



# ENVIRONMENTAL SERVICES, INC.

## **American Carbon Registry**

### **GreenTrees ACRE (Advanced Carbon Restored Ecosystem) Project Validation and Verification Report v2**

22 December 2011

**Project Developed by:**

GreenTrees, LLC

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**Validation and Verification Conducted by:**

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Project No. VO11011.00 and VO11013.00



ANSI ACCREDITED PROGRAM  
GREENHOUSE GAS  
VALIDATION AND VERIFICATION  
0800



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## 1 Executive Summary

Environmental Services, Inc. (ESI) prepared this validation /verification report in accordance with the outlined requirements of the American Carbon Registry's (ACR), Forest Carbon Project Standard, Version 2.1 (November 2010). ESI presents validation and verification findings of the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) project –prepared by GreenTrees, LLC. The project validation and verification was conducted as part of ACR's program requirements for GHG offset projects (Afforestation/Reforestation).

By ACR definition, the GreenTrees ACRE project is considered a programmatic afforestation/reforestation project (A/R). Project lands are located within the Mississippi Alluvial Valley (MAV) in the US Forest Service south Central and Southeast Regions. The project uses site preparation and tree planting to establish trees on lands that have been in continuous agricultural use for decades.

The GHG Project Plan validation and implementation verification included carbon sequestered through A/R on 25 separate tracts (4841.79 acres), including 2003-2004 planting years for Series GT, 2009-2010 planting years for Series A-1 and 2010 planting year for Series B. The project asserts emissions removals (sequestration) of 42,898 tCO<sub>2</sub>e for 2010.

The GreenTrees ACRE project validation/verification objective included an assessment of the likelihood that implementation of the planned GHG project would result in the GHG emission removal/enhancements as stated by the project developer (ISO 14064-3:2006). The objective was to ensure that the project was in compliance with the ACR Standard, Version 2.1 (October 2010), the ACR Verification Guideline for GHG Projects, Version 1.0 (July 2010), and the ACR Forest Carbon Project Standard, Version 2.1 (November 2010) criteria. ESI assessed the GHG emission removals of the programmatic A/R project.

ESI confirms all validation activities including objectives, scope and criteria, level of assurance and the GHG Project Plan's adherence to the Forest Carbon Project Standard (Version 2.1), as documented in this report, are complete and concludes without any qualifications or limiting conditions that the GreenTrees ACRE Project meets the requirements of ACR's Standard and the Forest Carbon Project Standard Version 2.1 (November 2010)

ESI confirms all verification activities including objectives, scope and criteria, level of assurance and the project's adherence to the Forest Carbon Project Standard (Version 2.1) and the validated GHG Project Plan (version 14, dated 13 December 2011), as documented in this report, are complete and concludes without any qualifications or limiting conditions that the GreenTrees ACRE Project meets the requirements of ACR's Standard and the Forest Carbon Project Standard Version 2.1 (November 2010). The GHG assertion provided by the GreenTrees and verified by ESI has resulted in the GHG emission removal of 42,898 tCO<sub>2</sub> equivalents by the project during the verification period/reporting period (1 January 2010 – 31 December 2010).



## 2 Introduction

This validation /verification report is prepared in accordance with the outlined requirements of the American Carbon Registry's (ACR), Forest Carbon Project Standard, Version 2.1 (November 2010). Environmental Services, Inc. (ESI) presents validation and verification findings of the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) project –prepared by GreenTrees, LLC. The project validation and verification was conducted as part of ACR's program requirements for GHG offset projects (Afforestation/Reforestation). ESI is accredited by the American National Standards Institute 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) and is approved to validate/verify for ACR.

GreenTrees currently has an approved A/R project registered and verified under ACR representing Series GT (2003/2004 plantings) and A-1 (2009/2010 plantings). This year would have been an annual verification under ACR's Forest Carbon Project Standard, Version 1 (March 2009); however, due to the release of ACR Forest Carbon Project Standard, Version 2.1, GreenTrees, with approval from ACR, converted the previous project into the current GreenTrees ACRE programmatic A/R project. The current GreenTrees ACRE GHG Project Plan (version 14, dated 13 December 2011) converts the project accounting from the "*GreenTrees Monitoring, Reporting and Verification Protocol*" to the current ACR "*Methodology for Afforestation and Reforestation of Degraded Land*", Version 1.0, issued by ACR in March 2011.

The GHG Project Plan validation and implementation verification included carbon sequestered through A/R on 25 separate tracts (4841.79 acres), including 2003-2004 planting years for Series GT, 2009-2010 planting years for Series A-1 and 2010 planting year for Series B. The project asserts emissions removals (sequestration) of 42,898 tCO<sub>2</sub>e for 2010.

A list of the current tracts/parcels enrolled in the GreenTrees ACRE programmatic A/R project is located in Appendix A.

### 2.1 Contact Information – Roles and Responsibilities

<b>Project Owner / Project Proponent:</b>  GreenTrees, LLC	Chandler Van Voorhis - Managing Partner  ( <a href="mailto:Chandler@c2invest.net">Chandler@c2invest.net</a> / 540-687-8946)
<b>Accredited V/V Body:</b>  Environmental Services, Inc.	<ul style="list-style-type: none"><li>• Shawn McMahon – Lead Validator/Verifier (<a href="mailto:smcmahon@esinc.cc">smcmahon@esinc.cc</a> / 330-833-9941)</li><li>• Richard Scharf – Validation/Verification Team Member (<a href="mailto:rscharf@esinc.cc">rscharf@esinc.cc</a> / 252-402-754)</li><li>• Caitlin Sellers – Validator/Verifier Trainee (<a href="mailto:csellers@esinc.cc">csellers@esinc.cc</a> / 904-470-2200)</li><li>• Janice McMahon – QAQC (<a href="mailto:jmcmahon@esinc.cc">jmcmahon@esinc.cc</a> / 330-833-9941)</li></ul>



## 2.2 Project Description

By ACR definition, the GreenTrees ACRE project is considered a programmatic afforestation/reforestation project (A/R). Project lands are located within the Mississippi Alluvial Valley (MAV) in the US Forest Service south Central and Southeast Regions. The project uses site preparation and tree planting to establish trees on lands that have been in continuous agricultural use for decades. Landowners commit to protecting the trees. Limited harvest is allowed after trees grow to the point where crowding of trees is expected to cause some trees to die, but in no case may harvesting occur if it would result in a basal area of live trees of less than 100 square feet per acre after the harvesting. Tree planting is interplanting of fast growing cottonwoods and native hardwoods. The cottonwoods protect the hardwoods from direct sun, which speeds the growth of the hardwoods. Cottonwoods are planned to be removed from the stand in the first 25 years of the project, resulting in a native hardwood forest.

## 2.3 Objective

The GHG Project Plan validation/verification objective included an assessment of the likelihood that implementation of the planned GHG project would result in the GHG emission removal/ enhancements as stated by the project developer (ISO 14064-3:2006). The objective was to ensure that the project was in compliance with the ACR Standard, Version 2.1 (October 2010), the ACR Verification Guideline for GHG Projects, Version 1.0 (July 2010), and the ACR Forest Carbon Project Standard, Version 2.1 (November 2010) criteria. ESI assessed the GHG emission removals of the programmatic A/R project.

## 2.4 Criteria

The criteria followed by ESI included ISO 14064-3, ISO 14065, and the validation/verification guidance documents provided by ACR located at <http://www.americancarbonregistry.org/carbon-accounting/standards>. These documents included:

- ACR Standard, October 2010 – v2.1
- ACR Forest Carbon Project Standard, November 2010 – v2.1
- ACR Verification Guidelines for GHG Projects, July 2010-v1.0

## 2.5 Scope

The scope of the validation/verification generally included the GHG Project Plan and eligibility requirements; GHG project and baseline scenarios; physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHG's; and time periods covered. The geographic scope was defined by the project boundary, which included multiple properties/project lands (programmatic approach), the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods. The scope of the GreenTrees Series GT project in Mississippi is defined below.

Baseline Scenario	Baseline 0 - contiguous agriculture
Activities/Technologies/ Processes	Afforestation/reforestation
Sources/sinks/Reservoirs	Aboveground biomass, belowground biomass, litter, dead wood, soil organic carbon, and wood products



GHG Type	Carbon-dioxide
Project locations	Mississippi, Arkansas, and Louisiana
Project Boundary and Time Period	██████████ / ██████████ South Tracts (617.10 acres) – 2010 (initial V/V) ██████████, LLC Tract (605.60 acres) – 2010 (initial V/V) AR1 2009 Planting (1,806.43) – 2010 (annual Ver) Series B 2010 Plantings (1,839.96 acres) – 2010 (initial V/V)

## 2.6 Level of Assurance

The level of assurance was used to determine the depth of detail that the validator/verifier (ESI) placed in the validation and verification plan to determine if there are any errors, omissions, or misrepresentations (ISO 14064-3:2006). ESI selected samples of data and information to be verified to provide reasonable assurance and to meet the materiality requirements of the A/R project (ACR Verification Guideline for GHG Projects v1.0, July 2010). ACR considers verification to be a risk-based process where the verifier examines a sufficient amount of data and uses the verifier's professional judgment to provide a reasonable assurance.

## 2.7 Materiality

Materiality is a concept that the individual or aggregation of errors, omissions, and misstatements could affect the GHG assertion and the decisions of the intended users. Materiality was also used as part of the verification sampling plan design, to determine the type of verification processes used by ESI to minimize the risk of not detecting a material misstatement. ACR's materiality threshold is +/-5% of the GHG project's emission reductions or removal enhancements. In other words, ACR requires that any differences between the emission reductions/removals claimed by the project proponent and estimated by the verifier be immaterial (less than +/- 5%). Individual or aggregation of errors or omissions greater than the ACR materiality threshold of +/-5% require re-stating before verification statements can be accepted by ACR.

## 3 Validation Process and Findings

### 3.1 Validation Process

The validation process closely followed the guidance provided by The American Carbon Registry, Forest Carbon Project Standard (Version 2.1), the Verification Guideline for GHG Projects (Version 1.0), ISO14064-3, ISO 14065, and the ESI Management System and Management System Manual (v11), Section V.5.

As defined by ISO 14064-3:2006 (E), "validation is the systematic, independent and documented process for the evaluation of a greenhouse gas assertion in a GHG project plan against agreed validation criteria". Specifically the project validation included the review of the requirements outlined in the Forest Carbon Project Standard, Version 2.1 (November 2010). The assessment included the following items: eligibility





criteria, baseline approach, additionality, project boundary, emissions, leakage, selected methodology, data and parameters, monitoring plan design, and environmental impacts.

### 3.2 GHG Project Plan

The GreenTrees ACRE Programmatic A/R Project's GHG Plan was found to be in compliance with ACR's Forest Carbon Project Standard, Version 2.1.

#### 3.2.1 ACR Standard Requirements/Eligibility

ACR previously certified GreenTrees' earlier MRV Protocol (8 January 2011); however due to the project upgrading to ACR Version 2.1, ACR issued a new certification letter on 13 December 2011. A copy of the Certification letter is located in Appendix B.

The GreenTrees ACRE project was found to be in compliance with ACR's project eligibility requirements set forth in ACR's Forest Carbon Project Standard, Version 2.1 [Chapter 1 (D) and Chapter 7 (F)]. Specifically, the GHG Project Plan outlined and described the following aspects of the project:

- The programmatic project started in 2003 (date of earliest planting), which is after the earliest allowable start date of November 1, 1997.
- GreenTrees commits to a minimum project term of 40 years, meeting the ACR project term requirement.
- Only direct emission mitigation is counted.
- Ownership of offsets is clear.
- Ownership titling of land is clear.
- Project lands are eligible because they were not converted from forest within 10 years before the project start date.
- Project lands were not forest at the project start date.
- The project uses site preparation and planting to establish forest.

#### 3.2.2 Approved Methodology

The GreenTrees ACRE project utilized the following methodology and tools:

- *ACR Methodology for Afforestation and Reforestation of Degraded Land*, Version 1.0, March 2011
- Afforestation and Reforestation (A/R) methodological tool "Tool for testing significance of GHG emissions in A/R CDM project activities, Version 01"
- A/R methodological tool "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities, Version 01"
- CDM "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities"
- CDM "Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities"
- VCS "AFOLU Non-Permanence Risk Tool."





ESI confirms that the project meets the applicability requirements of the methodology under which the project was validated and verified:

- The project is implemented on degraded lands that are expected to remain degraded. Project lands meet the eligibility requirements of the CDM “Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities” by satisfying the requirements of both section III(c)(ii) that soil organic matter has declined and topsoil litter and debris is scarce, and III(c) (iv) there is a reduction in plant cover due to land management practices. These declines have been caused by repeated plowing. Agricultural use was continuing prior to the project start, and would have continued in the absence of the project.
- The project is not implemented on organic soils.
- The project is implemented on lands that prior to the start of the project would be classified as croplands under IPCC guidelines.
- Litter remains on the site and is not removed.
- Plowing, ripping or scarification is done in accordance with conservation practices, is only done within the first five years of the initial site preparation of each parcel and is not repeated within 20 years. Please see ACR issued interpretation about the scarification issue (Appendix C) as site maintenance is being conducted repeatedly on project lands at more frequent intervals.

### **3.3 Validation Findings and Conclusions**

The ESI validation team identified 44 non-conformity reports (NCRs) and clarifications (CL). All were addressed satisfactorily by GreenTrees during the project validation process. These NCR's and CL's provided needed clarity to ensure that the GHG Project Plan was in compliance with ACR's Standard (Versions 2.1, October 2010) and Forest Carbon Project Standard (Version 2.1, November 2010).

The complete list of validation finding and resolutions has been compiled and located in Appendix D.

ESI confirms all validation activities including objectives, scope and criteria, level of assurance and the GHG Project Plan's adherence to the Forest Carbon Project Standard (Version 2.1), as documented in this report, are complete and concludes without any qualifications or limiting conditions that the GreenTrees ACRE Project meets the requirements of ACR's Standard and the Forest Carbon Project Standard Version 2.1 (November 2010).

## **4 Verification Process, Findings, and Conclusions**

The verification process closely followed the guidance provided by The American Carbon Registry, Forest Carbon Project Standard (Version 2.1), the Verification Guideline for GHG Projects (Version 1.0), ISO14064-3 and ISO 14065, and the ESI Management System and Management System Manual (v11), Section V.5.

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 Forest Carbon Project Standard, Version 2.1 (November 2010). The assessment included the following items: eligibility criteria, baseline approach, additionality, project boundary, emissions, leakage, quantification of GHG reductions/removals, monitoring, data and parameters, and adherence to the project-level principals (relevance, completeness, consistency, accuracy, transparency, conservativeness).

ESI’s verification was generally broken down into four parts: desktop assessment, site visit, quantitative review, and meetings/interviews.

#### **4.1 Desktop Assessment**

ESI reviewed the GreenTrees ACRE GHG Project Plan to assess conformance with the requirements of the Forest Carbon Project Standard (Version 2.1). Key factors that impacted the reported emissions reductions were identified and a Verification and Sampling Plan was created to focus on the critical elements presenting potential risk for errors in reported data. These elements included:

- Implementation of appropriate and adequate eligibility criteria, by reviewing documentation and field conditions indicative of the pre-project conditions of the project area, and compliance with all eligibility requirements of the Forest Carbon Project Standard.
- Implementation of appropriate and adequate baseline approach, by reviewing documentation and field conditions indicative of the most-likely without-project scenario.
- Implementation of appropriate and adequate approach/tools for additionality, by reviewing documentation and field conditions which reflect the most-likely without-project scenario, as it deviates from the with-project scenario.
- Implementation of appropriate and adequate approach to project boundary definitions, by reviewing documentation of project boundaries and ownership status, and field conditions relative to clearly delineated ownership extents and control over management activities within the project area.
- Implementation of appropriate and adequate approach to baseline emissions calculations, by reviewing documentation and field conditions which reflect the most-likely without-project scenario and the emissions resulting from that scenario.
- Implementation of appropriate and adequate approach to inventory calculations and modeling, by reviewing documentation, reviewing conversion factors, and re-running selected calculations and modeling
- Implementation of appropriate and adequate monitoring, by confirming the application of approved/acceptable monitoring practices in the field, and the appropriate handling and analysis of field data once collated.
- Implementation of appropriate and adequate approach to data and parameters, by reviewing data handling practices, and reviewing documentation at each step of the data analysis procedure.
- Implementation and adherence to project-level principles, by reviewing documentation and discussing the application of project-level principles with core staff.

A complete list of documents received and reviewed is located in Appendix E.

## 4.2 Site Visit

Following the initial desk review, ESI conducted an on-site assessment of the project lands on April 25<sup>th</sup> - 28<sup>th</sup>, 2011. The site visit was used to review project records with representatives of GreenTrees, discuss the calculation of carbon pools and sinks, visit random portions of the ownership for reconnaissance and ground-truth of the submitted data, and to conduct a field review of the GreenTrees ACRE project site preparation, planting methodology, and monitoring approach. The verification sample size included approximately 10% of the newly enrolled parcels.

During the site visit, the following locations, parcels, and planting were selected for field verification:

- Series GT
  - [REDACTED] and [REDACTED] – 617.10 acres - Mississippi
- Series B
  - [REDACTED] - 1161.69 acres - Madison, LA
  - [REDACTED] – 78.41 acres – Chicot, AR
  - [REDACTED] – 143.30 acres - Chicot, AR

Field review of these parcels included the following aspects:

- pre-project conditions, as evidenced by condition of adjacent or nearby non-project areas, by evidence of site-preparation activities, and related.
- current project conditions, including reported tree species, reported planting density, reported current density, reported growth characteristics (diameter, height, or similar), reported biomass volume (above- and/or below-ground), implementation of management plan (historical and contemporary), and related.

Direct field measurement of tree density (both planting and current) and growth characteristics was performed on limited instances, with a detailed review of field measurement methodologies occurring at a minimum of one plot on each tract, sufficient to satisfy the professional discretion of the Lead Verifier and do achieve reasonable assurance.

## 4.3 Quantitative Review

ESI focused on the quantitative analyses undertaken by the Project Proponent to assess the carbon pools accounted for by the project (above-ground biomass, below-ground biomass, deadwood (initially no, but later yes), soil organic carbon, and wood products). ESI's review included an assessment of the primary quantitative data supporting the GHG assertion including the direct sampling of soil and biomass carbon and the use of modeling, as well as the project proponents use of allometric methods and equations for calculating tree biomass, soil organic carbon, and the calculation of ERTs.

## 4.4 Meetings/Interviews

During the course of the project verification, ESI and CSP held multiple meetings. All other correspondence occurred via email. The details of the meetings are briefly described in the table below.



Date	Attendees	Topics Discussed
25 April 2011	Bob Misso Shawn McMahon (ESI)	Opening Meeting, preliminary review of verification and sampling plan, review of travel logistics, project timeframes and deadlines.
25-28 April 2011	Bob Misso Shawn McMahon (ESI)	Field verification Opening Meeting - opening meeting for the site assessment including: general introductions, review of verification and sampling plan if modifications are necessary, discussion of verification finding/resolutions to date, - review of reforestation parcels, site preparation activities, planting activities, etc.
6 October 2011	Gordon Smith Shawn McMahon (ESI)	Meeting to review calculations
11 November 2011	Chandler Van Voorhis Gordon Smith Shawn McMahon (ESI)	Meeting to review final NCR's and calculations
12 December 2011	Chandler Van Voorhis Janice McMahon (ESI)	Closing Meeting - Review of draft validation/verification report - Next steps - Request feedback on process

#### 4.5 Verification Milestones

Project/Verification Activity	Date
ESI Internal Conflict of Interest (COI) process completed and approved (no issues).	26 May 2011
ACR approval of ACR-Specific COI Form	31 May 2011
Submission of Verification and Sampling Plan to GreenTrees for approval	20 April 2011
Opening meeting with GreenTrees	25 April 2011
Witnessed a Stakeholder meeting	26 April 2011
Field Verification	26-28 April 2011
Corrective actions/clarification submitted	6 November 2011



ESI completes Review	23 November 2011
Draft verification report submitted to GreenTrees for review	4 December 2011
Closing Meeting with GreenTrees	12 December 2011
ESI finalizes report and submits to ACR and GreenTrees	20 December 2011

## 4.6 ACR Forest Carbon Project Standard Requirements

### 4.6.1 Eligibility Requirements

The GreenTrees ACRE Project is an A/R project that is intended to create additional carbon stocks in the project area through establishing tree cover on land that has been in agricultural for decades. The GreenTrees ACRE Programmatic A/R Project is in compliance with ACR's project eligibility requirements set forth in ACR's Forest Carbon Project Standard, Version 2.1 [Chapter 1 (D) and Chapter 7 (F)]. Specific details are located in the Validation portion of this report

### 4.6.2 Additionality

ESI confirms that the GreenTrees ACRE Project conducted the proper additionality analysis and conforms to both the CDM A/R methodological Tool "*Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities*" Version 01 as outlined in ACR's *Methodology for Afforestation and Reforestation of Degraded Land, Version 1.0, March 2011*, and ACR's *Three-Prong Additionality Test*. The project proponent sufficiently demonstrated in the GHG Project Plan and through the verification process that as of the project start date that the project activities exceed enforced laws and regulations, exceed common practice in the geographic region and forest type and faced a financial implementation barrier.

### 4.6.3 Permanence and Risk Mitigation

GreenTrees commits to a 40-year agreement with ACR. The landowner contract stipulates that if a landowner opts out of the contract or intentionally impacts the project in a negative fashion during the production period, GreenTrees will assess a 1.25 ton replacement for every 1 offset ton impacted by withdrawal. ESI confirms that GreenTrees adequately addressed other potential causes of unintentional reversals including tree death from wildfire, disease, drought, or wind.

For the GreenTrees ACRE project the project proponent utilized the ACR-approved risk assessment tool. As of November 2011, the approved tool used was the VCS, AFOLU Non-Permanence Risk Tool, Version 3.0. ESI reviewed and assessed the implementation and outputs of the tool provided by the project proponent on 11 November 2011, and agrees with the risk rating of 20.5 (sum of internal, external, and natural risk totals), which equates to a buffer withholding of 20.5%.



#### 4.6.4 Baseline and Leakage

ESI confirms the project baseline as the continuation of the pre-project agricultural activities, with the existence of no woody biomass growth.

ESI confirms the leakage assertions made within the GHG Project Plan. According to the Forest Carbon Project Standard, Version 2.1, A/R projects do not generally need to account for market leakage. Discussions with the project proponent and site visit confirmed the natural year-to-year fluctuations in planted crops in the MLV region. The GreenTrees ACRE project appears to follow the typical guidance for A/R projects and therefore leakage was calculated as zero.

#### 4.6.5 Monitoring and Contractual Requirements

ESI confirmed the appropriateness and implementation of the GreenTrees ACRE project monitoring plan, which details monitored data and parameters, measurements, timing, and data storages.

ESI confirmed contractual requirements land ownership documentation as described in the GHG Project Plan. GreenTrees performs credit and title checks on each landowner before signing the landowner contract that gives GreenTrees carbon rights and places restrictive covenants on the lands as it pertains to carbon rights. The contracts are then recorded in the official records of land ownership with state or local government agencies.

#### 4.6.6 Community and Environmental Impacts

ESI confirms the project's net positive community and environmental impacts and co-benefits such as providing sustainable income to low-income landowners, job stimulation, water quality, reduction of soil erosion, and increased biodiversity.

#### 4.6.7 Stakeholders Comments

ESI reviewed stakeholder outreach records and witnessed a meeting on April 26, 2011 where multiple stakeholder groups (LA Department of AG and Forestry, Black Bear Conservation Coalition, Trust for Public Lands, landowners and representatives from Senator Landrieu's office) attended and toured one of the properties. GreenTrees holds several meeting a year for stakeholders to receive updates and learn about the project results, as well as give feedback to GreenTrees on possible improvements to their program.

#### 4.6.8 GHG Emissions Reduction and Removal Enhancements (ERTs)

GHG Reductions or Removals	Units
Baseline Emissions / Reductions	0 tCO <sub>2</sub> e (conservative assumption that baseline change in stocks and emissions are zero)
Project Emissions	0 tCO <sub>2</sub> e
Leakage	0 tCO <sub>2</sub> e
Uncertainty Deduction Rate	0%



<b>2010 GHG emission removals total (tCO<sub>2</sub>e)</b>	<b>42,898 tCO<sub>2</sub>e*</b>
<b>Total Emission Reduction Tonne(s) (ERTs)</b>	<b>42,898 ERTs*</b>

\*risk buffer not deducted (20.5%)

#### 4.7 Verification Findings


The ESI verification team identified 10 non-conformity reports (NCRs) and clarifications (CL). All were addressed satisfactorily by GreenTrees during the project validation process. These NCR's and CL's provided needed clarity to ensure that the project was implemented in accordance to the validated GHG Project Plan and was in compliance with ACR's Standard (Versions 2.1, October 2010) and Forest Carbon Project Standard (Version 2.1, November 2010).

The complete list of verification finding and resolutions has been compiled and located in Appendix F.

#### 4.8 Verification Results/Conclusions

ESI confirms all verification activities including objectives, scope and criteria, level of assurance and the project's adherence to the Forest Carbon Project Standard (Version 2.1) and the validated GHG Project Plan (version 14, dated 13 December 2011), as documented in this report, are complete and concludes without any qualifications or limiting conditions that the GreenTrees ACRE Project meets the requirements of ACR's Standard and the Forest Carbon Project Standard Version 2.1 (November 2010).

The GHG assertion provided by the GreenTrees and verified by ESI has resulted in the GHG emission removal of 42,898 tCO<sub>2</sub> equivalents by the project during the verification period/reporting period (1 January 2010 – 31 December 2010).

Report Submitted to:	GreenTrees, LLC American Carbon Registry
Report Submitted by:	Environmental Services Inc. Corporate Office 7220 Financial Way, Suite 100 Jacksonville, Florida 32257
ESI Lead Validator/Verifier Name and Signature:	 Shawn McMahon Lead Verifier
ESI Regional Technical Manager Name and Signature	 Janice McMahon Vice President and Forestry, Carbon and GHG Division Regional Technical Manager
Date:	22 December 2011

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## Appendix A – List of Current Tracts/Parcels Enrolled in GreenTrees ACRE Programmatic A/R Project

Tract ID		<u>Contract GPS Acres</u>	<u>County</u>	<u>State</u>	<u>Planting Year</u>	<u>Series</u>
GRT021		69.01	Yazoo	MS	2008	A
GRT020		60.33	Yazoo	MS	2008	A
GRT015		110.19	Drew	AR	2008	A
GRT001		100.30	Ashley	AR	2009	A
GRT012		67.90	Desha	AR	2009	A
GRT009		189.40	Desha	AR	2009	A
GRT011		169.00	Jackson	AR	2009	A
GRT003		63.20	Jackson	AR	2009	A
GRT002		95.10	Jackson	AR	2009	A
GRT004		63.70	Jefferson	AR	2009	A
GRT007		139.90	Jefferson	AR	2009	A
GRT008		285.00	Phillips	AR	2009	A
GRT005		183.70	Crittendon	AR	2009	A
GRT006		150.70	Lonoke	AR	2009	A
GRT010		59.00	Prairie	AR	2009	A
GRT016		146.70	Lonoke	AR	2010	A
GRT014		34.69	Chicot	AR	2010	A
GRT023		182.51	Jefferson	AR	2010	A
GRT019		1161.69	Madison	LA	2010	B
GRT017		78.41	Chicot	AR	2010	B
GRT013		143.30	Chicot	AR	2010	B
GRT018		64.60	Chicot	AR	2010	B
GRT022		28.06	Jackson	AR	2010	B
GRT031		589.80	Sharkey	MS	2004	GT
GRT032		605.60	Sharkey	MS	2003/2004	GT

Total 4841.79



## Appendix B – ACR Certification Letter



December 14, 2011

Chandler Van Voorhis  
Managing Partner, C2I  
P.O. Box 193  
Middleburg, VA 20118

Dear Chandler,

The American Carbon Registry (ACR) has reviewed the *Advanced Carbon Restored Ecosystem (ACRE)* GHG Project Plan dated December 13, 2011. ACR earlier certified, in our January 8, 2010 letter, the *GreenTrees Monitoring, Reporting and Verification Protocol: an Advanced Carbon Restored Ecosystem (ACRE) Approach for the Delta*. As noted in our letter, that certification applied to Series A-1 of the project.

As you indicate, the earlier certification was under the ACR *Forest Carbon Project Standard* v1.0. This GHG Project Plan update was conducted to show conformance with the ACR *Forest Carbon Project Standard* version currently in effect (v2.1), and apply ACR's *Methodology for Afforestation and Reforestation of Degraded Land*, v1.0 published in March 2011.

Thank you for responding to our requests for corrections and clarifications to the updated GHG Project Plan. We find that the December 13, 2011 version complies with applicable requirements of the standard and methodology. This letter constitutes ACR's certification, as defined in the *ACR Standard*, of the GHG Project Plan.

We note on page 21 the revised risk buffer withholding rate of 20.5%. Note that buffer contributions occur on each new ERT issuance and may be made in ERTs of any type and vintage.

ACR appreciates the opportunity to work with you on this excellent programmatic project and looks forward to future planting series you continue to expand your efforts in the Lower Mississippi Valley. In our view the project is unique and truly outstanding as an example of the possibility of carbon finance to promote conservation and deliver multiple environmental and economic benefits.

Sincerely,

Nicholas Martin  
Chief Technical Officer, American Carbon Registry

2121 Crystal Drive, Suite 500  
Arlington, Virginia 22202

[www.americancarbonregistry.org](http://www.americancarbonregistry.org)



## Appendix C – ACR’s Interpretation of Methodology Requirement

**Janice McMahon**

**From:** Shawn McMahon  
**Sent:** Friday, December 02, 2011 9:03 AM  
**To:** Janice McMahon  
**Subject:** FW: Request for interpretation of soil carbon tool language

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**From:** Martin, Nick [mailto:NMartin@WINROCK.ORG]  
**Sent:** Tuesday, November 22, 2011 10:43 AM  
**To:** Gordon Smith  
**Cc:** Shawn McMahon; Chandler Van Voorhis  
**Subject:** RE: Request for interpretation of soil carbon tool language

Gordon,

Thanks for this question. I agree with your interpretation that the intent of applicability condition (e) in the ACR A/R methodology, which is repeated in applicability condition (d) of the CDM “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities,” is to ensure that any release of soil organic carbon in the project scenario, due to site preparation [and here, early weed control] is unlikely to reduce SOC stocks or cause greater emissions than would have happened in the baseline scenario, i.e. continued annual plowing with occasional fallow years.

It may help to know a little about the genesis of this methodology. It is derived from CDM methodology AR-ACM0001, v5. Earlier versions of ACM0001, up through v4, did not include the applicability condition in question nor reference the SOC tool. Instead they just required the project to either exclude SOC from accounting, or use a very conservative default approach. Version 5 of the methodology, in allowing projects to use the new SOC tool, added the applicability condition related to site preparation. So the applicability condition is in my view about ensuring that SOC in the project scenario is not greater than the baseline (or does not decrease SOC stocks below what they were prior to the project activity), not about creating an exclusive list of what site preparation/weed control activities are allowed or not. Thus I read “ploughing/ripping/scarification” as examples, not an exclusive list.

Therefore as you say, as long as we can be comfortable that disking for weed control, even if it takes place in a different year from site preparation technically violating the “not repeated within 20 years” part, will not (even in combination with site preparation) result in lower SOC stocks than existed prior to the project, then I see no problem with considering the applicability conditions of the methodology and the tool to be met, and therefore allowing SOC to be included in the GHG assessment boundary and accounted using the CDM SOC tool. Also as you say, incorporation of weeds into the soil through disking should give added comfort that SOC is likely to be greater than under annual plowing.

I don't think we need an official modification of the applicability conditions of the ACR A/R methodology for this; at least, you need not wait for us to do that. You can consider this message as our interpretation relative to the issue.

Thanks  
Nick

**Nicholas Martin** Chief Technical Officer  
American Carbon Registry, an enterprise of Winrock International  
2121 Crystal Drive, Suite 500 | Arlington, VA 22202, USA | [www.winrock.org](http://www.winrock.org) | [www.americancarbonregistry.org](http://www.americancarbonregistry.org)  
office 703.842.9500 | cell 651.233.3385 | e-mail [nmartin@winrock.org](mailto:nmartin@winrock.org)



**From:** Gordon Smith [<mailto:gsmith@ecofor.org>]  
**Sent:** Monday, November 21, 2011 2:53 PM  
**To:** Martin, Nick  
**Cc:** Shawn McMahon; Chandler Van Voorhis  
**Subject:** Request for interpretation of soil carbon tool language

Hello Nick:

Shawn McMahon of ESI is being very thorough in his re-validation of the GreenTrees project, and his thorough review has raised a question that needs an interpretation from you.

What we need is an interpretation from ACR about soil disturbance, relating to the applicability of the CDM soil carbon tool. Two different clauses within the same applicability requirement could lead to different interpretations.

In advance, I ask forgiveness the length of this question, but I want to give you the specific language we are asking to be interpreted.

The applicability requirements of the CDM A/R "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities (Version 01.1.0) includes the applicability requirement 3.(b)(ii) stating:

Soil disturbance attributable to the A/R CDM project activity, if any, is:

- In accordance with appropriate soil conservation practices, e.g. follows the land contours;
- Limited to soil disturbance for site preparation before planting and such disturbance is not repeated in less than twenty years.

Shawn has observed that on some of the GreenTrees sites there is disking after tree planting, to control weeds. If this disking is done, it is typically done the same year as planting, but it is possible that there could be disking the year after planting.

Shawn has asked if disking counts as soil disturbance. The tool defines soil disturbance as:

"Soil disturbance" is an anthropogenic activity that results in release of soil organic carbon into the atmosphere, e.g. ploughing, ripping, scarification, digging of pits and trenches, stump removal, drainage of soil, etc.

Disking moves the soil about as much as scarification, which is defined as disturbance, although it is significantly less soil disturbance than any of the other activities given as examples of soil disturbance. At the same time, the eligibility language says that disturbance is defined as resulting in release of soil carbon into the atmosphere.

The GreenTrees sites have had decades of plowing and have reduced soil carbon stocks relative to what would have been present in the absence of plowing. It is my contention that the minor soil disturbance of C2I weed control activities does not reduce the soil carbon stocks below the pre-project stocks under plowing. Further, I contend that any decline in the gain in soil carbon caused by disturbance should be approximately offset by the increased sequestration resulting in incorporating carbon in weeds into the soil, relative to leaving that carbon on the surface where nearly all of it returns to the atmosphere through decomposition during the following winter. Thus, I conclude that the disking done by the GreenTrees project does not result in net release of soil carbon to the atmosphere, which is the definition of "soil disturbance" in the CDM tool.

GreenTrees is asking ACR for interpretation of the CDM soil carbon estimate tool applicability requirements stating something to the effect adding another bullet point within Section 3.(b)(ii) (quoted above) stating:

On sites with a history of repeated plowing, shallow soil disturbance such as disking done for the purpose of weed control during the 18 months following tree planting is allowed.

Please let us know your interpretation.



thanks,  
Gordon

Gordon Smith, Ph.D., Managing Partner  
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13047 12th Ave NW  
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## **Appendix D – ESI's Validation Findings**

American Climate Registry GreenTrees - Advanced Carbon Restored Ecosystem (ACRE) Project 23 November 2011 Final Validation Findings Validator - Environmental Services, Inc.									
Item #	ACR Standard Version 2.1 October 2010	Applicability to the Project (Y or N/A)	Requirement Met (Y or N)	Location in PP or Supporting Documents	NCR/CL/OFI	Response from Client	Additional ESI Comments/ Requests	Response	Additional ESI Comments/ Requests
1	The Project Proponent shall select assumptions and values to ensure that GHG emission reductions and removals are not overestimated particularly in the event that the Proponent relies on uncertain data and information. For GHG sources sinks and reservoirs not selected for regular monitoring the Project Proponent shall estimate GHG emissions and/or removals by the sources sinks and reservoirs relevant for the project and those relevant for the baseline scenario.	Y	N	Throughout	Please ensure that "Guide lines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks" are referenced in PP and followed as required by the methodology.	This specification is added to section E2. Data and factors are checked and confirmed as conforming to the requirements.	The verifier has noted where this was added to Section E2. The principles of this guidance will be confirmed further during verification. Please note that the guidelines are entitled "Guidelines on conservative choice..." not "Guidance on conservative choice..." Please revise in the Project Plan (PP).	Version 10 of the PD includes this correction.	NCR addressed
2	Derive from a scientific peer-reviewed origin;	Y	N	Pages 29-37	Please reference where the Uncertainty and Reduction/Removal Enhancements formulas were derived in the PP (eg. the selected methodology) so the verifier may ascertain the nature of their origin.	The equation is from the project's approved Monitoring Reporting Verification Protocol. We are open to using the IPCC uncertainty pooling equation instead which is also used in the Sept. 2010 ACR methodology "Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on U.S. Timberlands" and in the VCS IFM uncertainty tool.	It is understood that the uncertainty deduction was approved in the previous MRV. As you are updating to the current version of the FCPS and have selected the Sept. 2010 ACR methodology "Improved Forest Management Methodology for Quantifying GHG Removals and Emission Reductions through Increased Forest Carbon Sequestration on U.S. Timberlands" it would be preferred the IPCC uncertainty pooling equation were used.	The IPCC uncertainty pooling equation is used in v08 of the GreenTrees 2010 carbon calculations which has been provided to the verifier. Use of this equation does not change the calculated number of offsets.	Gordon sent me the uncertainty location on IPCC.  Follow up: NCR Addressed
3	At a minimum ACR shall disclose publicly the project baseline scenario calculations monitoring report and additional assertion. The verifier shall check that any information requested as "commercially sensitive" meets the ACR definition of Commercially Sensitive Information.	Y	N	N/A	Please clarify if any information will be deemed "commercially sensitive" during the verification process.	Commercially sensitive information is landowner names and addresses information about variability across plots and spreadsheets especially coding of calculations of carbon and offset amounts.	As the Standard states that "ACR shall publicly disclose ... calculations ..." Please clarify how the coding of calculations of carbon offset amounts be deemed commercially sensitive.	Software is intellectual property. The equations are in the Project Document and are public. The verifier has a copy of the calculations and is reviewing them. The coding of the software is what is proprietary not the equations.	NCR addressed
4	ACR uses the Climate Community & Biodiversity Alliance (CCBA) definition of community	Y	N	Pages 49-51 F.	Please ensure the CCBA definition of "community" is referenced.	The ACR/CCBA definition of community is included.	NCR addressed.		
5	ACR requires community and environmental impacts to be positive overall. The difference in community impacts between the "with" and "without" project scenarios (i.e. the community benefit) shall be positive in order for the project to qualify for registration.	Y	N	Pages 49-51 F.	Although it is apparent community benefits will be positive please demonstrate completion of the exercise of evaluating "with" and "without" project.	It is explicitly stated in the PD that the community and environmental benefits that happen as a result of the project would not happen without the project.	NCR addressed.		
6	Project Proponents should disclose in their Annual Attestation any negative environmental or community impacts or claims of negative environmental and community impacts and document plans for mitigation of any reported negative environmental or community impacts.	Y	N	Pages 49-51 F.	Please include a statement that the Project Proponent will disclose in their Annual Attestation any negative environmental or community impacts or claims of negative environmental and community impacts and document plans for mitigation of any reported negative environmental or community impacts.	Form is provided by ACR. A copy of the signed attestation form is provided to the verifier.	A statement in the PP was not included but the attestation was provided by GreenTrees on 10/21/11. NCR Addressed.		
Item Number	ACR Forest Carbon Project Standard Version 2.1 November 2010	Applicability to the Project (Y or N/A)	Requirement Met (Y, N or N/A)	Location in PP or Supporting Documents	NCR/CL/OFI	Response from Client	Additional ESI Comments/ Requests	Response from Client	Additional ESI Comments/ Requests
7	GHG project boundaries include a project's geographical implementation area the types of GHG sources and sinks considered the carbon pools considered and the project duration.	Y	N	Page 8	Although it is apparent from other sections of the document please mention/identify the types of GHG sources and sinks considered and the carbon pools considered as part of the project boundary in this section of the project document or reference their location in other appropriate sections of the document.	A list of counted sources and sinks is added to the "Project Boundaries" section.	NCR addressed.		



8	The GHG Project Plan shall provide a detailed description of the geographic boundary of forest project activities. The project activity may contain more than one discrete area of land but each area shall have a unique geographical identification and shall meet the land eligibility requirements of this standard. The Project Proponent shall provide maps Geographic Information System (GIS) shapefiles or other relevant information to delineate the project boundary.	Y	N	N/A	Shapefiles and stand maps were provided on 13 & 18 April 2011 however from the PP (Project Plan) it is not clear which areas they covered and how those areas tie into the project. Please provide within the PP maps GIS shapefiles coordinate table landowner tables or other relevant information to delineate the project boundary and ownership on each discrete area of land.	Maps are added to the PD.	The additional maps referenced could not be located in the PP. Please provide.	The maps have been provided to the verifier via a shared Dropbox folder in the folder named "maps".	Though the maps are not in the PP the maps were indeed provided to verifier on 10-6-2011 and are in the files. A sufficiently detailed description of the geographic boundary of forest project activities is in the PP. <a href="#">NCR addressed.</a>
9	ACR requires that the 90% statistical confidence interval of sampling be no more than 10% of the mean estimated amount of emission reduction/removal. If the Project Proponent cannot meet the targeted $\pm 10\%$ of the mean at 90% confidence then the reportable amount shall be the mean minus the lower bound of the 90% confidence interval applied to the final calculation of emission reductions/removal enhancements. The precision target is applied across the project not within particular carbon pools or strata.	Y	N	N/A	Please provide the calculations/spreadsheets associated with the project.	Spreadsheet with calculations has been provided to the verifier filename "GreenTrees Calcs 2011 v07.xls".	<a href="#">NCR addressed.</a>		
10	Project Proponents shall use a nationally approved "forest" definition for the country where the activity occurs. For projects in the United States Proponents shall use the U.S. definition in Annex 1 which is based on the U.S. Forest Service Forest Inventory & Analysis Program definition.	Y	N	B6 Page 11	Although it is apparent the project areas will become a forest by most standards please clearly demonstrate in the PP that the areas will meet the definition of "forest" from Annex 1 of the Forest Carbon Project Standard.	Demonstration is added. Note that this definition of forest applies to "signatory" countries of the Kyoto Protocol and although the US signed the KP the US did not ratify or implement the KP. Further country DNAs select a forest definition and the US has not established a DNA.	Verifier noted the addition on Pages 11 & 12 (Section B6). The ACR requirement is for "signatory" countries as well as the US (see Page 15 Chapter 3 Section A first paragraph of the Standard) in which case the U.S. Forest Service FIA Program definition must be used. Please revise this section of B6 to reflect the appropriate ACR requirement.	This change is made in version 11 of the PD.	The PD has added the USFS definition of a forest to their baseline. <a href="#">NCR addressed.</a>
11	Maps provided to verifier o	Y	N	Pages 3 & 4 A3 Page 6 A7	The project plan mentions "Project Proponent " but does not discuss who this is in the "Parties" section A7. Please clarify.	GreenTrees LLC is the project proponent. Edits made.	<a href="#">NCR addressed.</a>		
12	Project Proponents shall assess general and project-specific risk factors using an ACR-approved risk assessment tool. Project Proponents shall conduct their risk assessment using the ACR Tool for Risk Analysis and Buffer Determination (in development).  Project Proponents shall mitigate reversal risk by contributing ERTs from the project itself to the ACR buffer pool; contributing ERTs of another type or vintage to the ACR buffer pool; providing evidence of sufficient insurance coverage with an ACR approved insurance product to recover any future reversal; or using another ACR-approved risk mitigation mechanism.	Y	N	Page 33	Please identify and outline which ACR-approved risk assessment tool is being utilized for the project.	ACR Forest Project Standard v2.1 says the ACR tool shall be used and until the ACR tool is published the most recent VCS AFOLU risk buffer tool shall be used. No ACR risk tool is on the ACR website so the VCS tool must be used. The risk rating is provided to the verifier calculated using the VCS tool v3 issued March 2011.	Please revise the PP to include a reference to "AFOLU Non-Permanence Risk Tool v3.0."	This reference is added to section E5 of version 11 of the PD.	Reference added pages 33 and 34 of PD. <a href="#">NCR addressed</a>
13	Project Proponents shall assess account for and mitigate certain types of leakage as described in Chapter 6. Project Proponents shall deduct leakage that significantly reduces the GHG emissions reduction and/or removal benefit of a project.	Y	N	Page 30 E3	Please discuss how the possible leakage of conversion of other forested lands to crops has been calculated to be zero.	The zero number is a holdover from the previous version of the ACR Forest Project Standard. Version 2.1 of the standard says to follow leakage methods specified in the methodology. The methodology specifies the use of the CDM tool for estimating emissions from displacing agricultural activities by AR projects. The tool is applied and the application is provided to the verifier.	The appropriate formula (27) from Page 28 of the Methodology has referenced in the PP. If leakage were found to be an issue during the first verification or future verifications it will need to be assessed at that time. <a href="#">NCR addressed.</a>		
14	<b>Regulatory Surplus Test</b> To apply the regulatory surplus test the Project Proponent shall evaluate existing laws regulations statutes legal rulings or other regulatory frameworks that directly or indirectly affect GHG emissions associated with a project action or its baseline candidates and which require technical performance or management actions. National state or local forest management/forest practice rules may require managing operations according to a certain set of criteria.	Y	N	Page 16 C1	Please provide more detail supporting the case that no such laws exist (ie reference letters/emails from legal counsel fed land management agencies consulting foresters etc.).	Again please be reminded that this is a AR project and the project action is conversion of agricultural land to forest. This is not an IFM project. Clearly there is no law or regulation requiring conversion of US agricultural lands to forest. Section C1 is edited to make this point more clearly.	Additional information provided in Section C1 acceptable. Further investigation may occur during verification but for now <a href="#">NCR addressed.</a>		

15	In determining whether an action is surplus to regulations. Project Proponents should not consider voluntary practices, proposed laws or regulations, optional guidelines, or general government policies. Only mandated forest management practices, not actions left to landowner discretion, shall be considered in the regulatory surplus test. Voluntary practices, if they have become established as part of a landowner's business-as-usual land management, may be considered part of the baseline scenario but are not part of the regulatory surplus test.	Y	N	Page 16 C1	Please provide assurance that voluntary practices, proposed laws or regulations, optional guidelines, or general government policies were not reviewed in determining whether an action is surplus to regulations.	We confirm that the regulatory surplus assessment is based on law and regulation, not voluntary actions.	NCR addressed.		
16	The Project Proponent shall demonstrate that the proposed project activity exceeds the common practice of similar landowners managing similar forests in the region.	Y	N	Page 16 C2	Please demonstrate that the proposed project activity exceeds the common practice of similar landowners managing similar forests in the region.	The project activity must not be common practice. The project activity is afforestation of crop land. This is not common practice. The annual rate of afforestation of crop land in the region is 0.016% to 0.17% per year, as documented in section C2 of the PD.	NCR addressed.		
17	The common practice component of the three-prong test is different from a performance standard reflecting average stocking levels or average emissions per unit of output. Proponents choosing the project-level approach to additionality and therefore the three-prong test shall provide evidence to document what is common practice forest management for similar landowners of similar forests in that region, e.g., through management plans of other landowners or alternatively the opinions of established forestry consultants.	Y	N	Page 16 C2	Please provide evidence to document what is common practice forest management for similar landowners of similar forests in that region, e.g., through management plans of other landowners or alternatively the opinions of established forestry consultants.	The project activity must not be common practice. The project activity is afforestation of crop land. This is not common practice. The annual rate of afforestation of crop land in the region is 0.016% to 0.17% per year, as documented in section C2 of the PD.	The site visit confirmed that this is not common forestry practice in the region. NCR addressed.		
18	Financial - Financial barriers can include high costs, limited access to capital, or an internal rate of return in the absence of carbon revenues that is lower than the Proponent's established minimum acceptable rate. Financial barriers can also include high risks such as unproven technologies or business models, poor credit rating of project partners, and project failure risk. If electing the financial implementation barrier test, Project Proponents shall provide solid quantitative evidence such as net present value (NPV) and internal rate of return (IRR) calculations, documentation such as appraisal documents, etc.	Y	N	Pages 15-17 C	Why are the 2009 crop enterprise budgets referenced instead of 2010 ( <a href="http://www.uaex.edu/depts/ag_economics/budgets/2010/2010_Budgets.pdf">http://www.uaex.edu/depts/ag_economics/budgets/2010/2010_Budgets.pdf</a> )? Additionally, the numbers for the crop budgets in 2010 (could not locate 2009) appear considerably lower than the values stated in the PP (e.g., soybeans net returns after capital recovery and overhead \$90.15; cotton net returns after capital recovery and overhead \$147.08). Please discuss.	Note that the financial return numbers in the approved MRV Protocol section C3 on financial additionality are NPV of cumulative returns, not annual returns. For example, the net present value of cumulative returns for continuing soybean cropping with an annual return of \$90.15 per acre, at a 6% annual discount rate, would be \$1502.50 per acre. Using the projected carbon cottonwood and hardwood revenues plus the value of the hardwood standing forest at year 70, plus federal planting payments and CRP payments, using numbers in the GreenTrees ProForma for landowners, the present value of returns under the GreenTrees program are \$1354.89 per acre. Switching from soybeans with net returns of \$90.15/acre each year results in a loss of NPV of \$147.61. Corn and cotton are currently generating much larger net revenues than soybeans; presumably if landowners were not enrolled in GreenTrees they would have shifted their soybean plantings to cotton or corn.	As the original MRV (now PP) was approved in 2009 we accept the analysis on the basis of the crop enterprise budgets from that year. NCR addressed.		

19	<b>Assessment of Risk</b> To assess the risk of reversal Project Proponents shall conduct a risk assessment addressing both general and project-specific risk factors.	Y	N	N/A	Please provide the required risk assessment.	The risk tool has been applied and a copy provided to the verifier filename "Risk buffer rating.xlsx".	For Table 2 Financial Viability please provide documentation supporting that project has callable financial resources at least 50% of total cash out before breakeven. Additionally a financial analysis could not be located. Please provide.  Table 10 Natural Risks indicates that the for the risk of fire prevention measures (mitigation) are implemented. A discussion of prevention measures could not be located in the document. Please provide.  Table 10 Natural Risks indicates that for the risk of pests/disease the project proponent has a proven history of effectively containing natural risk. Please explain.	The additionality financial analysis is in section C of the project document. Supporting calculations showing the financial return to GreenTrees landowners are in the "Opportunity Costs" sheet of the risk buffer rating spreadsheet. Regarding the risk of fire this was an error and the risk of fire rating is changed to 1 and no fire prevention measures are claimed. The proven history of responding to natural risk is that when trees on some sites were killed by prolonged flooding immediately after planting (the trees can survive flooding after the first year or two) the project replanted.	Pages 16 and 17 of PD document an investment barriers test that details without project financial analysis.  Fire risk rating has been changed to a 1.  Callable financial resources mitigation is no longer selected so this point is moot. Callable resources. <a href="#">NCR addressed.</a>  Rating for pest and disease does not fit for the purposes of extreme flooding. This would be more applicable to the section relating to extreme weather which is rated appropriately. Please explain risk rating for pest and disease as it relates to actual pest or disease outbreaks or epidemics. GreenTrees will revise the risk buffer to account for pest and disease.  <a href="#">Follow up: NCR addressed</a>
20	Project Proponents shall conduct their risk assessment using the ACR Tool for Risk Analysis and Buffer Determination (in development as of 19 September 2011). Only until the release of this tool Project Proponents shall use the most updated version of the VCS Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination.	Y	N	Page 33	Please specify the ACR-approved risk assessment tool to be utilized.	ACR Forest Project Standard v2.1 says the ACR tool shall be used and until the ACR tool is published the most recent VCS AFOLU risk buffer tool shall be used. No ACR risk tool is on the ACR website so the VCS tool must be used. The risk rating is provided to the verifier calculated using the VCS tool v3 issued March 2011.	ESI agrees the project has utilized the most updated and appropriate tool. Please refer to ESI comments (mentioned in Item Number 19) for further documentation requests.		<a href="#">NCR addressed</a>
21	The output of either tool is an overall risk category for the project translating into a number of offsets that must be deposited in the ACR buffer pool to mitigate the risk of reversals (unless the Proponent elects another ACR-approved risk mitigation mechanism).	Y	N	Page 33	Once the risk assessment is completed please provide an overall risk category.	The risk tool has been applied and a copy provided to the verifier filename "Risk buffer rating.xlsx".	TBD based on Item 19 responses.		<a href="#">NCR addressed</a>
22	The Project Proponent shall conduct this risk assessment and propose a corresponding buffer contribution (if applicable). The risk assessment overall risk category and proposed buffer contribution shall be included in the GHG Project Plan.	Y	N	Page 33	Please ensure the risk assessment overall risk category and proposed buffer contribution are included in the GHG Project Plan.	The risk tool has been applied and a copy provided to the verifier filename "Risk buffer rating.xlsx".	TBD based on Item 19 responses.		<a href="#">NCR addressed</a>
23	<b>Monitoring</b> In the case of periodic monitoring Proponents of aggregated projects shall design a stratification and sampling plan to achieve the ±10% at 90% confidence precision target at the level of the overall project.	Y	N	N/A	Though the "uncertainty" section of the PP discusses the implications of exceeding the +/-10% at 90% confidence precision target for the overall project I could not locate a statement in the PP monitoring plan that the stratification and sampling plan has specifically been designed to achieve +/-10% at 90% confidence precision target for the overall project. Please provide.	This statement that sampling is designed to meet the precision target is in the third paragraph of section D of the draft PD provided to the validator. To date stands have been stratified by age as a surrogate for tree size. In the future we expect to stratify by tree size. Plots were measured and the variability calculated. The number of plots needed to meet the precision threshold was calculated and measured.	Although somewhat vague the statement in the third paragraph of Section D is acceptable because it provides enough information for a verifier to confirm. <a href="#">NCR addressed.</a>		
24	<b>Annual Attestation</b> Each year the Project Proponent shall submit a signed Attestation that:	Y	N	N/A	The PP does not discuss the annual attestation. Please provide the annual attestation for review.	Provided as part of verification.	The attestation was provided on 21 October 2011. <a href="#">NCR addressed.</a>		
<b>Item Number</b>	<b>ACR Methodology - Afforestation and Reforestation of Degraded Lands, March 2011</b>	<b>Applicability to the Project (Y or N/A)</b>	<b>Requirement Met (Y, N or N/A)</b>	<b>Location in PP or Supporting Documents</b>	<b>NCR/CL/OFI</b>	<b>Response from Client</b>	<b>Additional ESI Comments/ Requests</b>	<b>Response from Client</b>	<b>Additional ESI Comments/ Requests</b>
25	<b>1.4 Applicability</b> (c) The land does not fall into wetland category	Y	N	N/A	According to the ACR Methodology project may not be located in wetlands. Please clarify if the project is located in wetlands.	The methodology cites the IPCC as the source of the definition of "wetland" as a land use category (not biological or physical condition). The IPCC definition of wetland for GHG accounting of land uses is land that is not forest land cropland grassland or settlement (IPCC GPG for LULUCF 2003). Project lands are cropland being converted to forest thus not wetland as the word is used in the methodology.	To be further reviewed during verification. <a href="#">NCR addressed.</a>		

26	(e) Plowing/ripping/scarification attributable to the AR ACR project activity if any is: (i) Done in accordance with appropriate soil conservation practices e.g. follows the land contour; and (ii) Limited to the first five years from the year of initial site preparation; and (iii) Not repeated if at all within a period of 20 years.	Y	N	Page 3	The applicability criteria states "5 years from the year of initial site preparation" however the PP states "5 years from the point of enrollment". There are scenarios in which this could lead to a conflict with the applicability criteria. Please discuss and/or revise as appropriate.	The PD is changed to say 5 years from the year of initial site preparation. Note that the removed language is more restrictive than the new language but GreenTrees retains its prohibition on performing these activities after planting.	NCR addressed.		
27	The "project boundary" geographically delineates the afforestation or reforestation project activity under the control of the Project Proponent (PP). The AR ACR project activity may contain more than one discrete area of land. Each discrete area of land shall have a unique geographical identification.	Y	N	N/A	Although shapefiles and stand maps were provided on 13 & 18 April 2011 it was unclear which areas they covered and how those areas tie into the project based on the Project Plan (PP). Please provide within the PP maps: GIS shapefiles, coordinate table or other relevant information to delineate the project boundary on each discrete area of land.	Maps are added to the PD.	The additional maps referenced could not be located in the PP. Please provide.	The maps have been provided to the verifier via a shared Dropbox folder in the folder named "maps".	Maps provided to verifier on 10-6-2011 and are in the files. NCR addressed.
28	It shall be demonstrated that each discrete area of land to be included in the boundary is eligible for an AR ACR project activity. PDs shall apply the "Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities" as approved by the Board.	Y	N	N/A	Please demonstrate that each discrete area of land to be included in the boundary is eligible for AR ACR project activity. Please apply the referenced CDM tool to this exercise.	Section 1D of the ACR Forest Project Standard v2.1 states that lands shall not be eligible as an AR project if they have been cleared of forest within 10 years before the project start date. The CDM tool requires that lands not be forest at the time of the start of the project (Step 1(a)) and that for reforestation the land was not forest on December 31 1989 (Step 1 (b)). Description of how GreenTrees implements these requirements is added to section B3 of the PD.	PP demonstrates that each separate tract of the project must meet the CDM tool and the ACR eligibility criteria; however ACR requires "PDs shall apply the 'Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities' " and although elements of the tool may be found throughout the PP it does not appear this tool has been formally applied. It appears that from Section B3 that you have satisfied by 1(b) i but (a) must also be applied. Please demonstrate how the project has formally applied all steps of the CDM tool.	Version 10 of the PD includes further description of how the tool is applied. Note that the ACR PD template does not follow the format of the CDM tool and the PD follows the required template. Per step 1.a. we reiterate that the only plausible alternative land uses are continuation of the pre-project land use and the project activity.	NCR addressed
29	<b>2.4.1 Carbon stock changes in above-ground and below-ground tree biomass</b>	Y	N	N/A	Please ensure that the equations referenced in the PP are consistent with the methodology.	We re-checked this and believe the equations are consistent. There are some factors in the methodology that are not repeated in the PD because the project does not measure them. There is a difference in the sequence of scaling up from plot data to carbon stocks but this sequence difference does not change the final answer because multiplication is transitive.	NCR addressed.		
30	2.8 In addition to the parameters listed in the tables below the provisions on data and parameters in the tools referred to in this methodology apply.	Y	N	N/A	Please ensure all tools listed in the methodology are followed for additional data and parameters to be monitored.	Not all the tools are applicable. For example the project does not include burning so the tool for calculation of emissions from burning is not applicable.	ESI acknowledges this question is vague but the intent was to ensure all referenced CDM/ACR/VCS tools as required by the methodology were referenced in the PP and applied correctly to the project. Specifically this item requests any additional data and parameters from other tools be included in the Monitoring Plan. This will be further reviewed during verification. NCR addressed.		
31	All data collected as part of monitoring should be archived electronically and be kept at least for two years after the end of the last crediting period. One hundred percent of the data should be monitored if not indicated otherwise in the tables below. All measurements should be conducted according to relevant standards. In addition the monitoring provisions in the tools referred to in this methodology apply.	Y	N	N/A	Please provide a discussion in the PP of data archiving and storage and ensure it's in accordance with the methodology requirements.	Description added to section to the introductory section of part D of the PD.	Discussion provided in the PP is in accordance with methodology requirements. NCR addressed.		
32	(a) The geographic coordinates of the project boundary (and any stratification inside the boundary) are established recorded and archived;	Y	N	N/A	Once geographic coordinates of the project boundary are established please describe the recording and archiving process.	Project boundary mapping is described in section A3. This description is added to section D.	Recording and archiving has been described in the PP. NCR addressed.		
33	(c) The forest planting and management plan together with a record of the plan as actually implemented during the project shall be available for validation and/or verification	Y	N	N/A	Please provide the forest planting and management plan.	Planting and management plans are provided to the validator.	An excerpt from the forest management plan was provided; however the requirement is for a record of the plan as actually implemented so please provide the actual signed and dated (implemented) plan(s).	Scans of each signed plan are on file in the C2I office in Middleburg and archived in the off-site project storage and are available to be viewed by the validator and verifier.	NCR addressed

34	Stratification of the project area into relatively homogeneous units can either increase the measuring precision without increasing the cost unduly or reduce the cost without reducing measuring precision because of the lower variance within each homogeneous unit. PPs should present in the GHG Project Plan an ex ante stratification of the project area or justify the lack of it. The number and boundaries of the strata defined ex ante may change during the crediting period (ex post).	Y	N	N/A	Please discuss how the project is stratified.	This statement that sampling is designed to meet the precision target is in the third paragraph of section D of the draft PD provided to the validator. To date stands have been stratified by age as a surrogate for tree size. In the future we expect to stratify by tree size. Plots were measured and the variability calculated. The number of plots needed to meet the precision threshold was calculated and measured.	Trees have been stratified by age and in the future will be stratified by size. This will need to be confirmed during future verification events. NCR addressed.		
35	The following data and parameters should be monitored during the project activity. When applying a relevant equations provided in this methodology for the ex ante calculation of net anthropogenic GHG removals by sinks PDs shall provide transparent estimations for the parameters that are monitored during the crediting period. These estimates shall be based on measured or existing published data where possible and PDs should retain a conservative approach: that is if different values for a parameter are equally plausible a value that does not lead to over-estimation of net anthropogenic GHG removals by sinks should be selected.	Y	N	Pages 21-27	It does not appear the data and parameters presented on Pages 21-27 of the PP are fully consistent with the required parameters listed on Pages 39-43 of the methodology. Please clarify.	The data and parameters presented in pages 21-27 are the data and parameters that are monitored. Pages 39-43 give the initial set of allometric equations and belowground biomass factors used to calculate biomass and carbon stock from the data. Factors and coefficients that are not monitored are not included in the list of variables that are monitored. Also intermediate numbers in calculations are not data that are monitored. For example "B" the aboveground biomass of an individual tree is calculated during an intermediate step in the calculation of project carbon stocks from tree data and is not monitored data.	NCR addressed.		
36	When applying this methodology the PDs shall ensure that "Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks" are followed for addressing uncertainty.	Y	N	Throughout	Please ensure that "Guidelines on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks" are referenced in PP and followed as required by the methodology.	This specification is added to section E2. Data and factors are checked and confirmed as conforming to the requirements.	To be determined during verification. NCR addressed.		
Item Number	A/R Methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" (Version 01) (19 October 2007)	Applicability to the Project (Y or N/A)	Requirement Met (Y or N)	Location in PP or Supporting Documents	NCR/CL/OFI	Response from Client	Additional ESI Comments/ Requests	Response from Client	Additional ESI Comments/ Requests
37	This tool is not applicable to small-scale afforestation and reforestation project activities.	Y	N	N/A	Please provide a demonstration/discussion supporting that the project is not "small-scale afforestation and reforestation activities."	Although CDM defines "small-scale" and generating less than 15 000 tons CO2e emission reductions per year and the project generated less than 15 000 tons of offsets in 2009 the schedule (shown in the ex ante projections in section A6) is for the project to generate more than 30 000 tons/year of emission reductions and this is not eligible to use small-scale methodologies. The PP notes that using small-scale methodologies would be much simpler.	Because the yearly average is well over the CDM threshold for small-scale projects NCR addressed.		
38	Provide evidence that the incentive from the planned sale of CERs was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official legal and/or other corporate) documentation that was available to third parties at or prior to the start of the project activity.	Y	N	N/A	Please provide evidence that the incentive from the planned sale of CERs was seriously considered in the decision to proceed with the project activity.	The project document project and calculations conform to the ACR standard 2.1 the ACR forest project standard 2.1 and the ACR AR methodology including the additionality tests and baseline determination required by these documents. While the landowners were motivated by expected CER revenues and are required to document their participation in the CER program before participating in federal cost share programs we do not see where this is required by the standards or methodology. Please show where the standards or methodology state this requirement.	On Page 5 of the Methodology Section II.2 the CDM "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities" is required. In Step 0 #7 on Page 2 of the tool the requirement for the evidence that the incentive was seriously considered is stated. In the hopes of moving the project forward ESI attempted to review the PP and supporting documents against the required tool which is origin of the following questions. However because the tool is a requirement of the methodology please complete a formal analysis of the project against the tool following each step outlined in the tool.	This description is expanded in the v10 of the PD. Also the analysis is included in cells G44-G46 of the spreadsheet "GreenTrees Validation NCRs - Round 1 responses v03.xlsx" which has been provided to the verifier.	GreenTrees will provide marketing materials which were originally provided to landowners documents which existed at the start of the project. Follow up: NCR addressed.
39	Demonstrate that all land use scenarios identified in the sub-step 1a: are in compliance with all mandatory applicable legal and regulatory requirements;	Y	N	Page 16 C1	Although the PP states that no law is requiring afforestation in the region please provide a statement supporting that the continuation of croplands or pasturelands (baseline) would not violate any laws.	Continuation of pre-project cropping or pasture use of land does not violate any law or regulation either in the region in general or on the project lands in particular. This statement is added to section B5.	Added to Page 11. NCR addressed.		

40	14. Determine which land use scenarios identified in the Sub-step 1b are prevented by at least one of the barriers listed in sub-step 2a. Substantiate that the barrier identified as preventing realization of a land use scenario is valid and conclusive in the context of the land use scenario in question. The assessment of a barrier may take into account the level of access to and availability of information technologies and skilled labor in the region where the planned A/R CDM project activity is located. Eliminate these scenarios from further consideration.	Y	N	N/A	Following the format of this CDM tool please determine which land use scenarios identified in sub-step 1b are prevented by at least one of the barriers listed in sub-step 2a.	The credible alternative land use scenarios that are consistent with law and regulation as identified in sub-step 1b are continuing the pre-project agricultural uses primarily cropping soybeans cotton corn or pasture. Sub-step 2a is to identify barriers blocking at least one of the alternatives specified in 1b. We observe that the CDM tool is inconsistent and illogical because for a use to be credible its implementation cannot be blocked by a barrier. None of the credible uses we identify are blocked by a barrier. If the validator wishes us to add a non-credible alternative use to 1b so we can identify it as blocked by a barrier in sub-step 2a we will add afforestation (blocked by below-market financial returns) and developing the land into a recreational resort (blocked by lack of capital because we assume investors will be smart enough to understand that the project would not be able to draw enough patrons to provide a positive return on investment) and these alternative uses are blocked the identified barriers.	See Item # 38 above.	See response to #38 above.	NCR addressed
41	15. If the land within the boundary of the proposed of the A/R CDM project activity was at least partially forested since 31 December 1989 and the land is not a forest at the project start identify reasons/actions/incentives that allowed for the past forestation and demonstrate that the current legal/financial or other applicable regulations or socio-economical or ecological or other local conditions have changed to the extent that allows for conclusion that repetition of the forestation performed without being registered as the A/R CDM project activity is not possible.	Y	N	N/A	Please demonstrate that the project lands were not partially forested since 31 December 1989. If any project lands were please identify reasons/actions/incentives that allowed for the past forestation and demonstrate that the current legal/financial or other applicable regulations or socio-economical ecological or other local conditions have changed to the extent that allows for conclusion that repetition of the forestation performed without being registered as the A/R CDM project activity is not possible.	Description of the multiple processes used to determine that lands were not deforested after 1989 are added to section B3 of the PD. Documents for each parcel are on file in the CZI office and are available for review by the verifier. As stated in the PD any areas with pre-existing trees are excluded from the project. We remind the verifier that the pre-project use of project lands is agricultural and plowing prevents establishment of trees.	PP demonstrates that each separate tract of the project must meet the CDM tool and the ACR eligibility criteria. This will be further reviewed during verification. NCR addressed.		
42	16. Include all land use scenarios that were identified in the Sub-step 1b and were not eliminated in the Sub-step 2b into the list of land use scenarios that are not prevented by any barrier.	Y	N		Following the format of this CDM tool please determine which land use scenarios identified in sub-step 1b are prevented by at least one of the barriers listed in sub-step 2b.	The credible alternative land use scenarios that are consistent with law and regulation as identified in sub-step 1b are continuing the pre-project agricultural uses primarily cropping soybeans cotton corn or pasture. Sub-step 2a is to identify barriers blocking at least one of the alternatives specified in 1b. We observe that the CDM tool is inconsistent and illogical because for a use to be credible its implementation cannot be blocked by a barrier. None of the credible uses we identify are blocked by a barrier. If the validator wishes us to add a non-credible alternative use to 1b so we can identify it as blocked by a barrier in sub-step 2a we will add afforestation (blocked by below-market financial returns) and developing the land into a recreational resort (blocked by lack of capital because we assume investors will be smart enough to understand that the project would not be able to draw enough patrons to provide a positive return on investment) and these alternative uses are blocked the identified barriers.	See Item # 38 above.	See response to #38 above.	NCR addressed
43	<b>Outcome of Sub-step 2b:</b> List of land use scenarios that are not prevented by any barrier.	Y	N	N/A	Please provide a list of land use scenarios that are not prevented by any barrier.	Uses not blocked by a barrier are continuing the pre-project agricultural uses primarily cropping soybeans cotton corn or pasture.	See Item # 38 above.	See response to #38 above.	NCR addressed

44	17. In applying sub-steps 2a and 2b provide transparent and documented evidence and offer conservative interpretations of this documented evidence as to how it demonstrates the existence and significance of the identified barriers. Anecdotal evidence can be included but this alone is not sufficient proof of barriers. The type of evidence to be provided may include:	Y	N	N/A	Please continue to follow the format of the tool in the revised PP for the remaining steps.	Sub-step 2b: Forestation is prevented by sub-market returns on investment and resistance to change. Sub-step 2c: Forestation is not in the list of uses that are not prevented by a barrier. Sub-step 2c: using the methods here a l of the remaining viable uses have no sequestration and a constant baseline. Selecting the alternative with the highest sequestration (zero) and going to Step 4: Section C2 of the PD reports NRI data showing that afforestation is not common practice and the baseline is additional.	See item # 38 above.	See response to #38 above.	NCR addressed
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## Appendix E – List of Documents Received and Reviewed by ESI

### 3/31/22 (via email)

- Series A&B - GPS Maps.zip
- GreenTrees ARLAMS Series A&B Comp Map.pdf
- GreenTrees Inventory.xlsx

### 4/7/11 (via email)

- Contract File 2 of 8 Planting Season 2010 - [REDACTED].zip
- Contract File 1 of 8 Planting Season 2010 - [REDACTED].zip

### 4/8/11 (via email)

- GreenTrees tCruise Stats Annual & New Verification.xls

### 4/13/11 (via email)

- Series A&B - GPS Maps.zip
- GreenTrees ARLAMS Series A&B Comp Map.pdf
- GreenTrees Inventory.xlsx

### 4/14/11 (via email)

- xcVault Directions.doc
- GreenTrees Inventory Rev A (2).xlsx
- GreenTrees Inventory Rev A.xlsx

### 4/18/11 (via email)

- Shapefiles - [REDACTED].zip
- Shapefiles - [REDACTED] 1 of 2.zip
- Shapefiles - [REDACTED] 2 of 2( South).zip

### 8/19/11 (via email)

- GreenTrees PD 2011 August 19.docx

### 9/21/11 (via email)

- Changes in 2011 accounting 2.docx

### 9/28/11 (via email)

- [REDACTED].pdf
- GreenTrees Calcs 2011 v07.xls
- [REDACTED] GPS Points.xls

### 10/4/11 (via email)

- GreenTrees Validation NCRs - Round 1 responses v02.xlsx
- Leakage.xlsx
- Risk buffer rating.xlsx
- ACR accounting clarification.rtf
- ATT00001.htm
- ATT00002.htm
- "ATT00003.htm
- ATT00004.htm
- ATT00005.htm



- ATT00006.htm
- ATT00007.htm
- ATT00008.htm
- ATT00009.htm
- ERTs to be issued 2011.xlsx
- Exhibit\_C\_20090903.pdf
- FOR PPD VERIFICATION Exhibit D Specific to [REDACTED].docx
- FOREST MANAGEMENT EXCERPT FROM CARBON.docx
- GreenTrees PD 2011 v10.docx

10/6/11 (via email)

- Item 31&32 ESI Verification 2011.docx
- ACR accounting clarification.rtf
- ACR PD updating.rtf
- Exhibit\_C\_20090903.pdf
- GreenTrees GPS Maps All Series thru planting season 2010.zip
- GTS-ALL-.XLS

10/21/11 (via email)

- Attestation 2011.pdf

11/11/11 (via email)

- Risk buffer rating v2.xlsx
- GreenTrees PD 2011 v11.pdf
- GreenTrees Validation NCRs - Round 2 v01.xlsx
- GreenTrees Verification NCRs - Round 1\_GT Response.xlsx

11/14/11 (via email)

- GreenTrees Calcs 2011 v08.xls

12/14/11 (via email)

- GreenTrees PD 2011 v14.pdf
- ACR certification of GreenTrees GHG Project Plan 12-14-11.pdf

12/16/11 (via email)

- ERTs to be issued 2011 v3.xlsx



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## Appendix F – ESI's Verification Finding

<p style="text-align: center;">American Climate Registry  GreenTrees - Advanced Carbon Restored Ecosystem (ACRE) Project  23 November 2011  Final Verification Findings  Verifier - Environmental Services, Inc.</p>								
Item Number	ACR Standard Version 2.1 October 2010	Applicability to the Project (Y or N/A)	Requirement Met (Y or N)	Location in PP or Supporting Documents	NCR/CL/OFI	Response from Client	NCR/CL/OFI	NCR/CL/OFI Satisfied (Y or N)
	<b>Conservativeness</b>							
1	The Project Proponent shall select assumptions and values to ensure that GHG emission reductions and removals are not overestimated, particularly in the event that the Proponent relies on uncertain data and information. For GHG sources, sinks and reservoirs not selected for regular monitoring, the Project Proponent shall estimate GHG emissions and/or removals by the sources, sinks and reservoirs relevant for the project and those relevant for the baseline scenario.	Y	N	Page 30, E2	Apparent typo - please revise "Guidance on conservative choice..." to "Guidelines on conservative choice..." in the Project Plan (PP).	This has been corrected in v10 of the PD.	NCR Addressed	
	<b>Land Title</b>							
2	For U.S. projects, Project Proponent shall provide land ownership documentation and attestation of clear, unique, and uncontested land title.	Y	N	xc-vault web site	On the [REDACTED] property, the contract states 78 acres (a written in approval downward from 152.5), however the calculations utilize 78.41 acres. Please explain the discrepancy.	Discrepancy is due to enrolled (name in contract) versus GPS acres. Carbon Calculations are based on GPS measured acres.	NCR Addressed	
3	For U.S. projects, Project Proponent shall provide land ownership documentation and attestation of clear, unique, and uncontested land title.	Y	N	xc-vault web site	On the [REDACTED] property, the contract is for 27 acres, however the acres in the is for 28.06. Please explain the discrepancy.	Discrepancy is due to enrolled (name in contract) versus GPS acres. Carbon Calculations are based on GPS measured acres.	NCR Addressed	
4	For U.S. projects, Project Proponent shall provide land ownership documentation and attestation of clear, unique, and uncontested land title.	Y	N	xc-vault web site	For the [REDACTED] A and B properties, please indicate if no liens exist.	Lines do exist on [REDACTED] property. Please see Kathy email to Shawn dated June 2, 2011.	NCR Addressed	
5	For U.S. projects, Project Proponent shall provide land ownership documentation and attestation of clear, unique, and uncontested land title.	Y	N	xc-vault web site	For the [REDACTED] property, please indicate if no liens exist.	Lines do exist on [REDACTED] property. Please see Kathy email to Shawn dated June 2, 2011.	NCR Addressed	
	<b>D. Methodologies and Tools for Community and Environmental Impact Assessment</b>							
6	Project Proponents should disclose in their Annual Attestation any negative environmental or community impacts or claims of negative environmental and community impacts, and document plans for mitigation of any reported negative environmental or community impacts.	Y	N	Pages 49-51, F.	Please provide the referenced "true and accurate summary of any and all such communications/actions [with stakeholders concerning community impacts] is attached hereto (as available).", as referenced in the Attestation.	see folder community support	NCR Addressed	

Item Number	ACR Forest Carbon Project Standard Version 2.1 November 2011	Applicability to the Project (Y or N/A)	Requirement Met (Y, N or N/A)	Location in PP or Supporting Documents	NCR/CL/OFI	Response from Client	NCR/CL/OFI	NCR/CL/OFI Satisfied (Y or N)
	CHAPTER 7 GUIDELINES FOR AGGREGATED PROJECTS							
8	<p><b>Monitoring</b></p> <p>In the case of periodic monitoring, Proponents of aggregated projects shall design a stratification and sampling plan to achieve the 10% at 90% confidence precision target at the level of the overall project.</p>	Y	N	General	<p>During the onsite verification on the [REDACTED] site 8 plots were found to be missing (217-225). Please discuss how this was addressed (plots relocated and sampled) and provide assurance that it is not a systematic issue that caused the problem.</p>	<p>When check cruising, the data for these plots was not found. It is our best guess that the plot data sheets were lost before they were entered into the electronic records. Some of the missing nine plots were re-measured and the entire planting area was visually inspected. It did not appear that the trees on the missing nine plots were so different from the trees on the rest of the stratum that the loss of these plots could bias the sampling. Carbon calculations were made using the remaining 186 plots in the stratum and the desired statistical precision level was still met so the calculations were done without the missing plots.</p>	NCR Addressed	
9	<p><b>Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities</b></p> <p>(Version 01.1.0)</p>	Y	N	General	<p>Was "the approved spreadsheet to facilitate the calculation of changes in soil organic carbon stocks" utilized to assess organic soil carbon? If so please provide along with the sources referenced for (SOCref, flun, i), (fmg,i), and (fin, i). If not, please provide the variables referenced and sources used for (SOCref, flun, i), (f mg, i), and (f in, i).</p>	<p>Soil carbon change per acre was calculated using the specified CDM methodology in the accompanying spreadsheet "CDM soil tool with ripping.xlsx". We did not know if the knifing done to facilitate planting would count as ripping so we took the conservative approach of counting it as ripping in the calculations. The values of the input variables are in cells A2 A5 of the spreadsheet. The sources of the values are the tables included in the CDM soil carbon tool. SOCref is for the Climate zone "warm, temperate, moist" (following the map in the CDM spreadsheet tool), for HAC soils. Flu is long-term cultivated, temperate moist. Fmg is full tillage. Fin is medium inputs. The per hectare value is converted to per acre and used in the GreenTrees carbon calculation spreadsheet.</p>	NCR Addressed	
10	<p>The tool is applicable to areas of land that are eligible for A/R CDM project activity and where all the following conditions on soils and soil management are met</p> <p>(a) The area of land does not contain organic soils<sup>1</sup> (e.g. peat-land);</p> <p>(b) The land does not fall into wetland<sup>2</sup> category;</p> <p>(c) Litter shall remain on site and not be removed in the A/R CDM project activity; and</p> <p>(d) Plowing/ripping/scarification attributable to the A/R CDM project activity, if any, is</p> <p>(i) Done in accordance with appropriate soil conservation practices, e.g. follows the land contour;</p> <p>(ii) Limited to the first five years from the year of initial site preparation;</p> <p>(iii) Not repeated, if at all, within a period of 20 years.</p>	Y	N	Page 2	<p>From discussion during the on-site verification, it appears that plowing/ripping on some sites may take place more frequently than every 20 years (i.e. is repeated or encouraged to be repeated to facilitate tree growth). Please confirm if this is the case.</p>	<p>The language in the PD was copied from the eligibility requirements in the methodology. In practice, when the project is implemented, there is a one-time knifing of a slot about 18" deep and the trees are planted in this slot. Some stands have a second set of slots perpendicular to the first set, and some trees are planted at the intersections of the two sets of slots. In the project, this is the only soil disturbance that could be construed as being enough disturbance to possibly count as plowing or ripping. There is no knifing, plowing, or ripping after tree planting.</p>	<p>On the [REDACTED] site there is disking between the rows to reduce competition which may take place in more than 1 year, though within the 5 years following planting. GreenTrees is going to speak with ACR about a variance to this rule..</p>	ACR issues interpretation. NCR addressed.