



Verification Report

Niagara Escarpment Forest Carbon Project

(NEFCP)

Report No 1, Version 1.0

Project developed by:

Escarpment Biosphere Conservancy
503 Davenport Road, Toronto, Ontario, M4V 1B8

Verification conducted by:

Carbon Consult Group Inc.
439 Galt Street, Montreal, Quebec, H4G 2P5



Table of Content

1	Verification Objective and Details.....	3
1.1	Project title	3
1.2	Date when the project began	3
1.3	Verification Site Visit.....	3
1.4	Expected lifetime of the project	3
1.5	Type of greenhouse gas emission reduction or removal project.....	3
1.6	Verification of appropriateness of the methodology being used for the project..	4
1.7	Legal land description of the project.....	4
1.8	Ownership verification	4
1.9	Reporting, monitoring, and verification details	5
1.10	Level of assurance and verification summary	5
1.11	Roles and responsibilities.....	5
2	Verification Criteria	6
2.1	Scope	6
2.2	Materiality	7
3	Verification approach and Plan.....	8
3.1	Preliminary review	8
3.1.1	Risks identification	8
3.1.2	Conflict of interest	9
3.2	Verification approach.....	9
3.3	Assessment of GHG data and information.....	10
3.3.1	Desktop review	10
3.3.2	Site visits.....	11
3.3.3	Quantitative review	12
3.4	ISO 14062-2 Requirements.....	14
3.4.1	Eligibility requirements	14
3.4.2	Baseline scenario and additionality	14
3.4.3	Permanence and risk mitigation.....	15
3.4.4	Leakage	15
3.4.5	Uncertainty.....	16
3.4.6	GHG Emissions Removal Assertion.....	16
3.5	Verification findings	16
3.6	Verification Results and Conclusions	16
3.7	Verification Records	16
3.8	Facts discovered after the verification	16
4	Verification Statement	17
5	Conflict of Interest review checklist.....	19



1 VERIFICATION OBJECTIVE AND DETAILS

Carbon Consult Group Inc. (“CCG”) was hired by Escarpment Biosphere Conservancy Inc. (“EBC” or “the Project Proponent”) to perform the verification of the GHG Report and GHG Assertion for the GHG project entitled “Niagara Escarpment Forest Carbon Project (NEFCP)”.

The prime objective of the verification is to confirm to EBC that, according to the procedures set out in ISO 14064-3, data, controls and processes supporting the emission removal calculations as presented in the GHG Report and corresponding GHG Assertion are in compliance with ISO 14064-2:2006 requirements. In addition, the verification intends to provide EBC that NEFCP contains no material discrepancy and that it meets and is the requirement of the Canadian Standards Association (CSA) GHG CleanProjects® Registry.

1.1 Project title

The project title is “Niagara Escarpment Forest Carbon Project (NEFCP) - Preserving forest integrity in the Niagara escarpment region”.

1.2 Date when the project began

The project Report states that the project started in 1998, date of the first land acquisition by EBC.

1.3 Verification Site Visit

The site visits took place from April 26th to April 27th, 2017. On the April 26th, CCG visited a total of 20 parcels gathered in 15 sites. The visit was organized by Robert Garnett. On the April 27th, CCG reviewed documentation and interviewed Morgan Roblin and Robert Garnett at EBC’s offices located at 503 Davenport, Suite 2201, Toronto, Ontario, M5B 2L7. The details of the site visits are available upon requests in the document “Sampling plan and observations”.

1.4 Expected lifetime of the project

The expected lifetime of the project is 50 years after the first acquisition of a lot, which brings the end of the crediting period to December 31st, 2048.

1.5 Type of greenhouse gas emission reduction or removal project

The project is an “Improved Forest Management – Logged to Protected Forest” (IFM-LtPF) project. Indeed, CCG observed during the site visits that:

- There were logging activities on certain sites prior to their acquisition by EBC;
- There are logging activities on sites not belonging to EBC, but adjacent to ENC owned sites.

CCG confirms that it has the expertise to verify such project, complete the GHG Report and the GHG Assertion.



1.6 Verification of appropriateness of the methodology being used for the project

For the quantification methodology, the Project Proponent uses *VCS-VM0012 Improved Forest Management in Temperate and Boreal Forests (LtPF), v1.2*¹ (the “VCS-VM0012 methodology”). CCG considers that this methodology as suitable for the project. In addition, EBC justified that other methodologies were found less appropriate than VCS-VM0012 methodology for the GHG Project (see Non-Conformity Report #1 in Appendix B).

The VCS-VM0012 methodology is applicable to a project that meets eight criteria² listed in Appendix A. The GHG Project was reviewed against these eight criteria and CCG confirms that the GHG Project meets all criteria, therefore confirming that the methodology is applicable to the project.

1.7 Legal land description of the project

EBC parcels are identified by their legal description which provides the Part Lot number, the Concessions number, the name of the municipality, the name of the county, and the Province (Ontario for all of them). This information is indicated on the Certification of registration that EBC keeps at their office. CCG reviewed a sample of seven ownership titles and confirms that the legal description provided on the Certification of registration is identical to the information provided in the Excel document “EBC Property Details – April052017.xls”.

The GHG Report contains the coordinates (latitudes and longitudes) of all the parcels in Schedule 1 of the document.

1.8 Ownership verification

In the case of the Niagara Escarpment Forest Carbon Project, CCG verified that EBC has the ownership of the project and of the GHG emissions removals. For that purpose, EBC confirmed to CCG that the quantification of GHG emissions removal were done on and only on parcels belonging to EBC. Therefore, the ownership of the GHG emissions reduction was clearly established.

It must be noted that there are parcels not owned by EBC, but for which EBC has a conservation agreement with the owner. As verified by CCG, these parcels were not included in the project.

During the visit at EBC office (see site visits), CCG requested to see the Certification of registration of predetermined parcel. EBC extracted from their files the Certification of registration (paper version) for six of the seven parcels requested and showed them to

¹ VCS-VM0012 Methodology, V1.2, <http://database.v-c-s.org/methodologies/improved-forest-management-temperate-and-boreal-forests-ltpf-v12>

² VCS-VM0012 Methodology, V1.2, chapter 4 “Applicability conditions”



CCG on the same day. The seventh one was sent by email (electronic version) the following day.

1.9 Reporting, monitoring, and verification details

As mentioned in the GHG Report, only ex-post emissions removal are verified. This is the first GHG Report and the first verification report and there is currently no plan to update the GHG Report, the GHG project documentation or reporting to GHG CleanProjects®, although they could be updated in the future.

Nevertheless, as part of the permanence requirement, it is necessary to demonstrate that measures are in place to mitigate the risk of carbon sequestration reversal. During the site visit of April 26th, 2017, EBC presented the process by which volunteers regularly inspect the various parcels (described in more details in section XXX).

This verification report is for the use of EBC, the public, and potential buyers of VERs. It is intended to be publicly posted on GHG CleanProjects® Registry. The GHG Report that was verified is version 1.0, dated April 28th, 2017.

The verification report is published on May 6th, 2017, in its version 1.0.

1.10 Level of assurance and verification summary

The GHG Project, its corresponding GHG Report and GHG Assertion(s) are fair and reasonable in accordance with the verification criteria in all material respects. CCG confirms that the GHG emission removal as presented in Table 4 are verified to a reasonable level of assurance.

1.11 Roles and responsibilities

Verification expert:

Pascal Genevieve, M.Sc. GHG-IQ, Lead verifier.

(Pascal.genevieve@carbonconsultgroup.com / 514.797.6158)

Pascal Genevieve was trained to CSA ISO 14064-3 in 2014. He is also a CSA certified GHG – Inventory Quantifier. Mr. Genevieve has used various quantification methodologies for quantifying GHG emissions for mandatory reporting. He has been involved in projects generating carbon credits for both voluntary and compliance markets.

Project proponent representative

Robert (Bob) Barnett (Escarment Biosphere Conservancy)

503 Davenport Road, Toronto, Ontario, M4V 1B8

rbarnett@escarpment.ca, / 416-960-8121

Authorized project contact

Dan Fraleigh (Carbonzero)

250 Yonge Street, Suite 2201, Toronto, Ontario, M5B 2L7

dan.fraleigh@carbonzero.ca / 416-640-8900



Person in charge of the quantification services

David Beaudoin, B.Eng. EP(GHG)
david.beaudoin@nel-i.com

Person in charge of the monitoring activities

Guillaume Beaudette, P. Eng.
guisbeaudet@gmail.com

2 VERIFICATION CRITERIA

The verification criteria are the following:

- the Project and GHG Report will be verified with respect to the requirements and principles of ISO 14064-2,
- the data supporting the GHG calculations have sufficient controls to be considered fair and accurate and without material discrepancy;
- the calculations supporting the GHG assertion are sufficiently accurate to be considered fair and accurate and without material discrepancy;
- there are no competing claims to the ownership of the GHG Project and the resulting emission reductions or removals;

2.1 Scope

The scope of the verification includes the review of the project boundaries; the GHG project, quantification methodology and analysis, and its baseline scenario; the physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs (SSR); types of GHGs; and the time period.

The scope is summarized in Table 1.



Table 1: Scope of the project

Project boundaries	The Project boundaries include the forest cover for all sites that belong to EBC, except the ones on Manitoulin island.
GHG project	EBC's conservation activities protects unlogged forest (project scenario) that would otherwise be logged (baseline scenario). By eliminating harvesting for timber or other land use, biomass carbon stocks are protected and can increase as the forest continues to grow.
GHG emission removal quantification methodology and analysis	The analysis is based on VCS-VM0012 Improved Forest Management in Temperate and Boreal Forests (LtPF), v1.2
Baseline scenario	The baseline scenario consists of the continuation of the Pre Project Land Use, i.e. regular commercial harvest.
Physical infrastructure, activities, technologies and processes	There is no specific infrastructure or technologies as part the GHG project as it is land conservation. The processes of interest include the activities linked to data collection and parcels inspection and signs installation. These activities are included in the verification
GHG sources, sinks and/or reservoirs (SSR)	Above ground tree biomass, Aboveground non-tree biomass, Belowground Biomass Pool; Dead Wood Pool
Types of GHGs	CO ₂
Time period	From January 1 st , 1999 to December 31 st , 2016

2.2 Materiality

Materiality is the concept that errors, omissions and misrepresentations could affect the GHG reduction assertion and influence the intended users' decisions (ISO 14064-3:2006). The materiality threshold was +/- 5% (95% accuracy) and was evaluated based on the GHG Assertion and Report's compliance to the ISO and CSA requirements, as well as the quantification of net GHG emission reductions/removals. If the GHG assertion and Report did not adhere to the requirements, or omissions, errors, or misrepresentations were identified in the quantification of the net GHG emissions reductions/removals, project proponents were given the opportunity to correct the non-conformity and amend the reporting documents within a reasonable timeframe.



3 VERIFICATION APPROACH AND PLAN

3.1 Preliminary review

EBC shared preliminary information with CCG on April 4th, 2017. A preliminary review was performed to assess the understanding of the project proponent with respect to the requirement of ISO 14064-2 and CSA CleanProjects[®]. CCG conducted interviews on the 23rd and the 24th of April as well as desk review of the available documentation. The preliminary review concluded that:

- EBC has a very good understanding of the nature, scale and complexity of the verification activity to be done by the verifier.
- CCG is competent to perform the verification of EBC's GHG Project,
- The quantification is not finalized, and that EBC has set a sampling plan to gather the necessary information for finalizing the complete it. CCG reviewed the sampling plan and considered that it was meeting the requirement defined in the methodology.
- Information on the Project were fairly complete. However, the GHG Report was not finalized and the GHG Assertion was not completed. Nevertheless, EBC proposed action plan and schedule to complete the GHG Report was found adequate.
- CCG understands the requirements for registration on CSA CleanProjects[®] well enough to ensure the GHG Project, GHG Report, and GHG Assertion meets these requirements.

3.1.1 Risks identification

As per ISO 14064-3:2006, a risk assessment was conducted to assess three types of risks: inherent risks, control risks and detection risks.

Inherent risks:

Risk 1: there is a possibility that, due to the complexity of the methodology, there is a material discrepancy as a result from the quantification of the GHG removal or reduction.

Risk 2: the forest could be exposed to a variety of situations, leading to carbon reversal, in particular in case of a lack of surveillance of the forest.

Control risks:

Risk 3: there is a possibility that the methodologies, the assumptions or the source data adopted for GHG emissions removal computation do not detect material discrepancies.

Detection risks:

Risk 4: this is the risk that the verifier will not detect any material discrepancy that has not been corrected by the controls of the GHG project.

These risks were used in the conception of the sampling plan described below.



3.1.2 Conflict of interest

The Conflict of interest form was filled and is available in section “5 Conflict of Interest review checklist”.

3.2 Verification approach

CCG confirms that the verifier has a complete understanding of the scope of the Project, as well as the methodology and quantification protocol used for the quantification of GHG emissions reduction or removal. Therefore, CCG confirms that it is competent to assess the project.

EBC provided the GHG Assertions in paragraph 2.9 of the GHG Report which will be used for registration to CSA CleanProjects® Registry. CCG confirms that GHG Assertion is presented in accordance with per ISO 14064-2 requirements.

The verification plan includes a sampling plan which was built to collect evidence with respect to the risks identified in section “3.1.1 Risks identification”.

The sampling plan is made up of the following activities:

- interviews with project proponents, with proponents of the projects in charge of the quantification of the GHG emissions removal of reduction;
- site visits to collect information on the project;
- desktop review of all the information necessary to assess the GHG data and information.

The details activities are listed in Table 2.



Table 2: Verification plan description

Risk id	Type of risk	Sampling activities and methodology
Risk 1	Inherent risk	Site visits on the parcels to confirm that the hypothesis retained for the description of the forest are relevant. Review of the ownership of the parcels to confirm that emission reduction or removal belong to EBC.
Risk 2	Inherent risk	Review of all the information related to the forest inspection: the frequency, the findings, the person who performed it.
Risk 3	Control risk	Detailed review of the identification of the baseline scenario. Thorough review of the quantification methodology, the assumptions used in the numerical model for quantifying the carbon sequestered for both the project scenario and the baseline scenario. The source data is also included as well as the model calibration activity based on EBC field data.
Risk 4	Detection risk	Use of CSA Verification Report Template CleanProjects® to address all material risks. Thorough review of GHG Project against ISO14064-2 requirements. All the material discrepancies will be listed in a log used to track their resolutions.

This verification plan gives confidence that CCG will demonstrate that the GHG Report and the GHG Assertion are verified to a reasonable level of assurance and that the materiality threshold is met.

The following working paper was used during the verification and are available upon request:

- “Sampling plan and sites visits”

3.3 Assessment of GHG data and information

3.3.1 Desktop review

CCG reviewed the key documentation associated with the Project to assess its conformity to ISO 14064-2 and CSA CleanProjects® Registry. The verification and sampling plan was used to review the critical elements that could present potential risks of errors. These elements included:

- Appropriate and adequate documentation for the project ownership and surveillance;



- Implementation of appropriate eligibility criteria for ensuring compliance with all eligibility criteria of ISO 14064-2;
- Implementation of an appropriate and adequate approach for defining the baseline scenario;
- Implementation of an appropriate and adequate approach for the definition of the project boundary;
- Implementation of appropriate and adequate approach for identifying relevant GHG SSRs;
- Implementation of appropriate and adequate approach for the quantification and modeling of GHG removals that is calibrated with field data;
- Implementation of appropriate and adequate approach for data and parameters handling, by reviewing documentation at each step of the analysis;
- Implementation of adherence to project-level principles, by reviewing documentation and discussing with project proponents;
- Implementation of appropriate and adequate documentation of compliance with requirements from ISO and CSA CleanProjects® Registry by reviewing documentation.

The review of all the elements listed above concluded that there is no material discrepancy identified against ISO 14064-2:2006 requirements.

3.3.2 Site visits

The visits took place between April 26th and April 27th, 2017. On the April 26th, CCG visited a total of 20 parcels gathered in 15 sites. All the visited sites account for a total of 3030 acres, which represents about half of the total area considered in the analysis.

CCG observed that no harvest activities had happened on the visited sites. For the sites for which harvesting occurred prior to the acquisition by EBC, there are evidence that the forest is rebuilding on the former clear cuts.

EBC sites have a sign that indicates the status of the land as a “Nature Reserve”. Those signs prohibit other activities than hiking on marked trails (see Figure 1).



Figure 1: EBC sign

CCG confirms also that there are logging activities on sites not belonging to EBC, but adjacent to the ones owned by EBC. An example is illustrated on Figure 2 which clearly indicates that harvesting trees is a common practice in the area when the parcel is not protected as a Conservation Land. Other logging activities were noted on site not belonging to EBC.



Figure 2: Site not owned by EBC but next a site owned by EBC

The maps and parcels information were reviewed which confirmed the parcel accurate locations as well as forest cover.

3.3.3 Quantitative review

During the quantitative review, CCG focused on the computations performed by EBC to assess the carbon stock variation in the forest for both the baseline scenario and the project scenario. The quantification method is based on the *VCS-VM0012 Improved Forest Management in Temperate and Boreal Forests (LtPF), v1.2*.



As per the sampling plan, the following items were reviewed:

- The exclusion of Manitoulin parcels as no field data was collected from these sites;
- The exclusion of the parcels for which the class age was “10 to 30” as there was no field data collected from these parcels;
- The relevance of SSRs: all SSRs accounted for in the scope of the Project are in accordance with ISO 14064-2:2006 requirements;
- The definition of the analysis unit and the source data used to aggregate parcels within an analysis unit, which is done in accordance with VCS VM0012 methodology
- the use of the analysis unit, which is in done in accordance with VCS VM0012 methodology;
- The definition of the average age for each analysis unit; which is selected in a conservative manner;
- The field data collected from by EBC on site: CCG confirms that there is no material discrepancy identified against ISO 14064-2:2006 requirements
- The methodology for calibrating of the model with field data, which is done in respect of the ISO 14064-2:2006 requirements.
- The choice of forest growth curves, done in respect of the ISO 14064-2:2006 requirements;
- The methodology and its implementation for the computation of the leakage rate; which is done in accordance with VCS VM0012 methodology;
- The methodology and its implementation for the computation of the uncertainty factor; which is done in accordance with VCS VM0012 methodology;

In addition, CCG reviewed in great details the schedule and parameters of disturbances used in the project and in the baseline scenario. Based on the information provided by EBC and by forest professionals, the assumptions used for tree harvesting in the case of the baseline scenario were found in accordance with ISO 14064-2:2006 requirements.

On May 5th, 2017, EBC organized a screen sharing call where the Project proponents presented the computational files used the quantification of GHG emissions removal. They also presented how the simulation software is used and which assumptions were used with the necessary justifications. The modeling software (CBM-CFS3) used for the quantification is confirmed as relevant for the study. The methodology was reviewed in detail to verify that it complies with ISO 14064-2 requirements.

EBC and CCG organized teleconferences to review and discuss topics in relation with the verification. The list of teleconferences is provided in Table 3.



Table 3: List of teleconferences

Date	Attendees	Topics discussed
21 April 2017	David Beaudoin (EBC) Guillaume Beaudette (EBC) Pascal Genevieve (CCG)	General presentation of the project Review of the sampling plan Discussion on the quantification methodology Discussion on verification objectives, scope, level of assurance
23 April 2017	David Beaudoin (EBC) Guillaume Beaudette (EBC) Pascal Genevieve (CCG)	Review of the various sites and the information available for each of them Discussion on the field data to be collected for the model calibration Discussion on the verification sampling plan
4 May 2017	David Beaudoin (EBC) Guillaume Beaudette (EBC) Pascal Genevieve (CCG)	Discussion on the analysis units and on the disturbances to be added in the software for the baseline scenario Discussion on the calibration assumptions
5 May 2017	David Beaudoin (EBC) Guillaume Beaudette (EBC) Pascal Genevieve (CCG)	Review of the assumptions for the forest harvesting based on the common practices
6 May 2017	David Beaudoin (EBC) Guillaume Beaudette (EBC) Pascal Genevieve (CCG)	Discussion on the leakage rate and review of the results

3.4 ISO 14062-2 Requirements

3.4.1 Eligibility requirements

The Niagara Escarpment Forest Carbon Project NEFCP is an Improved Forest Management – Logged to Protected Forest (IFM-LtPF) project. The NEFCP Report states that it respects the principles of relevance, completeness, consistency, accuracy, transparency and conservativeness. Therefore, it is in compliance with ISO 14064-2 eligibility requirements.

3.4.2 Baseline scenario and additionality

EBC identified the baseline scenario with common procedures and assumption to that allow to compare a set of scenarios against a set of barriers. All four alternative scenarios were compared, as well as the Project scenario, based the following barriers:



- Financial and Economic
- Technology, Operation, Maintenance and Disposal;
- Legislative;
- Socio-cultural
- Environment
- Prevailing practice

CCG concludes that the assumptions and the procedures to determine the baseline scenario for the GHG Project are in compliance with ISO 14064-2:2006 requirements.

CCG reviewed the additionality assessment provided in the Report and CCG confirms that EBC sufficiently demonstrated the additionality of the NEFCP. Indeed, EBC demonstrated that the project activities exceed enforced laws and regulations, exceed common practice in the geographic region and face several barriers to implementation. Therefore, NEFCP is in compliance with ISO 14064-2:2006 section 5.4.

3.4.3 Permanence and risk mitigation

Carbon reversal is the condition where the carbon sequestered in the biomass is re-emitted to the atmosphere through natural or human-made activities. In particular, the variety of the species is a natural protection against wide spread disease that could kill many trees of the same type. In addition, all sites are quite spread and not in contact with each other, which is a natural protection against forest fires. Therefore, in the case of the NEFCP, EBC confirmed, as documented in the GHG report, that the risk of carbon reversal is not material.

During the interviews, EBC explained that they set in place a monitoring and inspection program that ensures that the sites are regularly inspected. The findings are reported to EBC by the volunteers performing the inspection. EBC tracks the date of the inspection and the reported findings. CCG considers that this monitoring system is a mitigation activity with respect to the risk of carbon reversal. Therefore, CCG confirms that, based on the arguments provided in the Report, and completed by the information related to the inspection and monitoring of the parcels, that the risk of carbon reversal is very low, and that there is indeed permanence of the reductions of removal.

CCG concludes that the procedures to demonstrate risk of non-permanence of the GHG removal are in compliance with ISO 14064-2:2006 section 5.7.

3.4.4 Leakage

EBC assessed the yearly leakage rate based on the VCS VM0012 methodology. It concluded that a value of 20% of the annual net change in harvest volume between the baseline and the project scenario must be accounted for. CCG confirms that the computation is done in accordance with the VCS methodology. Therefore, CCG confirms that the GHG Project complies with the requirements of ISO 14064-2:2006 section 5.3 with respects to affected SSRs.



3.4.5 Uncertainty

EBC assessed the uncertainty factor based on the VCS VM0012 methodology. It concluded that a value of 11% is to be applied to the net emission reduction claimed by the project each year based on the results of the modeling output. CCG confirms that the computation is done in accordance with the VCS VM0012 methodology. Therefore, CCG confirms that the GHG Project complies with the requirements of ISO 14064-2:2006 section 5.9.

3.4.6 GHG Emissions Removal Assertion

CCG confirms that, in accordance with ISO 14064-2: 2016, EBC provided the list of GHG emission removals for the baseline scenario and for the project scenario. Including the uncertainty factor, a total of 32,580 tCO₂e were verified.

3.5 Verification findings

CCG identified five NonConformity Report (NCR) during the verification. All the NCR were resolved satisfactorily by EBC. These resolutions provided the necessary clarity to ensure that the project was implemented in accordance with the GHG CleanProjects[®] Registry and with the ISO 14064-2:2006 standard. The details of each finding are provided in Appendix B, including the issue raised, the response, and the status (Open/Closed).

3.6 Verification Results and Conclusions

CCG confirms all verification activities including objectives, scope, criteria, level of assurance, and the project's adherence to ISO 14064-2 and CSA GHG CleanProjects[®] as documented in this report, are complete.

ESI concludes without any qualifications or limiting conditions that the GHG Project meets the requirements of the ISO 14064-2:2006 Standard.

The GHG assertion provided by EBC and verified by CCG will result in the GHG emission removal (ex-post) of 32,580 tCO₂ equivalents by the project from January 1st, 1999 to December 31st, 2016.

This verification covers 81 sites for a total area of 1,989 hectares.

3.7 Verification Records

The information obtained from EBC or created by CCG for the purpose of the verification are kept confidential and are available to the client on request and will not be disclosed to anyone else unless compelled by law. They will be safeguarded for a period of 10 years after which they will be safely destroyed.

3.8 Facts discovered after the verification

In the event when CCG is informed of a material discrepancy following the publication of the verification report, CCG will inform EBC of the facts so that relevant actions are put in place to ensure the conformity of the GHG Report, GHG Assertion and Verification Report with CSA GHG CleanProjects[®] is maintained.



4 VERIFICATION STATEMENT

This verification report is intended for EBC. The project title is “Niagara Escarpment Forest Carbon Project (NEFCP) - Preserving forest integrity in the Niagara escarpment region”.

The prime objective of the verification is to confirm that, according to the procedures set out in ISO 14064-3:2006, data, controls and processes supporting the emission removal calculations as presented in the GHG Report and corresponding GHG Assertions are in compliance with ISO 14064-2:2006 requirements. In addition, the verification intends to demonstrate that NEFCP contains no material discrepancy and that it meets and is the requirement of the Canadian Standards Association (CSA) GHG CleanProjects® Registry.

The time period covered by the verification starts on January 1st, 1999 and ends on December 31st, 2016.

The verification included the review of the following items: eligibility criteria, greenhouse gas (GHG) sources, sinks, and reservoirs (SSRs), the baseline scenario(s), additionality, quantification of GHG reductions/removals, leakage, uncertainty, and data and parameters. Adherence to the project-level principles (relevance, completeness, consistency, accuracy, transparency, conservativeness) was further evaluated for relevance and current good practice. CCG’s assessment also included a detailed technical quantification review, and review of EBC’s responses to all Non-Conformity Reports (NCRs).

CCG confirms the project GHG report and the assertion are verified to a reasonable level of assurance and that the materiality threshold is met. In addition, the reported GHG emission reductions and removals are, fair and not overestimated.

The GHG Assertion is provided in Table 4 for CO₂ (only GHG accounted for in the project).



Table 4: List of GHG emission removal per year

year	GHG removals (t CO₂)
1999	-
2000	-
2001	-
2002	21
2003	632
2004	762
2005	2,102
2006	2,914
2007	2,602
2008	2,227
2009	1,929
2010	1,677
2011	1,817
2012	1,610
2013	2,789
2014	2,786
2015	3,769
2016	4,943

The verification was performed according to ISO 14064-3:2006. CCG confirms, without limitation, that the materiality level established at 5% of the declared emissions reductions has not been exceeded.

Name: Pascal Genevieve
Title: General Manager
Company: Carbon Consult Group
Date: May 6th, 2017

5 CONFLICT OF INTEREST REVIEW CHECKLIST

I, Pascal Genevieve, Lead verifier, confirm that CCG conducted the activity of verification of the GHG Project along the principles of independence, ethical conduct, fair presentation and due professional care.

	Yes	No	Details
<p>Independence</p> <p>Remain independent of the activity being verified, and free from bias and conflict of interest.</p> <p>Maintain objectivity throughout the verification to ensure that the findings and conclusions will be based on objective evidence generated during the verification.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CCG Inc. is totally independent from EBC, it does not share board members, senior management. There is therefore no conflict of interest. CCG works at arm's length and does not have any direct or indirect interest nor conflict of any kind.</p>
<p>Ethical conduct</p> <p>Demonstrate ethical conduct through trust, integrity, confidentiality and discretion throughout the verification process.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CCG demonstrated a strong sense of ethic during the email exchanges with EBC as well as during the sites visits. The information that CCG received from EBC is kept in total confidentiality.</p>
<p>Fair presentation</p> <p>Reflect truthfully and accurately verification activities, findings, conclusions and reports. Report significant obstacles encountered during the verification process, as well as unresolved, diverging opinions among verifiers, the responsible party and the client.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CCG is qualified to identify and report all activities findings and conclusions. Furthermore, CCG has an arm's length position and can therefore independently and freely report any issues it encounters during the verification process.</p>
<p>Due professional care</p> <p>Exercise due professional care and judgment in accordance with the importance of the task performed and the confidence placed by clients and intended users. Have the necessary skills and competences to undertake the verification.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CCG is an experienced company with the necessary and proven skills to provide due professional care throughout the entire verification process. Any abnormalities are to be documented and reported immediately.</p>

Appendix A: list of criteria for VCS methodology VM0012 Improved Forest Management in Temperate and Boreal Forests (LtPF)

1. Projects which meet the most recent approved criteria for VCS Improved Forest Management – Logged to Protected Forest (IFM-LtPF) eligible projects;
2. Projects located in Temperate and Boreal Domain Global Ecological Zones (as defined by FAO (FAO, 2001)) which are forest lands remaining forest lands (as defined by IPCC (IPCC, 2003)), and which can meet IPCC GPG LULUCF Tier III inventory and data requirements (IPCC, 2003); and,
3. Projects that meet the most current approved VCS Standard requirements for ownership; and,
4. Projects on properties where the starting average annual illegal, unplanned, and fuelwood removals are less than 5% of total annual harvest levels (in CO₂e) in the baseline scenario and,
5. Projects which do not encompass managed peatland forests (peatland as defined by IPCC GPG LULUCF); and,
6. Projects where the total percentage of wetlands in the project area is not expected to change as part of project activities; and,
7. Projects that can demonstrate there will be no activity shifting to other lands owned or managed by project proponents outside the project boundary at the beginning of the project (within the first year of the project start date); and,
8. Projects that do not include non-de minimis application of organic or inorganic fertilizer in the project scenario.

Appendix B: List of Non-Conformity Reports

NCR No.	Issues log	Response	Status
1	There is no justification to substantiate that the selected methodology for quantification is more appropriate than other possible methodologies	This methodology is deemed the most suitable as it is applicable to the specific forest type (temperate and/or boreal), it allows for aggregation of various polygons and/or project sites into analysis units of similar carbon sequestration dynamic and allows for conservative assumptions and deals with model and data treatment errors with the application of an uncertainty factor. Other methodologies were considered including the CAR Forest Project Protocol, which was specifically designed for usage within mainland United States of America, and the VCS VM0010 Methodology for Improved Forest Management: Conversion from Logged to Protected Forest which is deemed less relevant because it is not designed for the specific forest conditions found within the project boundaries.	CLOSED
2	The source data for the percentage of short life wood product is not provided	Obtained from values of similar project in Canada and checked against the level of emissions from commercial pulp and paper product as compared with other harvested wood products. Canada's National Inventory Report 1990-2014. Darkwood Forest Project	CLOSED
3	The methodology for calibrating the model with source data is not described	Refer to section on Model Calibration (5.9)	CLOSED
4	Conservatism of the assumptions used for defining forest harvesting practices in the reference scenario is not fully explained	For the duration of the project, a maximum of two harvests are considered. This is a conservative approach knowing that landowners would often harvest as soon as merchantable size trees are available. The level of commercial thinning are considered conservative as most likely harvest scenario would in fact consider a removal of all merchantable size	CLOSED

		wood. Levels of 15% to 45% are conservative. (refer to section on 3.3. Baseline harvesting level)	
5	The potential reference scenario "former owner keeps the land and does not harvest the wood" has not been considered	It has now. Refer to sections 3.1 and 3.2. The project scenario itself has also been added to the barriers assessment to demonstrate the additionality (there is an alternative baseline scenario that faces LESS barriers to implementation).	CLOSED
6	The parameters used for computing the aboveground biomass dry weight are appropriate for the equation using both the Diameter at Breast Height (DBH) and the tree height whereas the used formula only considers the DBH.	<p>The use of these parameters (more appropriate with the chosen allometric equation based on DBH only) does indeed impact the calculated carbon level of aboveground biomass. It actually reduces the measured carbon level. The expected impact on the uncertainty factor would be to reduce the gap between measured and predicted carbon levels, which in turn, reduces the model error and minimizes the uncertainty factor. The uncertainty factor is therefore recalculated using the new measured carbon level. Resulting change in the value of the uncertainty factor is insignificant. The value of 11% remains unchanged.</p> <p>It is also demonstrated that the growth curves determined as per the model calibration procedures are largely conservative and the new measured carbon levels do not suggest the use of different growth curves.</p> <p>In conclusion, this finding does not significantly impact the calculated CO2 reductions, and no further corrective action is required.</p>	CLOSED