be” is not equivalent to the meaning of Code ‘Y’ in Table 2 of the AFOLU requirements, which is “shall be included in the project boundary” (without exception).In order for the assessment team to be able to determine whether the methodology’s standards for selection of pools conforms to the VCS requirements, any and all exceptions and conditions that the methodology proposes for pools associated with code 'Y' must be made explicit.

Client Response: Tables checked and changed to show all text.

Auditor Response: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.79 dated 05-24-2013

Standard Reference: AFOLU Requirements V3.3, Sections 3.7.3, 3.7.4, and 3.7.5

Document Reference: Methodology version 1.1, Section 9.3.5

Finding: The Methodology in Section 9.3.5 includes language suggesting that assessment and management of Non-Permanence risk is governed under the terms of the Methodology. The VCS AFOLU Requirements regarding assessment and management of Non-Permanence Risk do not allow such an alternative. Please remove all language that conflicts with the VCS requirements or suggests that procedures other than those spelled out in the VCS document Registration and Issuance Process are recognized.

Client Response: The VCS risk tool and reporting template have been made mandatory, and it has ben clarified that the BC EOR requirements are additional to this. We do need to retain the BC EOR language, for compliance with provincial regulation.

Auditor Response: The assessment team can confirm, through review of Section 9.3.5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the methodology has been modified to clearly indicate that the requirements for preparation of a Risk Mitigation and Contingency Plan are additional to the VCS rules for deposition of credits into the non-permanence buffer pool, and the language of this section no longer implies that the VCS rules may be ignored.. Therefore, the non-conformity has been resolved.

NCR 2012.80 dated 05-24-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 8.3.1.1

Finding: The Methodology uses the undefined term "validation period" in reference to leakage assessment. The term is insufficiently precise for use in this context.

Client Response: Changed to crediting period to match VCS terminology

Auditor Response: The assessment team can confirm, through review of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that all references to the term "validation period" have been removed. The definition of "crediting period", in Section 3 of the methodology, is consistent with the usage of the term under the VCS rules and also contains an explicit linkage to the term "validation period" for consistency with the British Columbia Emissions Offset Regulation. Therefore, the non-conformity has been resolved.

NCR 2012.81 dated 05-24-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Sections 8.3.1.1 and 8.3.1.2

Finding: The definitions of the variables in Equation 36 refer to the terms "internal land use leakage" and "external land use leakage". Similarly, Section 8.3.1.2 of the methodology makes several references to these terms. However, the methodology does not include any definitions for these terms.

Client Response: These terms are no longer used in the methodology

Auditor Response: The assessment team can confirm, through review of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that prior Equation 36 has been removed from the methodology. In addition, the terms "internal land use leakage" and "external land use leakage" have been removed from the methodology. Therefore, the non-conformity has been resolved.

NCR 2012.82 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.5.1

Document Reference: Methodology version 1.1, Section 6.1.1

Finding: The VCS Standard requires that "Methodologies using a project method shall establish criteria and procedures for identifying alternative baseline scenarios and determining the most plausible scenario, taking into account the following... relevant information concerning present or future conditions, such as legislative, technical, economic, socio-cultural, environmental, geographic, site-specific and temporal assumptions or projections". With respect to the determination of the most plausible baseline scenario for the ARR project type, the guidance provided does not take the required information into account.

Client Response: Text added to step 1a of the additionality section to identify these and related variables as significant for the baseline determination process.

Auditor Response: The assessment team can confirm, through review of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that text has been added to Step 1a, of Section 7.1.2, in order to ensure conformance to the requirement cited. Therefore, the non-conformity has been resolved.

NCR 2012.83 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.4

Document Reference: Methodology version 1.1, Section 6.1

Finding: The AFOLU Requirements states that "Methodologies that establish criteria and procedures for identifying alternative baseline scenarios using a project method, rather than a performance method... shall require the following: Documented evidence of the project proponent's operating history, such as five or more years of management records, to provide evidence of normal historical practices." The methodology does not require the baseline scenario to be based upon such documented evidence in the case where the project proponent or implementing partner has a history of managing the project area (i.e., in the case where the following condition is not met: "the project proponent or implementing partner is a new owner or management entity and does not have a history of management practices within the project area"). While some requirements for historic documentation exist in Section 6.1.2.1 of the methodology, these requirements pertain to the selection of the baseline approach (i.e., the decision to use either the "historic benchmark" or "projection-based" approach) rather than the identification of alternative baseline scenarios.

Client Response: Text has been added to 7.1.2 Step 1, to address this. However, caveats have been added as regards excessive reliance on historic practices over a given time period, since they may not necessarily reflect realistic practices going forward due to differences in cut control/AAC or other factors.

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the updated methodology requires documentation, consistent with the AFOLU Requirements, in the event that the project proponent has a history of managing the project area. It is true that past management history is not necessarily equivalent to the baseline scenario, and the AFOLU Requirements does not require such equivalency, merely that documented records be available and considered in determination of the most likely baseline scenario. The non-conformity has been resolved.

NCR 2012.84 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.4

Document Reference: Methodology version 1.1, Section 6.1

Finding: The AFOLU Requirements requires the following:

"Methodologies that establish criteria and procedures for identifying alternative baseline scenarios using a project method, rather than a performance method... shall require the following... Where the project proponent or implementing partner is a new owner or management entity and does not have a history of management practices within the project area, procedures shall be established to identify the most plausible baseline scenario based upon the most likely owner or operator, noting the following:

a) For RIL and LtPF projects, where the project proponent takes over ownership or management of a property specifically to implement the project, the baseline scenario shall represent the most likely management plan of the most likely owner or operator (ie, be based on the projected management plans of the previous property owners and/or operators or the management plans of the most likely operator).

b) In all other cases, the baseline scenario shall reflect the local common practices and legal requirements. However, if the common practice is unsustainable and unsustainable practices are inconsistent with the mission or the historical management practices of the new owner or management entity, then a sustainable baseline is the minimum that can be adopted."

The methodology does not enforce the above requirements.

Client Response: Text added to 7.1.2 step 1 to address item a) and part of item b). The second half of item b) is generally not appliacble in BC, given the enforcement of legal standards in the province. In general, the logic for it is not clear, given that it appears to completely rule out what ought to be realistic and viable projects in other parts of the world where poor legal enforcement and unsustainable practices may exist.

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that revised methodology conforms to the requirements of Section 4.4.4(1)(a) of the AFOLU Requirements. However, the revised methodology does not conform fully to the requirements of Section 4.4.4(1)(b) of the AFOLU Requirements. For projects other than REDD, RIL and LtPF projects, the methodology states that "local common practice shall be considered as a significant factor in assessing baseline alternatives". This language is not as strong as the language of the AFOLU Requirements, which states that "the baseline scenario shall reflect the local common practices..." In addition, the requirement that "if the common practice is unsustainable and unsustainable practices are inconsistent with the mission or the historical management practices of the new owner or management entity, then a sustainable baseline is the minimum that can be adopted" has not been enforced. While it is understood that, in many cases, the requirement will not apply in British Columbia, it is not appropriate to simply ignore the requirement.

Client Response 2: Changes have been made to this section to reflect this guidance. We have withdrawn the request to withdraw the "sustainable" language.

Auditor Response 2: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4", states the following: "For other project types, the baseline scenario must reflect at minimum the local common practices for areas comparable to the project area, and must not result in projected baseline GHG emissions from the project area greater than those that would occur under the relevant local common practice. However, if local common practices are unsustainable, and unsustainable practices are inconsistent with the mission or historical practices of the new owner or management entity, the baseline must reflect at minimum sustainable practices". This language appropriately enforces the requirement of Section 4.4.4(1)(b) of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.85 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.4

Document Reference: Methodology version 1.1, Section 6.1

Finding: The AFOLU Requirements requires the following:

"Methodologies that establish criteria and procedures for identifying alternative baseline scenarios using a project method, rather than a performance method... shall require the following... Baseline environmental management practices shall not be set below (ie, be less environmentally robust than) those commonly considered a minimum standard among similar landowners in the area. For example, where common practice exceeds minimum legal practice, the baseline cannot be the minimum legal requirement and the baseline scenario shall, at a minimum, be based on common practice."

The methodology does not enforce the above requirements.

Client Response: Text added to step 1a.

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the following requirement has been added for potential alternative land use scenarios: "based on environmental practices not less rigorous than common practice among forest managers in the area". This additional item is sufficient to satisfy Section 4.4.4(3) of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.86 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1

Finding: While Version 1.0 of the proposed methodology contained few references to the REDD project type, Version 1.1 of the proposed methodology appears to use the terms "REDD" and "Conservation / Avoided Deforestation" interchangeably. However, the equivalency of the two terms is not explicitly stated in the methodology. Therefore, there is potential for confusion on the part of methodology users. The relationship between the two terms must be clarified within the methodology.

Client Response: Equivalence made clear in the definition of Conservation/Avoided deforestation.

Auditor Response: The assessment team can confirm, through review of Section 3 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the equivalence of the two terms is clarified in the definition of "REDD (Reduced Emissions from Deforestation and Degradation)". (The equivalence is not made clear in the definition of "Conversation/Avoided Deforestation", as indicated in the Client Response; that definition has been removed from the methodology.) Therefore, the non-conformity has been resolved.

NCR 2012.87 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.6

Document Reference: Methodology version 1.1

Finding: The AFOLU Requirements requires that, for the REDD project type, "For inclusion of the non-CO2 gases, evidence shall be provided to demonstrate that the practice for which the project plans to claim credit is not common practice in the area". The methodology does not enforce this requirement.

Client Response: I have added this text after Table 6. However, if the practice were common practice, based on the baseline determination rules, it would be the baseline… so this text appears meaningless.

Auditor Response: The assessment team can confirm, through review of Section 5.2.2.1 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that text has been added to satisfy the requirement of the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.88 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.7

Document Reference: Methodology version 1.1, Section 6.1.2.2

Finding: The AFOLU Requirements requires the following for the REDD-APD project type (which is understood by the assessment team to be equivalent to the "Conservation / Avoided Deforestation" project type):

"The criteria and procedures for identifying the baseline scenario shall require the project proponent to provide verifiable evidence to demonstrate, based on government plans (for publicly owned and managed land), community plans (for publicly owned and community-managed land), concessionary plans (for publicly owned and concession-holder managed) or landowner plans (for privately owned land), that the project area was intended to be cleared... Where the agent of deforestation is not the landowner (eg, in situations where the project proponent successfully outcompeted other agents to acquire a government concession or privately-owned lands) and the project can identify the most-likely agent of deforestation, the baseline scenario shall be determined based on the activities of the most-likely agent who would have acquired control of and cleared the project area. Where the agent of deforestation is not the landowner and cannot be specifically identified, the criteria and procedures for identifying the baseline scenarios may be determined based on the most-likely-class of deforestation agents and the intent to deforest. This may be demonstrated through a historical analysis of similar deforestation within the region by the identified most-likely class of deforestation agents. The most-likely-class of deforestation agents are the entities (eg, individuals, companies or associations) classified based on common characteristics and rates of deforestation that would have been likely to undertake deforestation activities and post-deforestation land-use practices in the project area. The annual rate of forest conversion shall be based on the recent historical practice of the most-likely class (ie, how much forest is typically cleared each year by similar baseline activities) and projection of the rate of their deforestation activities in the area."

The methodology does not enforce the above requirements.

Client Response: Covered by the text added to the beginning of step 1. In the additionality section.

Auditor Response: Through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the following continued non-conformances to the Section 4.4.7 of the AFOLU Requirements have been noted:

- The methodology does not specifically require the different types of documentation required by the AFOLU Requirements for different types of land tenure.

- The methodology does not specifically require that, if the most-likely agent of deforestation can be identified, the baseline scenario shall be determined based on the activities of the most-likely agent who would have acquired control of and cleared the project area.

- The methodology does not specifically require that, if the most-likely agent of deforestation cannot be identified, the baseline scenario shall be determined based on the most-likely-class of deforestation agents, and that the annual rate of forest conversion shall be based on the recent historical practice of the most-likely class (ie, how much forest is typically cleared each year by similar baseline activities) and projection of the rate of their deforestation activities in the area.

Client Response 2: 1) We have included the requested language, with some clarificaton to deal with the inherent potential contradiction in the AFOLU Guidance between 4.4.7. 1), and 4.4.7. 1)b). Under the scenario and approach cntemplated in 4.4.7. 1)b), it is clear that there will not have been available clear plans, as contemplated in 4.4.7. 1). Otherwise 4.4.7. 1) b) would be reducndant. 2) This requirement is given in 7.1.2 para 3 3) language has been added to 7.1.2. to address this issue.

Auditor Response 2: The information that has been added to Section 7.1.2 of the updated methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", is sufficient to resolve the non-conformity, as the requirements of the methodology now fully conform to Sections 4.4.7(1) and 4.4.7(1)(b) of the AFOLU Requirements (noting the inherent potential discrepancies between these sections).

NCR 2012.89 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.4.7(1)(a)

Document Reference: Methodology version 1.1, Section 5.2.2

Finding: The AFOLU Requirements states that, for the REDD-APD project type, "Where it is common practice in the area for timber to be removed before clearing, then wood products shall be included in the baseline scenario." In Table 5, the harvested wood products pool is notated as "Y" for the REDD-APD project type. Code "Y" is then defined as "Must be accounted except where specific criteria are identified for cases where it may not be". It is not clear that the requirement of the AFOLU Requirements is enforced.

Client Response: Note for "Y" has been changed to eliminate the optionality.

Auditor Response: The assessment team can confirm, through review of Table 5 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the definition of Code 'Y' has been revised to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.

NCR 2012.90 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.6.4

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: The VCS Standard requires that "The project shall face one or more distinct barrier(s) compared with barriers faced by alternatives to the project". As part of Step 1a in the additionality assessment, the methodology requires the user to "Identify all alternative scenarios that... are available to the project participants". This appears to restrict consideration of alternative scenarios to those scenarios that "are available to the project participants". However, there are conceivable instances in which a valid alternative scenario would not be available to the project participants. For example, consider the case where the project activity involves the acquisition of a tract of forestland by a conservation organization to protect it from conversion to a housing development. In this case, a valid alternative scenario would be the conversion of the tract to a housing development. However, as written, the methodology could be interpreted so as to not allow the inclusion of this scenario as an alternative to the project, because is not a scenario that is available to the "project participants". In such a case, the array of alternative scenarios would be inappropriately restricted, and the requirement to ensure that "The project shall face one or more distinct barrier(s) compared with barriers faced by alternatives to the project", as stated in the VCS Standard, cannot be carried out.

Client Response: Good point. Additionality section, Step 1a, item 1 has been changed to read: 1. are available to the project participants or an alternative owner or manager who might be managing the project area under the proposed scenario,

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the indicated change has been made. Therefore, the non-conformity has been resolved.

NCR 2012.91 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: The methodology requires the user to "Identify all alternative scenarios that... provide the same output as the proposed project activity". Other references to "same output" are made under alternative scenario Type S5 and other locations within Section 7.1.2 of the methodology. It is not clear what type of activity would "provide the same output as the proposed project activity" within the context of the project types that are within the scope of the methodology. Additional clarification must be provided within the methodology.

Client Response: In these instances the wording is (paraphrased) "the same output or the same landbase", so don't believe that there is a substantive issue… although it may be a bit vacuous…

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that all prior references to the "same output" have been either removed or clarified with additional information, and therefore the nonconformity has been resolved.

NCR 2012.92 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.3.1

Document Reference: Methodology version 1.1, Sections 7.1.2 and 7.1.3

Finding: The VCS Standard requires that "The methodology shall use applicability conditions to specify the project activities to which it applies and shall establish criteria that describe the conditions under which the methodology can (and cannot, if appropriate) be applied." Section 7.1.2 of the methodology states that alternative scenarios to the project activity "shall include... Type S1: The proposed project activity undertaken without being registered as a British Columbia greenhouse gas reduction project activity under the Act" and that "Other registered British Columbia greenhouse gas reduction project activities are not to be included in this analysis." Section 7.1.3 of the methodology requires "an assertion by the proponent that there are financial, technological or other obstacles to carrying out the project that are overcome or partially overcome by the incentive of having a greenhouse gas reduction recognized as an emission offset under the Act". The term "British Columbia greenhouse gas reduction activity" is used to refer to the project activity throughout Section 7.1 of the methodology, and, taken in combination with the other requirements quoted here, this usage could also be taken to refer only to projects that are registered under the Act.

The specific criteria and references quoted above appear to be relevant only to projects that are registered "as a British Columbia greenhouse gas reduction project activity under the Act". However, the methodology does not use applicability conditions to require registration of a project under the Act.

Client Response: Good point. References to British Columbia and/or the Act have been removed from this section.

Auditor Response: The assessment team can confirm, through review of Section 7 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that all prior references to the "British Columbia" and/or "the Act" have been either removed. Therefore, the non-conformity has been resolved.

NCR 2012.93 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: Under alternative scenario Type S3, the methodology requires inclusion of "Where applicable, the continuation of the current situation, not requiring any investment or expenses to maintain the current situation, such as, for example... The continued management of an area for forest harvest, instead of conversion and development". However, maintenance of management activities typically requires investment and/or payment of expenses. Therefore, the example provided appears to be inconsistent with the requirement itself.

Client Response: Agreed, it's confusing. The phrase "beyond business as usual expenses" has been added to clarify

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that indicated clarification has been added. Thus, the definition is no longer inconsistent with the example provided, and the non-conformity has been resolved.

NCR 2012.94 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.6.3

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: The VCS Standard requires that "The project shall not be mandated by any law, statute or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute or other regulatory framework." The methodology requires that "The alternative scenario(s) shall be in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution", which conforms to the requirement of the VCS Standard. However, the methodology goes on to state that "If the proposed project activity is the only alternative scenario amongst the ones considered by the project participants that is in compliance with all mandatory regulations with which there is general compliance, then the proposed project activity is not additional." The qualifier of "with which there is general compliance" in the text of the latter quote from the methodology is inconsistent with the former quote from the methodology. It is also inconsistent with the VCS Standard, which requires (for UNFCCC Annex I countries such as Canada) exclusion of any alternatives that are inconsistent with any law, statute or other regulatory framework.

Client Response: Good point. "with which there is general compliance" has been removed

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the indicated text has been removed. Therefore, the non-conformity to the cited requirement of the VCS Standard has been resolved.

NCR 2012.95 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: Step 2 of the "Procedure for Demonstrating Additionality" indicates that "Similar activities are defined as activities that rely on a broadly similar technology or practices, are of a similar scale, take place in a comparable environment with respect to regulatory framework and are undertaken in the applicable geographical area, as defined in Step 1a above". Step 4 of the same procedure indicates that "Similar activities are defined as activities (i.e. technologies or practices) that are of similar scale, take place in a comparable environment, inter alia, with respect to the regulatory framework and are undertaken in the applicable geographical area, as defined in Step 1a above". However, it is not clear what is defined in Step 1a.

Client Response: Good point. There was a misplaced comma, as the intention was that it was the "applicable geographic area" that was defined in step 1a. Punctuation has been changed to make this clear.

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the text in both of the cited references has been revised to clarify that the "applicable geographic area" is being referred to. Therefore, the non-conformity has been resolved.

NCR 2012.96 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: Step 1 of the "Procedure for Demonstrating Additionality" within the methodology states that "This step serves to identify all the alternative scenarios to the proposed project activity(s) which could be the baseline scenario". Step 1a of that procedure requires the user to "Identify all alternative scenarios that... cannot be implemented in parallel to the proposed project activity". However, in Step 2a, the following references are made to "the project":

- "Skilled and/or properly trained labor to operate and maintain the project..."

- "Lack of infrastructure for implementation and logistics for maintenance of the project..."

The above references could be interpreted as inconsistent with the language of Step 1 of the procedure, which clarifies that only scenarios that are not the project scenario are to be considered in the analysis.

Client Response: Agreed. In this section the word "scenario" has been substututed for the word "project".

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the text in Step 2a has been revised to remove the inconsistent usage of the term "project". Therefore, the discrepancy has been resolved.

NCR 2012.97 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: Step 3b of the "Procedure for Demonstrating Additionality" within the methodology requires the following: "For alternative scenarios that correspond to the situation described in S2 or S3 and that do not involve any investment costs, operational costs or revenues, use the following values for the financial indicator to reflect such a situation... If the financial indicator is the IRR: Use as the IRR the financial benchmark, as determined through the options (a) to (e) below." However, options (a) to (e) do not exist.

Client Response: Correct. Should have been options 1 to 5 - so changed.

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the text in Step 3b has been revised to appropriately reference options 1 to 5. Therefore, the discrepancy has been resolved.

NCR 2012.98 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: Step 3b of the "Procedure for Demonstrating Additionality" within the methodology states that "The discount rate (in the case of the NPV) or the financial benchmark (in the case of the IRR) shall be derived from..." and proceeds to list five choices. The options listed appear to possibly be mutually exclusive. However, the methodology does not clarify whether only one of the options need be selected.

Client Response: Changed to read "derived from one or more of…"

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the text in Step 3b has been revised to clarify that multiple options may be selected. Therefore, the discrepancy has been resolved.

NCR 2012.99 dated 05-31-2013

Standard Reference: NA

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: In indicating the outcome of Step 3 of the "Procedure for Demonstrating Additionality", the methodology states that "If the sensitivity analysis is not conclusive, then the alternative scenario to the project activity with least emissions among the alternative scenarios is considered as the baseline scenario." However, the methodology does not indicate the required time-scale for determination of which alternative scenario contains the least emissions. The methodology also does not contain criteria for selection of the baseline scenario in the case that all alternative scenarios result in greenhouse gas removals from the atmosphere.

Client Response: Correct. Edited to read " the alternative scenario to the project activity with greatest GHG removals (or least emissions, in the case that all alternatives are net emitters) over the crediting period among the alternative scenarios is considered as the baseline scenario."

Auditor Response: The assessment team can confirm, through review of Section 7.1.2 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the text in Step 3b has been revised to specify the timescale for the assessment of emissions and to provide criteria for selection of the baseline scenario in the event that all alternative scenarios result in GHG removals. Therefore, the discrepancy has been resolved.

NCR 2012.100 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.6.5

Document Reference: Methodology version 1.1, Section 7.1.2

Finding: The VCS Standard requires that "The project shall not be common practice, determined as follows... Project type shall not be common practice in sector/region, compared with projects that have received no carbon finance." In instructing the user on how to conduct the common practice analysis, the methodology states that "Other British Columbia greenhouse gas reduction project activities (validated projects or projects submitted for validation) are not to be included in this analysis". Projects that have been "validated" or "submitted for validation" have not necessarily received carbon finance, and therefore the exclusion of such projects may not be appropriate.

Client Response: But I don't think actually receiving finance (selling credits) is the question here. If they have been validated, they must have demonstrated additionality (proved that they are not common practice), and if submitted for validation, must think that they can demonstrate additionality, and therefore not be common practice. Otherwise, a valid project could fail a common practice test merely over a timing issue, which is not the intent of the VCS standard to my understanding.

Auditor Response: As further guidance on the matter, the assessment team consulted the VCS "Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities". While use of the Tool is not mandatory, the Tool provides a useful reference point for the intended interpretation of the additionality requirements of the VCS Standard. Section 2.4.2 of the Tool (which pertains to common practice analysis) states that "Other registered VCS AFOLU project activities shall not be included in this analysis". Consistent with this requirement, the audit team agrees that it would be acceptable to exclude registered VCS AFOLU project activities, or even validated AFOLU project activities (with the understanding that issuance of a positive validation statement is typically a direct precursor to registration), from the analysis. However, while the assessment team understands the argument of the methodology development team, the Tool does not support an interpretation of the VCS Standard that indicates that it is acceptable to exclude projects that have been "submitted for validation" (however that may be defined) from analysis. Therefore, the finding remains open on this account.

Client Response 2: Change made to meet this interpretation

Auditor Response 2: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", no longer indicates that "projects submitted for validation" may be excluded from the common practice analysis. Therefore, the non-conformity has been resolved.

NCR 2012.101 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.3.1

Document Reference: Methodology version 1.1, Section 7.1.3

Finding: The VCS Standard requires that "The methodology shall use applicability conditions to specify the project activities to which it applies and shall establish criteria that describe the conditions under which the methodology can (and cannot, if appropriate) be applied." The methodology requires "an assertion by the proponent that the project start date is no earlier than November 29, 2007". However, the methodology does not use applicability conditions to require that the project start date be no earlier than 29 November 2007.

Client Response: As time has passed, the standard is now "no more than 5 years prior to completion of validation" (per VCS), and therefore this has been added as an applicability condition.

Auditor Response: The assessment team can confirm, through review of Section 4.1 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the indicated applicability condition has been added. While the requirement that "the project start date is no earlier than November 29, 2007" remains in (what is now) Section 7.1.3 of the methodology, the assessment team agrees that the requirement that the project start date is "no earlier 5 years before completion of validation" is more restrictive than the requirement that ""the project start date is no earlier than November 29, 2007", and, therefore, the requirement of the VCS Standard has been met.

NCR 2012.102 dated 05-31-2013

Standard Reference: VCS Standard V3.3, Section 4.5.1

Document Reference: Methodology version 1.1, Sections 6.1 and 7.1

Finding: The VCS Standard requires that "Methodologies using a project method shall establish criteria and procedures for identifying alternative baseline scenarios and determining the most plausible scenario..." Section 6.1 of the methodology states that "Procedures for determining the baseline are given in section 7.1, as part of the additionality determination process. Further guidance on the application of those methods is given below." However, it is unclear how the user is intended to refer to, or incorporate the guidance of, Section 6.1 in application of the procedures set out in Section 7.1.

Client Response: Agreed. After further review we determined that the guidance on baseline approaches was unnecessary in the methodology. This section has been deleted, and baseline determination is now undertaken based on the guidance given in Section 7.

Auditor Response: As the text cited by the finding is not included within the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", the finding is no longer relevant and will be withdrawn.

NCR 2012.103 dated 05-31-2013

Standard Reference: VCS Program Definitions V3.4, Section 1; ISO 14064-2:2006

Document Reference: Methodology version 1.1, Section 3.0

Finding: The VCS Program Definitions states that "...the definitions set out in ISO 14064-2:2006, ISO 14064-3:2006 and ISO 14065:2007 shall apply to the VCS Program". ISO 14064-2:2006 defines "baseline scenario" as a "hypothetical reference case that best represents the conditions most likely to occur in the absence of a proposed greenhouse gas project (2.12)" (Section 2.19) and "greenhouse gas project" as an "activity or activities that alter the conditions identified in the baseline scenario (2.19) which cause greenhouse gas emission reductions (2.7) or greenhouse gas removal enhancements (2.8)" (Section 2.12).

The methodology defines "baseline scenario" as "The most likely sequence of events and actions which would be expected to occur within the project boundary in the absence of the project activity" and "project scenario" as "The actions and events which are expected to occur within the project boundary as a result of implementing the project". In both cases, the scenarios are defined as limited to the project boundary. This restriction is not consistent with the definitions set out in ISO 14064-2:2006.

Client Response: Change to fit ISO. Dangerour, but correct.

Auditor Response: The assessment team can confirm, through review of Section 3 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the geographical limitation placed on the terms "baseline scenario" and "project scenario" has been removed. Therefore, the non-conformity has been removed.

NCR 2012.104 dated 05-31-2013

Standard Reference: VCS Validation and Verification Manual V3.0, Section 5.2

Document Reference: Methodology version 1.1

Finding: The VCS Validation and Verification Manual states that "If methodologies contain definitions not included in the Program Definitions, or the methodology contains more narrowly defined terms than in the Program Definitions, such methodology definitions need to be noted within the methodology element." The term "project participant", as used throughout the methodology, is not defined within the methodology element.

Client Response: Term "Project Proponent" substituted for "Project Participant(s)"

Auditor Response: The assessment team can confirm, through review of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that the indicated substitution has been made throughout the document. Therefore, the finding is no longer relevant, and will be closed.

NCR 2012.105 dated 05-31-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.3.3

Document Reference: Methodology version 1.1

Finding: The AFOLU Requirements states that "Specific carbon pools and GHG sources, including carbon pools and GHG sources that cause project and leakage emissions, may be deemed de minimis and do not have to be accounted for if together the omitted decrease in carbon stocks (in carbon pools) or increase in GHG emissions (from GHG sources) amounts to less than five percent of the total GHG benefit generated by the project. The methodology shall establish the criteria and procedures by which a pool or GHG source may be determined to be de minimis." While the methodology does allow various carbon pools and GHG sources to be deemed de minimis, the methodology does not establish any criteria and procedures by which a pool or GHG source may be determined to be de minimis.

Client Response: Text added to section 5.2.2.1 to define the criteria and procedures for determining pools or emissions de minimus.

Auditor Response: The assessment team can confirm, through review of Section 5.2.2.1 of the revised methodology document "2011 02 28 VCS MED for BC FCOP - ROUND 2 revisions 0 35 (2).docx", that criteria and procedures for determining pools or GHG sources to be de minimis have been added. Therefore, the non-conformity has been resolved.

NCR 2012.106 dated 09-13-2013

Standard Reference: AFOLU Requirements V3.3, Section 3.4.2

Document Reference: Methodology version 2, Section 5.1

Finding: The methodology states that "For ARR and IFM-RIL projects on Crown land, long term, specific control of the area may not be required if the project proponent can demonstrate that they have the rights to maintain the benefits of the project." This language conflicts with the AFOLU Requirements, which states that "The project proponent shall demonstrate control over the entire project area with documentary evidence establishing conclusively one or more rights of use accorded to the project proponent as set out in the VCS Standard..." It may be noted that methodology may be referring to "control" in a sense from that which is meant by the AFOLU Requirements, and it may also be noted that right of use may take many different forms (including, perhaps, the right to implement a project on Crown land), as described in Section 3.11.1 of the VCS Standard. However, the methodology must not conflict with the requirements of the VCS Standard.

Client Response: Language has been changed to meet this requirement.

Auditor Response: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", no longer suggests that "control" does not need to be maintained over the project area by the project proponent. Therefore, the non-conformity has been resolved.

NCR 2012.107 dated 09-13-2013

Standard Reference: NA

Document Reference: Methodology version 2

Finding: The following equations do not display correctly when viewed in Microsoft Word by the assessment team: 6, 7, 25, 26, 37 (also addressed in NCR 2012.50), 38.

Client Response: Because these equations do display correctly in our version of Word, we are providing a parallel version of the methodology in .pdf format to ensure that the noted display problems will not impact the final version

Auditor Response: Through review of the PDF version of the updated methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", it has been possible to confirm that the noted equations do not display errors when viewed in Adobe Acrobat. Therefore, the non-conformity has been resolved.

NCR 2012.108 dated 09-13-2013

Standard Reference: NA

Document Reference: Methodology version 2, Equation 25

Finding: The description of parameter, wdf(s), as given below Equation 25, states "The wood density factor for species s, from table X" and the default value states "Given in table X". It is not clear which table is meant by "Table X".

Client Response: oops… thought I'd caught all of those… fixed.

Auditor Response: The language below Equation 25 has been corrected, in the updated version of the methodology entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", such that the table references correctly refer to Table 13. Therefore, the non-conformity has been resolved.

NCR 2012.109 dated 09-13-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.6.13

Document Reference: Methodology version 2, Section 8.3.1

Finding: The AFOLU Requirements states that "Leakage in IFM projects can result from activities shifting within the project proponent's operations. It shall be demonstrated that there is no leakage to areas that are outside the project area but within the project proponent's operations, such as areas where the project proponent has ownership of, management of, or legally sanctioned rights to use forest land within the country." The methodology states that "If the project proponent can demonstrate and document that: there is no risk of activity shifting leakage, because the difference between the baseline and project cases consists entirely of changes in amounts or types of timber harvesting (no change in land use)... then accounting of leakage may be omitted." The procedure of the methodology is not consistent with the AFOLU Requirements, as it is quite possible for leakage to areas that are outside the project area but within the project proponent's operations to occur even where the project involves a change in the type or intensity activity. The limitation placed on the potential for activity shifting leakage by the methodology is not supported by the AFOLU Requirements.

Client Response: Changes have been made to reflect this guidance by adding the requirement that no internal leakage take place, and revising the language regarding opportunities for external activity shifting leakage.

Auditor Response: The updated methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", no longer indicates that ""If the project proponent can demonstrate and document that: there is no risk of activity shifting leakage, because the difference between the baseline and project cases consists entirely of changes in amounts or types of timber harvesting (no change in land use)... then accounting of leakage may be omitted." In addition, the methodology now contains additional procedures for accounting of activity shifting leakage.

However, the methodology still does not appear to clearly require, for IFM projects, that "there is no leakage to areas that are outside the project area but within the project proponent's operations". Therefore, the non-conformity has not been resolved.

Client Response 2: Section 8.3.1.1-1 specifies "The project proponent must demonstrate that there is no leakage to areas that are outside the project area but within the project proponent's operations, such as areas where the project proponent has ownership of, management of, or legally sanctioned rights to use forest land within the country. " We believe that this meets the requirement

Auditor Response 2: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4", contains an additional procedure, in Section 8.3.1.1(4), to monitor leakage in the case that the potential leakage agent can be identified. In combination with the requirement in Section 8.3.1.1(1), this procedure constitutes an adequate implementation of the cited requirement. Therefore, the non-conformity has been resolved.

NCR 2012.110 dated 09-13-2013

Standard Reference: AFOLU Requirements V3.3, Section 4.7.1

Document Reference: Methodology version 2, Section 8.2.1

Finding: The AFOLU Requirements states that "Methodologies shall also establish procedures for quantifying the net change in carbon stocks, so that the number of buffer credits withheld in the AFOLU pooled buffer account and market leakage emissions may be quantified for the project." The methodology states, in reference to Equation 29, "For projects validating under VCS, the total carbon in the carbon pools within the project area at a given time t for the project scenario must be estimated, to allow calculation of the buffer requirements., will therefore be given by Equation 29". However, this language is confusing to the user, as it implies that Equation 29 must be used to quantify the number of buffer credits withheld in the AFOLU pooled buffer account. The output of Equation 29 cannot be used for that purpose, as it quantifies the carbon stocks under the project scenario, and not the net change in carbon stocks.

Client Response: Equation 38 has been added to address this issue

Auditor Response: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", no longer implies that the output of Equation 29 is directly used in the calculation of the number of buffer credits. Therefore, the non-conformity has been resolved.

NCR 2012.111 dated 09-13-2013

Standard Reference: VCS Validation and Verification Manual, V3.0, page 46; AFOLU Requirements V3.3, Section 3.1.10

Document Reference: Methodology version 2, Section 6

Finding: The VCS Validation and Verification Manual states that "Methodologies must not restate VCS requirements." The methodology states that "For IFM and REDD projects, the baseline scenario must be re-evaluated every 10 years, to ensure that the assumptions used to determine the baseline scenario, and quantify GHG emissions and removals under the baseline scenario, remain valid, and to update them where changes have occurred." This appears to directly restate the requirement of Section 3.1.10 of the AFOLU Requirements.

Client Response: Removed.

Auditor Response: The language in question has been removed, in the updated version of the methodology entitled "2011 02 28 VCS MED for BC FCOP - ROUND 3 revisions v1", and replaced with blanket guidance to indicate that "Baseline scenarios may require periodic re-evaluation, as specified by the VCS". Therefore, the non-conformity has been resolved, as the VCS rules are no longer restated.

NIR 2012.112 dated 01-31-2014

Standard Reference: VCS AFOLU Requirements V3.2, Section 4.6.1

Document Reference: methodology element (1/17/14), Section 8.3.1.2.3

Finding: The VCS AFOLU Requirements states that “leakage in IFM projects is predominantly attributable to market leakage (market effects), which shall be quantified by either of the following:

1) Applying the appropriate market leakage discount factor identified in Table 3 to the net change in carbon stock associated with the activity that reduces timber harvest.

2)Directly accounting for market leakage associated with the project activity. Where directly accounting for leakage, market leakage shall be accounted for at the country-scale applied to the same general forest type as the project (ie, forests containing the same or substitutable commercial species as the forest in the project area) and shall be based on methods for quantifying leakage from scientific peer-reviewed journal sources.”

Option 2 is in use by the methodology. The methodology cites a method that is presumably from Murray et al. (2004), which is a scientific peer-reviewed journal source (from Land Economics, published by the University of Wisconsin) and is specifically cited by the AFOLU Requirements (in footnote 11) as a paper that "may be helpful in assessing market leakage". However, the assessment team did not previously confirm that the method cited by the methodology actually derives from Murray et al. (2004). Rather, the assessment team previously confirmed that the method cited by the methodology derived from Murray et al. (2002) (as is documented in NCR 2011.66), which is presumably a different publication. Please provide the assessment team with clear evidence that the method set out as Option 2 in the methodology derives specifically from Murray et al. (2004). Such evidence could be provided by, for example, conveyance of a digital copy of Murray et al. (2004) and specific references that will allow the assessment team to readily confirm that the same method set out as Option 2 derives from Murray et al. (2004).

Client Response: We have reviewed Murray et al 2002 and 2004. With the exception of some added tables expanding on the data presented, the 2004 paper is the same paper as the 2002 paper, and most critically, no changes have been made to the critical equations derived in the paper, which form the basis of the FCOP approach. Unfortunately, our access is through JSTOR, and does not allow downloading of the paper in question. However, the validation team can access the Murray et al 2004 paper through a free JSTOR access sign-up. (www.jstor.org)

Auditor Response: Following the suggestions of the methodology development team, the assessment team was able to review both manuscripts and confirm that the absence of any material difference with respect to the use of the studies in the methodology. Therefore, the information request has been satisfied.

NCR 2012.113 dated 01-31-2014

Standard Reference: VCS AFOLU Requirements V3.4, Section 4.7.2

Document Reference: methodology element (1/17/14), Section 8.4.3

Finding: The VCS AFOLU Requirements states that "The number of GHG credits issued to projects is determined by subtracting out the buffer credits from the net GHG emission reductions or removals (including leakage) associated with the project." Equation 40, as implemented within the methodology, correctly accomplishes this task with respect to ARR or IFM projects that involve timber harvest in the project scenario. However, for projects that do not meet this description, Equation 40 will be confusing because it will not be clear what value to use for parameter LA (since this parameter is, as noted in Section 8.4.2, only relevant "Where ARR or IFM projects are to be validated under VCS, and where the project scenario includes harvesting".

Client Response: Note added to clarify this issue.

Auditor Response: The updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4", contains added information regarding the equation that must be applied in the case that the long-term average GHG benefit is not applicable. Therefore, the non-conformity has been resolved.

NCR 2012.114 dated 01-31-2014

Standard Reference: NA

Document Reference: methodology element (1/17/14), Section 8.4.3

Finding: The following errors are present within the methodology:

- The table below Equation 2 has a "Error! Reference source not found" error

- The table below Equation 16 has a "Error! Reference source not found" error

- Table 20 has a "Error! Reference source not found" error

- The equation formerly known as Equation 33 has been re-labelled Equation 3

Client Response: Thes errors have been removed. However, we continue to struggle with the reference errors, since at the end of each editing we do a global search for them, yet when the document is sent to others, more pop up. Hopefully we have caught them all!

Auditor Response: While the reference errors described in this finding have been corrected, incorrect references remain in some parts of the methodology. The table below Equation 2 indicates that parameter ΔGHGj, Baseline, t is "Calculated using Equation 3." However, Equation 3 calculates the "Tonnes of dry biomass in delivered roundwood per year, by wood product destination".

Client Response 2: All references to "equation X" or "Section X" checked

Auditor Response 2: The assessment team can confirm, through review of the updated methodology entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4.1", that all errors in referencing equations or sections appear to be corrected. Therefore, the non-conformity has been resolved.

NCR 2012.115 dated 01-31-2014

Standard Reference: Methodology Approval Process V3.5, Section 3.2.2; VCS Methodology Template V3.2

Document Reference: methodology element (1/17/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires that "All sections must be completed using Arial 10pt, black, regular (non-italic) font. Example text is provided, in black, regular (non-italic) font, under a number of section headings... Where a section is not applicable, same must be stated under the section (the section must not be deleted from the final document). "

The methodology contains italicized text throughout, in non-conformance to the requirements of the VCS Methodology Template.

While the VCS Methodology Template requires separate procedures and separate sections for estimating baseline emissions (Section 8.1) and project emissions (Section 8.2), the methodology conflates the two procedures, to a great extent, in Section 8.1.

Client Response: Attached e-mail from VCS clarifies the situation with the use of italics for defined terms, and the italics have been removed throughout. Recognizing that your comment on separating baseline and project emissions was correct, we have moved all of the guidance on accunting individual pools and sources to section 8.0, retaining only the summarization equations for the baseline and project in Sections 8.1 and 8.2.

Auditor Response: Most italicized text has been removed from the updated version of the methodology, entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4". However, some italicized text remains. Examples of such follow.

The words "carbon pools" under "Relationship to Approved or Pending Methodologies"

The words "GHG" and "Source/sink" in Table 1

Table 3

Footnote 63

Therefore, the non-conformity has not been fully resolved.

Client Response 2: All defined terms were searched, and these instances, and others, corrected

Auditor Response 2: The assessment team can confirm, through review of the updated methodology entitled "2011 02 28 VCS MED for BC FCOP - SCS round 4.1", that many instances of usage of non-compliant font have been corrected. However, the assessment team notes that the caption for Figure 2, on page 49, is in italic font. In addition, the text "in calculating", on page 87, is in Cambria Math.

This indicates that not all instances of non-compliant font have been corrected.

Client Response 3: All fonts in the methodology have been checked, and with the exception of those equations and variables which were created in the Word equation editor, and are therefore required to be in Cambria Math, the methodology contains only Arial fonts

Auditor Response 3: Through review of the updated methodology document, entitled "2014 10 16 VCS MED for BC FCOP", the assessment team can confirm that Arial font is used in all text other than where the MS Word equation editor has been used (and the assessment team agrees that use of Arial font is not required in these cases). Therefore, the non-conformity has been resolved.

NIR 2012.116 dated 08-25-2014

Standard Reference: NA

Document Reference: methodology element (7/31/14)

Finding: The methodology contains, in Tables 8 and 13, different wood density factors than those previously assessed by SCS. Please provide evidence of the source of the values currently in Tables 8 and 13 and provide a thorough rationale for the change in factors.

Client Response: We were requested to review the derivation of these factors by the other validation team. In reviewing the cited source (Gonzalez) we were unable to precisely derive the figures given from the source. In order to ensure consistency with the cited source, factors were recalculated from the data contained in that source. For all specie except Aspen, we have used the average of the green measurements from BC reported in Gonzalez. For Aspen, we used the average of the Canada-wide figures, since the only BC measure was from a study which produced figures consistently above average. The worksheet used for these calculations is attached

Auditor Response: The workbook provided does not match the values within the methodology.

Client Response 2: Apologies – I forgot to attach the derivation worksheet for these items – changes were made in response to issues identified by the other validator. Note that this includes a change to 0.35 for Sitka Spruce. The change resulted from the elimination of all of the values from the Standish study, which we found were systematically high.

Auditor Response 2: Through review of the updated methodology, entitled "2015 02 14 VCS MED for BC FCOP", in conjunction with the updated workbook entitled "derivation of green volume wood densities from Gonzalez", the assessment team was able to trace the values included within the workbook to the updated values to the Gonzales study entitled "Wood density of Canadian tree species" and confirm that the calculation of resulting average wood densities was correctly carried out. The assessment team was also able to trace the output from the workbook to Tables 8 and 13 within the methodology. Therefore, the information request has been satisfied.

NCR 2012.117 dated 08-25-2014

Standard Reference: Methodology Approval Process V3.5, Section 3.2.2; VCS Methodology Template V3.3

Document Reference: methodology element (7/31/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The methodology has not been prepared using the currently prevailing version of the VCS Methodology Template, Version 3.3, which became mandatory on 8 April 2014 (as confirmed through review of http://www.v-c-s.org/sites/v-c-s.org/files/VCS%20Program%20Update%20Catalogue%2C%208%20OCT%202013_2.pdf, last accessed 25 August 2014).

Client Response: The version of FCOP provided was updated to the latest version of the template. Hwever, there was an error in the update. The tables in section 9.1 had been updated, but ufortunately due to a versioning problem, this update was not included in the version sent. The version now attached includes these updates. We also attach an e-mail from the VCS regarding a question about the use of V3.3 of the template, for clarification.

Auditor Response: Since the Client Response indicates that the latest version of the template has been used, this finding will be closed and any further discrepancies with respect to Version 3.3 of the VCS Methodology Template will be addressed in separate findings.

NCR 2012.118 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Section 3.2.2; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The headers, footers, titles and section headings are not consistent with the VCS Methodology Template ("the Template"). Examples of the inconsistencies are as follows:

1. The header, in the top-right corner of every page in the methodology, contains the same text but as the header in the Template but does not have the same appearance.

2. The heading text "Relationship to Approved or Pending Methodologies" and "Table of Contents" is in Arial 11pt in the Template but is in Cambria 14pt in the methodology.

3. The heading for Section 1 is in Arial Bold 11pt in the Template but is in Arial 12pt in the methodology.

4. The heading for Section 8.1 is in Arial Bold 11pt in the Template but is in Arial 10pt in the methodology.

5. The footer, on the bottom of every page in the methodology, is different from as the footer in the Template.

6. The heading for Appendix A does not follow the font requirements of the methodology.

Client Response: All headers, fonts, and capitalization have been changed. The headers and footers have been matched to the template.

Auditor Response: Through cross-checks of the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", against the VCS Methodology Template, the audit team can confirm that the headers, footers and first and second section headings have been revised to be consistent with the Template. While the third-level (e.g., "7.1.2 Steps") and fourth-level and lower-level headings are not consistent with those that would result from use of the corresponding styles in the VCS Methodology Template, use of said styles for lower-level section headings is not, strictly speaking, required by the VCS rules. Therefore, the non-conformity has been resolved.

NCR 2012.119 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Section 3.2.2; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The instructions on the cover page of the VCS Methodology Template require inclusion of an email address for the "Contact". This information is not provided in the methodology.

Client Response: email address added

Auditor Response: Through review of the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", the audit team can confirm that an email address has been added, as required. Therefore, the non-conformity has been resolved.

NCR 2012.120 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: Section 3.2.2 of the Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The instructions of the VCS Methodology Template under "Relationship to Approved or Pending Methodologies" require the following: "For proposed methodologies, provide justification for the new methodology (ie, demonstrate that no approved or pending methodology under the VCS Program or an approved GHG program could reasonably be revised to meet the objective of the proposed methodology), in accordance with the procedure set out in VCS document Methodology Approval Process. Demonstrate that no approved or pending methodology under the VCS Program or an approved GHG program could be reasonably revised to meet the objective of the proposed methodology."

Section 5.2 of the Methodology Approval Process contains the procedure that is referred to by the VCS Methodology Template. The methodology states the following: "At the time of writing, there are also several AFOLU Methodologies under development in the VCS program. However, none of the approved Methodologies or the methodologies under development allow for multiple forest and carbon management activities as part of a single project. Furthermore, there are no other AFOLU methodologies that have been developed to meet the requirements of the BC Emission Offsets Regulation." However, the methodology does not contain a demonstration that addresses each requirement of Section 5.2 of the Methodology Approval Process. Examples of requirements of Section 5.2 of the Methodology Approval Process that are not fulfilled by the methodology are below.

1. The methodology does not explicitly "state whether, and explain how, the proposed methodology uses, includes, refers to or relies upon all or part of any of the listed methodologies."

2. The "Methodology for Calculating GHG Benefits from Preventing Planned degradation v 1.0" has been mistakenly labelled as "VM00011" instead of VM0011.

Client Response: Text has been added to address both existing methodologies and methodologies under development. The number for VM0011 has been changed.

Auditor Response: Through review the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", the audit team can confirm that additional information has been provided to document how the requirements of Section 5.2 of the Methodology Approval Process has been complied with. However, Section 5.2 of the Methodology Approval Process requires that "the methodology developer shall list the approved or pending methodologies, under the VCS or an approved GHG program, that fall under the same sectoral scope or same AFOLU project category or combination of sectoral scopes or AFOLU project categories, as applicable." Further guidance is provided that "the list shall include, at a minimum, all such methodologies that are available sixty days before the proposed methodology is submitted to the VCSA". The methodology exhibits the following non-conformities with respect to the above requirements.

1) While all approved methodologies that fall within the same AFOLU project category have been listed, not all approved methodologies that fall within the same sectoral scope, that were available sixty days before the methodology was submitted to the VCSA, have been listed. The methodologies that have not been listed are VM0017 and VM0022.

2) The pending methodology entitled "Avoiding Planned Deforestation of Undrained Peat Swamp Forests" falls under one of the same sectoral scopes that the methodology falls under, and was available earlier than sixty days before the methodology was submitted to the VCSA. However, it has not been listed.

Client Response 2: Added VM0017 and VM0022 and pending meth.

Auditor Response 2: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that the methodologies in question have been clearly identified within the methodology. Therefore, the methodology contains a justification for the new methodology in accordance with Section 5.2 of the Methodology Approval Process. Therefore, the non-conformity has been resolved.

NCR 2012.121 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The instructions in Section 3 of the VCS Methodology Template require the following: "Do not include terms already defined under the VCS." The following terms that are already defined under the VCS are included in Section 3 of the methodology.

Activity Shifting Leakage (defined in Section 4.6.1(2) of the AFOLU Requirements)

Afforestation, Reforestation and Revegetation (ARR) (defined in the VCS Program Definitions)

Baseline Scenario (defined in Section 2.19 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

CO2 equivalent (CO2e) ("carbon dioxide equivalent" is defined in Section 2.21 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Carbon Pool (defined in the VCS Program Definitions)

Crediting Period (defined in the VCS Program Definitions)

Dead Wood (defined in the VCS Program Definitions)

Forest (defined in the VCS Program Definitions)

Global warming potential (GWP) (defined in Section 2.20 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Greenhouse gases (GHG) (defined in Section 2.1 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Emission factor ("greenhouse gas emission or removal factor" is defined in Section 2.9 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Harvested wood products ("wood products" is defined in the VCS Program Definitions)

Improved Forest Management (IFM) (defined in the VCS Program Definitions)

Market leakage (defined in Section 4.6.1(1) of the AFOLU Requirements)

Monitoring (defined in Section 2.25 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

REDD (Reduced Emissions from Deforestation and Degradation) (defined in the VCS Program Definitions)

Sink ("greenhouse gas sink" is defined in Section 2.3 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Source ("greenhouse gas source" is defined in Section 2.2 of ISO 14064-2:2006; definitions under ISO 14064-2:2006 apply to the VCS Program per Section 1 of the VCS Program Definitions)

Client Response: Per the correspondence with the VCS, we have eliminated definitions for terms already defined in the VCS Program Definitions document, except where additional specification is required to ensure that the definition is compliant with the BC EOR, or comprehensible in light of BC Forestry practice. In each case where a definition has been retained, we have ensured that the definition is consistent with the VCS definition, except that it may be more restrictive in specific ways, as allowed by the VCS.

Auditor Response: Subsequent to issuance of this finding, the assessment team received guidance from VCSA personnel (in an email dated 25 September 2014) stating that "Terms that are already defined within the VCS Program Definitions document but are defined in the methodology to provide further specifics or clarification are permitted. Terms defined within other VCS document, such as the AFOLU requirements or ISO standards, may be included as long as the definition does not contradict the definition as presented within the other requirements documents." The assessment team understands this to mean that it is permissible to include terms already defined under the VCS Program so long as the definitions given are do not contradict, and are not broader than, the VCS Program definitions. Therefore, the assessment team's assessment of the definitions in question is provided below:

Activity Shifting Leakage: The definition is consistent with that in Section 4.6.1(2) of AFOLU Requirements.

Afforestation, Reforestation and Revegetation (ARR): The first sentence is equivalent with the definition in the VCS Program Definitions. Additional information is provided to define the category for the purposes of the methodology, which is acceptable.

Baseline Scenario: definition is consistent with that in Section 2.19 of ISO 14064-2:2006

CO2 equivalent (CO2e): The definition is consistent with that of "carbon dioxide equivalent" as defined in Section 2.21 of ISO 14064-2:2006.

Carbon Pool: The definition has been removed.

Crediting Period: The first sentence of the definition is equivalent to that within the VCS Program Definitions. Additional information is provided to define the regarding interpretation of the definition for purposes of the methodology, which is acceptable.

Dead Wood: definition has been removed

Forest: from review of the web page "Inventory and land-use change" (http://www.nrcan.gc.ca/forests/climate-change/13111; accessed 23 December 2014; page reached by automatic redirect from URL http://cfs.nrcan.gc.ca/pages/97 as set out in the methodology), the assessment team can confirm that the definition within the methodology is consistent with the definition used by Canada for reporting under the United Nations Convention on Climate Change, which therefore constitutes an "internationally accepted definition (eg, UNFCCC, FAO or IPCC) of what constitutes a forest" and therefore definition the in the methodology is consistent with that in the VCS Program Definitions.

Global warming potential (GWP): The definition is equivalent to that within Section 2.20 of ISO 14064-2:2006.

Greenhouse gases (GHG): The definition is consistent with that within Section 2.1 of ISO 14064-2:2006

Emission factor: Consistent with definition of "greenhouse gas emission or removal factor" as defined within Section 2.9 of ISO 14064-2:2006

Harvested wood products: The definition contains a linkage to the definition of "wood products" within the VCS Program Definitions, which is compliant with guidance from the VCSA as cited above.

Improved Forest Management (IFM): The definition has been removed.

Market leakage: The definition is consistent with that contained within Section 4.6.1(1) of the AFOLU Requirements

Monitoring: The definition is consistent with that within Section 2.25 of ISO 14064-2:2006

REDD: The first sentence of the definition is equivalent to a part of that definition contained within the the VCS Program Definitions. Additional information is provided to define the category for the purposes of the methodology, which is acceptable.

Sink ("greenhouse gas sink": The definition is equivalent to that within Section 2.3 of ISO 14064-2:2006

Source ("greenhouse gas source": The definition is equivalent to that within Section 2.2 of ISO 14064-2:2006

Therefore, the assessment team agrees that the non-conformity has been completely resolved.

NCR 2012.122 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must be written in a clear, logical, concise and precise manner, to aid readability and ensure consistent application by intended users."

Section 8.1.1.1.2 of the methodology, entitled "Selection of Appropriate Models" is numbered out of sequence with the adjoining sections, such that some lack of clarity has resulted.

Client Response: Corrected.

Auditor Response: Through review of the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", the audit team can confirm that the section in question has been re-numbered (as Section 8.0.1.1.2) so that its numbering is consistent with that of the adjoining sections. Therefore, the non-conformity has been resolved.

NCR 2012.123 dated 09-29-2014

Standard Reference: VCS Standard V3.4, Section 4.8.3

Document Reference: methodology element (9/8/14), Section 9.1

Finding: Section 9.1 of the methodology, in the parameter table for GWPj, states that the source of data is "BC Government or IPCC" and that "The IPCC or BC Government designated global warming potentials for identified GHGs are mandated or best available sources for these factors." This guidance may not, in all cases, be consistent with the requirement of the VCS Standard that "Consistent with UNFCCC accounting, the six Kyoto Protocol greenhouse gases shall be converted using 100 year global warming potentials derived from the IPCC's Second Assessment Report (which are also available and reprinted in the Fourth Assessment Report)."

Client Response: Corrected

Auditor Response: Through review of Section 9.1 of the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", the audit team can confirm that the text in question has been revised to state the following: "Where projects are validating under VCS the most current IPCC 100 year GWP factors must be used. As of Sept 2014 these values were found in Table 4 (p.22) of The Science of Climate Change, Contribution of Working Group 1 to the Second Assessment Report of the IPCC." While the reference to the Second Assessment Report is appropriate, the assessment team notes that, while the global warming potential for methane in the IPCC's Fifth Assessment Report has been update (as assessed from Table 8.7 of the document entitled 'Working Group I contribution to the IPCC 5th Assessment

Report "Climate Change 2013: The Physical Science Basis'"), the VCS Program has retained usage of the global warming potentials from the Second Assessment Report. This serves as evidence that the VCS Program does not use "the most current IPCC 100 year GWP factors", and therefore the requirement to do so is inconsistent with the requirement to use the values from the Second Assessment Report.

Along the same lines, depending on how the phrase "widely accepted" is interpreted, the VCS Program does not necessarily use the "most current widely accepted IPCC 100 year GWP factors", as mandated in the definition of parameter GWPj in Section 8.

Therefore, the non-conformity has not been fully resolved.

Client Response 2: Changes have been made to the text in sections 8 and 9.1 regarding the definition of the variable GWPj, to conform with the requirement that the numbers used be those found in the Second Assessment Report. The BC Carbon Neutral Government Regulation was checked to ensure that the values were consistent.

Auditor Response 2: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that the values from the IPCC's Second Assessment Report are clearly and explicitly referenced as the source for quantification of the parameter GWPj. Therefore, the non-conformity has been resolved.

NCR 2012.124 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14), Sections 8.1 and 8.2

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must be written in a clear, logical, concise and precise manner, to aid readability and ensure consistent application by intended users." The following observations document instances where lack of clarity may impede use by intended users.

1. It is not clear how parameter "GHGj, Baseline HWP Pools, t" is calculated, as there does not appear to be an explicit linkage between the reference to this parameter in Section 8.1 and any other part of the methodology. The methodology states that the value of this parameter is "Determined using methods in Section 8.0.2"; however, Section 8.0.2 does not contain any guidance that clearly relates to quantification of this parameter.

2. It is not clear how parameter "GHGj, Project HWP Pools, t" is calculated, as there does not appear to be an explicit linkage between the reference to this parameter in Section 8.2 and any other part of the methodology.

3. It is not clear how parameter "GHGj, Baseline Forest Pools, t" is calculated, as there does not appear to be an explicit linkage between the reference to this parameter in Section 8.1 and any other part of the methodology. The methodology states that the value of this parameter is "Determined in Section 8.1", but this is not correct.

4. It is not clear how parameter "Cap,t" is calculated, as there does not appear to be an explicit linkage between the reference to this parameter in Section 8.2.1 and any other part of the methodology.

Client Response: Item 1

The name of the variable in equation 25 has been changed to match the name of the variable in equation 5 (except with the addition of the word “baseline”), and the linkage has been explained in the description of the variable.

Item 2

The same changes have been made to the relevant variable in equation 27

Item 3

The description of this variable has been changed to point to the correct section, and to explain that one of Option A or Option B, given in that section, must be used, and that the use must be consistent between baseline and project calculations. The same change has been made for the parallel variable in section 8.2, and references to these descriptions have been made for the t-1 variables in the same equations, to ensure consistency.

Item 4

The relationship of this variable to the accounting methods given in section 8.0.1.1 has been detailed in the description of the variable, and consistency with the methods used in sections 8.1 and 8.2 for these variables is required.

Auditor Response: The assessment team reviewed the updated methodology document "2014 10 16 VCS MED for BC FCOP" to assess the actions taken in response to the finding. The assessment team's feedback is as follows.

There is now a linkage between parameters "GHGj, Baseline HWP Pools, t" and "GHGj, Project HWP Pools, t" and Equation 5, wherein the variable "GHGCO2, HWP, t" is calculated. However, Equation 5 is in Section 8.0.1.2, rather than Section 8.0.2, of the methodology, so it is unclear values for the above parameters are "Determined using methods in Section 8.0.2". Therefore, the linkage is still not entirely clear.

There is now a clear linkage between parameter "GHGj, Baseline Forest Pools, t" and the accounting guidance in Section 8.0.1.1. The same is true for parameter "GHGj, Project Forest Pools, t". However, the guidance for the latter parameter states "The chosen Option and methods must be used consistently for both project emissions, as calculated in this section, and baseline emissions, as calculated in section 8.2." This is incorrect, as baseline emissions are calculated in Section 8.1.

In addition, no explicit relationship is provided between variable "Cap,t" and variable "GHGj, Project Forest Pools, t". Both variables are linked to Section 8.0.1.1, but their relationship to each other is unclear.

Finally, with respect to the guidance "The chosen Option and methods must be used consistently for both project emissions... and baseline emissions", which is provided for all the parameters "GHGj, Baseline Forest Pools, t", "GHGj, Project Forest Pools, t" and "Cap,t": It is unclear how Option A in Section 8.0.1.1 could ever be used to measure baseline carbon pools within the project area, as the baseline scenario is a hypothetical scenario "that best represents the conditions most likely to occur in the absence of a proposed greenhouse gas project" (per Section 2.19 of ISO 14064-2:2006). Because the baseline scenario is, by definition, hypothetical, it is unclear how carbon stocks in the baseline scenario could ever be directly measured within the project area using the guidance set out in Option A. This would appear to require use of Option B in all cases, in which case it is unclear why Option A is provided within the methodology. This is likely to lead to confusion on the part of intended users of the methodology.

For the reasons stated above, the non-conformity has not been fully resolved.

Client Response 2: The references relevant to HWP have been changed to 8.0.1.2.

Reference to section 8.2 in variables definitions for equation 27 has been changed to 8.1

The appropriate linkage is not between Cap,t and GHGj,Project Forest Pools,t, but between CProjectForestPools,t and GHGj,Project Forest Pools,t. This linkage has been made explicate in the variable description of CProjectForestPools,t for equation 29.

Text has been added to clarify the calculation of the baseline where Option A is chosen, both in the section on Option A, and in the relevant definitions of the variables in sections 8.1, 8.2, and 9. The reviewer has correctly pointed out that Option A is a valid option for the baseline scenario only at time t=0. There-after, methods from Option B would need to be used. However, there is still a meaningful distinction regarding how time t=0 values are derived under Option A as versus B, as well as a clear difference for all times for the project scenario, and the two options have been retained.

Auditor Response 2: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team was able to confirm the following:

1. The reference to Section 8.0.1.2 has been clarified.

2. The quantification reference for parameter "GHGj, Project Forest Pools, t" has been correctly changed to Section 8.1.

3. The relationship between variable "Cap,t" and variable "GHGj, Project Forest Pools, t" has been explicitly described in the table below Equation 29.

4. The circumstances under which Option A would be used for baseline quantification are more clearly described (the assessment team agrees that it is appropriate to retain both Option A and Option B, given the language currently present within the methodology).

As all outstanding concerns have been addressed, the non-conformity has been resolved.

NCR 2012.125 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must be written in a clear, logical, concise and precise manner, to aid readability and ensure consistent application by intended users." The following observations document instances where lack of clarity may impede use by intended users.

The methodology contains numerous equations where multiplication signs display as empty boxes. (One example of this is Equation 3.) While it was communicated to the assessment team that this display error does not occur when the methodology is converted to PDF format, the assessment team has observed that this display error also occurs when the methodology is converted to PDF format.

Client Response: We reviewed every equation in a .pdf of the document, and were unable to find any instances of the problem referenced. We would suggest that this problem be noted for review by the VCS when they are doing the final reformatting of the document, to ensure that it does not show up in the accepted version of the document,

Auditor Response: Through review of the PDF version of the updated methodology, entitled "2014 10 16 VCS MED for BC FCOP", the assessment team can confirm that no equations display erroneously within that document. Therefore, the assessment team agrees that the methodology, when submitted to the VCSA, will likewise be free of such errors. Therefore, the finding is not relevant and will be withdrawn.

NCR 2012.126 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed."

The following non-conformities with respect to the requirements of Sections 9.1 and 9.2 of the VCS Methodology Template have been noted.

1. The methodology states that the source of data for parameter "%LeakageMarket" is "From Provincial Leakage Base Case"; however, a clear citation of the "Provincial Leakage Base Case" is not provided.

2. Parameter "Cs", as referred to in Section 9.1, does not exist.

3. The equation reference for parameters "EF1" and "EF4" is given as Equation 17, but Equation 17 does not use those parameters.

4. The equation reference for parameter "EF5" is given as Equation 22, but Equation 22 does not use that parameter.

5. The equation reference for parameters "FracGASF" and "FracGASM" is given as Equation 17, but Equation 17 does not use those parameters.

6. The default values provided for parameters "FracGASF" and "FracGASM" are not consistent with the values provided below Equation 17.

7. The equation reference for parameter "FracLEACH-(H)" is given as Equation 22, but Equation 22 does not use that parameter.

8. The equation reference for parameter "HWPfactX,t-y" is given as Equation 7, but Equation 7 does not use that parameter.

9. The equation reference for parameter "wdfs" is given as Equations 5 and 25, but Equations 5 and 25 do not use that parameter.

10. For all of the parameters in Section 9.2, the parameter information is mistakenly provided in the "Data unit" field and information on the unit of measure is not provided.

11. Section 9.2 of the VCS Methodology Template requires that "Where values will be based on measurement, include a description of the appropriate measurement methods and procedures that must be applied (eg, what standards or protocols must be followed)." A description of the appropriate measurement methods and procedures is lacking for parameter "ALb, t".

12. The "purpose of data" for all of the parameters in Section 9.2 is provided as "Calculation of project emissions". However, for many parameters (e.g., ALb,t), the purpose of data is also to monitor baseline emissions.

13. Section 9.2 of the VCS Methodology Template requires that "Where values will be based on measurement, include a description of the appropriate measurement methods and procedures that must be applied (eg, what standards or protocols must be followed)." An appropriately prescriptive description of the appropriate measurement methods and procedures is lacking for the following parameters: "ALff,t", "EFb,j", "EFf,e,j", "EFff,j", "EfH,j", "Efm,j", "mhs", "mss", "NCOFj", "NCSFi"

14. The parameter table for "vols,y,d" correctly indicates that the parameter is used in Equation 3, but does not mention that the parameter is used in Equation 23.

15. The parameter table for "vols,y,d" incorrectly indicates that the parameter is used in Equations 5 and 25.

Client Response: Items 1 through 10 corrected

Item 11:

The guidance given for ALb,t is as specific as should be given, in light of the various data types and levels of certainty which may available, and which will likely vary from polygon to polygon depending on past inventory activities, etc. In general methodologies have not given in depth prescriptive methodological detail about this complex issue, recognizing the variability of the data. The only alternative that I know of is to point to the Module “Estimation of Emissions from Burning, v1.0”, a module associated with VM0021, for some general guidance on approaches to estimating burned biomass.

Item 12 – corrected. Note that baseline emissions are not monitored per se, but some of the variables will be derived/estimated/modelled

Item 13

Alff,t. - This variable is subject to the same issues as described for Alb,t in item 11, above.

Efb,j, Effe,j, EFff,j, EFH,j EFm,j – These emission factors are to be derived from monitored external sources, not measured, so the nature of the NCR is unclear. However, we have provided section references to refer back to the relevant sections, where more detail on emission factor sources is given.

mhs – Reference to the BC Scaling Manual has been added. The manual gives detailed specification on scaling procedures

mss – This variable is calculated, not measured, and therefore has been withdrawn from this table.

NCOfj, NCSfi –These variables are monitored from manufacturer specifications, and it is difficult to see what further guidance could be given. The nature of the NCR is unclear.

Items 14 & 15

The equation references for Vols,y,d have been corrected

Auditor Response: The assessment team reviewed the updated methodology document "2014 10 16 VCS MED for BC FCOP" to assess the actions taken in response to the finding. The assessment team's feedback is as follows.

1. The description for parameter "%LeakageMarket" has been revised to explicitly refer to Appendix A, thus making clear what is meant by "Provincial Leakage Base Case"

2. The description of parameter "Cs" has been removed from Section 9.1.

3. The descriptions for parameters "EF1" and "EF4" in Section 9.1 have been revised to correctly refer to Equations 15 and 19, respectively.

4. The description for parameter "EF5" in Section 9.1 has been revised to correctly refer to Equation 20.

5. The descriptions for parameters "FracGASM" and "FracGASF" in Section 9.1 have been revised to correctly refer to Equations 15 and 19.

6. The default factors given for parameters "FracGASM" and "FracGASF" in Section 9.1 have been revised to be consistent with the values given below Equations 15 and 19.

7. The description for parameter "FracLEACH-(H)" in Section 9.1 has been revised to correctly refer to Equation 20.

8. The description of parameter "HWPfactX,t-y" has been removed from Section 9.1.

9. The description for parameter "wdfs" in Section 9.1 has been revised to correctly refer to Equations 3 and 23.

10. A correct unit of measure appears to be provided for all parameters included in Section 9.2.

11. This discrepancy has not been addressed. The assessment team notes that Version 3.3 of the VCS Methodology Template introduced significant new requirements, against which the vast majority of methodologies currently approved under the VCS Program were never assessed, and so comparison with previously approved VCS methodologies may not be helpful in this context.

12. All of the parameters in Section 9.2 contain an indication, where applicable, that they are used for calculation/estimation/modeling of baseline emissions, thus resolving the non-conformity.

13. It is the assessment team's understanding that the term "measure" is interpreted very broadly under the VCS Program, such that it extends beyond those tasks that are typically thought of as "measurement tasks" (e.g., carrying out forest inventories) and also includes tasks such as sourcing a default factor from a publication. Thus, the requirement to "Specify the appropriate measurement methods and procedures and any standards or protocols that must be followed" is appropriate for all parameters in question. The assessment of appropriateness of the changes made is given, for each parameter, below:

"ALff,t": For the same reasons given with respect to #11 above, this discrepancy has not been addressed.

"EFb,j": While the assessment team agrees that Section 8.0.2.6 contains some useful guidance to address the situation, the guidance only provides clear instruction in the case that the factors in question can be found within the "BC Reporting Regulation" or "BC or National Inventory Reports". Where information is lacking in those sources, the methodology states that "project proponents will need to justify the use of an adjusted or alternative emission factor based on recognized sources wherever possible", but this does not constitute an "appropriate procedure" because, among other things, it does not contain

any criteria against which potential emission factors are to be judged. Therefore, this discrepancy has not been addressed.

"EFf,e,j": While the assessment team agrees that Section 8.0.2.5 contains some useful guidance to address the situation, the guidance does not provide criteria for the determination of what constitutes a "reasonable" range or a "recognized" source, and therefore does not constitute an "appropriate procedure". Therefore, this discrepancy has not been addressed.

"EFff,j": Same as for "EFb,j".

"EfH,j": As with the above, Section 8.0.2.10 does not contain a sufficiently prescriptive procedure for measurement of the emission factor. This is true both for the situation where default factors are available and for the situation where factors are not available.

"Efm,j": Same as with "EFf,e,j".

"mhs": The assessment team agrees that the BC Scaling Manual constitutes an appropriate "standards or protocol" for the task. Therefore, the discrepancy has been addressed.

"mss": The assessment team does not agree that removal of the parameter from Section 9.2 has been sufficient to resolve the non-conformity, as the parameter is not calculated within the methodology. The only reference to the parameter within the methodology that can be found by the assessment team is in and directly below Equation 33. In the table directly below Equation 33, under "Default Value" the methodology states "See below". While some guidance exists for determination of the value for this parameter in the following paragraph, an equation to calculate it does not appear to exist. Therefore, the assessment team does not agree that the parameter is "calculated, not measured" and so can be excluded from Section 9.2.

"Effu,j" (added): The guidance provided within Section 8.0.2.2 is very close to constituting an appropriate measurement procedure. However, insufficient criteria are present for determination of what constitutes "recognized, justified reference sources" in step 6 of the procedure.

"NCOFj", "NCSFi": The discrepancy has not been addressed.

14. The parameter table in Section 9.2 now correctly specifies that parameter "Vols,y,d" is used in Equations 3 and 23.

In addition, parameter "HWPCH4factX,t-y" is included in the parameter table in Section 9.1 but does not appear to be used within the methodology.

For the various reasons stated above, the non-conformity has not been fully resolved.

Client Response 2: Item 11: I will add a reference to VMD0031, Estimation of Emissions from Burning, which would appear to be the most relevant guidance on this issue.

Item 13:

• ALff,t – reference will be added to VMD0031, Estimation of Emissions from Burning.

• EFb,j – options will be given for peer reviewed data relevant to the site conditions, or IPCC default data IPCC GPG LULUCF (Table 3A.1.16).

• EFf,e,j – we will provide standard factors approved for use under the BC Reporting Regulation, and found in the BC GHG Emissions Estimator (http://www2.gov.bc.ca/gov/topic.page?id=FC2EE520E30242DE9F60F681FF112036&title=Reporting%20Operations#estimator) , to eliminate uncertainty.

• EFff,j reference to the appropriate default factors given in the IPCC GPG for LULUCF will be given.

• EfH,j we hwill add the specification that standardized emission factors must be provincially or nationally approved. The alternative already requires the development of in-house factors which draw upon fuel combustion factors specified in the correction made to EFf,e,j

• Efm,j – the same change has been made as for EFf,e,j

• mss – Agreed that the guidance on the calculation of this parameter was weak. We will add specific guidance on calculation of this parameter using outputs from the TIPSY model.

• Effu,j – we will add the requirement that “These sources must be peer reviewed, and not more than 10 years old.”

• NCOFj, NCSFi – These are the manufacturer specified numbers, or derived from laboratory testing – this was specified in the second paragraph below the variable table for equation 13, but we will add guidance in the table below equation 13 to clarify this, and also add the guidance in the relevant entries in table 9.2.

• HWPCH4factX,t-y is used in two forms – HWPCH4factNA,t-y or HWPCH4factO,t-y. This will be specified in the appropriate section of table 9.1

Auditor Response 2: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team was able to confirm the following (itemized as presented in the original finding text):

11. A reference was provided to the VCS-approved module VMD0031. The assessment team agrees that this module contains appropriately clear guidance regarding the quantification of combusted biomass.

13. Information was provided to satisfy all of the previously described concerns, except for the following:

"ALff,t": No discernable change has been made to the information provided regarding this parameter in Section 9.2.

"Efm,j": No discernable change has been made to the information provided regarding this parameter in Section 9.2.

Because of the omissions described regarding item 13, the non-conformity has not been fully resolved.

Client Response 3: Notes in section 9 for ALff,t and Efm,j have been updated to match the guidance given in the body of the text.

Auditor Response 3: Through review of the updated methodology document, entitled "2015 02 14 VCS MED for BC FCOP", the assessment team can confirm that additional guidance has been provided for both parameters, as follows:

Alff,t: The module VMD0031 is referenced for guidance. The assessment team agrees that this module is appropriate to provide guidance regarding quantification of mass of biomass burned. However, a further discrepancy regarding the manner in which this module is referenced is described in NCR 2012.138 below.

Efm,t: Section 8.0.2.4 is referenced for guidance. The assessment team agrees that this section provides appropriate guidance. However, a further discrepancy regarding the manner in which this section is referenced is described in NCR 2012.138 below.

In conclusion, while the discrepancy has not been fully resolved, this finding has been closed for administrative reasons.

NCR 2012.127 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14), Sections 8.0.2.3, 8.0.2.4 and 9.2

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must be written in a clear, logical, concise and precise manner, to aid readability and ensure consistent application by intended users."

The methodology uses the parameter "EFf,j" two different times, in Equations 7 and 8. This parameter is defined as "The emission factor for GHG j and fuel type f" and "The emission factor for GHG j and fertilizer type f" in these two respective locations. However, the parameter table in Section 9.2 only contains a reference to Equation 8 and the definition "The emission factor for GHG j and fertilizer type f." The "source of data" is defined as "Various potential sources, as described in section 8.0.2.7." This may cause two sources of confusion:

1. Confusion may result from using the same parameter to represent two different quantities and only having one parameter table.

2. Section 8.0.2.7 does not contain any guidance on data sources for this parameter.

Client Response: Corrected. The emission factor for fuel manufacture has been changed to Effu,j, and the variable has been added to the monitored data table.

Auditor Response: Through review of the updated methodology document, entitled "2014 10 16 VCS MED for BC FCOP", the assessment team can confirm that the variable with respect to emissions from fossil fuels has been renamed "EFfu, j" and identified as such in the parameter tables in Section 9.2 of the methodology. This has been sufficient to resolve the non-conformity.

NCR 2012.128 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14), Sections 9.1 and 9.1.1

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 9.1 of the VCS Methodology Template requires the following: "Where the methodology establishes default factors which may become out of date (ie, default factors that do not represent physical constants or otherwise would be expected to change significantly over time),make note of same in the Comments field." Section 9.1.1 of the methodology contains a list (in Table 21) of factors that "are specific to this methodology, and must be subject to periodic re-assessment, as laid out in the most recent version of the VCS document “Methodology Approval Process... For these factors, updated peer reviewed sources of information or methods used in the derivation of the factor may become available." However, the "Comments" field for the parameters identified in Section 9.1.1 of the methodology does not contain a note that the default factors may become out of date.

Client Response: the identified comments have been added

Auditor Response: Through review of the updated methodology document, entitled "2014 10 16 VCS MED for BC FCOP", the assessment team can confirm that the following language has been added to the description of the parameters in question in Section 9.1: "Default factors for this variable may be subject to periodic re-assessment". This has been sufficient to resolve the non-conformity.

NCR 2012.129 dated 09-29-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (9/8/14), Section 9.2

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 9.2 of the VCS Methodology Template requires the following: "Complete the table below for all data and parameters that will be monitored during the project crediting period (copy the table as necessary for each data/parameter)." The parameters "GHGj, Baseline Forest Pools, t" and "Cap,t" are monitored during the project crediting period, but a table for these parameters has not been provided in Section 9.2.

Client Response: The variables have been added to the table

Auditor Response: Through review of the parameter tables in Section 9.2 of the updated methodology document, entitled "2014 10 16 VCS MED for BC FCOP", the assessment team can confirm that the parameters in question have been added. This has been sufficient to resolve the non-conformity.

NCR 2012.130 dated 12-31-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (11/7/14), Section 5

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 5 of the VCS Methodology Template requires the following: "Describe the project boundary and identify the GHG sources, sinks and reservoirs (controlled by the project proponent, related to the project or affected by the project) included in or excluded from the project boundary".

References are made to the carbon pool PP7 throughout the methodology. However, the pool is not formally identified in Section 5 of the methodology. The pool was formerly included within Table 2, but appears to have been removed.

Client Response: Strangely, all of the data regarding this variable was still present in Table 2 except the the variable name. Variable name has been added back into the table.

Auditor Response: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that the identifier for PP7 has been added back into Table 2. Therefore, the non-conformity has been resolved.

NCR 2012.131 dated 12-31-2014

Standard Reference: VCS Validation and Verification Manual, V3.0, page 46; AFOLU Requirements V3.3, Section 3.1.10

Document Reference: methodology element (11/7/14), Section 4

Finding: The VCS Validation and Verification Manual states that "Methodologies must not restate VCS requirements." Section 4 of the methodology contains the following applicability conditions that restate VCS requirements:

Applicability condition 2, which states "Project start date must be no earlier 5 years before completion of validation", restates Section 3.7.3 of the VCS Standard, which states "AFOLU projects with a project start date on or after 8 March 2008 shall complete validation within five years of the project start date."

Applicability condition 3, which states "Project activities must comply with all applicable laws and regulations, including but not limited to the BC Emissions Offset Regulation", restates Section 3.1.3 of the AFOLU Requirements, which states "Implementation of the project activities shall not lead to the violation of any applicable law, regardless of whether or not the law is enforced."

Client Response: Applicability condition 2 has been changed to refer specifically to the BC EOR requirement, and to point to the VCS requirement without restating it. Applicability condition number 3 has been revised to point only and specifically to the BC EOR. This is requirement under BC legislation for sale into the BC compliance market, and is not covered by the VCS formulation, since an offset project could be undertaken in BC which was not compliant with BC EOR, and such a project would be perfectly legal, although unable to sell into the BC market.

Auditor Response: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that both of the applicability conditions in question have been modified to not restate any VCS requirements for projects. Applicability condition 2 has been modified to refer to VCS requirements pertaining to the project start date rather than restate said requirements, which is consistent with the requirements of the VCS Methodology Template. Therefore, the non-conformity has been resolved.

NCR 2012.132 dated 12-31-2014

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (11/7/14), cover page

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires that, on the cover page, the "Date of Issue" be provided in the format "DD-Month-YYYY". The date of issue has not been provided in the required format.

Client Response: changed

Auditor Response: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that the date of issuance is stated using the format required by the VCS Methodology Template. Therefore, the non-conformity has been resolved.

NCR 2012.133 dated 12-31-2014

Standard Reference: Methodology Approval Process V3.5, Section 3.2.2; VCS Module Template V3.3, Section 5; VCS Methodology Template, V3.3, Section 8.1

Document Reference: methodology element (11/7/14)

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 8.1 of the VCS Methodology Template (as also referenced by Sections 8.2 and 8.3 of the VCS Methodology Template) requires the following: "Use the example format below (copy and paste) for specifying equations and defining the associated parameters and variables, including the unit of measure. Ensure all equations are numbered using captions to specify the equation number and enable cross-referencing."

The unit of measure is not clearly stated for all parameters and variables in the methodology. A non-exhaustive list of examples of situations where the unit of measure is not provided is given below.

GWPj (Equations 1 and 37)

HWPfactNA,t-y (Equation 4)

GHGj, Project Forest Pools, t (Equation 38; it isn't clarified whether the unit of measure is tonnes of biomass, tonnes of carbon, tonnes of CO2-equivalent or some ofther type of tonne)

Client Response: Units of measure have been added in the variable tables for all equations as relevant.

Auditor Response: Through review of the updated methodology, entitled "2015 01 15 VCS MED for BC FCOP", the assessment team can confirm that the unit of measure has been correctly stated for the vast majority of variables used. However, it appears that the unit of measure has not been correctly stated for some variables relating to quantification of emissions from fertilizer use. Examples of such variables follow:

The variable "N2O(ATD),t" is described as "Amount of N2O-N produced from atmospheric deposition of N volatilized, tonnes of NO2 in year t" but the unit of measure is given as "tN2O". Both the description and the unit of measure are inconsistent with the information provided regarding the corresponding variable (of the same name) in Chapter 11.2.2.1, Volume 4 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories, where the variable is defined as "annual amount of N2O–N produced from atmospheric deposition of N volatilised from managed soils, kg N2O–N yr-1". Even allowing for the fact that the methodology calculates emissions in terms of tonnes, while the IPCC document calculates emissions in terms of kg (at least, at the level wherein the variable "N2O(ATD),t" is quantified), the IPCC document defines the variable in terms of "N2O–N", whereas the methodology defines it in terms of "tonnes of NO2" or "tN2O".

The exact same set of concerns exist regarding the variable "N2O(L),t", which also appears in Chapter 11.2.2.1, Volume 4 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

The unit of measure for variable "EF4" is given as "tN2O / tN input", while the unit of measure for the same variable in Chapter 11.2.2.1, Volume 4 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories is "[kg N–N2O (kg NH3–N + NOx–N volatilised)-1]"

In addition, the unit of measure is not always consistently stated between the main body of the methodology and the parameter tables in Sections 9.1 and 9.2, as in the following:

The unit of measure for the parameter "ALb, t" is stated in Section 8.0.2.6 as "t of biomass", while the "data unit" for this parameter is stated as "Mass or volume of biomass fuel" in Section 9.2; furthermore, the specification of this parameter as being in units of "volume" is not consistent with the other variables in Equation 13 (which do not pertain to volume).

A similar discrepancy exists between the description of the parameter "ALff,t" in Section 8.0.2.8 and the "data unit" stated in Section 9.2.

Therefore, the non-conformity has not been fully resolved.

Client Response 2: N2O(ATD) and N2O(L) – correct that these should be tN2O-N – change made. Because we account fertilizer inputs in tonnes, while the IPCC accounts inputs in kg, these outputs are also properly measured in tonnes in the methodology, as versus kg in the IPCC guidance.

Units of measure for EF4 and other factors changed.

ALb,t & Alff,t– technically the description in table 9.2 was correct, since the equations included a possible adjustment factor for other units. I have standardized both of these to be "t of biomass, or other unit with appropriate conversion factor to t"

All other units checked for consistency and accuracy

Auditor Response 2: Through review of the updated methodology, entitled "2015 02 14 VCS MED for BC FCOP", the assessment team can confirm that many improvements have been implemented to ensure correctness of the units of measure as stated in Section 9 and as stated elsewhere in the methodology, and to ensure consistency between these two sources. Therefore, the non-conformity has been resolved.

NIR 2012.134 dated 12-31-2014

Standard Reference: NA

Document Reference: methodology element (11/7/14), Tables 11, 14 and 16

Finding: The methodology contains, in Tables 11, 14 and 16, different values than those previously assessed by SCS. Please provide evidence of the source of the values currently in Tables 11, 14 and 16 and provide a thorough rationale for the change in factors, including any supplementary information necessary to allow the assessment team to confirm the validity of the changed factors.

Client Response: The source material for the changes to these tables was previously provided (Dymond based HWP model for FCOP final 1.1 annotated.xls). The other validator had identified an error in the previous version of the model, and the model was updated to correct for this error.

Auditor Response: The assessment team can confirm that the workbook "Dymond based HWP model for FCOP final 1.1 annotated" has been provided that contains the source of the values used, and any further lack of clarity experienced by the assessment team regarding the values is addressed within NCR 2012.137. Therefore, the information request has been satisfied.

NCR 2012.135 dated 01-26-2015

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (1/20/15),Sections 8.0.2.6 and 8.0.2.8

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must be written in a clear, logical, concise and precise manner, to aid readability and ensure consistent application by intended users." Sections 8.0.2.6 and 8.0.2.8 reference "values from the IPCC GPG LULUCF (Table 3A.1.16)" for quantification of the emission factor (this source is also referenced in the parameter tables for parameters "EFb,j" and "EFff,j" in Section 9.2). The assessment team agrees that Table 3A.1.16 from IPCC GPG LULUCF is an appropriate source for emission factor values. However, the emission factors are stated in the methodology to be in units of "t / t" or "t/t of biomass", whereas the values set out in Table 3A.1.16 from IPCC GPG LULUCF are in units of "G/KG DRY MATTER COMBUSTED". As the methodology does not explain how to convert the values in Table 3A.1.16 from IPCC GPG LULUCF to the units used in the methodology, or even indicate that the user may need to do so, the methodology is not written in a manner that is as "precise" as it could be.

Client Response: As use of the IPCC factors is only one option, it is not appropriate to include a conversion factor in the equation. Instead, we have included further guidance in the emission factor section, to provide for appropriate conversion.

Auditor Response: Through review of the updated methodology, entitled "2015 02 14 VCS MED for BC FCOP", the assessment team can confirm that Sections 8.0.2.6 and 8.0.2.6 now contain language to accommodate the use of values in units of g/kg, including instructions for conversion of said values to units of t/t. Therefore, the non-conformity has been resolved.

NCR 2012.136 dated 01-26-2015

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (1/20/15),Sections 8.0.2.6 and 8.0.2.8

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." The VCS Methodology Template requires the following: "The methodology must use key words must, should and may appropriately. Consistent with best practice, must is to be used to indicate a firm requirement, should is to be used to indicate a (non-mandatory) recommendation and may is to be used to indicate a permissible or allowable option."

The methodology states, in the table below Equation 1, that "Where projects are validating under VCS, the IPCC 100 year GWP factors given in the Second Assessment Report must be used". However, the quoted text is linked to a footnote which states the following: "...at this time the values contained in the Second Assessment Report should be used." Thus, the main body of the methodology states that the values in question must be used, while the text in the footnote states that these values may be used. The words "should" and "must" have not, in this instance, been used consistently in the manner required by the VCS Methodology Template.

Client Response: The footnote has been amended to read “must” to be consistent with the main text.

Auditor Response: Through review of the updated methodology, entitled "2015 02 14 VCS MED for BC FCOP", the assessment team can confirm that the footnote below Equation 1 in Section 8 no longer suggests that use of the values from the Second Assessment Report is optional. Therefore, the non-conformity has been resolved.

NCR 2012.137 dated 01-26-2015

Standard Reference: VCS Standard Version 3.4, Section 4.1.7(2)(b)

Document Reference: methodology element (1/20/15)

Finding: The VCS Standard requires that "Where methodologies use default factors and standards to ascertain GHG emission data and any supporting data for establishing baseline scenarios and demonstrating additionality, the following applies… Where the methodology itself establishes a default factor, the following applies... The methodology shall describe in detail the study or other method used to establish the default factor".

The term "default factor", as stated in the Program Definitions V3.5, is very broad: "A parameter value that is specified in a methodology with the intention of standardizing the calculation of net GHG emission reductions and/or removals and providing greater consistency of calculations across projects"

The following default factors, or series of default factors, have been established by the methodology, but the methodology does not describe in detail the study or other method used to establish the below factors:

1. Wood density values, as reported in Table 8 of the methodology

2. Fraction of CO2 remaining in-use and in landfill per year, as reported in Table 9 of the methodology

3. Fraction of CO2 remaining in-use and in landfill per year, as reported in Table 9 of the methodology

4. CH4 emissions by year, in CO2e, as a percentage of the total wood biomass delivered, as reported in Table 14 of the methodology

5. CH4 emissions by year, in CO2e, as a percentage of the total wood biomass delivered, as reported in Table 16 of the methodology

Thus, the methodology does not describe in detail the studies/methods used to establish all default factors established (or "derived") by the methodology. It should be noted that, while the above list constitutes all such default factors known to the assessment team, it is possible that other default factors may be established within the methodology that have not been identified above, but that are required to be documented in the manner described above.

Client Response: Two new appendices have been added to address these issues. Appendix D now addresses the derivation of the wood density factors, while Appendix F now addresses the HWP factors

Auditor Response: Through review of the updated methodology, entitled "2015 02 14 VCS MED for BC FCOP", the assessment team can confirm that, as stated, appendices have been added to address the need to "describe in detail the study or other method used to establish" each of the factors established the methodology.

Through review of Appendix D, the assessment team can confirm that the information therein is sufficient to provide a detailed description of the derivation of the values in Tables 8 and 13, and so the requirement of the VCS Standard has been satisfied with respect to the values in those tables.

Through review of Appendix F, it is clear that an effort has been made to describe in detail the method used to establish the values in Tables 9, 14 and 16. However, the following discrepancies in the information presented were noted by the assessment team:

1. While the Dymond, Skog and Winjum papers are referenced in Appendix F, references to the specific sources of values used within those publications (e.g., the table or paragraph from which values have been sourced) is lacking, such that could be difficult for a reader to locate the values in question.

2. The derivation of the values 46.0% and 34.0%, in Table 33, is not clearly stated within Appendix F.

3. No description is provided of the calculations below rows 50 and 46 within worksheets "Dymond" and "Winjum", respectively, in workbook "Dymond based HWP model for FCOP final 1.1 annotated".

4. No description is provided of the calculations within worksheet "Output sheet" in workbook "Dymond based HWP model for FCOP final 1.1 annotated".

5. The derivation of the values within Table 37 of Appendix F from the values contained within the Winjum paper is unclear.

Because of the discrepancies noted above regarding Appendix F, the non-conformity has not been fully resolved.

Client Response 2: References have been added to the specific tables and pages in the referenced papers. Following the guidance provided by the VCS, the associated model will also be posted along with the Methodology, to complement the information contained in the appendix.

Auditor Response 2: Through review of Appendix F of the updated methodology, entitled "2015 02 20 VCS MED for BC FCOP", along with the workbook entitled "Dymond based HWP model for FCOP final 1.1 annotated" (which, the assessment team understands, will eventually be incorporated into the methodology as posted on the VCS website), it is clear that many of the discrepancies expressed in the finding have been adequately addressed. In particular, the references to the values used are now much better documented within the text of the methodology itself. However, the following discrepancies (i.e., aspects of the establishment of the default factors that are not "described in detail", as required) are apparent, as listed below.

1. The finding initially stated that "The derivation of the values 46.0% and 34.0%, in Table 33, is not clearly stated within Appendix F." The comment in cell D37 of worksheet "Dymond" of workbook "Dymond based HWP model for FCOP final 1.1 annotated" states that the value of 46.0% is derived from "Dymond p 5" and, given the algebra in the calculation in the cell, an attentive reader is provided with just enough information to trace the calculation in question back to the following text in the Dymond paper: "I made an exception for the amount of paper recycled back into paper, of the 50% of disposed paper that was recycled, 8% was estimated to be unrecoverable". However, the sources of the value 34.0% are not as clear. This value is the sum of 30.0% and 4.0%, and the comment in cell F37 states that "additional 4% from recycled per Dymond p 5". However, the assessment team is unable to find the value of 30.0% in Table 6b of the Skog paper (although the assessment team was able to find the value of 31.0% in that table for 2005) and the assessment team was unable to locate the value of 4% within the Dymond paper. Therefore, the methodology does not describe in detail the source of the value 34.0%.

2. Appendix F states the following regarding the source for the value of 24%, as reproduced directly under "Overseas Markets". As stated in cell C5 of worksheet "Winjum" of workbook "Dymond based HWP model for FCOP final 1.1 annotated", and as confirmed by the assessment team, the value in question is derived from the Winjum paper.

3. In step 3 under "Overseas Markets", Appendix F states that "Because the VCS accounts “short-lived” as less than or equal to 3 years, while the Winjum et. al. paper uses 5 years, values found in the Winjum et. al. paper were multiplied by 3/5". This is not an accurate description of how the values in Table 36 were derived. In fact, for each category, the value found in the Winjum paper was subtracted from one and the resulting value was multiplied by 3/5.

4. No description is provided of the calculations below rows 50 and 46 within worksheets "Dymond" and "Winjum", respectively, in workbook "Dymond based HWP model for FCOP final 1.1 annotated", either within that workbook or within Appendix F.

5. No description is provided of the calculations within worksheet "Output sheet" in workbook "Dymond based HWP model for FCOP final 1.1 annotated", either within that workbook or within Appendix F.

7. The derivation of the values in Table 37 of Appendix F is completely unclear, even after the comments in cells D24 and E24 of worksheet "Winjum" of workbook "Dymond based HWP model for FCOP final 1.1 annotated". It is clear that the values attributable to tropical regions from Table 2 of the Winjum paper have been used in the calculation, but the manner in which they have been used is unclear.

Therefore, the non-conformity has not been resolved.

Client Response 3: Item 1 The original total for all destinies of discarded wood products in Skog was 101%! As this is an impossibility, one of the figures had to be decremented by 1%. Because we were incrementing landfill, it made sense that this was the place to recover the difference, as we had no way of knowing where the rounding error in the original paper occurred. A note to this regard has been added in the appendix. Item 2: The source noted has been changed. Item 3 We have altered the explanation in the Appendix to explain this. Item 4 We believe that the level of detail requested goed beyond that which would be expected in a scientific paper, especially with the model provided, and it is entirely reasonable to assume a level of scientific and modelling literacy in anyone who would choose to delve into these sections. The functions in those portions of the worksheets are purely calculations based on the source data. We have added annotations to the model for these cels, but have not added further text to the Methodology appendix. Item 5 This sheet will not be included in the version posted with the VCS, as it is purely an output sheet for convenience in pasting the model outputs into the methodology. The sheet has been removed from the attached version of the model. Item 7 As we discussed, the derivation of these values is shown in the half life workbook that we shared. We have added a note to the appendix to give a little more detail on the derivation of these values

Auditor Response 3: The feedback regarding the findings responses, and the supplementary work products Appendix F in the revised methodology ("2015 02 25 VCS MED for BC FCOP") and the updated workbook ("Dymond based HWP model for FCOP final 1.2 annotated"), is below.

1. The reason for the sourcing of a value of 30%, rather than 31%, from the Skog paper is adequately explained in Appendix F. However, no additional information is provided regarding the source of the value of 4% from the Dymond paper, either in Appendix F or in the workbook. The assessment team has been unable to identify the source of the 4% value through review of page 5 of the Dymond paper. Therefore, this discrepancy has not been fully resolved.

2. Appendix F has been modified to correctly refer to the Winjum paper rather than the Skog paper, and therefore, the discrepancy has been resolved.

3. Appendix F has been modified to correctly describe the approach undertaken. Therefore, the discrepancy has been resolved.

4. Through review of the workbook, the assessment team has confirmed that the workbook has been annotated to a sufficient level of detail to explain the calculations in the rows noted, and the discrepancy has been resolved.

5. The assessment team agrees that the worksheet "Output sheet" does not contain any values that are not contained elsewhere in the workbook, and therefore it is not necessary to include that worksheet in the workbook or provide a description of it. Therefore, the discrepancy has been resolved.

7. While some additional information has been provided in Appendix F regarding the values in Table 37, the information provided is insufficient to transparently describe the source of the values, particularly since the values are hard-pasted into the workbook (i.e., there is no code in the workbook for the reader to trace).

Due to the ongoing discrepancies noted in items 1 and 7 above, this finding remains open. This finding also remains open because the assessment team has discovered that no information has been provided regarding the derivation of the values in Table 11 and 16, by altering the default wood products mixes as contained in cells M6:M9 of worksheet "Dymond" and cells D9:D12 of worksheet "Winjum", respectively, in either Appendix F or the workbook.

NCR 2012.138 dated 02-18-2015

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (2/14/15), Section 9.2

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 9.2 of the VCS Methodology Template requires that the following information be provided in the field entitled "Description of measurement methods and procedures to be applied": "Where values will be based on measurement, include a description of the appropriate measurement methods and procedures that must be applied (eg, what standards or protocols must be followed)." The methodology exhibits the following non-conformities regarding this requirement:

For parameter ALff, t, Section 9.2 of the methodology references VCS-approved module VMD0031 for guidance on the appropriate measurement methods and procedures that must be applied. However, this reference has been added under "Source of data" instead of under "Description of measurement methods and procedures to be applied". In addition, the methodology users the word "should" in referencing the module, which is inconsistent with the requirement of the VCS Methodology Template to provide a "description of the... measurement methods and procedures that must be applied". As set out in the gray instructional text on page 1 of the VCS Methodology Template, the VCS Methodology Template differentiates between "should" and "must" and states that "The methodology must use key words must, should and may appropriately".

For parameter Efm,j, Section 9.2 of the methodology references Section 8.0.2.4 for guidance on the appropriate measurement methods and procedures that must be applied. However, this reference has been added under "Source of data" instead of under "Description of measurement methods and procedures to be applied".

Client Response: We have changed the location of the guidance for Alff,t in Section 9.2. We hav also changed the word 'should' to 'must" in both 9.2 and section 8.0.2.8. The guidance regarding Section 8.0.2.4 for variable Efm,j has been added to the Description of measurement section.

Auditor Response: Through review of Sections 8.0.2.4 and 9.2 of the updated methodology, entitled "2015 02 20 VCS MED for BC FCOP", the assessment team confirmed that (a) all instances of "should" in referring to VCS-approved module VMD0031 have been changed to "must" and (b) the appropriate measurement methods and procedures that must be applied have been specified in the appropriate location for each parameter. Therefore, the non-conformity has been resolved.

NIR 2012.139 dated 02-18-2015

Standard Reference: AFOLU Requirements V3.4, Section 4.5.1

Document Reference: methodology element (2/14/15), Section 8.0.2.7

Finding: The AFOLU Requirements states that "The IPCC 2006 Guidelines for National GHG Inventories or the IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry shall be used as guidance for quantifying increases or decreases in carbon stocks and GHG emissions."

Chapter 11, Volume 4 of the IPCC 2006 Guidelines for National GHG Inventories contains guidance on quantifying emissions from fertilizer use. It is not clear what relationship, if any, exists between the equations in the methodology and the equations in the IPCC 2006 Guidelines. For example, procedures to account for direct nitrous oxide emissions are set out in Section 11.2.1, Volume 4 of the IPCC 2006 Guidelines, but no equation in that section appears to match with the procedures in Section 8.0.2.7 of the methodology regarding direct emissions. The same situation exists regarding Section 11.2.2, Volume 4 of the IPCC 2006 Guidelines, which contains procedures to account for indirect emissions.

Please clarify whether the equations in Section 8.0.2.7 of the methodology are derived from the IPCC 2006 Guidelines and, if so, provide clarification as to how those equations relate to those within the IPCC 2006 Guidelines. If the equations in Section 8.0.2.7 of the methodology have not been derived from the IPCC 2006 Guidelines, please describe the source of the equations in Section 8.0.2.7 and provide a justification that these equations are consistent with the requirements of Section 4.5.1 of the AFOLU Requirements.

Client Response: Notes have been added to the methodology pointing to the equations in the IPCC 2006 which are the sources for the equations in the meth in section 8.0.2.7. In conducting this review, we also identified that equation 15 had been modified by the original meth author to avoid double counting of direct and indirect emissions. A review of the primary data on which the IPCC emission factors were based indicated that there was no double counting issue, and the equation has been changed (elimination of the fracgasf and fracgasm adjustments) to match the findings in the original data.

Auditor Response: Through review of the updated methodology, entitled "2015 02 20 VCS MED for BC FCOP", and the comments therein, the assessment team can confirm that the relationship between the equations in Section 8.0.2.7 of the methodology and Chapter 11, Volume 4 of the IPCC 2006 Guidelines for National GHG Inventories. However, some lack of clarity remains regarding this relationship, as described below.

While the assessment team understands that Equation 15 of the methodology is adapted from Equation 11.2 of the IPCC 2006 Guidelines, it is unclear why the parameters F(CR) and F(SOM) and the variables N2O-N(OS) and N2O-N(PRP) have been omitted. Please clarify why these parameters variables/variables have been omitted and justify why their omission is consistent with the principles of conservativeness and/or accuracy (with "conservativeness" and "accuracy" being described in Section 2.4.1 of the VCS Standard).

Similarly, please explain and justify (using the criteria expressed above) the omission of the parameter F(PRP) from Equation 19 of the methodology (as compared with Equation 11.9 from the IPCC 2006 Guidelines) and the omission of the parameters F(PRP), F(CR), F(SOM) from Equation 20 of the methodology (as compared with Equation 11.10 from the IPCC 2006 Guidelines).

Client Response 2: The context for the adaptation of these equations is that this is a forestry methodology, not an agriculture methodology. The only context under which agricultural practices could occur within a project area would be in the case of a REDD project, where the baseline was conversion to agricultural use. Under this scenario it is conservative to omit accounting of agricultural emissions from N processes. For Equation 15: F(CR) is a crop residue emission. As crops would only occur under the baseline, it is conservative to omit this. F(SOM): this emission occurs as result of losses of SOM due to "changes in land use or management". Because the projects in question are forestry projects, such changes are only likely under a conversion baseline scenario. Under any project scenario is is very unlikely that material losses of, or reductions in gains of, SOM would increase under the project scenario as compared to the baseline scenario. Even were such an increase to occur, due to specific and unforseen circumstances, it would certainly fall within the de minimis cut-off, given the 60 – 100+ year rotation inherent in BC forestry, which minimizes the potential for management impacts N2O-N(OS): This variable applies to "managed organic soils". This could only occur under a conversion baseline, and it is therefore conservative to omit. N2O-N(PRP). This variable applies to "urine and dung inputs to grazed soils". As above, a material increase in this could only occur under a conversion baseline, and it is therefore conservative to omit. For Equations 19 and 20: F(PRP): as above. Material increase in "amount of urine and dung deposited bu grazing animals on pasture, range and paddock" could only occur under a baseline scenario, and it is therefore conservative to omit. F(CR): as above. Crop residue could only occur under the baseline scenario, and it is therefore conservative to omit. F(SOM): as above. Please not that the definition of F(Som) for this equation in the IPCC 2006 document is different than that used in equation 11.2, as it requires leaching/run-off to occur. However, the same discussion applies as for F(SOM) above.

Auditor Response 2: Through review of the response provided, the assessment team has reached the conclusion that the variables and parameters in question relate to emissions that would, under all foreseen circumstances, be greater under the baseline scenario than under the project scenario. Therefore, in accordance with the principle of "conservativeness" as described in Section 2.4.1 of the VCS Standard, the assessment team agrees that exclusion of the variables and parameters in question is consistent with the VCS Rules. Therefore, the information request has been satisfied.

NCR 2012.140 dated 02-24-2015

Standard Reference: AFOLU Requirements V3.4, Section 4.5.1

Document Reference: methodology element (2/20/15), Section 8.0.2.7

Finding: The AFOLU Requirements states that "The IPCC 2006 Guidelines for National GHG Inventories or the IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry shall be used as guidance for quantifying increases or decreases in carbon stocks and GHG emissions."

In response to NIR 2012.139, it has been clarified that Equations 11.2, 11.9 and 11.10 from Chapter 11, Volume 4 of the IPCC 2006 Guidelines for National GHG Inventories has been used as guidance for quantifying emissions from fertilizers. However, it should be noted that all of the equations used as guidance by the methodology produce output in units of kg N2O–N/yr. Below each equation in the IPCC 2006 Guidelines is an instruction to convert from N2O-N to N2O using the conversion factor of 44/28. On the other hand, Equations 15 and 18 of the methodology produce output that is initially in units of metric tonnes N but is converted to metric tonnes N2O using the conversion factor 44/14. Setting aside the difference (immaterial to this finding) between the unit of kilograms, as used by the IPCC 2006 Guidelines, and the unit of metric tonnes, as used by the methodology, a very real difference exists between the unit of N2O-N (as used by the IPCC 2006 Guidelines) and the unit of N2O (as used by the methodology). As described above, a different factor is used to convert from N to N2O than is used to convert from N2O-N to N2O. Since the emission factor parameter EF1 is in units of unit N2O-N / unit N (consistent with the units given in the IPCC 2006 Guidelines), the units do not cancel out correctly in Equation 15. A similar situation exists with respect to emission factor parameters EF4 and EF5 in Equation 18. Thus Equations 15 and 18 are inconsistent with the guidance of the IPCC 2006 Guidelines and are also mathematically incorrect.

Client Response: It is clear that the original author was thinking of N, not N2. We will make the changes.

Auditor Response: Through review of Section 8.0.2.7 of the updated methodology, entitled "2015 02 25 VCS MED for BC FCOP", the assessment team can confirm that the default value suggested for parameter MW(N) has been changed to 28, and the description has been changed to "Molecular weight of N2", which is sufficient to resolve the discrepancy with respect to the IPCC 2006 Guidelines for National GHG Inventories.

NCR 2012.141 dated 03-12-2015

Standard Reference: Methodology Approval Process V3.5, Sections 3.2.2 and 5.2.1; VCS Methodology Template V3.3

Document Reference: methodology element (2/25/15), Section 9.2

Finding: The Methodology Approval Process requires that "Methodologies and methodology revisions shall be prepared using the VCS Methodology Template and modules and tools shall be prepared using the VCS Module Template. All instructions in the templates must be followed." Section 9.2 of the VCS Methodology Template requires that the following information be provided in the field entitled "Calculation method ": “Provide any calculation method, including any equations, used to establish the data/parameter.” The field in question is missing from all parameter tables in Section 9.2.

Client Response: [A response to this finding was provided outside the cover of the findings workbook.]

Auditor Response: Through review of Section 8.0.2.7 of the updated methodology, entitled "2015 03 12 VCS MED for BC FCOP 2", the assessment team can confirm that the required field has been added and corresponding information provided, where appropriate, for each parameter in Section 9.2. Therefore, the non-conformity has been resolved.

APPENDIX B

An explanation of whether and how the developer has taken due account of all comments received during the public stakeholder consultation is contained within the below table. “We” should be read as shorthand for “the assessment team” within the below table. It should be noted that all language under “Developer’s Response” is a verbatim transcription of responses provided by the tool developer.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Qinglin Li, Ministry of Forests	Why it repeats: i.e., 5.2.4 vs 5.3.1, this why it creates the document too long! P90: should delete: 'CBM-CFS3 is used for national-level and forest management unit-level forest carbon accounting in Canada. FORECAST has also been pre-approved for use in B.C. Both of these models have been parameterized using field data from B.C. forest ecosystems.' Because, none 'pre-approved' any models, and no context of 'pre-approved' either, namely 'pre-approved' for what useage?	1) Repetition: The observation is correct, but does not materially affect the methodology. No action is required. 2) The wording regarding CBM-CFS3 and FORECAST is clumsy: The observation may be correct, but does not materially affect the methodology. No action is required.	No VCS rules explicitly require brevity of methodology documentation, and therefore the assessment team agrees that the comment, as posed, was insignificant. However, through deletion of extraneous material and other revisions, the methodology has reduced in size during the assessment, from almost 200 pages to just under 140 pages. In the judgment of the assessment team, the methodology is also easier to follow and use than the methodology as originally submitted. The comment regarding "pre-approved" models was significant at the time that it was issued, but the methodology no longer indicates that any models are "pre-approved" (thus resolving the concern). Instead, the methodology contains, in Section 8.0.1.1.2, a list of appropriate criteria for selection of models.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Qinglin Li, Ministry of Forests	The leakage factor is well addressed in this document but permanence is mentioned in 'reversal' section. That leakage addresses spatial scale, while permanence addresses temporal scale (how long the carbon credits/offsets should remain in the 'sink'?). Thus, the permanence should be required in the calculation explicitly. Once, only once the reversal event happens the discount method shall apply to discount the efforts, but not for the projects in a short period (i.e., 30 years).	The issues regarding permanence are managed through the VCS Non-Permanence Risk Assessment and VCS Pooled Buffer Account. The methodology references these tools but essentially permanence is programmatically managed by the VCS. No action is required.	The comment was insignificant, as permanence is handled on a programmatic level under the VCS rules, and is therefore outside the scope of any methodology. However, during the assessment process, the procedures regarding permanence, as set out in the methodology, were substantially modified to achieve full compliance with the assessment criteria.
Bryan Foster, ERA	The carbon benefit of afforestation or reforestation at northern latitudes must be discounted due to the loss of albedo. Bala, G. et al. 2007. Combined climate and carbon cycle effects of large-scale deforestation. PNAS 104:6550-6555. Betts, R.A. 2000. Offset of the potential carbon sink from boreal forestation by decreases in surface albedo. Nature 408:187-190.	This issue has not been previously addressed in a methodological context. Although the albedo effect can be estimated, the thrust of global warming action under VCS and other standards is reduction in GHGs and their insulative effects. Because albedo effects are local and seasonal, the impact of these effects on global climate is neither simple nor uniform. More science is needed to allow accurate accounting of albedo effects within a GHG program. No action is required.	The comment was insignificant, as the "discounting" suggested by the commenter is most appropriately handled at the program level and is outside the scope of any one methodology. No requirements of the AFOLU Requirements currently require said discounting, and (in the judgment of the assessment team) Section 4 of the AFOLU Requirements would be the appropriate location for any such requirements. The commenter is encouraged to address the comment to VCSA personnel.
Bryan Foster, ERA	Please clarify by changing to 'include only' or 'include among others' (depending on intent).	Comment is valid. To clarify we will change "Applicable project types include..." to "Applicable to..."	This comment was significant at the time that it was issued, but has been resolved. The methodology now contains, on the cover page, a clear and exhaustive list of those project categories for which it is applicable.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	AFOLU 4.1.3 Where a methodology combines AFOLU project categories, the methodology shall adhere to all sets of requirements pertaining to each and every project category covered, either separating activities, or where activities cannot be separated, taking a conservative approach to each requirement.	Quoted text is not relevant to this paragraph, which is referencing differences with existing methodologies only. No action is required.	The comment was not significant, insofar as it did not pertain to a specific portion of the methodology. However, the comment was helpful in pointing out to the assessment team an applicable requirement of the AFOLU Requirements. The assessment team has ensured that the requirement in question was appropriately complied with.
Bryan Foster, ERA	What is the process to reconcile public comments from VCS methodology review with comments from public review of draft protocol posted by BC ministry independently?	This comment refers to the FCOP stakeholder engagement process, not the VCS public review. The comment does not materially affect the methodology. No action is required	The comment was insignificant, as the "comments from public review of draft protocol posted by BC ministry independently" are outside the scope of the VCS methodology approval process.
Bryan Foster, ERA	This summary is fairly vague and nonconventional. A more conventional summary provides a table that lists sources of gases, types of gases (Co2, CH4, N2O), whether they are included/excluded, and a justification/explanation	Comment is correct. Information in the section could be summarized in a tabular format, which would not be a material change to FCOP, and would be clearer. We will include a table that better summarizes the eligible GHGs	The comment was insignificant, as the type of information requested is not required, by the VCS Methodology Template, to be located in Section 2. The requested information is, per the VCS Methodology Template, included in Section 5 of the methodology.
Bryan Foster, ERA	Ex post crediting should be mentioned here.	Ex post crediting is programmatic within the VCS and not necessary to include in the methodology. No action is required.	The comment was insignificant, as the type of information requested is not required, by the VCS Methodology Template, to be located in Section 2. The methodology does contain a full suite of procedures for ex-post quantification of GHG emission reductions or removals.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	The term "are capable of achieving" is problematic in terms of A/R eligiblity as the definition must provide clear guidance as to whether remotely sensed images classify as forests or not at a particular time.	Interpretation of the definition of "forest land" within a remote sensing context should not be part of the definition. The phrase "are capable of achieving" is consistent with the UNFCCC definition which uses the phase "has the potential to reach". The UNFCCC definition is accepted under the VCS definition of a forest. No action is required.	The comment was insignificant, as the definition of forest land, in Section 4 of the methodology, is consistent with the definition used by Canada for reporting under the United Nations Convention on Climate Change, as is allowed under the definition of "forest" within the Program Definitions (see Section 3.5.2 below for further discussion).
Bryan Foster, ERA	Is there a geographic constraint as well either to B.C. or all Canadian provinces or temperate and boreal forest types? this element or lack thereof should be explicitly mentioned.	This comment is relevant. While the methodology references the applicable geographic region in the title and other sections it is never explicitly required by the methodology. We will include a bullet on page 13 that says "are located in the province of British Columbia"	The comment was significant at the time it was issued, but has been adequately addressed through the introduction of the applicability condition mentioned in the methodology developer's response.
Bryan Foster, ERA	Definitions must be reconciled with VCS AFOLU definitions for this methodology to be considered under VCS. Afforestation is defined as activity on land that has been in a non-forested state for 50 years.	The definition of "afforestation" used in this methodology adheres with the definition of "reforestation" used by the VCS. Afforestation and reforestation have the same requirements under the project category ARR. We will include a bracket next to Afforestation stating "(equivalent to VCS project category Afforestation, Reforestation and Revegetation (ARR))" and a footnote justifying us maintaining the use of the term "afforestation" in this context, because it is used within British Columbia's forest inventory legislation.	The comment was significant at the time it was issued, but all definitions have since been revised, where necessary, for full consistency with those in the VCS rules. Specifically, the definition for "Afforestation, Reforestation and Revegetation (ARR)", within the methodology, has been revised to state that "to be considered “afforestation” the land must have been deforested for at least 50 years".

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	The reforestation eligibility criteria is currently not conforming to VCS AFOLU requirements which state in section 4.2.1 "The project area shall not be cleared of native ecosystems within the 10 year period prior to the project start date"	The requirements in this methodology for "reforestation" align with the VCS requirements for "Low-Productive to High-Productive Forests". We will include a bracket next to Reforestation stating "(equivalent to VCS project subcategory Low-Productive to High-Productive Forest (LtHP))" and a footnote justifying us maintaining the use of the term "reforestation" in this context, because it is used within British Columbia's forest inventory legislation.	The comment was significant at the time it was issued, but has been adequately addressed through the introduction, in Section 4 of the methodology, of an applicability condition for ARR project activities stating that "Project proponent must demonstrate that the project area has not been forest land for at least 20 years prior to project commencement". It is no longer implied that the project area may be cleared of native ecosystems within the 10 year period prior to the project start date.
Bryan Foster, ERA	This statement needs to be clarified if it is meant to have any significance. How different must activities be relative to those that took place earlier? Different spacing, different species, different management objectives, all or any?	The comment is does not materially affect the methodology, as the later sentences specify "continuation", the meaning of which should be clear. No action is required.	The comment was significant at the time it was issued, but has been adequately addressed through removal of the text in question.
Bryan Foster, ERA	I strongly suggest harmonizing all of these definitions with VCS standard definitions, by which I mean that the VCS definitions should be used without modification. If any modification is necessary from the authors perspective, the modification should be explicit so they can then be reviewed by public and auditors.	We will include a bracket next to each of the FCOP terms stating the equivalent VCS project categories or terms and a footnote justifying us maintaining this term because it is used within British Columbia's forest inventory legislation	The comment was significant at the time it was issued, but all definitions have since been revised, where necessary, for full consistency with those in the VCS rules.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	legally sanctioned logging is typically an eligibility constraint on IFM. Otherwise there is a question whether illegal degradation is included as an eligible activity.	The first bullet under General Forest Project Eligibility Criteria requires "all projects must follow applicable legislation and regulations for forest and land management in BC." Therefore legally sanctioned logging is an eligibility constraint and the comment is irrelevant. No action is required.	The comment was insignificant, as the question of illegal project activities has been squarely dealt with by Section 3.1.3 of the AFOLU Requirements. However, the requirement for legality is further reinforced through the applicability condition quoted in the methodology developer's response.
Bryan Foster, ERA	Please specify it is included under IFM.	Comment is incorrect. Conservation/Avoided Deforestation aligns only with APD (Avoiding Planned Deforestation) because it requires conversion to non-forest land use which is not eligible under IFM. We will include a bracket next to Conservation / Avoided Deforestation stating "(equivalent to VCS project subcategory Avoided Planned Deforestation (APD))" .	The comment was significant at the time it was issued, but has been addressed through a substantial revision to Section 4 of the methodology (and removal of the text in question), which has resulted in a significant improvement in clarity and full conformance with the assessment criteria.
Bryan Foster, ERA	I have not seen the issue of double-counting across scopes of regulated entities (for BC in particular) widely discussed. This issue could be important for fertilizer production, transportation, and milling, to name a few examples.	Issues of double counting are managed programmatically by the VCS Standard. No action is required.	The comment was insignificant, as double-counting is handled on a programmatic level under the VCS rules, and is therefore outside the scope of any methodology.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	This statement is not factually correct. IFM can result in activity shifting land use change internally by a landowner increasing land use conversion for other properties.	The leakage example outlined in the comment is already covered under internal land use shifting leakage, but that category is identified as irrelevant to IFM under the current requirements. We will update Table 8 and Table 14 to recognize that land use shifting leakage is potentially relevant for IFM projects.	The comment was significant at the time it was issued, but has been addressed through a substantial revision to the procedures for leakage accounting (including a removal of the distinction between "internal" and "external" land-use shifting leakage). The procedures for leakage accounting are significantly clearer and the methodology no longer implies that activity-shifting leakage does not occur in IFM projects.
Bryan Foster, ERA	The term "market leakage" employed by VCS should also be used here.	The requirements laid out in this methodology under external harvest shifting leakage satisfy the requirement for market leakage and therefore the terms align. No action is required.	The comment was significant at the time it was issued, but has been addressed through the adoption of the term "market leakage", as suggested.
Bryan Foster, ERA	This is a highly speculative statement without any evidence to provide basis in fact and therefore does not belong in a methodology.	The comment is correct this statement is not a methodological conclusion. We will remove the bullet from the methodology	The comment was significant at the time it was issued, but has been addressed through the removal of the text in question from the methodology.
Bryan Foster, ERA	This issue of regulatory scope does not apply to this methodology as used under VCS. Market effect leakage must be addressed by this methodology.	The comment is correct this statement is not a methodological conclusion. We will remove the bullet from the methodology	The comment was significant at the time it was issued, but has been addressed through the removal of the text in question from the methodology.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	Baseline environmental practices not falling below common practice is specifically mentioned in VCS AFOLU 4.4.5 and should be re-itinerated here.	This comment is irrelevant here. The methodology does meet the requirements of AFOLU 4.4.5 by requiring projects to "assess whether or not in the absence of the project, the land would continue to be managed according to historic forest management practices by considering at minimum common forest management practices." No action is required.	The comment was significant at the time it was issued, but the methodology currently contains procedures for determination of the baseline scenario that conform fully to the requirements of what is now Section 4.4.4(3) of the AFOLU Requirements. Section 7.1.2 of the methodology states that "For other project types, the baseline scenario must reflect at minimum the local common practices for areas comparable to the project area, and must not result in projected baseline GHG emissions from the project area greater than those that would occur under the relevant local common practice."
Bryan Foster, ERA	This identification of alternatives to the project scenario and additionality approach should not be unique to avoided conversion but should apply to all forest carbon projects. A more common section for selecting areas unique to avoided deforestation involves a selection of reference areas which typically must be in the same vicinity, based upon commonalities of geophysical and ecological commonalities, legal requirements, as well as agents and drivers of conversion.	The comment correctly identifies that the requirements of the WRI/WBCSD project-specific barriers test approach should apply to all applicable project types. However the other sections of the methodology establish criteria for baseline setting and additionality that are equivalent, although they do not contain this specific reference. No action is required.	The comment was significant at the time it was issued, but has been addressed through a substantial revision to the procedures for determination of the baseline scenario and demonstration of additionality. As discussed more fully in Section 3.8 below, the methodology now contains a stepwise procedure that must be employed for all project types (however, a reference area approach has not bee employed, as discussed immediately below).

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	VCS AFOLU 4.4.6 "The baseline for REDD projects is comprised of a land-use and land-cover (LU/LC) change component and a carbon stock change component." Projections may be employed but they are also typically combined with reference areas or comparison approaches to indicate the validity of the projections over time.	This comment is addressed in the final bullet on page 72 of the methodology requiring the project to consider "development activities undertaken with the geographical region that includes the project". No action is required.	The comment was insignificant, as reference-area-type approaches, while frequently utilized in methodologies for Avoided Unplanned Deforestation and/or Degradation (AUDD) projects, are not required in methodologies for Avoiding Planned Deforestation and/or Degradation (APDD) projects. The assessment team did ensure that all applicable requirements for APDD projects, as set out in the AFOLU Requirements, were taken into account.
Bryan Foster, ERA	Performance benchmark and project based historical approaches are the only two eligible baseline approaches for IFM under VCS AFOLU 4.4.5. Please modify the projection-based approach in regards to performance benchmarks. A comparison based approach is not among the VCS endorsed IFM baseline approaches.	This comment is incorrect because the comparison based approach outlined in this methodology would be aligned with VCS requirements in AFOLU 4.4.5 "where the project proponent (and implementing partner, if applicable) is a new owner or management entity with no history of logging practices in the project region, the baseline shall reflect the local common practices and legal requirements." No action is required.	It may be noted that the text referred to in the comment is, as of the issuance of this report, contained within Section 4.4.4 of the AFOLU Requirements. The comment was insignificant, as the text quoted in the methodology developer's response does establish that a comparison-based approach can be undertaken as part of a project method for baseline establishment. It may also be noted the section in question has changed substantively since issuance of the comment, which may have resolved the commenter's concern.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	I strongly suggest that this section be more closely aligned with the CDM methodological tool for the demonstration and assessment of additionality, V 5.2, accepted by VCS.	The requirements laid out in this methodology do address the VCS Standard's additionality requirements considering regulatory surplus, implementation barrier and common practice barriers. The methodology requires regulatory surplus. The financial barriers described in the methodology correspond to VCS's investment barriers and the non-financial barriers correspond to VCS's technical or institutional barriers. The methodology considers common practice barriers in the requirements for baseline selection. No action is required.	The comment was insignificant, because (1) to the best knowledge of the assessment team, the "CDM methodological tool for the demonstration and assessment of additionality, V 5.2" is not actually accepted by the VCSA at a programmatic level (although it may be used by individual methodologies approved for use under the VCS Program) and (2) the assessment criteria do not necessarily require procedures for demonstration of assessment of additionality to mimic those of any particular tool (including the "Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities", which is accepted by the VCSA at a programmatic level). The assessment team did ensure that all relevant VCS requirements for the demonstration of additionality were complied with.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	The methodology should require an error such as 90% +/-10 that should be used in terms of field sampling 0.5% of project area to confirm model accuracy, to provide some quantitative guidelines to project proponents.	The approach outlined in 8.1.1.1b relies on existing VRI (Vegetation Resource Inventory) data, which is based on remote sensing analysis calibrated through extensive field sampling, plus well calibrated existing models for forest stand behaviour. The methodology provides sufficient details to ensure modeling results are conservative and substantiated. Directly requiring field sampling of 0.5% of the project area would make this approach no different from 8.1.1.1a, Field Sampling Method, and is excessively conservative in light of the quality of inventory and modeling available. Using a higher level of field sampling would ignore the contribution of the modeling and inventory information available in BC and effectively counteract the benefit of having these tools. No action is required.	The comment was insignificant, because the VCS rules do not require use of a confidence interval approach in all circumstances. Rather, Section 4.1.4 of the VCS Standard requires that this approach be adopted "Where applicable". In the professional judgment of the assessment team, it would be infeasible to require construction of a procedure for error propagation when assessing the combination of uncertain inventory data and uncertain modeling output. Section 8.0.1.1.1 does contains appropriate procedures for addressing uncertainty when "Option B" is applied (among them, the requirement to "ensure that reported changes in forest carbon pools between project and baseline are conservative").

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	Please make a note of the requirements in section VCS AFOLU 4.5.3 regarding long term average GHG accounting under harvesting. Note that long term does not have the same meaning under VCS:For ARR or IFM projects undertaking even-aged management, the time period over which the long-term GHG benefit is calculated shall include at minimum one full harvest/cutting cycle, including the last harvest/cut in the cycle. For example, where a project crediting period is 40 years and has a harvest cycle of 12 years, the long-term average GHG benefit will be determined for a period of 48 years.	This comment correctly states that the methodology does not use the exact VCS terminology, but the approach described in this methodology does align with the intensions of AFOLU 4.5.3 to ensure that "the maximum number of GHG credits available to projects shall not exceed the long-term average GHG benefit." No action is required.	The comment was significant at the time it was issued, but the methodology currently contains, in Section 8.4.2, a procedure for the quantification required under what is currently Section 4.5.5 of the AFOLU Requirements.
Bryan Foster, ERA	How will this 100 year timeframe be reconciled with the VCS crediting period of 20 years and project period of 30 years minimum? This reconciliation should be explicit.	This comment is incorrect because VCS requirements do align with a 100 year definition of permanence. No action is required.	The comment was significant at the time it was issued, as it pointed to language in the methodology that threatened to conflict with programmatic approaches undertaken by the VCSA to address non-permanence risk. This has been addressed through modification of the language in question such that it does not conflict with the VCS rules.
Bryan Foster, ERA	How were the provincial base case external harvest shifting leakage estimates derived?	The commentor missed the fact that the requested information is provided in Appendix C. However, a change is required because the first sentence of page 138 refers to Appendix D when it should reference Appendix C, which was the probable cause of the confusion.	The comment was insignificant, because a description of derivation of the provincial base case external harvest shifting leakage estimates is provided in what is currently Appendix A of the methodology.

Commenter	Comment(s)	Developer's Response	Assessment Findings
Bryan Foster, ERA	All text that doesn't apply to the VCS tool should be excluded. You should specify the degree of correspondence with VCS non-permanence risk tool, including buffer withholding and release and how this should be calculated based on VCS text.	The issues regarding permanence are managed through the VCS Non-Permanence Risk Assessment and VCS Pooled Buffer Account. The methodology references these tools but essentially permanence is programmatically managed by the VCS. No action is required.	The comment was significant at the time it was issued, but the section formerly known as Section 10.0 has been deleted from the methodology, and therefore the comment is no longer relevant.