



ENVIRONMENTAL SERVICES, INC.

American Carbon Registry

GreenTrees ACRE (Advanced Carbon Restored Ecosystem) Project 2012 Annual Verification Report (v2)

24 July 2013

Project Developed by:

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Verification Conducted by:

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Project No. VO13015.00



ANSI ACCREDITED PROGRAM
GREENHOUSE GAS
VALIDATION AND VERIFICATION
0800



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1 Executive Summary

Environmental Services, Inc., (ESI) prepared this annual 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 verification findings of the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) project, prepared by GreenTrees, LLC. The project verification was conducted as part of ACR's program requirements for GHG offset projects (Afforestation/Reforestation).

By ACR definition, the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) 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 annual verification included the initial validation and verification of carbon sequestered through A/R on 29 newly aggregated tracts (7,276.01 acres) including the 2003-2008 and 2010-2012 planting years for Series GT2013, and the 2012 planting year for Series D and D/NS. Annual verification of the original 31 tracts included the 2008-2010 planting years for Series A, the 2010 planting year for Series B, the 2003-2004 planting years for series GT, the 2011-2012 planting years for series C/NS, and the 2005 planting year for series GT2012.

The GreenTrees ACRE (Advanced Carbon Restored Ecosystem) project verification objective was to ensure that the project was in compliance with the ACR Standard, Version 2.1 (October 2010), the ACR Validation and Verification Guidelines for GHG Projects, Version 1.1 (June 2012), 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 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. ESI concludes without any qualifications or limiting conditions that the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) 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 ACRE (Advanced Carbon Restored Ecosystem) and verified by ESI has resulted in the GHG emission removal of 56,816 tCO₂ equivalents by the project during the verification period/reporting period (January 1, 2012- December 31 2012).



2 Introduction

This annual 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 verification findings of the GreenTrees ACRE (Advanced Carbon Restored Ecosystem) project 2012 reporting period, prepared by GreenTrees, LLC. The project 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 verification of assertions at the project level for Land Use and Forestry (Group 3). ESI is approved to verify for ACR.

The annual verification included the initial validation and verification of carbon sequestered through A/R on 29 newly aggregated tracts (7,276.01 acres) including the 2003-2008 and 2010-2012 planting years for Series GT2013, and the 2012 planting year for Series D and D/NS. Annual verification of the original 31 tracts included the 2008-2010 planting years for Series A, the 2010 planting year for Series B, the 2003-2004 planting years for series GT, the 2011-2012 planting years for series C/NS, and the 2005 planting year for series GT2012. The project asserts emissions removals (sequestration) of 56,816 tCO_{2e} for 2012.

A list of the current tracts/parcels enrolled in the project is located in Appendix A.

2.1 Contact Information – Roles and Responsibilities

Project Owner / Project Proponent: GreenTrees, LLC	Chandler Van Voorhis - Managing Partner (Chandler@c2invest.net / 540-687-8946)
Accredited V/V Body: Environmental Services, Inc.	<ul style="list-style-type: none"> • Shawn McMahon – Lead Validator/Verifier (smcmahon@esinc.cc / 330-833-9941) • Stewart McMorro – Validation/Verification Team Member (smcmorrow@esinc.cc / 530-412-1221) • Richard Scharf – Validation/Verification Team Member (rscharf@esinc.cc / 252-402-7354) • Caitlin Sellers – Validation/Verification Team Member (csellers@esinc.cc / 904-361-8227) • Jonathan Pomp – Validation/Verification Trainee (jpomp@esinc.cc / 304-642-1277) • Chris DeRolph - Verification Team Member/GIS Analyst (cderolph@esinc.cc / (919) 212-1760) • Janice McMahon – QA/QC (jmcMahon@esinc.cc / 330-833-9941)

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 live-tree basal area 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 annual verification objective was to ensure that the project was in compliance with the validated GHG Project Plan (13 December 2011), ACR Standard, Version 2.1 (October 2010), the ACR Validation and Verification Guideline for, Version 1.1 (June 2012), 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 verification guidance documents provided by ACR located at <http://americancarbonregistry.org/carbon-accounting/carbon-accounting>. These documents included:

- ACR Standard, October 2010 – v2.1
- ACR Forest Carbon Project Standard, November 2010 – v2.1
- ACR Validation and Verification Guideline, June 2012-v1.1
- 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.”

2.5 Scope

The scope of the verification generally included the adherence to the validated 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 ACRE (Advanced Carbon Restored Ecosystem) Project (located in Mississippi, Louisiana, and Arkansas) 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
Time Period	1 Jan 2012 – 31 Dec 2012 Crediting Period: 40- years Verification Period: 1 Jan. 2012 – 31 Dec. 2012
Project Boundary	See summary table in appendix A.

2.6 Level of Assurance

The level of assurance was used to determine the depth of detail that the verifier (ESI) placed in the 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 Validation and Verification Guideline v1.1, June 2012). 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/Findings

ESI issued the 2010 validation for the overall GreenTrees ACRE project on 22 December 2011. Please refer to the ESI report entitled: *GreenTrees ACRE (Advanced Carbon Restored Ecosystem) Project Validation and Verification Report v2* (dated 22 December 2011) for a complete summary of the validation process and findings.

3.2 GHG Project Plan

As discussed in the *GreenTrees ACRE (Advanced Carbon Restored Ecosystem) Project Validation and Verification Report v2* (dated 22 December 2011), 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

During this annual verification, the GreenTrees ACRE project (including new instances) was found to be in continued 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)] and, the validated 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 utilizes 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”

For a complete summary/record of how the project meets the applicability requirements of the methodology, please see ESI’s report entitled *GreenTrees ACRE (Advanced Carbon Restored Ecosystem) Project Validation and Verification Report v2* (dated 22 December 2011).

4 Verification Process, Findings, and Conclusions

The 2012 annual verification process closely followed the guidance provided by The American Carbon Registry, Forest Carbon Project Standard (Version 2.1), the ACR Validation and Verification Guideline (Version 1.1), ISO14064-3 and ISO 14065, and the ESI Management System and Management System Manual, 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).

The annual verification included the initial validation and verification of carbon sequestered through A/R on 29 newly aggregated tracts (7,276.01 acres) including the 2003-2008 and 2010-2012 planting years for Series GT2013, and the 2012 planting year for Series D and D/NS. Annual verification of the original 31 tracts included the 2008-2010 planting years for Series A, the 2010 planting year for Series B, the 2003-2004 planting years for series GT, the 2011-2012 planting years for series C/NS, and the 2005 planting year for series GT2012.

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

4.1 Desktop Assessment

The sampling plan methodology was derived from all items in our verification process stated above. Specifically, the sampling plan was structured to address all requirements of the *ACR Forest Carbon Project Standard, November 2010-v.2.1*, based on the project parameters (acreage and pooled participants). One-hundred percent (100%) review was conducted of all calculations and quantifications for all existing and new lands in the project. Updated attestations were reviewed for all existing lands. Additionally all new additions (29) were reviewed for compliance with ACR requirements, the methodology selected, and the previously validated GHG Project Plan.

A complete list of documents received and considered is located in Appendix B



4.2 Site Visit

For this 2012 annual verification, it was determined that a desktop review would be sufficient to meet a reasonable level of assurance, which was confirmed with ACR prior to the initiation of this annual verification; therefore, site visits were not conducted during this annual verification.

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 not quantified, but later in the project it will be quantified)], soil organic carbon, and wood products) for the 2012 reporting period. 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 2012 project verification, ESI and GreenTrees, LLC 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
15 April 2013	Bob Misso Gordon Smith Kathy Stewart Shawn McMahon (ESI)	Opening Meeting, preliminary review of verification and sampling plan, project timeframes and deadlines.
8 May 2013 and 30 May 2013	Bob Misso Gordon Smith Kathy Stewart Shawn McMahon (ESI) Jonathan Pomp (ESI) Stewart McMorro (ESI)	2 Meetings to discuss questions on NCRs/CLs
1 July 2013	Kathy Stewart Shawn McMahon (ESI)	Closing Meeting - Review of draft 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).	5 April 2013
ACR approval of ACR-Specific COI Form	5 February 2013
Submission of Verification and Sampling Plan to Green Trees, LLC for approval	15 April 2013
Opening meeting with Green Trees, LLC	15 April 2013
Receipt of signed Verification and Sampling Plan from Green Trees, LLC	23 April 2013
Round 1 corrective actions/clarifications submitted to Green Trees, LLC	25 April 2013
Response to Round 1 corrective actions/clarifications received from Green Trees, LLC	24 May 2013
ESI completes Review	30 May 2013
Draft verification report submitted to Green Trees, LLC for review	25 June 2013
Closing Meeting with Green Trees, LLC	1 July 2013
ESI finalizes report and submits to ACR and Green Trees, LLC	1 July 2013 and 24 July 2013

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 including the additional instances 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)].

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 through the verification process that as of the project start date 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

Green Trees, LLC 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, Green Trees, LLC will assess a 1.25 ton replacement for every 1 offset ton impacted by withdrawal. ESI confirms that Green Trees, LLC adequately addressed other potential causes of unintentional reversals including tree death from wildfire, disease, drought, or wind.

Two previously verified tracts (005- [REDACTED], 183.7 acres and 010- [REDACTED], 59 acres) had extremely low survival in 2011. GreenTrees assessed and confirmed the properties as having severe mortality in 2011 and the data was analyzed in 2012, however by that time it too late to replant in 2012. The properties had previously been issued credits on the basis of soil and biomass sequestration. The loss of the biomass sequestration (41.7 tCO₂e) was accounted for through removal of the two properties from the GreenTrees Calcs 2013 v05.xls spreadsheet. This is effective because the spreadsheet calculates tCO₂e cumulatively for all properties for all years, deducting the tons credited in previous years from the cumulative total. ESI confirmed the previously issued credits resulting from biomass were appropriately deducted. Previously issued soil carbon is not being deducted as the properties have not undergone significant soil disturbance and will be replanted by hand in 2013 to maintain the soil carbon stocks.

For the GreenTrees ACRE project, the project proponent utilized the ACR-approved risk assessment tool. As of 04 October 2012, the approved tool is the VCS AFOLU Non-Permanence Risk Tool, Version 3.2. ESI reviewed and assessed the implementation and outputs of the tool provided by the project proponent, 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 that the new instances are consistent with the leakage assertions in 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 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 confirms the implementation the GreenTrees ACRE project monitoring plan (based on desktop review), which details monitored data and parameters, measurements, timing, and date storages as outlined in the validated GHG Project Plan..

ESI confirmed contractual requirements land ownership documentation as described in the GHG Project Plan for all previous instances. Green Trees, LLC performs credit and title checks on each landowner before signing the landowner contract that gives Green Trees, LLC 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.

For all new instances ACR has approved ownership confirmation through review of the county tax records and an ownership attestation. This has been confirmed for all new instances.

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

Green Trees, LLC holds several meetings a year for stakeholders to receive updates, learn about the project results, and provide feedback to Green Trees, LLC on possible improvements to their program.

4.6.8 GHG Emissions Reduction and Removal Enhancements (ERTs)

GHG Reductions or Removals	Units
Baseline Emissions / Removals	0 tCO ₂ e
Project Emissions / Removals	56,816 tCO ₂ e
Leakage	0 tCO ₂ e
Uncertainty Deduction Rate	0 %
2012 GHG Emission / Removals total (tCO₂e)	56,816 tCO₂e*
Total Emission Reduction Tonne(s) (ERTs)	56,816 ERTs*

*risk buffer not deducted (20.5%)

4.7 Verification Findings

The ESI verification team identified 14 non-conformity reports (NCRs) and clarifications (CLs). All were addressed satisfactorily by Green Trees, LLC during the annual verification process. These NCRs and CLs provided needed clarity to ensure that the project was implemented for the 2012 reporting period in accordance to the validated GHG Project Plan , 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 C.



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. ESI concludes without any qualifications or limiting conditions that the GreenTrees ACRE (Advanced Carbon Restored



Ecosystem) 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 Green Trees, LLC and verified by ESI has resulted in the GHG emission removal of 56,816 tCO₂ equivalents by the project during the verification period/reporting period (01 January 2012- 31 December 2012).

Report Submitted to:	Green Trees, LLC American Carbon Registry
Report Submitted by:	Environmental Services, Inc. Corporate Office 7220 Financial Way, Suite 100 Jacksonville, Florida 32257
ESI Lead 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:	24 July 2013

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Appendix A – List of Current Tracts/Parcels Enrolled in Project

Tract ID		Contract GPS Acres	County	State	Planting Year	Series
Annual Verification:						
GRT021		69.01	Yazoo	MS	2008	A
GRT020		60.33	Yazoo	MS	2008	A
GRT015		110.19	Drew	AR	2008	A
GRT001		100.3	Ashley	AR	2009	A
GRT012		67.9	Desha	AR	2009	A
GRT009		189.4	Desha	AR	2009	A
GRT011		169	Jackson	AR	2009	A
GRT002		95.1	Jackson	AR	2009	A
GRT004		63.7	Jefferson	AR	2009	A
GRT007		139.9	Jefferson	AR	2009	A
GRT008		285	Phillips	AR	2009	A
GRT005		183.7	Crittendon	AR	2009	A
GRT006		150.7	Lonoke	AR	2009	A
GRT010		59	Prairie	AR	2009	A
GRT016		146.7	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		143.3	Chicot	AR	2010	B
GRT018		64.6	Chicot	AR	2010	B
GRT022		28.06	Jackson	AR	2010	B
GRT031		589.8	Sharkey	MS	2004	GT
GRT032		605.6	Sharkey	MS	2003/2004	GT
GRT024		34.2	Arkansas	AR	2011	C/NS
GRT025		126.19	Richland	LA	2011	C/NS
GRT027		294.5	Crawford	AR	2011	C/NS
GRT028		150.2	Crawford	AR	2011	C/NS
GRT029		56.7	Jackson	AR	2011	C/NS
GRT030		122.5			2011	C/NS
GRT030		468.4			2012	C/NS
GRT033		629.7	St. Francis	AR	2005	GT2012



Tract ID		Contract GPS Acres	County	State	Planting Year	Series
Initial Verification						
GRT034		61.373	Yazoo	MS	2012	D/NS
GRT035		224.543	Yazoo	MS	2012	D/NS
GRT036		307.258	Yazoo	MS	2012	D/NS
GRT037		194.93	Yazoo	MS	2012	D/NS
GRT038		47.357	Caldwell	LA	2012	D/NS
GRT039		98.944	Arkansas	AR	2012	D
GRT040		85.392	Humphreys	MS	2012	D/NS
GRT041		52.197	Humphreys	MS	2012	D/NS
GRT044		545.6	Independence	AR	2012	GT2013
GRT042		58.75	Lee	AR	2012	GT2013
GRT043		149.9	Humphreys	MS	2012	GT2013
GRT045		73	White	AR	2006	GT2013
GRT046		187.5	White	AR	2004	GT2013
GRT047		72	Humphreys	MS	2012	GT2013
GRT048		382.1	Humphreys	MS	2006	GT2013
GRT049		264.5	Ashley	AR	2011	GT2013
GRT050		556.5	Tensas	LA	2008	GT2013
GRT051		510.5	Tensas	LA	2010	GT2013
GRT052		719	Yazoo	MS	2005	GT2013
GRT053		48	Yazoo	MS	2007	GT2013
GRT054		401.2	St. Francis	AR	2003	GT2013
GRT055		25	St. Francis	AR	2006	GT2013
GRT056		493	St. Francis	AR	2006	GT2013
GRT057		547.47	Pulaski, AR	AR	2004	GT2013
GRT058		353	St. Francis	AR	2003	GT2013
GRT059		275	Yazoo	MS	2006	GT2013
GRT060		134.7	St. Francis	AR	2003	GT2013
GRT061		135.1	Humphreys	MS	2011	GT2013
GRT062		272.2	Phillips	AR	2003	GT2013

Appendix B – List of Documents Received and Reviewed by ESI

Received from client on 2013-03-22

- GRT061 [REDACTED]
- GRT043 [REDACTED]
- GRT044 [REDACTED]
- GRT045 [REDACTED]
- GRT046 [REDACTED]
- GRT048 [REDACTED]
- GRT049 [REDACTED]
- GRT050 [REDACTED]
- GRT052&GRT053 [REDACTED]
- GRT054&GRT055 [REDACTED]
- GRT056 [REDACTED]
- GRT057 [REDACTED]
- GRT058 [REDACTED]
- GRT059 [REDACTED]
- GRT060 [REDACTED]
- GT Inventory for 2012 V&V for 1st Qtr 2013 audit.xlsx
- ACR Existing Project Attestation.pdf
- Attestation- Legal Requirements Compliance & Proj Mods.pdf

Received from client on 2013-03-22

- GreenTrees calcs 2013 v05.xlsm
- MASTER 2012 Growth collected 2012-2013 FINAL Revision C.xls
- ERTs to be issued 2013 v3.xlsx
- GRT062 [REDACTED]
- GRT042 [REDACTED]
- GRT043 [REDACTED]
- GRT044 [REDACTED]
- GRT045 [REDACTED]
- GRT046 [REDACTED]
- GRT047 [REDACTED]
- GRT048 [REDACTED]
- GRT049 [REDACTED]
- GRT050 [REDACTED]
- GRT051 [REDACTED]
- GRT052&GRT053 [REDACTED]



- GRT054&GRT055 [REDACTED]
- GRT056 [REDACTED]
- GRT057 [REDACTED]
- GRT058 [REDACTED]
- GRT059 [REDACTED]
- GRT060 [REDACTED]
- GRT061 [REDACTED]
- GRT034 [REDACTED]
- GRT034 [REDACTED]
- GRT035 [REDACTED]
- GRT035 [REDACTED]
- GRT036 [REDACTED]
- GRT037 [REDACTED]
- GRT037 [REDACTED]
- GRT037 [REDACTED]
- GRT038 [REDACTED]
- GRT038 [REDACTED]
- GRT038 [REDACTED]
- GRT039 [REDACTED]
- GRT039 [REDACTED]
- GRT040 [REDACTED]
- GRT040 [REDACTED]
- GRT040 [REDACTED]
- GRT041 [REDACTED]
- GRT041 [REDACTED]
- GRT041 [REDACTED]

Received from client on 2013-05-16

- GRT048 [REDACTED]
- GRT035 [REDACTED]
- GRT036 [REDACTED]
- GRT037 [REDACTED]
- GRT039 [REDACTED] - planting inof.rtf
- GRT042 [REDACTED] - planting info.rtf
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- GREENTREES_2012_Points.dbf
- GREENTREES_2012_Points.prj
- GREENTREES_2012_Points.sbn
- GREENTREES_2012_Points.sbx



- GREENTREES_2012_Points.shp
- GREENTREES_2012_Points.shx
- [REDACTED]
- [REDACTED]
- [REDACTED]
- GRT060 [REDACTED]
- GRT018 [REDACTED] Contract File.pdf
- GRT022 [REDACTED] Entire Contract File.pdf
- GRT025 [REDACTED] - Entire Contract File.pdf
- GRT027&GRT028 [REDACTED]
- GRT045 [REDACTED] - [REDACTED]
- GRT057 [REDACTED]

Received from client on 2013-05-20

- GRT062 [REDACTED]
- GRT042 [REDACTED]
- GRT043 [REDACTED]
- GRT044 [REDACTED]
- GRT045 [REDACTED]
- GRT046 [REDACTED]
- GRT047 [REDACTED]
- GRT048 [REDACTED]
- GRT049 [REDACTED]
- GRT050 [REDACTED]
- GRT051 [REDACTED]
- GRT052&GRT053 [REDACTED]
- GRT054&GRT055 [REDACTED]
- GRT056 [REDACTED]
- GRT057 [REDACTED]
- GRT058 [REDACTED]
- GRT059 [REDACTED]
- GRT060 [REDACTED]
- GRT061 [REDACTED]
- Original contract - see correction\GRT060 [REDACTED]
- Original contract - see correction\GRT045 [REDACTED]
- GRT057 [REDACTED]
- GRT035 [REDACTED]
- GRT034 [REDACTED]
- GRT034 [REDACTED]
- GRT036 [REDACTED]
- GRT037 [REDACTED]
- GRT037 [REDACTED]



- GRT037 [REDACTED]
- GRT040 [REDACTED]
- GRT040 [REDACTED]
- GRT040 [REDACTED]
- GRT041 [REDACTED]
- GRT041 [REDACTED]
- GRT041 [REDACTED]

Received from client on 2013-05-30

- Soil data 2010.xlsx"
- Biomass-by-ht Eq Compare 2.xlsx
- ERTs to be issued 2013 v5.xlsx
- GreenTrees calcs 2013 v07.xlsm
- NCR round 1 2nd request for clarification responses.docx

Received from client on 2013-06-06

- Attestation Addendum 2013-06-05.pdf



Appendix C – ESI's Verification Findings

Project Verification - Non-Conformity Reports (NCR) / Clarification (CL) Requests

1. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 13)

ACR Criteria: 2.1 Project boundary and eligibility of land - 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.

Evidence Used to Assess Conformance: Evidence missing.

Findings: All new instances need to have a map that auditors can use to reference location and assess acreages. ESI can't make the connection between the maps and the tax statements (that are used to prove ownership).

Non-conformity report (NCR): Please provide geo-referenced maps for all new instances.

Date issued:	25 April 2013
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Project proponent response/actions and date: For all new project instances, maps are provided. GPS maps are provided for 8 of the instances (Series D & D/NS) and ArcGis maps are provided for 21 instances. Our field foresters prepared the GPS maps as we have done for several years now and the ArcGis maps are all obtained from the United States Department of Agriculture.

The ArcGis maps that we utilize were prepared by technical personnel of the United States Department of Agriculture using technology that has essentially the same accuracy as the use of standard GPS technology. USDA technical personnel prepare these maps as their accurate reference of the lands that they are enrolling in their program. The maps are utilized by USDA to identify exactly where a host of specific conservation measures are to be implemented. It is critical that their maps accurately reflect the acres being established (in both location and amount) to each separate conservation practice as the acres identified for each individual conservation practice serve as the basis for cost share payments to individual landowners. This fact, coupled with the fact that the USDA personnel are technical and skilled in application of the technology, reduces any likelihood that there will be errors.

Our contract file acres (Exhibits A-1 or Exhibit C) are generally only a portion of the mapped USDA program acres as the program acres may oftentimes have other conservation



improvements on the land other than tree establishment. Thus the program acres that USDA shows on the ArcGis map will exceed the specific tree planting acres in many instances. And the program maps will show where the tree planting acres are located within the total map acres. Generally the exact acres of tree planting will be shown on the map itself for each of the discrete tree planting polygons.

In those instances where the location of the tree planting acres is shown but the exact acreage is not also shown we rely on other official sources of information. Discussion with the entity who actually performed the planting effort is one source. Discussion with a government official who was involved in the planting effort and may have knowledge of the payment voucher that covered the project is one means to determine acreage. Reference to a government planting inspection document that shows acreage for the site may be utilized. Oftentimes a state forestry agency official will make such planting inspection. Reference to the operational planning document that served as the basis for the project effort may provide the acreage. Where there are varying numbers we evaluate the sources and their technical accuracy and rely on the best source.

Together with the map we obtain location data from the landowner (section, township, range, etc.). With this location data and the name of the landowner we then contact the county tax assessor/collector and obtain a copy of the most recent tax receipt for that landowner in that county. We then match tax receipt to the location of the acres. Because the enrollment in our program will be acres that are generally only a portion of the landowner holdings in the county and in the section(s) identified, we then confirm the tax receipt is for a greater amount of acres than are actually being enrolled in our program. We feel there is no risk that a landowner could falsely claim to own land and enroll that land in our program without the tax receipt review process serving as a means of precluding the action.

Evidence used to close NCR: Personal communication with project managers as well as review of maps provided for all new instances confirms that this item is found to be compliant. Project submitted pdf maps of all missing instances.

Date closed:	23 May 2013
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2. Clarification (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 23)

ACR Criteria: 2.3 Stratification

Evidence Used to Assess Conformance: Stratification evidence missing.

Findings: Stratification info is needed. Each parcel is not considered to be a separate stratum as was the case in 2012. There are 4 strata: Low growth, medium growth, high growth, and Phillips & Two Sharks.

Clarification (CL): Please clarify how the project areas were stratified during this verification event - how were the low growth, medium growth, high growth, and Phillips & Two Sharks strata defined? Tree age, tree size, observed growth characteristics? Please show



how strata were determined.	
Date issued:	25 April 2013
<p>Project proponent response/actions and date: Strata were determined on the basis of visual observations by GreenTrees forestry staff during site visits prior to monitoring. Strata classifications were based on the height of dominant trees. Areas stocked with trees generally less than 10' in height were classified as Stratum 1 (inventory showed only 31 TPA of 10' tall or taller on lands in this stratum). Stratum 2 is defined as full stocking with trees at least 10' tall, but generally less than 20' tall (the inventory showed 180 TPA at least 10' tall but only 37 TPA 20' or taller). Stratum 3 is defined as fully stocked with trees greater than 20' tall, but mostly less than 30' tall (inventory showed 223 TPA at least 20' tall but only 10 TPA 30' tall or taller). Stratum 4 is defined as fully stocked with trees greater than 30' tall (inventory showed 181 TPA 30' tall or taller).</p> <p>We are very pleased that this stratification effectively blocked variation by stratum, and resulted in an efficient survey and very high confidence. However, we would like to point out that the only purpose of stratification is to increase statistical confidence and there is no stratification that would be a basis for a project failing verification. Bad stratification could lead to great statistical uncertainty and a substantial confidence deduction, but the way the project would fail verification is by failing to meet the ACR minimum statistical confidence requirement.</p>	
<p>Evidence used to close CL: This description as well as personal communication with the client via a conference call prior to issuance of these responses indicates that this stratification was defined in a reasonable way. Further, the criteria for the uncertainty was met. This issue is addressed.</p>	
Date closed:	24 May 2013

3. Clarification (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 44)

<p>ACR Criteria: 2.5.1 Estimation of changes in the carbon stocks - See Equations 10 and 11 on Page 12</p>	
<p>Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm</p>	
<p>Findings: Conversion factor used is not correct. Confirmed application of Equations - See Tree Data Tab - Column AA. However, within column AA, pounds are being converted to grams using 454 as the conversion factor (rounded). The actual conversion factor should be 453.59, which would be more conservative. This is the same in the 2012 calcs. We compared the final results of using the 453.59 vs. 454 conversion factor from lbs. to grams in the GreenTrees calcs. The use of the actual conversion factor (453.59) results in 2012 sequestration of 3,493 vs. 3,527 reported. That is an absolute difference of -34 mTCO₂e. %-wise, using the actual conversion factor results in 0.96 % lower tree sequestration. Total sequestration (trees and soil) is 0.06 % lower.</p>	
<p>Clarification (CL): The conversion factor for conversion from lbs. to grams in the equations in Column AA of the Tree Data Tab of GreenTrees calcs 2013 v05.xlsm is currently rounded up to 454. Although this is currently immaterial, it could become material in the future given the continued increase in size of the project. Please address.</p>	
Date issued:	25 April 2013
<p>Project proponent response/actions and date: In v06 of the spreadsheet, the factor has been changed to 454.59 and the calculations updated.</p>	



Evidence used to close CL: As stated, the factor has been changed to 453.59. Issue is addressed.	
Date closed:	30 May 2013

4. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 49)

ACR Criteria: 2.5.1.1 Estimating change in carbon stock in tree biomass, Allometric method, Step 1 (b): Ex post estimation - Ex post estimation of tree biomass must be based on actual measurements carried out on all trees in the permanent sample plots. The permanent sample plots are laid out according to the approved methodological tool "Calculation of the number of sample plots for measurements within A/R CDM project activities".	
Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm	
Findings: Use of CDM Tool for Calculation of the Number of Sample Plots for Measurements within A/R CDM Project Activities is not clear. Ex post estimation appears to be based on 443 1/50 acre plots across 5185.2 acres. No evidence of using the CDM tool.	
Non-conformity report (NCR): Please demonstrate that the CDM "Tool for Calculation of the Number of Sample Plots for Measurements within A/R CDM Project Activities" was used to lay out the permanent sample plots used for the Ex post estimation of tree biomass.	
Date issued:	25 April 2013
<p>Project proponent response/actions and date: According to the ACR clarifications on use of AR-ACM0001, the ACR Standard governs. Section 2.C. of the Standard requires that measurements of carbon stocks have a 90% statistical confidence interval that is no greater than 10% of the mean estimated reductions/removals achieved by the project, or an uncertainty deduction is applied. Wisely, the Standard is silent on how this confidence level is to be achieved. Use of the CDM tool is not required by the ACR Standard.</p> <p>Referring to the tool, section I.1 of the tool states "This tool can be used for calculation of number of sample plots required for estimation of biomass stocks from sampling based measurements in the baseline and project scenarios of an A/R CDM project activity." The tool states that use of the tool is optional.</p> <p>Despite the fact that it is not required to use the of analysis of variance to estimate the number of plots needed to achieve a target level of statistical confidence, we did not want to have an uncertainty deduction so we did many analyses of different possible stratifications and sampling intensities to calculate how many plots to install in each stratum. The spreadsheet "GreenTrees Calcs 2012 v05 plan for next inventory v9d 440plots.xlsm" sheet "Stratified Sample tCO2e" shows the final calculations. Estimates of standard deviations were taken from 2011 sampling of the GreenTrees stands.</p>	
Evidence used to close NCR: Project is meeting the statistical requirements and clearly there are enough sample plots for this purpose. While the language used in the Standard is not clear enough to state one way or the other, if this tool is absolutely required, it is assumed that the point of the use of the tool is for the determination of the number of sample plots needed	



to reach the statistical confidence level. This item is considered addressed.

Date closed: 24 May 2013

5. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 50)

ACR Criteria: 2.5.1.1 Estimating change in carbon stock in tree biomass, Allometric method, Step 1 (b): Ex post estimation - Ex post estimation of tree biomass must be based on actual measurements carried out on all trees in the permanent sample plots. The permanent sample plots are laid out according to the approved methodological tool “Calculation of the number of sample plots for measurements within A/R CDM project activities”.

Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm

Findings: Need location info for sample plots. No evidence provided of plot locations.

Non-conformity report (NCR): Please provide evidence of the location of the 443 permanent sample plots used for the Ex post estimation of tree biomass.

Date issued: 25 April 2013

Project proponent response/actions and date: The plot locations were uploaded to DropBox on March 26 in the master data sheet Excel workbook "aMASTER 2012 Growth collected 2012-2013 FINAL Revision C.xls", the definitions of the location numbers are given in the “Headings Definitions” sheet. The datum is WGS84. Three properties have a total of 9 plots (4 plots, 2 plots and 3 plots) without GPS coordinates. For each of these properties our field forester Andy Johnson used the standard forestry pacing method to establish plots.

– started at SE corner and went 10 chains W, then 5 chains into the planted stand and took plot and then another 5 chains and plot 2 and then 5 chains and plot 3 and then 5 chains and plot 4.

– started at NE corner then W 10 chains then S 10 chains and established first plot then south to edge of planting then W 10 chains then N 10 chains and established second plot.

– started at S end of the planted ridge where the trees were not replanted then went 10 chains N to establish first plot then 10 more for second plot then 10 more for third plot.

– The trimble unit sometimes provides a plot grid that has issues. Several plot locations fell on a road or in a non planting area “food plot” due to the lack of internal detail in the polygon drawn. These non-planting areas are not a part of the acreage being represented in the analysis. A couple plots even fell outside of the boundary line by a couple meters. Why this happens with the trimble software is a mystery but it does from time to time.

Field forester Andy Johnson improvised to ensure that he had the predetermined number of plots that Gordon Smith had established as necessary to achieve statistical accuracy needed. He used the simple pacing approach and would move off the problem spot by one chain each



time to get a plot in the planted area. In two instances he chose to move to a location that had poor plot representation from the trimble unit program and simply placed a plot then paced 5 chains down the planted row to the W to establish the next plot, etc. His determination of poor plot representation had no reference to the condition of the trees.

All plots have plot centers flagged/marked as we have done each year for all plots.

Findings: File reviewed. Plot locations and numbers are included. Explanation of the missing plot coordinates is deemed reasonable. Issue is addressed.

Date closed:	30 May 2013
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6. Clarification (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 51)

ACR Criteria: 2.5.1.1 Estimating change in carbon stock in tree biomass, Allometric method, Step 1 (b): Ex post estimation - Ex post estimation of tree biomass must be based on actual measurements carried out on all trees in the permanent sample plots. The permanent sample plots are laid out according to the approved methodological tool “Calculation of the number of sample plots for measurements within A/R CDM project activities”.

Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm

Findings: Plot measurement for specific instances in question. 2 tracts (5 and 10) were included in the 2011 verification for tree sequestration, but were not included in the 2012 verification for tree sequestration.

Clarification (CL): Please explain why plots were included in 2011 but not 2012 for tracts GRT005 and GRT010.

Date issued:	25 April 2013
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Project proponent response/actions and date: All tracts were measured in 2011 and the data was analyzed in 2012. 2011 measurements showed that tree survival was so low in tracts 5 and 10 that GreenTrees decided to replant these two tracts. The 2012 planting season was over by the time the data was analyzed so the tracts were scheduled for replanting in 2013. Because these tracts were scheduled for planting in 2013, they were not measured in 2012. In this verification, no carbon sequestration is claimed for these tracts and the 41.7 tCO₂e of cumulative sequestration that was attributed to these two tracts in 2011 is replaced by sequestration on other tracts.

The GreenTrees Acre project is a pooled project. The performance of the project is measured as the cumulative increase in carbon stocks on lands currently in the project at the time of verification. The specific tracts in the project can change from verification to verification. If a tract is removed from the project, at the next verification the sequestration previously attributed to the removed tract is removed from the cumulative sequestration achieved by the project. If increases in sequestration on other tracts in the project are greater than the removed amount of sequestration, the project as a whole continues to increase sequestration and can be issued more credits. However, if the total net cumulative sequestration of the project is less than the amount of previously verified credits, then a reversal has occurred.

In this case, tracts 5 and 10 had such low survival that the project planned to re-plant them.



The project proponent chose to exclude these tracts from field measurements in 2012. To avoid possible controversy related to replanting and not conducting field measurements on these tracts in 2012, the project proponent chose to not count any biomass carbon sequestration on these tracts in vintage 2012. In prior vintages, these tracts had been attributed 41.7 tCO₂e of sequestration. These tracts were attributed no sequestration in 2012. If the other tracts in the project had not gained at least 41.7 tCO₂e from 2011 to 2012 the project would have incurred a reversal because of the removal of the counting of the carbon sequestration on these tracts. However, the project gained much more than 41.7 tCO₂e on the other tracts, and 41.7 tCO₂e of this gain in carbon stock on other lands replaced the tons that were removed from the accounting. Thus, the project has a net increase in credits and the project has no reversal.

Evidence used to close CL: This explanation appears to be a reasonable approach. Further discussions with the project developer indicate that this simple explanation is understood to mean that the carbon sequestration attributable to these tracts was replaced by the growth of the other tracts and subsequently removed from the sum total. Issue is addressed.

Date closed: 30 May 2013

7. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 55)

ACR Criteria: 2.5.1.1 Estimating change in carbon stock in tree biomass, The following sub-steps apply for ex post estimation - (iii) Insert the above measurements into the allometric equation and calculate the total above-ground tree biomass for each sample plot.

Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm

Findings: The inventory data clearly includes trees with a height of over 7.5 feet and a dbh of less than 1 inch. Please examine Column T of the "Tree Data" Tab of "GreenTrees calcs 2013 v05.xlsm." The equation in this column currently appears to be using a height of < 7.5 ft. as a stipulation for using the Root Collar Diameter based biomass equations (for trees <1" DBH). This leaves the potential for several errors and omissions in the quantification of annual sequestration, especially moving forward as the project grows in size. Observed effects include: 1. biomass for cypress trees ≥ 7.5 ft.in height and having a DBH less than 1.0 in. is being quantified using DBH based equations. 2. biomass for ash, cottonwood, those species coded as pecan (spp. code 6) and oak/misc. trees ≥ 7.5 ft.in height and having a DBH less than 1.0 in. and a DRC of > 0 in. is being quantified using DBH based equations for water, nuttall, willow and shumard oaks.

Non-conformity report (NCR): Please address the question raised in the findings on the use of the equation in Column T of the Tree Data Tab of the "GreenTrees calcs 2013 v05.xlsm. document.

Date issued: 25 April 2013

Project proponent response/actions and date: The validated Project Document provides for using specified published allometric equations to estimate biomass of trees greater than 1" DBH, and other equations for trees less than 1" DBH, regardless of tree height. However, in the analysis of data from prior measurements of the GreenTrees data, we concluded that the equations for trees less than 1" DBH were overestimating the biomass of trees greater than 8-



10' in height. To be conservative, we elected to use the equations validated for trees of 1" DBH and larger for smaller trees, instead of the validated equations, because the biomass estimates are lower and we believe the lower biomass estimates are more accurate. This will no longer be an issue once the trees reach a DBH of 1" and the root collar equations are no longer applicable.

As an aside, we note that there are 19 Cypress trees in the data set of 4079 trees, and all these trees are small, so if we were to use the DRC equation the overestimation of biomass and sequestration would still be well within the de minimus range.

Evidence used to close NCR: This explanation seems reasonable and the decision appears to be a conservative choice. A demonstration of the differences in biomass estimation using each of the two allometric equations was presented as an example and it was deemed to be a de-minimus issue. Further, as these small trees grow, the DBH equation will be triggered for use and this issue will no longer be relevant. Verifiers agree that the current use of the equations is conservative and acceptable. This issue is addressed.

Date closed:	30 May 2013
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8. Clarification (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 59)

ACR Criteria: 2.5.1.1 Estimating change in carbon stock in tree biomass, The following sub-steps apply for ex post estimation

Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm

Findings: Column X has the equation for Pecan 1" dbh and larger. However, the way the excel function is written, it is leaving out trees over 7.5 feet tall with a RCD of >0 and DBH of less than 1" - Also, persimmon, sweetgum, sycamore, and winged elm are coded as Pecan (Spp. code 6). The PD lists the sweetgum equation - persimmon, sycamore, and winged elm should probably be grouped with this species and separated from Pecan.

Clarification (CL): Persimmon, sweetgum, sycamore, and winged elm are currently coded as pecan (Spp. Code 6) in the Tree Data Tab of GreenTrees calcs 2013 v05.xlsm. Thus, trees of these species having a DBH ≥ 1 in. DBH are using the DBH based biomass equation for pecan. Please provide evidence that the equation form and parameters do not differ between pecan, persimmon, sweetgum, sycamore, and winged elm. Else, incorporate species specific biomass equations accordingly for these species.

Date issued:	25 April 2013
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Project proponent response/actions and date: As described in the response to NCR 7, we elect to use the equation for trees of 1" DBH or greater for trees above 7.5' tall because we believe the validated equation for trees less than 1" DBH overestimates the biomass of trees at the large end of the approved size range and the equation for trees greater than 1" DBH gives lower biomass estimates that are more conservative and that we think are more accurate.

Sweetgum is coded as Sweetgum, species number 8. Because Sweetgum has a lower specific gravity than Pecan (typically 0.55 for Sweetgum versus 0.59 for Pecan) and because all the species in question have similar growth forms, it is conservative to use the Sweetgum equation for Sycamore and Winged Elm. We have changed the species numbers for Sycamore and Winged Elm to 8, so the Sweetgum equation is used to calculate their biomasses.



We corrected the error of the "LOOKUP" function in Excel that was not correctly coding the Persimmon species number because the species names were not in alphabetical order in the reference list. Persimmon has a specific gravity of 0.9 and we think it remains appropriate to use the equation for Water, Nuttall, Willow and Shumard Oaks (specific gravities in the range of 0.62-0.72) for Persimmon, and this use is retained. Note that this issue applies to the 6 Persimmon trees in the inventory that are greater than 7.5' tall.

Evidence used to close CL: Selections and changes made appear to be conservative. Grouping of Persimmon with the oaks appears to be conservative as well given the specific gravity. Issue is addressed. DBH issue will be resolved in NCR # 7.

Date closed: 24 May 2013

9. Clarification (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 71)

ACR Criteria: 2.5.1.4 Soil Organic Carbon (if selected in Table 1)

Evidence Used to Assess Conformance: GreenTrees calcs 2013 v05.xlsm

Findings: [REDACTED] (GTR030) - Inventory indicates 122.5 acres were planted and accounted for in 2011 (soil only) and that 468.4 acres were replanted in 2012 (a total of 590.9). The planting inspection letter does indicate issues with survival and a recommendation to replant. However, the letter indicates the initial planting area was 579.4 acres.

Clarification (CL): The 2012 inventory indicates that the [REDACTED] (GTR030) included 468.4 acres of replanting in 2012. This combines with a 122.5 acre area planted in 2011 to give this tract a total planting area of 590.9 acres. However, the AFC planting inspection indicates that the initial (2011) planting area was 579.4 acres under the cotton/hardwood planting scheme. Please explain this discrepancy.

Date issued: 25 April 2013

Project proponent response/actions and date:

[REDACTED] (GRT030) – total planting is 590.9 acres
Properties implementing 302x302 silviculture are GPSed on-site by GreenTrees registered/professional foresters. DropBox now contains within folder: **NCR Round 1 – Additional Info** GPS shape files for those properties. [REDACTED] is included in this category.

Evidence used to close CL:

[REDACTED] shape file reviewed and area measured. Area reported is correct. Issue addressed.

Date closed: 24 May 2013

10. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 73)

ACR Criteria: 2.5.1.5 Wood Products (if selected in Table 1) - See Equation on Page 22

Evidence Used to Assess Conformance: No evidence provided.

Findings: One tract is old enough to harvest - [REDACTED] - GRT032 - [REDACTED]. Landowners have the right, but not the obligation to harvest 1/3rd of the cottonwoods at year 10. No information has been provided indicating that there was or were not harvests in this tract.

Non-conformity report (NCR): One Tract, [REDACTED] GRT032) was [REDACTED]



<p>Given that landowners have the right to harvest 1/3rd of the cottonwoods at years 10, please provide evidence that no harvesting has occurred on this tract. If harvesting has occurred, please quantify wood products accordingly.</p>	
Date issued:	25 April 2013
<p>Project proponent response/actions and date: GreenTrees foresters drove and walked all tracts, including tract 32. In thorough inspection, no sign of harvest was observed. Stumps would have been obvious, had there been any harvest.</p> <p>If harvesting had occurred, it would be conservative not to count sequestration in wood products.</p>	
<p>Evidence used to close NCR: This response is adequate to confirm with reasonable assurance that this tract was not harvested. Given that this is a desk review only, this attestation will suffice until a site visit can offer further confirmation.</p>	
Date closed:	23 May 2013

11. Non-Conformity Report (ACR Version 2.1 Checklist, Meth_AR_Degraded_Lands, line 77)

<p>ACR Criteria: 2.6 Leakage, Under applicability conditions of this methodology the following types of leakage emissions can occur: GHG emissions due to activity displacement, the activity displaced being agricultural activities. Therefore, leakage is estimated as follows:</p>	
<p>Evidence Used to Assess Conformance: Section E3 & E5</p>	
<p>Findings: PD Claims: "GreenTrees visits all sites at least annually. Forest clearing is very obvious, and if it were to occur, GreenTrees would see it and account for it." No evidence is provided of these visits as they relate to leakage.</p>	
<p>Non-conformity report (NCR): Please provide evidence that no activity shifting leakage has occurred in the Lower Mississippi Alluvial Valley since project commencement.</p>	
Date issued:	25 April 2013
<p>Project proponent response/actions and date: In afforestation projects activity shifting leakage can occur at the time of afforestation, when the land use is changed from the pre-project use to forest use. As a result, this NCR applies to lands afforested in 2012, and does not apply to lands afforested prior to 2012 where the absence of activity shifting leakage has been verified.</p> <p>The first defense against activity shifting leakage is that to enroll in the GreenTrees program landowners must contractually commit themselves to not clearing forest to replace uses terminated when lands are enrolled in the project and converted to forest.</p> <p>GreenTrees attests that in all site visits to all parcels, no clearing or conversion to crop use was observed on any lands owned by the owners of tracts enrolled in GreenTrees.</p>	
<p>Evidence used to close NCR: Attestation is accepted. Given that this is a desk review only, this aspect cannot be verified by direct observation. This aspect can be accounted for during the next site visit verification through random sampling and direct observation.</p>	
Date closed:	23 May 2013



12. Non-Conformity Report (Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities (Version 01.1.0))

ACR Criteria: The areas of land to which this tool is applied:

- (i) Do not fall into wetland1 category; or
- (ii) Do not contain organic soils as defined in “Annex A: glossary” of the IPCC GPG LULUCF 2003;
- (iii) Are not subject to any of the land management practices and application of inputs as listed in the Tables 1 and 2;

Evidence Used to Assess Conformance: Section E3 & E5

Findings: No proof given that the project areas that were planted were not subjected to the land management practices in Table 1

Non-conformity report (NCR): Please show that the newly added instances adhere to all three of these requirements.

Date issued: 25 April 2013

Project proponent response/actions and date: As previously verified by ESI, the methodology cites the IPCC as the source of the definition of "wetland" as a land use category (not biological or physical condition). All lands enrolled in the project were in the IPCC "cropland" category and thus were not IPCC "wetland," which is defined as not cropland.

1. Not wetlands as a land category as defined in *Annex A: Glossary of IPCC, Good Practice Guidance for Land Use, Land-use Change and Forestry* (IPCC, GPG-LULUCF). This definition is for lands that are not forest land, cropland, grassland or settlement categories. Project lands are cropland, thus are not wetland by the cited IPCC definition.

2. Does not contain organic soils as defined in *Annex A: glossary* of the IPCC GPG LULUCF 2003. Several requirements are given. All requirements have a minimum of 12% soil organic carbon by weight. Soil carbon sampling in 2010 revealed no instances of soil carbon fraction greater than 1.8%. We are highly confident that all soils enrolled in the project have soil carbon fractions less than 4% because this is the approximate maximum for undisturbed grassland and all enrolled soils have been cropped for decades. At the time of enrollment, it is likely that all soils had soil carbon fractions less than 2.5% but we did not comprehensively survey all soils.

Soil data spreadsheet accompanies this document.

3. Soils are not subject to the specified combinations of management and inputs in Tables 1 and 2 of the CDM soil carbon stock change estimation tool. These tables define situations where the soil tool does not apply. Table 1 addresses croplands. Project lands are temperate, warm and moist, and are long-term cultivated croplands. Prior to enrollment in the project, many of the tracts were high input as defined in the decision tree in Figure 5.1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4. However, Table 1 specifies that these lands are not eligible for use of the tool if manure is applied. Manure was not applied to project lands, so the tool is applicable to the project lands. Table 2 is not applicable because it is for grasslands and project lands were croplands prior to enrollment in the project. Thus the tool is applicable to project lands.



Evidence used to close NCR:

The explanations given along with knowledge of what commonly occurs in the region, as well as further discussions with the project proponent deem this issue to be addressed. Given that this is a desktop review, this item cannot be field verified, and the attestation given in the response is determined to be a reasonable assurance that these project areas are eligible for the use of this tool. Issue is addressed.

Forward Action Request: Verifiers request that for future project instances, the project proponents add an attestation to the contract document signed by project participants that clearly state the above conditions as being met.

Date closed:

30 May 2013

13. Non-Conformity Report (Related to Annual Desktop verification of existing instances)

ACR Criteria: "Annual Attestation

Each year, the Project Proponent shall submit a signed Attestation that:"

"*Confirms the continuance of project activities"

"*Confirms that ownership remains clear and uncontested"

"*Discloses any negative environmental or community impacts or claims of negative environmental and community impacts, and documents plans to mitigate any reported negative environmental or community impacts"

"*Addresses any significant change in external conditions that would affect the quality or environmental integrity of the project"

ACR requires both an Annual Attestation addressing the above issues, and third-party verification (either desk-based per section C below or field-based per section D, as the case may be) in order to issue new ERTs.

Evidence Used to Assess Conformance: ACR Existing Project Attestation.pdf, Attestation-Legal Requirements Compliance & Proj Mods.pdf

Findings:

Existing Project Attestation document included, but this does not explicitly identify the status of continuance of project activities, as required by ACR. Further, this attestation needs to reference all current or existing project instances. Landowner ownership attestation not included. Need info on current survivorship of plantings.

Non-conformity report (NCR): For Instances: GRT018, GRT022, GRT025, GRT027, Please submit the following information:

- Please provide contract, including site map.
- Please update the Annual Existing Project Attestation to include a listing of all current instances that it covers, and a statement addressing the status of continuation of project activities.
- Please provide information on any current reviews of planting or survivorship status.

Date issued:

25 April 2013

Project proponent response/actions and date: An Attestation Addendum for Verification (to include information requested above) has been composed and uploaded to DropBox. The



contract files for the specific instances GRT018, GRT022, GRT025, and GRT027 were provided in previous verifications. All 4 contract files have been re-uploaded on May 16 with inclusion of bookmarks.

Evidence used to close NCR:

Attestation received and confirmed to include all needed information for the verification period 1 Jan 2012- 31 Dec 2012, except the listing of what instances it included, however a conference call and internal discussions affirmed that this element was deemed to not be needed so long as the attestation referenced “all enrolled”. All four of the instances listed each contain the needed contracts and site maps as requested. Issue addressed.

Date closed: 23 May 2013

14. Non-Conformity Report (Related to Desktop verification of new instances)

ACR Criteria: At each interval that the Project Proponent requests issuance of new ERTs the Project Proponent shall submit a verification statement that is the product of a desk-based audit by an ACR-approved verifier. The desk based audit may use satellite or other aerial imagery, or other means acceptable to the verifier, to verify project continuance and boundaries. Verifiers are not required to use satellite or aerial imagery and may accept the landowner’s attestation of project continuance for the annual desk audits between field visits.

Evidence Used to Assess Conformance: All instance information sent to auditors under the file folder named “Landowner contracts”

Findings:

New instance information does not appear to be complete or contain the needed level of information needed to perform desktop verification to a reasonable level of assurance. Please see the below box for information on each instance.

Non-conformity report (NCR):

- a) The following instances have acreages listed in the contracts that differ from the acreages found in the calculations:
GRT034-GRT041, GRT043-GRT044, GRT048, GRT048, GRT050, GRT052-GRT055, GRT057-GRT058, GRT060, GRT062.
Please correct or explain the differences.
- b) The following instances have incomplete effective dates on the contracts:
GRT045, GRT057, GRT060
Please correct the contracts.
- c) No information is given that allows verification of project acreages.
Please submit shapefiles for all new instances so that auditors can independently verify acreages and locations. Shapefiles would be preferable.
- d) The following instances have tax statements that indicate ownership by the named party, but do not contain any assessor’s maps or other means of cross referencing parcel numbers with the data on the tax statements.
GRT037, GRT038, GRT040, GRT042, GRT044-GRT046, GRT049-GRT057, GRT059, GRT061, GRT062.



Please submit verifiable evidence that the maps presented are of the same parcels that are shown on tax records.

- e) No Landowner Attestations are found in the files submitted to auditors.
Please submit Landowners Attestation of Ownership for all new instances.
- f) No evidence of enrollment in CRP, WRP or ERP is found in files for the following instances:
GRT036, GRT038, GRT042, GRT045, GRT046, GRT049.
Please submit evidence of enrollment in these programs for the listed instances.
- g) The following instances do not have planting info contained in the files submitted to auditors:
GRT035-GRT037, GRT039, GRT042, GRT048
Please submit or clarify the planting status of these instances.
- h) No information about project site eligibility is included for any of the new instances.
Please submit adequate, verifiable eligibility information for all of the new instances.

Date issued:

25 April 2013

Project proponent response/actions and date:

- a) Contract vs Calculation acreage differences: the acreage being represented in the verification is based on official government documentation, primarily on ArcGis mapping technology. Acreage estimates provided by the landowner(s) in the contract are general in nature and are not being utilized as the presented verification acreage. (See NCR1 response further elaborates.)
- b) Landowner files for GRT045, GRT057, GRT060 have corrected sheets uploaded to reflect inclusion of effective dates. These updated files can be located in: DropBox/2012 Verification/Landowner Contracts.
- c) See Project Proponent Response NCR 1.
- d) See Project Proponent Response NCR 1 (last paragraph).
- e) The Landowner Attestation of Ownership is represented in: Exhibit A Terms and Conditions Item 1. **Landowner's Representations, Warranties & Covenants** of each landowner contract.
- f) Attestation Addendum states:
We confirm that enrollments in this verification are jointly enrolled in either the Conservation Reserve Program, the Wetlands Reserve Program, or the Flood Plain Easement component of the Emergency Watershed Program.
- g) Requested planting info has been bookmarked or scanned to DropBox folder 2012 Verification/NCR Round 1 – Additional Info/NCR 14, Bullet 7 (planting info).
- h) Attestation Addendum states: that the enrollments are not wetlands that have been converted after December 31, 1987 and that none of the enrollments are organic soils.

Evidence used to close NCR:

- a) Response is accepted. Personal communication with proponents explained that the acreages enrolled are listed by the property owner, however the actual planting areas are what are used as the basis for the crediting.



- b) Corrected contracts confirmed.
- c) NCR 1 confirmed to be compliant.
- d) NCR 1 confirmed to be compliant.
- e) Confirmed that this is found in the contract itself. This NCR is confirmed.
- f) Attestation reviewed and accepted as evidence.
- g) Planting info reviewed for all instances note. Issue is addressed.
- h) Attestation reviewed and accepted as evidence.

Date closed:

23 May 2013