



ENVIRONMENTAL SERVICES, INC.

Climate Action Reserve Forest Project Protocol Version 2.1 Annual Project Verification Report

31 March 2015 (Original Submittal)

08 April 2015 (Revised - V2)

18 May 2015 (Revised – V3)

Big River/Salmon Creek Forests (CAR408)

For the Reporting Period:
01 January 2014 – 31 December 2014

Project Developer/Forest Owner:
The Conservation Fund

Verification Conducted by:
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Project Number: VO14087.00



ANSI ACCREDITED PROGRAM
GREENHOUSE GAS
VALIDATION AND VERIFICATION
0800

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1 EXECUTIVE SUMMARY

Environmental Services, Inc., (ESI) was contracted by The Conservation Fund (Forest Owner) to perform the Climate Action Reserve (Reserve) 2014 annual project verification of the *Big River/Salmon Creek Forests (CAR 408)* conservation-based forest management project. The verification process closely followed the Reserve's Forest Verification Protocol v2.0 (May 2007), the Forest Project Protocol Version 2.1 (September 2007), the Verification Program Manual v2.0 (20 December 2010), ISO14064-3, and ISO 14065:2007.

Specifically, the project verification included the review of the requirements outlined in the Reserve's Forest Verification Protocol v2.0 (May 2007) and Forest Project Protocol Version 2.1 (September 2007) for an annual verification. The verification included a comprehensive review of the following items: Attestations of Title, Voluntary Implementation, and Regulatory Compliance; confirmation and/or changes to project boundary; entity and project eligibility; project level additionality and permanence; the forest entity's non-biological emissions; reported biological inventory (entity and project) and overall management systems; monitoring efforts; data and parameters monitored; uncertainty estimates and confidence deduction; project level inventory projections (baseline and actual vs. projected); adherence to the project-level principles (relevance, completeness, consistency, accuracy, transparency, conservativeness); leakage assessment; and reported net Greenhouse Gas (GHG) emission reductions.

After review of all project information, procedures, calculations, and supporting documentation, ESI confirms that the *Big River/Salmon Creek Forests (CAR 408)* conservation-based forest management project is accurate and consistent with all aforementioned Reserve criteria and requirements for the reporting period of 01 January – 31 December 2014. ESI confirms all verification activities – including objectives, scope and criteria, level of assurance, and project documentation – to be complete and in adherence to the Reserve's Forest Project Protocol v2.1 as documented in this report. ESI concludes without any qualifications or limiting conditions that the *Big River/Salmon Creek Forests (CAR 408)* project meets the requirements of the Reserve.

The GHG assertion provided by The Conservation Fund and verified by ESI has resulted in the GHG emission reduction or removal of 213,783 tCO₂ equivalents by the project during the verification period (01 January 2014 – 31 December 2014).

2 INTRODUCTION

This annual verification report is prepared in accordance with the outlined requirements of the Climate Action Reserve (Reserve) Forest Verification Protocol Version (FVP) 2.0 (May 2007) and Forest Project Protocol (FPP) Version 2.1 (September 2007). Environmental Services, Inc., (ESI) assessed the 2014 annual Greenhouse Gas (GHG) emission reductions and removals of the *Big River/Salmon Creek Forests (CAR 408)* conservation-based forest management project, which was first registered with the Reserve in 2007. ESI's verification process and overall findings are presented within this report. The Forest Owner and Project Developer is The Conservation Fund (TCF).

The project verification was conducted as part of the Reserve's program requirements for GHG offset projects. ESI is accredited by the American National Standards Institute (ANSI) under ISO14065:2007 for greenhouse gas validation and verification bodies, including ISO 14064-3:2006, ISO 14065:2007, and validation/verification of assertions at the project level for Land Use and Forestry (Group 3). ESI is approved to perform verifications for the Reserve.

2.1 Project Developer Contact Information

Project Developer/Forest Owner:	The Conservation Fund (TCF) c/o Jordan Golinkoff Forest Carbon Analyst 14951 "A" Caspar Road, Box 50 Caspar, CA 95420 Office: (707) 962-0712 Fax: (866) 426-4496 Email: jgolinkoff@conservationfund.org
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2.2 Verification Team Contact Information, Including Roles and Responsibilities

Accredited Verification Entity: Environmental Services, Inc.	Jonathan Pomp – Lead Verifier (jpomp@esinc.cc /304-642-1277) Shawn McMahon – Senior Internal Reviewer (smcmahon@esinc.cc / 330-833-9941) Caitlin Sellers – Verification Team Member (csellers@esinc.cc / 904-361-8227) Richard Scharf – Verification Team Member (rscharf@esinc.cc / 252-402-7354) Matthew Perkowski – Verification Team Member/Biometrician (mperkowski@esinc.cc / 301-332-0771) Eric Jaeschke – Verification Team Member/GIS Specialist (ejaeschke@esinc.cc / 703-314-9064) Guy Pinjuv – Verification Team Member (gpinjuv@esinc.cc / 503-459-1318)
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	Jim Clark – Verification Team Member/California RPF (jimclark@ncrm.com / 707-485-7211) Katie Talavera – Verification Team Member/GIS Analyst (ktalavera@esinc.cc / 919-436-3999) Janice McMahon – QA/QC (jmcmahon@esinc.cc / 330-833-9941)
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2.3 Project Description

ESI was contracted by TCF to perform an annual project verification of the *Big River/Salmon Creek Forests (CAR 408)* project, which falls under the Reserve’s Forest Project Protocol Version 2.1 (September 2007).

TCF, a non-profit conservation organization, owns and manages the *Big River/Salmon Creek Forests (CAR 408)* project as part of their mission “to both protect and conserve land in the USA and also to promote and sustain rural economies.”¹ The *Big River/Salmon Creek Forests (CAR 408)* property is managed by TCF personnel to increase the quality and quantity of timber stocking by implementing sound uneven-aged silvicultural techniques. Lighter harvest intensities, residual stocking requirements, and larger-than-required riparian buffers allow for increased carbon sequestration and stocking. The project was initiated on 31 October 2006 when TCF acquired the property and took over ownership and management of the land. 01 January 2007 was used as the start date as minimal growth occurred during the last few months of the 2006 growing season.

The *Big River/Salmon Creek Forests (CAR 408)* property consists of 15,911 total acres located in Mendocino County, California (CA) and represents a portion of TCF owned lands in Northern CA. After the removal of roads and non-forest areas, the project’s carbon accounting acreage is equal to 14,917. The forests are primarily composed of stands of native redwood (*Sequoia sempervirens*) and Douglas fir (*Pseudotsuga menziesii*) containing a lesser tanoak (*Notholithocarpus densiflorus*) component. The project is situated within the Coast Redwood/Douglas-fir Mixed Conifer assessment area within the Northern California Coast Supersection. The property is also certified under both Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) sustainable management standards.

3 VERIFICATION DETAILS

3.1 Verification Objective

The verification objective was to ensure the project is in compliance with Reserve criteria (Reserve *Forest Project Protocol, Version 2.1* (September 2007)) for the reporting period of 01 January – 31 December 2014. ESI assessed the GHG emission removals for this conservation-based forest management project.

3.2 Verification Scope

The scope of this FPP v2.1 annual verification generally included the; activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHG’s; and time period covered. The geographic verification scope is defined by the project boundary, the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods. The scope also defined the primary and secondary effects of the GHG assessment boundary

¹ TCF_BRSC_PDD_2012.pdf

by indicating the forest carbon stock and emission categories as being *required* or *optional*. The scope of *Big River/Salmon Creek Forests (CAR 408)* project was defined as follows:

Baseline Scenario:	Commercial harvesting; minimum requirements under the CA Forest Practice Rules EY 2014 Baseline Carbon Stocking: • Standing Live (AGB & BGB) – 535,212 MgC • Dead (Standing and Lying AGB only) – 86,670 MgC • Total – 621,882 MgC
Activities/Technologies/Processes:	Conservation-based Forest Management under Climate Action Reserve Forest Project Protocol Version 2.1
GHG Assessment Boundary (Sources/Sinks/Reservoirs):	• Standing live carbon (AGB and BGB) • Standing dead carbon (AGB and BGB for Decay Class 1, AGB only for all others) • Lying dead carbon (AGB only) • Non-biological emissions primarily through mobile combustion and electricity usage (entity reporting only)
GHG Type:	CO ₂
Time Period:	Project Start Date: 01 January 2007 Verification Period: 01 January 2014 to 31 December 2014
Project Boundary:	15,911 acres (carbon accounting = 14,917) located in Mendocino County, CA east of Fort Bragg, CA and west of Willits, CA

3.3 Verification Criteria:

The criteria followed the program and verification guidance documents provided by the Reserve located at <http://www.climateactionreserve.org/>. These documents include:

- Forest Project Protocol, Version 2.1 (September 2007)*
- General Reporting Protocol, Version 3.1 (January 2009)*
- Forest Verification Protocol, Version 2.0 (May 2007)*
- Forest Sector Protocol, Version 2.1 (September 2007)*
- General Verification Protocol, Version 3.0 (August 2008)*
- Verification Program Manual, Version 2.0 (20 December 2010)*
- Program Manual (26 October 2011)*
- CAR102 (Registered) documentation on Reserve website (final PDD, verification report/statement, etc.)*
- All applicable Errata, Guidance and Clarifications, and Policy Memos, as updated on the Reserve website and issued by the Reserve*
- Climate Action Reserve Software*

And, the following ISO documents provided by ANSI located at:

<https://www.ansica.org/wwwversion2/outside/GHGgeneral.asp?menuID=200>:

- *ISO 14064-3:2006 Principles and Requirements for Verifying GHG Inventories and Projects*

3.4 Verification Level of Assurance:

The level of assurance was used to determine the depth of detail that the verifier placed in the verification plan to determine if there were any errors, omissions, or misrepresentations (ISO 14064-3:2006). ESI selected samples of data and information to be verified to provide *reasonable*



assurance (not *absolute assurance*) to meet the materiality requirements of the specific project (*Forest Verification Protocol Version 2.0 (May 2007)/Verification Program Manual, Version 2.0, 20 December 2010*). Sample size was determined based on the verification team's professional judgment and project parameters.

3.5 Verification Materiality Threshold:

Materiality is a concept that errors, omissions and misrepresentations could affect the GHG emissions reduction assertion and influence the intended users (ISO 14064-3:2006). All GHG emission removals submitted to the Reserve must be free from material misstatements or discrepancies. For this project the materiality threshold was defined by Part I of the Forest Verification Protocol v2.0 (May 2007) as the "Minimum Quality Standards," which states "To meet the California Registry's Minimum Quality Standard (MQS), the forest entity's calculations on a randomly chosen subset of plots must be within 15% of your calculation. In addition, actual C measurements must be within 10% of projected estimates, and the overall inventory and management systems must meet the California Registry's criteria as well as your professional judgment to be verifiable."

Additionally, materiality was defined for this project using the Reserve's Verification Program Manual v2.0 (20 December 2010) as follows:

Quantitative materiality threshold:

- Projects registering more than 100,000 Climate Reserve Tonnes (CRTs) (expressed in terms of CO₂e) annually shall achieve greater than +99% accuracy level (less than 1% error) relative to the verification body's calculated emission reductions.

As such, for this project the Verification Program Manual quantitative materiality threshold was 1%.

Qualitative materiality threshold as defined by the Reserve:

- Based on the Verification Program Manual v2.0 (20 December 2010), "any non-conformance related to a prescriptive requirement outlined in the protocol would be considered material and must be corrected in order for the project to receive a positive Verification Statement. A prescriptive requirement relates to any specific guidance or requirement mandated by the protocol itself that does not allow for deviation, or for verifier professional judgment."

4 VERIFICATION PROCESS

The verification process closely followed the guidance provided by the Climate Action Reserve FVP v2.0, FPP v2.1, Verification Program Manual v2.0, and Program Manual (26 October 2011), as well as ISO14064-3 and ISO 14065, and the ESI Management System and Management System Manual.

As defined by ISO 14064-3:2006 (E), "verification is the systematic, independent and documented process for the evaluation of a greenhouse gas assertion in a GHG project plan against agreed verification criteria." Specifically, the project verification included the review of the requirements outlined in the Reserve's FVP v2.0, FPP v2.1, and Verification Program Manual v2.0 for an annual verification.

The verification included the following items:

- Review of Attestation of Title, ownership and claims to GHG reductions/removals
- Review of the Attestation of Voluntary Implementation
- Review of Attestation of Regulatory Compliance and confirmation



- Confirmation and/or changes to project boundary
- Confirmation of entity and project eligibility, and project level additionality and permanence
- Confirmation of the forest entity's non-biological emissions
- Assessment of reported biological inventory (entity and project) and overall management systems
- Review of monitoring efforts, as well as data and parameters monitored
- Review of uncertainty estimates and confidence deduction
- Assessment of project level inventory projections (baseline, and actual vs. projected)
- Confirmation of adherence to the project-level principles (relevance, completeness, consistency, accuracy, transparency, conservativeness)
- Confirmation of leakage assessment
- Confirmation of reported net GHG emission reductions

The components allowed the Verification Team to confirm the project's continued compliance and implementation with Reserve Criteria and the approved Project Design Document (PDD)². The verification process was generally broken down into four parts: meetings/interviews, desktop assessment, quantitative review, and a site visit.

4.1 Meetings/Interviews

Multiple meetings were held during the course of the project verification. All other correspondence occurred via email. The details of the meetings are briefly described in the table below:

Date	Attendees	Topics Discussed
10 February 2015	Jonathan Pomp (ESI) Jordan Golinkoff (TCF) Lauren Fety (TCF)	Overall Verification Opening Meeting -preliminary review of verification and sampling plan -review of project timeframes and deadlines
17 February 2015	Jonathan Pomp (ESI) Jordan Golinkoff (TCF) Scott Kelly (TCF) Lauren Fety (TCF) Jim Clark (ESI's CA RPF - NCRM)	Field Verification Opening Meeting -field logistics - Forest Practices Rules/Regulatory Compliance -Timber Harvest Plans (THPs) -ownership/leakage -general project management
19 February 2015	Jonathan Pomp (ESI) Jordan Golinkoff (TCF)	Calculation Review Meeting at TCF's Casper Office -To have TCF demonstrate carbon accounting management systems/growth & yield modeling -inventory data into FPS -Forest Planning and Project System (FPS) Calibration procedures and setup -FPS quantification, compilations, and modeling procedures -Microsoft (MS) Access based carbon

² TCF_BRSC_PDD_2012.pdf



		quantification from modeled outputs
26 March 2015	Jonathan Pomp (ESI) Charlie Martin (CAL FIRE)	Meeting with the California Department of Forestry and Fire Protection (CAL FIRE) -harvesting -natural disturbances -Forest Practices Rules/Regulatory Compliance
31 March 2015	Jonathan Pomp (ESI) Jordan Golinkoff (TCF)	Overall Closing Meeting -Review of draft verification report -Next steps and project upload -Request feedback on process

4.2 Verification Milestones

The following table documents the main verification activities that occurred during the project verification process:

Project/Verification Activity	Date
ESI Internal Conflict of Interest (COI) process completed and approved (no issues). The Conservation Fund Notification.	12 December 2014
Reserve approval of NOVA/COI	23 December 2014 and 06 February 2015
Opening meeting with The Conservation Fund	10 February 2015
Submission of Draft Verification and Sampling Plan The Conservation Fund for approval	10 February 2015
Receipt of Signed Verification and Sampling Plan from The Conservation Fund	11 February 2015
Site Visit	18-19 February 2015
ESI completes Review	26 March 2015
Draft report and project information sent to Senior Independent Reviewer	30 March 2015
Draft verification report submitted to The Conservation Fund for review	31 March 2015
Closing Meeting with The Conservation Fund	31 March 2015
ESI uploads final report and files to Reserve website	31 March 2015
ESI uploads revised final report and files to Reserve website	08 April 2015
ESI uploads revised final report (V3) and files to Reserve website	20 May 2015

4.3 Desktop/Quantitative Review

The desktop review entailed reviewing the annual reporting documentation submitted to the Reserve by TCF in order to assess conformance with the requirements of the Reserve's FPP v2.1. A Verification and Sampling Plan was developed to identify and target the elements/documents of highest concern regarding the reported net GHG emission reductions.

Additionally, ESI reviewed all calculations determining the net GHG emissions reductions/removals under the requirements of Part III of the FPP v2.1. Please refer to Sections 5.6 to 5.13 for specific information about the quantitative review.

For a complete list of project documentation received and reviewed during this verification, please see Appendix A.

4.4 Site Visit

ESI conducted an on-site assessment of the project area on 18-19 February 2015. During the site visit, ESI met with project personnel, observed and reviewed carbon accounting management systems/growth & yield modeling, ground-truthed harvest, stand/strata, and ownership boundaries, and assessed the biological inventory through direct re-sampling of a sample of inventory plots using the approved cruise specifications provided by TCF.

Due to the fact that neither the FPP v2.1 (September 2007) nor the FVP v2.0 (May 2007) include prescriptive requirements for the verification site visit, best professional judgment of the Verification Team, relying on the principles of ISO 14064-3, was used for selection of sample plots to measure during the site visit.

The following plots were randomly selected for sampling during the site visit. These plots were installed following harvesting that occurred during the reporting period within the Little North Fork Big River and North Navarro Ridge THPs:

- Stratum LNF7, Stand 20147, Plot 1280
- Stratum NNR2, Stand 20149, Plot 6372

The results of the plot data collected by ESI were compared to the Forest Owner's reported plot level carbon estimates for the selected sample. Average percent difference between the plot total MtCO₂e/acre (project vs. verifier) for each sample plot was calculated. Please see Section 5.11 below for additional detail and results.

5 VERIFICATION REQUIREMENTS UNDER RESERVE FPP V2.1

5.1 Attestation of Title

The Verification Team confirmed that the Attestation of Title³ was completed properly and submitted to the Reserve for the current verification period. This attestation was signed by Scott M. Tison, Assistant Secretary of TCF, on 06 February 2015 for the 2014 reporting period. The forest is clearly owned and managed by TCF. As documented in the Monitoring Report, TCF has indicated that no change in ownership has occurred in the project area during the verification period.

Review of project title materials and internet research confirms with reasonable assurance that the project area ownership has remained unchanged during the reporting period of 01 January – 31 December 2014 (see section 5.4 below for further detail).

5.2 Regulatory Compliance

The Verification Team confirmed that the appropriate Attestation of Regulatory Compliance⁴ is on file with the Reserve for the reporting period of 01 January – 31 December 2014. This attestation was signed by Holly Cannon, Senior Council and Assistant Secretary of TCF, on 18 May 2015 for the 2014 reporting period.

A discussion with Charlie Martin of CAL FIRE on 26 March 2015 confirmed that TCF remained in legal compliance with all relevant laws and regulations that the agency enforces (i.e. CA Forest

³ TCF_BRSC_2014_Attestation_Title.pdf

⁴ TCF_BRSC_2014_Attestation_RegCompliance_5_18_2015_HCsigned.pdf



Practices Rules) during the reporting period. Although two violations were issued related to harvesting operations on the *Big River/Salmon Creek Forests (CAR 408)* property (i.e. felling trees not marked for harvest within a Streamside Management Zone (SMZ) and felling trees towards a stream vs. parallel to it), these were officially issued to TCF's logging contractor, or Licensed Timber Operator (LTO), and not TCF. Moreover, TCF field personnel reported the issue to CAL FIRE immediately upon discovery.

Given the quantitatively immaterial nature of the removal of the trees that were not marked (these were accounted for appropriately via TCFs post-harvest inventory approach), and the fact that Mr. Martin indicated that the affected areas still met both the canopy retention and large residual size class requirements of the Forest Practices Rules, ESI initially determined that the non-compliance events were minor and immaterial in nature based on professional judgement. That is, the felling of the few (12) trees not marked for harvest was judged not to impact the integrity or quality of the project. Further, while felling trees towards a stream represents a Forest Practices violation, it is well documented that adding woody material to a stream corridor can enhance both fish and invertebrate habitat. As such, it was judged that there were no negative environmental impacts. It is clear that the project is achieving the stated GHG emission reductions, and that there were no air quality or worker safety concerns associated with the violations. Additionally, a CA RPF attended the site visit with ESI and no issues were noted regarding the CA Forest Practices Rules.

However, during a phone call on 21 April 2015, Reserve personnel indicated that an assessment of materiality related to Regulatory Compliance is reserved for non-compliances that are administrative in nature vs. a physical act of non-compliance within the Project Area. As such, the violations that were issued as a result of actions by TCF's logging contractor/LTO were deemed material and the Reserve indicated that no CRTs would be issued for the period of non-compliance (with issuance being pro-rated for the remainder of the reporting period). In a letter dated 04 May 2015, Madison Thompson, a CA RPF and TCF's supervising forester for the Little North Fork THP where the LTO violation occurred, documented the timing of the violations (see TCF_BRSC_LowerNorthForthTHP_LTOviolationDate_MThomson_5_5_2015.pdf). On 05 May 2015 the Reserve confirmed the period of non-compliance (and non-issuance) as 27 October through 05 November 2014 (ten calendar days). TCF subsequently provided a revised "Annual Project Stock Report" (TCF_BRSC_2014_AnnualProjectReport_5_6_15.xlsx), which appropriately reflected no CRT issuance during this period of non-compliance.

After the revised pro-rated CRT quantification was confirmed correct, the Verification Team was able to conclude with reasonable assurance that the Reserve's requirements for regulatory compliance during the verification period were met.

5.3 Voluntary Implementation

The verification team confirmed that the appropriate Attestation of Voluntary Implementation⁵ is on file with the Reserve for the reporting period of 01 January – 31 December 2014. This attestation was signed by Scott M. Tison, Assistant Secretary of TCF on 06 February 2015 for the 2014 reporting period.

Voluntary implementation of the project was further assessed against the previous verification effort where this element was reviewed and confirmed. Previously and currently, the verification team could find no laws or mandates (local, state or federal) that would require the project to be implemented.

⁵ TCF_BRSC_2014_Attestation_VolImplementation.pdf

5.4 Confirmation and/or Changes to Project Boundary

TCF provided spatial data supporting the project area/ownership and maps were included in the PDD. Total ownership for the *Big River/Salmon Creek Forests (CAR 408)* property equals approximately 15,911 acres, while the carbon accounting acreage (total after removing roads and non-forest acres) equals 14,917 acres. Acreages were checked through independent quantification in ArcMap and were confirmed to be implemented appropriately into carbon accounting with no changes other than stratification updates due to harvests implemented during the reporting period.

Appropriately signed Reserve Official Attestation documentation (as noted in Section 5.1 above) was submitted to the Verification Team. In addition, following Section 3.5.1.8 of the Reserve's Verification Program Manual, verifiers performed a risk-based review of ownership changes. Samples of Assessor Parcels from the Mendocino County Assessor's Office web search tool (<https://assr.parcelquest.com/Home/> accessed 19 March 2015) were evaluated, and the Verification Team confirmed no change in ownership.

The Conservation Fund's assertion of ownership was further confirmed during the site visit as ESI noted project area familiarity, as well as boundary markers and property signs at locked gates. Further, geospatial data denoting ownership boundaries was confirmed during the site visit to be accurate.

5.5 Confirmation of Entity/Project Eligibility, and Project Level Additionality and Permanence

The Verification Team confirmed that all entity and project eligibility criteria required by the FVP v2.0 and FPP v2.1 continue to be met.

TCF's forest entity is made up of the *Big River/Salmon Creek Forests (CAR 408)* property, as well as the Garcia River, Ten Mile Ranch, Gualala River, Buckeye, and Hardell properties. The entity clearly owns more than 100 acres of forest. With the exception of the Hardell Tract, all of TCF's forested properties have been developed into forest carbon offset projects. TCF controls all GHG data and it is maintained separately for each of the forest carbon project properties.

The *Big River/Salmon Creek Forests (CAR 408)* project is defined as a conservation-based forest management project (one of the three approved forest project types of the FPP V2.1), and was verified to be continuing to operate as such.

Project stocking levels continue to remain above the baseline projections. The Verification Team has examined all project calculations, baseline characterizations, inventory methods and estimates and found these calculations, operations and assumptions to be valid. The CRTs claimed for this reporting period are valid and additional.

The State Coastal Conservancy (SCC) holds a Reserve-compliant Offer to Dedicate on the *Big River/Salmon Creek Forests (CAR 408)* properties. This was recorded on 01 November 2006 and confirmed the meet the requirements of the Reserve during the initial verification. For this reporting period, the Verification Team contacted Karyn Gear, North Coast Program Manager with SCC, to confirm continued compliance with the easement. Ms. Gear confirmed that TCF was in compliance with the terms of the perpetual Offer to Dedicate during the period 01 January 2014 – 31 December 2014, thus meeting the permanence requirement.

5.6 Confirmation of the Forest Entity's Non-Biological Emissions

The non-biological emissions generated by the forest entity (defined above in Section 5.5) are produced from mobile combustions (i.e. company vehicles used for property management) and through electricity and natural gas consumption at TCF offices.

The Verification Team reviewed the supplied reporting document (TCF_CA_CAR_NonBioEmissions_ReportingWorkbookPAB_2014.xlsx) and related supporting documents (bills, etc.), and found the electricity, stationary combustion, and mobile combustion emissions to be accurately calculated, and in conformance with the reporting requirements of the Reserve.

5.7 Assessment of Reported Biological Inventory (Entity and Project) and Overall Management Systems

The Verification Team completed a cursory check of the entity level Monitoring Report (TCF_2014_AnnualEntityReport.pdf) and confirmed that the reported entity level biological inventory values are reasonable. Given the fact that all of TCF's properties, with the exception of the one parcel mentioned above are monitored and reported annually, ESI is reasonably assured that the entity has not overlooked an event that would significantly impact the status of the forest inventory and GHG reporting at the entity level.

At the project level, the Verification Team verified the inventory systems through review of cruise specification documentation, review of inventory design in ArcMap, on-site observations, discussions with the Forest Owner, and through the first minimum quality standard. As required by the FPP 2.1, the project includes above and below-ground living tree biomass, standing dead biomass, and lying dead wood. No optional pools were included.

The primary data management system for carbon accounting is MS Access/FPS. The Forest Owner adequately demonstrated that these management systems are appropriate and sufficient during a meeting at TCF's Casper office on 19 February 2015.

Appropriate plot layout/inventory design was reviewed prior to the site visit in ArcMap and confirmed in the field. The re-measurement of two randomly chosen plots confirmed that TCF's field technicians used proper field measurement techniques.

Stand typing/stratification, and general descriptions of the forested area, were also observed on-site and found to be consistent with project documents and spatial data. Each stratum and stand has its own unique identifier for carbon accounting purposes.

This project also uses a series of differently aged inventory plots. These plots are installed into individual stands/strata following disturbances (anthropogenic or natural). Initial inventory data are grown forward using FPS and tracked in MS Access. The management system was found to be both appropriate and accurate, and the inventory methodology was found to be sound and implemented according to the cruise specifications.

The verification confirmed the carbon measurements, calculations and projections have been performed according to the FPPv2.1. The Verification Team reviewed the processes of collection of field data, input into the management system, modeling projections, and conversion to carbon from measured/modeled tree parameters.

5.8 Review of Monitoring Efforts and Data and Parameters Monitored

The Verification Team has reviewed the "Annual Project Stock Report" and Monitoring Report, and found the stated estimated stocking levels and annual change to have been calculated correctly and reported accurately. Harvests are accounted for by installing plots in newly created strata following harvest. Harvests were reported and harvest/newly created strata boundaries were confirmed to a reasonable level of assurance during the site visit based on provided spatial data. Post-harvest stocking was verified through plot re-measurement and the first MQS. Fifty-three new plots were installed across ten new stands/strata created from harvesting as part of the Little North Fork Big River and North Navarro Ridge THPs:

Strata	Stand	Acres
LNF1	20141	52.0
LNF2	20142	12.5
LNF3	20143	17.3
LNF4	20144	13.0
LNF5	20145	49.0
LNF6	20146	19.1
LNF7	20147	120.0
NNR1	20148	19.3
NNR2	20149	22.7
NNR3	201410	13.1

Communication with CALFIRE supported the reporting period harvesting claims, and it was confirmed that no significant natural disturbances occurred.

As detailed in Section 5.7 above, the carbon accounting management systems employed by TCF are appropriate and sufficient for monitoring efforts and required parameters. ESI is reasonably assured that the entity has not overlooked an event that would significantly impact the status of the forest inventory and GHG reporting at the project level.

5.9 Review Of Uncertainty Estimates And Confidence Deduction

Reporting uncertainty was assessed throughout the verification through document review and data checks. As per the FPP V2.1, inherent uncertainty greater than 5.0 % requires a confidence deduction. Though not required by the FPP v2.0 or FPP v2.1, ESI recalculated the accuracy value/margin of error of the inventory data. The methods employed by TCF follow industry accepted procedures (i.e. Shiver and Borders 1996) and it is clear that a confidence deduction is not required (0%).

5.10 Assessment Of Project Level Inventory Projections (Baseline and Project Activity)

Section 5 of the Project Submittal Form contains the information on the project baseline modeling, and conditions were compliant with the California Forest Practices Rules at the time the project was registered. The baseline characterization was verified during the initial verification. Since that time TCF has not made any changes to the baseline, other than updates for below-ground biomass quantification procedures (2007) and deadwood calculation errors (2009). Those changes were verified at that time. The baseline is characterized as harvesting allowed pursuant to the Maximum Sustained Production "Option C" rules of the California Forest Practice Rules.

The baseline and project activity were modeled over a 100-year horizon using the FPS growth & yield model, subject to harvesting scenarios defined by the PDD and baseline assumptions consistent with the CA Forest Practice Rules. During a meeting at TCF's Casper office on 19 February 2015, the Forest Owner briefly demonstrated: how inventory data is imported into FPS; FPS Calibration procedures and setup; FPS quantification, compilations, and modeling of silvicultural activities and constraints for baseline and project projections; and MS Access based carbon quantification from modeled outputs. Modeled project activity was updated in 2010 to account for differences between modeled and measured project stocks and was verified at that time.

Additionally, the verified quantitative carbon baseline estimate over the 100 year crediting period (TCF_BRSC&GRF_v2.1Baselines.xlsx) was provided by the Project Proponent. This file was reviewed and was found to correlate to the annual stock report and audit supplementary document (i.e. the correct baseline value was used in the quantification of CRTs).

Comparison of project activity projections to actual carbon measurements is detailed in Section 5.11 below.

5.11 Minimum Quality Standard

The Verification team has completed the entire verification process and has found no material misstatements (either quantitative or qualitative) in any of the project documents reviewed.

ESI conducted a site visit on 18-19 February 2015. Two randomly selected plots were visited and re-measured using the inventory methods as submitted to the verifier with the project materials. The plots selected were of those installed by TCF following harvesting that occurred during the reporting period within the Little North Fork Big River and North Navarro Ridge THPs. The results of the plot data collected by ESI was compared to the Forest Owner's reported plot level carbon estimates for the selected sample. Average percent difference between the plot total MtCO₂e/acre (project vs. verifier) for each sample plot was calculated. The resulting comparison showed the project's calculations to be within 15% of the Verification Team's (-5.9 % difference). As such the Forest Owner has demonstrated that their carbon stock measurements and calculations are sound, and that the first Minimum Quality Standard was met.

The Verification Team also confirmed that the end of 2014 measured project activity carbon stocks (1,276,702 MtC/4,680,389 MtCO₂e) were reflective of properly modeled forward plot data. This was achieved during a meeting at TCF's Casper office on 19 February 2015 (see TCF_BRSC_Modeling_DataChecks_ESI.xlsx). The Forest Owner demonstrated how inventory data is imported into FPS, FPS Calibration procedures and setup, FPS quantification, compilations, and modeling procedures, and MS Access based carbon quantification from modeled outputs. ESI directly observed the model run for Stand 346 (randomly selected), and observed the MS Access query that produced the stand/stratum level results that are summed for the Project level total. No issues were identified and the Forest Owner adequately demonstrated that these management systems and modeling procedures are appropriate and sufficient.

Once the end of 2014 measured project activity carbon stocks (1,276,702 MtC/4,680,389 MtCO₂e) were confirmed, the Verification Team compared actual carbon stocks to projected carbon stocks (see TCF_BRSC_2014_AnnualProjectReport_2_19_15_ESIChecks.xlsx - 2014 Tab). The actual Carbon measurements were found to be within 10% of the project activity projections for this reporting period (actual is 0.13% less than projected). As such, ESI was reasonably assured the second Minimum Quality Standard was met.



5.12 Confirmation of Leakage Assessment

The project submittal form on file with the Reserve indicates that the project does not expect any activity shifting leakage to occur. The leakage assessment/statements contained within the Monitoring Report were confirmed through site visit observations and communication with TCF. As previously noted, with the exception of one parcel, all of TCFs forested properties have been developed into forest carbon offset projects. Additionally, all properties hold SFI and FSC certificates. As such, leakage is a non-issue. Nevertheless, during the site visit, ESI visited the non-forest-carbon-offset-project 177 acre piece of forestland contiguous to the Salmon Creek forest (i.e. the Hardell Tract) and found that there had been no harvesting or decrease in carbon stocking.

5.13 Confirmation of Reported Net GHG Emission Reductions

Reporting documentation (Annual Project Stock Report and Project Performance & Cumulative Reductions) indicates that the project generated 219,805 CRTs during the 2014 reporting period. This total was confirmed to be calculated according to the requirements of Part III of the FPP v2.1 by ESI through independent calculation. These were confirmed to have been entered into the Reserve's registry correctly by TCF. After accounting for the period of non-compliance with CA Forest Practices Rules (see section 5.2 above for further detail), the project was awarded 213,783 CRTs.

5.14 Confirmation Of Adherence To The Project-Level Principles

ESI confirms that the project inventory meets the minimum quality standard for both the inventory plots and for the project activity projections as noted in Section 5.11 above. ESI also confirms that all other aspects of the project documentation and calculations are accurately calculated and reported in adherence to the project-level principles as described by the Reserve. This is evidenced by the review materials contained in the Verification Team's files (see Appendix A), the narratives provided within this report, and the Verification Team's data check files.

6 VERIFICATION FINDINGS

Through the course of verification, no formal findings were issued as only minor reporting discrepancies were found. These were communicated to TCF via email, were easily corrected, and new documentation was uploaded to the Reserve. As such, a List of Findings has not been compiled.

After review of all project information, procedures, calculations, and supporting documentation, ESI confirms that the *Big River/Salmon Creek Forests (CAR 408)* annual reporting documentation (as uploaded to the Reserve's website) for the reporting period 01 January – 31 December 2014 are accurate and consistent with all aforementioned Reserve criteria and requirements.

7 VERIFICATION STATEMENT

This verification statement confirms that Environmental Services, Inc., has evaluated The Conservation Fund's *Big River/Salmon Creek Forests (CAR 408)* project, its associated Project Design Document, and the annual reporting documentation (as uploaded to the Reserve's website) for the verification period according to the criteria outlined by the Climate Action Reserve, and that this verification statement is consistent with ISO 14064-3:2006 and ISO 14065:2007. The dates of the period evaluated for this verification are (01 January – 31 December 2014).

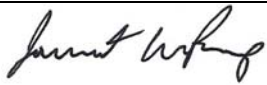
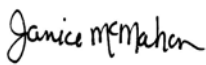
Environmental Services, Inc., confirms all verification activities including: objectives, scope and criteria, level of assurance, project design documentation, and project implementation to be complete and in adherence to the Reserve's Forest Project Protocol, Version 2.1 (September 2007) as documented in this verification report for the project entitled *Big River/Salmon Creek Forests (CAR 408)*, its Project Design Document, and the annual reporting documentation (as uploaded to the



Reserve's website). ESI concludes without any qualifications or limiting conditions that the *Big River/Salmon Creek Forests (CAR 408)* project is without material discrepancy; the verification activities provided a reasonable level of assurance; and that the project meets the requirements of the Reserve. The project produced 219,805 CRTs for the verification period 01 January to 31 December 2014. After accounting for the period of non-compliance with CA Forest Practices Rules (see section 5.2 above for further detail), the project was awarded 213,783 CRTs.

8 VERIFICATION RESULTS / CONCLUSION

ESI confirms all verification activities including objectives, scope and criteria, level of assurance and the PDD to be complete and in adherence to the Reserve's Forest Project Protocol, Version 2.1 as documented in this report. ESI concludes without any qualifications or limiting conditions the *Big River/Salmon Creek Forests (CAR 408)* project meets the requirements of the Reserve's Forest Project Protocol, Version 2.1.

Report Submitted to:	The Conservation Fund Climate Action Reserve
Report Submitted by:	Environmental Services, Inc. Corporate Office 7220 Financial Way, Suite 100 Jacksonville, Florida 32256
ESI Lead Verifier Name and Signature:	 Jonathan Pomp Lead Verifier
Senior Internal Reviewer Name and Signature:	 Shawn McMahon Senior Internal Reviewer
ESI Regional Technical Manager Name and Signature:	 Janice McMahon Vice President and Forestry, Carbon and GHG Division Regional Technical Manager
Date:	18 May 2015

JAP/rb/VO14087.00 CAR408 Reserve AnnualVerif Report_final_v3-20150518.doc
K PF: 05/20/15f

APPENDIX A – Documents Received/Reviewed

During the project verification, ESI received and reviewed the following documents provided by The Conservation Fund and the Reserve.

Documents received 05 February 2015

- TCF_Ownership_2014
 - o TCF_Ownership_2014.shx
 - o TCF_Ownership_2014.dbf
 - o TCF_Ownership_2014.prj
 - o TCF_Ownership_2014.shp
 - o TCF_Ownership_2014.shp.xml
- BR_2014CInventory_24x36.pdf
- BRSC_2014_accAssess.xlsx
- BRSC_2014_Plots.mdb
- BRSC_2014_Stands_PostHarvest.mdb
- Graphite_PostHarvestCruiseMap_2014.pdf
- LNFBR_Maps
 - o LNFBR_PostHarvestMap_2014_W.pdf
 - o LNFBR_PostHarvestMap_2014.pdf
 - o LNFBR_PostHarvestMap_2014_E.pdf
 - o LNFBR_PostHarvestMap_2014_Stand2.pdf
- NNR_PostHarvestMap_2014.pdf
- SC_2014CInventory_24x36.pdf
- TCF_GRF&BRSC_CruiseSpecs_11_20_14.pdf

Documents received 06 February 2015 (from Reserve website)

- TCF_BRSC_2014_ProjPerform&CumulativeReductions.pdf
- TCF_BRSC&GRF_AMR_SuppInfo_2014.pdf
- TCF_BRSC_2014_AnnualMonitoringReport.pdf
- TCF_BRSC_2014_AnnualProjectStockReport.pdf
- TCF_BRSC_2014_Attestation_RegCompliance.pdf
- TCF_BRSC_2014_Attestation_Title.pdf
- TCF_BRSC_2014_Attestation_VolImplementation.pdf

Documents received 09 February 2015

- TCF_BRSC&GRF_2014Audit_SupplementaryInfo.pdf
- TCF_2014_CauditVerLetter_ScottKellyRPF.pdf
- BRSC_2014_Plots.mdb

Documents received 11 February 2015

- TCF_BRSC_2014_AnnualProjectReport_2_6_15.xlsx
- Big River-restrictive covenants_001.pdf
- BR SC_IRMP_03 2 09 (2) pdf.pdf
- BRSC_Title Policy.pdf
- TCF_2014_AnnualEntityReport.xlsx

Documents received 11 February 2015 (pm)



- BRSC_Roads_2010
 - o ROADS.shx
 - o ROADS.dbf
 - o ROADS.prj
 - o ROADS.sbn
 - o ROADS.sbx
 - o ROADS.shp
 - o ROADS.shp.xml

Documents received 19 February 2015

- TCF_GRF&BRSC_DataChecks.xlsx
- BRSC_2014_accAssess.xlsx
- BRSC_2014deadWoodCalcs.xlsx
- TCF_BRSC&GRF_2014Audit_SupplementaryInfo.pdf

Documents received 20 February 2015

- TCF_BRSC&GRF_PlotCarbonCalculations_2014.xlsx

Documents received 23 February 2015 (from Reserve website)

- TCF_BRSC_2014_ProjPerform&CumulativeReductions.pdf
- TCF_BRSC_2014_AnnualMonitoringReport.pdf
- TCF_BRSC_2014_AnnualProjectStockReport.pdf
- TCF_2014_AnnualEntityReport.pdf

Documents received 27 February 2015

- Vehicle Gas.pdf
- Electricity Caspar Office.pdf
- Electricity Cloverdale Office.pdf
- Gas Cloverdale Office.pdf
- LagunaBeachElectricity.pdf
- Propane Caspar Office.pdf
- TCF_CA_CAR_NonBioEmissions_ReportingWorkbookPAB_2014.xlsx

Documents received 23 March 2015

- TCF_BRSC_2014_AnnualProjectReport_2_19_15.xlsx

Documents received 26 March 2015 (from Reserve website)

- TCF_BRSC_2014_AnnualMonitoringReport.pdf

Documents received 26 March 2015 (from Reserve website#2)

- TCF_BRSC_2014_AnnualMonitoringReport.pdf

Documents received 07 April 2015

- Barnett_LTO_violation.pdf

Documents received 05 May 2015

- TCF_BRSC_LowerNorthForthTHP_LTOViolationDate_MThomson_5_5_2015.pdf

Documents received 06 May 2015

- TCF_BRSC_2014_AnnualProjectReport_5_6_15.xlsx