SECOND ASSESSMENT REPORT FOR THE "METHODOLOGY FOR COASTAL WETLAND CREATION"

Document Prepared By Zane Haxtema

Methodology Element Title	Methodology for Coastal Wetland Creation	
Version	1.182a	
Methodology Element Category	Methodology	X
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	Module	
	Tool	
Sectoral Scope(s)	Sectoral scope 14 (AFOLU)	

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Prepared By	SCS Global Services (SCS)
Contact	2000 Powell Street, Suite 600, Emeryville, CA 94608, USA http://www.scsglobalservices.com Email: cpollet-young@scsglobalservices.com Telephone: +1 (510) 452-8000
Approved By	Christie Pollet-Young
Work Carried Out By	Lead assessor: Zane Haxtema Technical expert: Dr. Jason Keller Technical reviewer: Francis Eaton

Summary:

This report describes the second assessment of the "Methodology for Coastal Wetland Creation" (the "methodology element"), which was developed for the purpose of providing a methodological framework for the quantification and reporting of GHG emission reduction and removals attributable to project activities that restore coastal wetlands. The purpose of the assessment is to assess the conformance of the methodology element to the VCS rules and current best practices for quantification of GHG emission reductions and removals. The assessment was performed through an office meeting with the methodology developer and a desk review of the methodology element and other relevant documents. The conclusion of the assessment report is as stated in Section 5 below.

Table of Contents

1 INTRODUCTION

1.1 Objective

The purpose of the audit activity was to conduct a second assessment of the methodology element "Methodology for Coastal Wetland Creation" ("the methodology element") in accordance with the documents listed in Section 1.2 of this report.

1.2 Scope and Criteria

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

- Applicability conditions: Assessment of whether the proposed methodology's applicability conditions are appropriate, adequate and in compliance with the VCS rules.
- Project boundary: Assessment of whether an appropriate and adequate approach is provided for the definition of the project's physical boundary and sources and types of GHGs included.
- Procedure for determining the baseline scenario: Assessment of whether the approach for determining the baseline scenario is appropriate, adequate and in compliance with the VCS rules.
- Procedure for demonstrating additionality: Assessment of whether the approach/tools for determining whether the project is additional are appropriate, adequate and in compliance with the VCS rules.
- Baseline emissions: Assessment of whether the approach for calculating baseline emissions is appropriate, adequate and in compliance with the VCS rules.
- Project emissions: Assessment of whether the approach for calculating project emissions is appropriate, adequate and in compliance with the VCS rules.
- Leakage: Assessment of whether the approach for calculating leakage is appropriate, adequate and in compliance with the VCS rules.
- Quantification of net GHG emission reductions and/or removals: Assessment of whether the approach for calculating the net GHG benefit of the project is appropriate, adequate and in compliance with the VCS rules.
- Monitoring: Assessment of whether the monitoring approach is appropriate, adequate and in compliance with the VCS rules.
- Data and parameters: Assessment of whether the specification for monitored and not monitored data and parameters is appropriate, adequate and in compliance with the VCS rules.
- Adherence to the project principles of the VCS Program: Assessment of whether the methodology adheres to the VCS Program principles set out in the VCS Standard.
- Relationship to approved or pending methodologies: Assessment of whether any existing methodology could reasonably be revised to serve the same purpose as the proposed methodology.

The methodology element was assessed for conformance against the VCS Version 3, including the following documents:

- VCS Standard, Version 3.3
- Agriculture, Forestry and Other Land Use Projects (AFOLU) Requirements, Version 3.3
- Methodology Approval Process, Version 3.4
- Program Definitions, Version 3.4
- Validation and Verification Manual, Version 3.0

It should be noted that, in accordance with Section 4.1.3 of the AFOLU Requirements, the methodology was assessed against the requirements for both the WRC and ARR project categories, as the methodology element applies to project activities that fall under both categories (as stated in Section 2.1 of the methodology element).

1.3 Summary Description of the Methodology Element

The methodology element provides criteria and procedures for the quantification of emission reductions and removals attributable to project activities that restore coastal wetlands. The reader is directed to Section 2 of the methodology element for a more thorough summary.

2 ASSESSMENT APPROACH

2.1 Method and Criteria

The primary method used for this assessment was document review, as described in Section 2.2 below. In addition, information regarding the conformance of the methodology element to the assessment criteria was gathered during an office meeting, as described in Section 2.3 below.

2.2 Document Review

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

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

Couvillion, B.R.; Barras, J.A.; Steyer, G.D.; Sleavin, William; Fischer, Michelle; Beck, Holly; Trahan, Nadine; Griffin, Brad; and Heckman, David, 2011, Land area change in coastal Louisiana from 1932 to 2010: U.S. Geological Survey Scientific Investigations Map 3164, scale 1:265,000, 12 p. pamphlet.

Dahl, T.E. 2006. Status and trends of wetlands in the conterminous United States 1998 to 2004. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 112 pp.

United States Army Corps of Engineers, 2009. Final Programmatic Environmental Impact Statement For the Beneficial Use of Dredge Material Program. No. 20090397, draft EIS filed November 20, 2009.

2.3 Interviews

An office meeting was held, on 8 July 2013, for the purposes of gathering information regarding the conformance of the methodology element to the assessment criteria. The following personnel associated with the entities that developed the methodology were interviewed during this meeting.

Individual	**Affiliation**
Doug Huxley	CH2M HILL
Guerry O. Holm, Jr	CH2M HILL
Paul Spraycar	ecoPartners

An additional interview was held via telephone on 23 August 2013 with the representatives of CH2M Hill for the purpose of gathering follow-up information regarding the methodology element.

2.4 Use of VCS-Approved Expert

A VCS-approved expert was not used in the course of this assessment. However, it should be noted that Dr. Jason Keller, Assistant Professor at Chapman University (Orange, California, USA) and an expert in wetlands science (credentials can be reviewed online at https://www.chapman.edu/our-faculty/jason-keller), was utilized as part of the assessment. Dr. Keller was asked to review the following key sections of the methodology:

- Section 5.2.1
- Section 5.3
- Section 6.1
- Section 6.2
- Section 6.3.1
- Section 8.3.1
- Section 8.3.3
- Sections 8.4.3.1 and 8.4.3.2
- Sections 9.2.3.1, 9.2.3.2, 9.2.3.3 and 9.2.3.4
- Sections 9.2.4.1 and 9.2.4.2
- Section 9.2.6
- Appendix B
- Appendix C
- Appendix D
- Appendix E.6.4
- Appendix H
- Appendix I
- Appendix J

Dr. Keller was asked to answer a series of questions regarding the above sections, and the feedback provided by Dr. Keller informed the list of topics discussed during the meeting described in Section 2.3 above. Finally, Dr. Keller participated in a section of the meeting described in Section 2.3 above.

2.5 Resolution of Any Material Discrepancy

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

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

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

An adequate response for each issued NCR, including evidence of corrective action, was required before an assessment opinion could be reached.

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

Opportunities for Improvement (OFIs) were issued to the client when an opportunity for improvement in the proposed revision was identified. Such opportunities for improvement did not constitute material discrepancies. OFIs were considered resolved on issuance, and therefore a response to issued OFIs was not required before an assessment opinion could be reached.

All issued findings are described in Appendix A below.

2.6 Internal Quality Control

Internal quality control was maintained in accordance with SCS' quality control system.

As an important component of this system, a single workbook (the Findings Presentation Workbook) was used for the issuance, tracking and closure (if applicable) of all findings issued. In addition to containing all of the information on the findings, the Findings Presentation Workbook contains client responses to the findings (if applicable) and allows for multiple iterations of client and assessor responses. Finally, the Findings Presentation Workbook contains the assessor's comments at the closure of every finding. Therefore, the workbook provides a transparent record of the identification and resolution of material discrepancies identified throughout the assessment process.

In addition, all methodology assessments performed by SCS are required to undergo an internal technical review by an independent party who was not involved with the assessment activity. From review of the methodology element, the draft assessment report, and the assessment findings, as documented in Appendix A of this report, the technical reviewer determined that the assessment was conducted according to the VCS rules and that the decision of the assessment team was justified.

3 ASSESSMENT FINDINGS

3.1 Applicability Conditions

An assessment of how the applicability conditions are appropriate, adequate and in compliance with the VCS rules follows.

Condition	Assessor comments
(1)	Appropriately limits the applicability of the methodology to projects that include activities that are within the scope of the methodology
(2)	Enforces the requirement of Section 4.2.19 of the AFOLU Requirements that "Activities that actively lower the water table depth in wetlands are not eligible."
(3)	Enforces the requirement of Section 4.6.8 of the VCS Standard
(4)	Specifically excludes non-tidal wetland and enforces the requirement of Section 4.2.16 of the AFOLU Requirements; also critical for ensuring appropriate selection of the baseline scenario (see Section 3.3 below)*
(5)	Restricts the geographic applicability of the methodology element to those locations for which all criteria and procedures of the methodology are fully applicable
(6)	Restricts the geographic applicability of the methodology element to those locations for which all criteria and procedures of the methodology are fully applicable
(7)	Necessary to allow simplification in the procedure for quantification of project emissions
(8)	Necessary to ensure that ecological leakage does not occur (see Section 3.7 below)

*Note: Section 4.2.16 of the AFOLU Requirements specifies that "The project area shall meet an internationally accepted definition of wetland, such as from the IPCC, Ramsar Convention on Wetlands, those established by law or national policy, or those with broad agreement in the peer-reviewed scientific literature for specific countries or types of wetlands." As indicated in Section 3 of the methodology element, the definition of wetland established by the United States Environmental Protection Agency has been adopted. The methodology element allows for the inclusion area ("degraded wetland", as defined by the methodology element) that was previously defined as wetland but no longer meets that definition. As documented in Appendix A below, it was indicated to the assessment team by the VCSA that Section 4.2.16 should be interpreted so as to require that the project area be wetland at some point in the future, but not necessarily that the project area must be wetland prior to the start of project activities.

In summary, the applicability conditions are appropriate, adequate and in compliance with the VCS rules.

3.2 Project Boundary

The procedures for the definition of the project's physical boundary and sources and types of GHGs included are appropriate, adequate and in compliance with the VCS rules. Further justification of conformance is provided in the following sub-sections.

3.2.1 GHG Sources

The procedures for determination of the GHG sources included in the project boundary conform to the VCS rules, as specifically discussed for each GHG source below.

Source		Gas	Included	Assessment comments
Baseline	Dredging, Transport, and Re-handling for Navigability or Maintenance	CO_2	Yes	As emissions from this source are required to be accounted for in the project scenario (see below), it is appropriate to include the source in baseline accounting
		CH_4	Yes	
		N_2O	Yes	
		Other	None	
	Methane Ebullition	CO_2	No	It is conservative to exclude this source from baseline accounting, so it is appropriate to consider it as optional
		CH_4	Optional	
		N_2O	No	
		Other	None	
Project	Dredging, Transport, and Placement for Project Activities	CO_2	Yes	Required for inclusion by Section 4.3.3(3) of the AFOLU Requirements, which states that "where machinery use for earth moving activities may be significant in WRC project activities as compared to the baseline, emissions shall be accounted for if above de minimis, in accordance with this Section 4.3.3"
		CH_4	Yes	
		N_2O	Yes	
		Other	None	
	Habitat Regeneration	CO_2	Yes	It is appropriate to include this source
		CH_4	Yes	Required for inclusion by Section 4.3.23 of the AFOLU Requirements
		N_2O	Yes, if significant	Required for inclusion by Section 4.3.23 of the AFOLU Requirements (but Section 4.3.3 of the AFOLU Requirements also

				allows for the exclusion of specific GHG sources if deemed de minimis)
		Other	None	

3.2.2 Carbon pools

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

Carbon pools	**Included?**	**Assessment comments with respect to WRC category**	**Assessment comments with respect to ARR category**
Above-ground tree biomass	Included	Required for inclusion by the AFOLU Requirements	Required for inclusion by the AFOLU Requirements
Above-ground non-tree biomass	Optional	Considered optional by the AFOLU Requirements; the indication that the pool is "optional" constitutes criteria and procedures to set out when a project proponent may include the pool, as required by the AFOLU Requirements	Denoted "S" by AFOLU Requirements (see note below)
Below-ground biomass	Optional	Considered optional by the AFOLU Requirements; the indication that the pool is "optional" constitutes criteria and procedures to set out when a project proponent may include the pool, as required by the AFOLU Requirements	Denoted "S" by AFOLU Requirements (see note below)
Litter	Excluded	The AFOLU Requirements permits the exclusion of this pool	Denoted "S" by AFOLU Requirements (see note below)
Dead wood	Excluded	The AFOLU Requirements permits the exclusion of this pool	Denoted "S" by AFOLU Requirements (see note below)
Soil	Included	Required for inclusion by the AFOLU Requirements	Permitted to be included by the AFOLU Requirements
Wood products	Excluded	The AFOLU Requirements permits	The AFOLU Requirements

		the exclusion of this pool	permits the exclusion of this pool

With respect to those pools denoted “S” for ARR projects, the AFOLU Requirements states that those pools “Carbon pool shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.25” and that “The methodology shall justify the exclusion or inclusion of the pool in the project boundary.” Section 4.3.7 indicates, with respect to ARR projects, that “Where the methodology is applicable to projects that may reduce the aboveground non-woody biomass, belowground biomass, litter, dead wood or soil pools above de minimis (as set out in Section 4.3.3), the relevant carbon pool shall be included in the project boundary.” During the assessment process, the methodology developer asserted that the pools in question could be excluded because of applicability condition (4), which states that “Project area must meet the definitions of tidal or estuarine open water and degraded wetland before project activities are implemented and would have remained open water in the absence of the project activities (see section 6.1).” The assessment team agrees that, given the applicability condition quoted above, and given the types of restoration activities applicable under the methodology (also considering applicability condition (7), there is no conceivable circumstance under which an applicable project would reduce the non-woody biomass, belowground biomass, litter or dead wood pools. The methodology element states that the aboveground non-tree biomass and belowground biomass pools are optional, but does not specifically include them. The AFOLU Requirements does not prohibit these pools from being denoted as “optional”. While the AFOLU Requirements would appear to require an explicit justification, within the methodology element, of the inclusion or exclusion of the pools denoted “S”, the audit team received written guidance from VCSA personnel, in an email dated 3 December 2013, indicating that the requirement "The methodology shall justify the exclusion or inclusion of the pool in the project boundary" was not necessarily intended to require that the methodology document itself contain a justification for the exclusion or inclusion of the carbon pools in question, but rather that justification of the exclusion or inclusion of the carbon pools in question must be provided at some point in the methodology approval process. The required justification has been provided to the assessment team.

It should be noted that, in Section 5.2.1.1, the methodology element allows the user to not monitor allocthonous carbon import for projects “located in Louisiana and not within the direct influence of a river diversion or river mouth”. In addition, Section 5.2.1.2 of the methodology element sets out criteria by which users of the methodology element may opt not to monitor allocthonous carbon import in other situations. These criteria were assessed against the requirements of Section 4.5.28 of the AFOLU Requirements. Although the criteria appear to violate the requirement of Section 4.5.28(2) of the AFOLU Requirements, the audit team was able to confirm, via written guidance issued by the VCSA, that Sections 4.5.28(1) and 4.5.28(2) were intended to indicate two specific options by which it could be ensured that “the fate of transported organic matter as a result of sedimentation, erosion and oxidation shall be assessed conservatively”, but are not in and of themselves mandatory. The assessment team agrees that, in the absence of the specific requirements of Section 4.5.28(2), the methodology element conforms to the higher-level requirement of Section 4.5.28 to assess “the fate of transported organic matter as a result of sedimentation, erosion and oxidation” conservatively, as the criteria of Sections 5.2.1.1 and 5.2.1.2 limit the exclusion of monitoring of allocthonous carbon import to situations where most of the organic matter that is detected through project monitoring will have been produced in-house (rather than washed into the system) and where much more carbon in the soil carbon pool will have been

accreted in the project scenario than can be monitored through the methods of the methodology element, thus resulting in an overall conservative quantification of GHG emission reductions or removals.

3.2.3 Spatial boundaries

The methodology element contains some fairly standard requirements for delineation of the project area. In addition, the methodology element contains useful criteria for demonstration that the project area is located in a tidal or estuarine system. The methodology element contains criteria that effectively address the requirement of Section 4.3.25 of the AFOLU Requirements by providing "criteria and procedures for establishing the geographic boundary that considers projections of expected relative sea level rise."

3.2.4 Temporal boundaries

The requirements of the methodology element regarding the specification of temporal boundaries are fully consistent with the VCS rules. In addition, the methodology element contains some useful criteria regarding the installation of monitoring and maintenance of records of energy consumption, which should help to ensure a high quality of monitored data.

3.2.5 Specification for grouped projects

The methodology element contains appropriate guidance for grouped projects that is fully consistent with, and supplementary to, the requirements of Section 3.4 of the VCS Standard.

3.3 Procedure for Determining the Baseline Scenario

The methodology element contains appropriate guidance (with reference to credible datasets published by the United States government) for the demonstration that the project area historically met the definition of a wetland, but no longer meets that definition (and this guidance conforms to the requirement of Section 4.4.10(2) of the AFOLU Requirements). The user is then required to demonstrate, using the procedures set out in Section 6.1.1 or Section 6.1.2, that the project area would have remained open water in the absence of the project activity. Both of the sets of procedures provided by the methodology element are sound and, if duly followed, will result in a justifiable determination that the project area would have remained open water in the absence of the project activity. In conformance to Section 4.5.1(4) of the VCS Standard, both sets of procedures consider present conditions in the project area and indirectly take into account economic, legislative and other factors. Both sets of procedures use a "reference region" approach, which is widely used and accepted for baseline determination by VCS-approved methodologies for Reduced Emissions from Deforestation and Degradation projects. The requirements of Section 6.1.2 of the methodology element for remote sensing and reference region selection are consistent with best practices in such methodologies.

The procedures for the determination of the baseline conform to Section 4.4.10(1) of the AFOLU Requirements by requiring consideration of the hydrological characteristics of the basin or larger region surrounding the project area. The procedures explicitly require consideration of planned water management activities, in conformance with Section 4.4.10(3) of the AFOLU Requirements.

The following table justifies the conformance of the procedure for determining the baseline scenario to the requirements of Sections 4.4.10-4.4.19 of the AFOLU Requirements (clearly irrelevant requirements are not included).

Section	Assessment comments
4.4.10(1)	The procedures conform by requiring consideration of the hydrological characteristics of the basin or larger region surrounding the project area.
4.4.10(2)	The procedures conform by requiring that "the project developer also shall provide evidence of long-term water level changes in the project area with minimum record length of 20 years of hydrological data (e.g., water table, water level, sea level). The evidence shall demonstrate the long-term nature of the documented pattern of wetland loss."
4.4.10(3)	The procedures conform by requiring the user to account of "any existing and/or future water management activities (e.g., river diversions) which could influence the project area".
4.4.11(2)	It is the professional opinion of the assessment team that this situation is not likely to apply to the type of activity that is within the scope of the methodology element.
4.4.11(3)	Section 6.1.1 of the methodology element requires the user to confirm that the situation referenced in this section does not exist by requiring demonstration of "a trend of continued land loss or static condition in the basin for a period of at least 10 years prior to the project start date or the date of baseline reevaluation [sic]" (existence of a long-term trend is a sound indication that non-human induced elevation of non-vegetated wetlands is not likely to occur). Section 6.2.1.2 of the methodology element requires the user to confirm that the situation referenced in this section does not exist by requiring that "The analysis must infer that the area of open water in the study region has not decreased over time via natural processes."
4.4.15	As discussed with respect to Section 4.4.10(3), the methodology element requires consideration of water management activities that may affect the project area. No other potential impacts, as mentioned in this section, appear relevant.
4.4.16	As discussed with respect to Section 4.4.10(3), the methodology element requires consideration of water management activities that may affect the project area. No other potential impacts, as mentioned in this section, appear relevant.
4.4.17	The procedures conform by requiring documentation of historical trends of sea level rise and its effect on the increase and decrease of wetland area. Although future projections of sea level rise are not specifically in the baseline procedures, it is the opinion of the assessment team that future projections are not relevant for the purposes of the methodology element, given that the methodology element only applies to areas that are "tidal or estuarine open water and degraded wetland before project activities are implemented and would have remained open water in the absence of the project activities". For such areas, projections of rising sea level will only increase the certainty that they would have remained open water in the absence of the project activities. Such projections would not lead to any impact on the quantification of GHG emission reductions or removals.

Section	Assessment comments
4.4.18	As discussed with respect to Section 4.4.10(3), the methodology element requires consideration of water management activities that may affect the project area. The assessment team agrees that, aside from water management activities, no activities are likely to significantly impact the project area.

The assessment team agrees with the assertion of the methodology element that "If [applicability condition number 4] is met as required under the methodology, the only possible baseline scenario is open water."

The VCS rules do not contain specific requirements for determining dredging in the baseline scenario. However, the procedures provided in Section 6.2 of the methodology element are appropriately clear and prescriptive to lead to accurate quantification of dredging emissions in the baseline scenario. The methodology element offers helpful guidance regarding various means of satisfying the requirements. In conformance with the principle of "conservativeness", as set out in Section 2.4.1 of the VCS Standard, the methodology element requires that conservative assumptions be used to determine estimates of energy consumption (Section 6.2.2) and, if navigation or maintenance dredging in the baseline cannot be demonstrated in the baseline scenario, baseline emissions from energy consumption are conservatively set to zero.

The methodology element also provides appropriate criteria for determining emissions from methane ebullition in the baseline scenario. The criteria provided make use of a reference region approach, which, as described above, is commonly accepted among VCS methodologies. The criteria for ensuring the selection of the reference region are sufficiently robust as to ensure the selection of a reference region that is appropriately similar to the project area.

Thus, the procedures for determining the baseline scenario is appropriate, adequate and in compliance with the VCS rules

3.4 Procedure for Demonstrating Additionality

The criteria and procedures for the demonstration of additionality are appropriate, adequate and in compliance with the VCS rules. The methodology element uses an activity method for the demonstration of additionality.

An applicability condition effectively enforces the requirement of Section 4.6.3 of the VCS Standard (referenced through Section 4.6.8), and Section 7.1 of the methodology element contains appropriate procedures to ensure that an appropriate search of relevant laws is appropriately carried out. For the two activities within the scope of the methodology (substrate establishment and vegetation establishment), an appropriate geographic scope (essentially, coastal areas within the United States) is established in Section 7.2 of the methodology element.

The analysis reported in Appendix H of the methodology element was reviewed in detail, against Section 4.6.9 of the VCS Standard, by the assessment team. The assessment team agrees with the conclusions documented in Appendix H.2 regarding the extent to which the items (i)-(vii) of Section 4.6.9(1) of the

VCS Standard may constrain the maximum adoption potential. Therefore, the assessment team agrees that it is appropriate to consider the "maximum adoption potential of the project activity" to equal the total quantity of wetland that has been lost in the United States. As confirmed by the audit team, Couvillion et al. (2011; see Section 2.2 above for full citation) found that 1,883 square kilometers (approximately 1,205,120 acres) of wetland loss occurred in Lousiana from 1932-2010. It should be noted that Couvillion et al. (2011) is mistakenly cited as Couvillion et al. (2012) within Appendix H. Couvillion et al. (2011) is published by a government agency (the United States Geological Survey), is from a time period that accurately reflects current trends, is publically available, and is appropriate to the methodology's geographic scope (coastal Louisiana being a subset of the methodology's geographic scope); therefore, this source complies with Section 4.5.6 of the VCS Standard.

The assessment team confirmed that the data on wetland creation within the United States, as reported in Section H.3.5, complies with Section 4.5.6 of the VCS Standard. The information in Table H2 on cubic yards used in wetland creation and nourishment complies with each requirement of Section 4.5.6, being been published online by a government agency (the internet link provided in the caption to Table H2 was functional as of the time of this writing), and fully reflecting a time period and geographic scope that is appropriate to the analysis. The assumption that 6,250 cubic yards of sediment are used for every acre of wetland created is sourced from the United States Army Corps of Engineers (2009; see Section 2.2 above for full citation) and is apparently commonly used as an assumption by this agency for planning purposes. This information also complies with Section 4.5.6 of the VCS Standard. The information in Table H3 has been summarized from a dataset provided by an employee (Dr. James W. Pahl, Coastal Resources Scientist Senior) of the Coastal Protection and Restoration Authority, and can thus be considered to be "published by a government agency". While this information is not publically available on the website of the Coastal Protection and Restoration Authority, the assessment team has received confirmation from the Coastal Protection and Restoration Authority that the information would be made available to the public upon request. In addition, by being published as part of the methodology element, the information will be made publically available on the VCS Program website. The data also fully reflect a time period and geographic scope that is appropriate to the analysis

The assessment team was not able to confirm the conformance of the value of 276,000 acres (as reported in footnote 2 of Appendix H) to Section 4.6.9(1)(a) of the VCS Standard. The assessment team was unable to replicate the exact calculation of the reported value of 461,000 acres of wetland loss in the conterminous United States. The main reason that the assessment team could not validate the value of 276,000 acres is that it was not clear that the factor of 40%, as used to estimate the ratio of wetland loss in Lousiana to wetland loss in the conterminous United States, conforms to Section 4.5.6 of the VCS Standard. However, the assessment team notes that, where only the quantity of wetland lost in Lousiana (as opposed to the quantity of wetland lost in the conterminous United States) is considered to be the maximum adoption potential, the level of activity penetration is equal to 3.31% (39,834 divided by 1,205,120), and is therefore clearly below even where the adoption potential in the remainder of the United States (aside from Louisiana) is conservatively excluded. Therefore, the methodology appropriately demonstrates additionality in accordance with the "activity penetration" option of Section 4.6.9 of the VCS Standard.

In summary, the procedure for demonstrating additionality is appropriate, adequate and in compliance with the VCS rules.

3.5 Baseline Emissions

The calculation of baseline emissions in the methodology element is limited to calculation of emissions from energy consumption and methane ebullition. Given this limited scope, the entire calculation of baseline emissions is handled in six equations (equations G.1 to G.6). The assessment team has reviewed these equations and found them to be without error. In addition, the assessment team reviewed the emissions coefficients reported in Table 11. The assessment team reviewed the calculation of these coefficients, as documented in Appendix N, and found that the calculation was conducted without error. The audit team traced the emissions factors (reported in kg/MMBtu) for each fuel type and greenhouse gas, as well as the energy content for each fuel type, from the Environmental Protection Agency Final Mandatory Reporting of Greenhouse Gases Rule. Being published by a government agency and applicable throughout the United States, these data conform to the requirements of Section 4.5.6 of the VCS Standard. In addition, the audit team reviewed the procedure (as described in Appendix N) for sourcing eGRID regional emissions factors and found that it was sufficiently prescriptive as to ensure sourcing of the appropriate data. The eGRID regional emissions factors are also published by the Environmental Protection Agency, and their compliance with Section 4.5.6 is similarly clear.

Thus, the procedures for calculating baseline emissions are appropriate, adequate and in compliance with the VCS rules.

3.6 Project Emissions

As with the calculation of baseline emissions, project emissions are calculated through an elegant system of equations. The assessment team reviewed the equations and found them to be without error. The procedure for calculating emissions removals in carbon stocks is consistent with the stock-difference method, as set out in Section 2.2.1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories; this value is adjusted for methane flux emissions from sequestered plant matter, as discussed in further detail in Section 3.8 below. The procedures for calculating emissions from energy consumption (in Section 8.2.4 of the methodology element) are consistent with the corresponding procedures for the baseline scenario (as set out in Section 8.1.1 of the methodology element). The procedures for calculating emissions from nitrous oxide and methane appropriately perform this calculation from the values collected during monitoring, as described in Section 3.9 below. The specific guidance for handling disturbance events provides a helpful supplement to the monitoring procedures set out in Section 9.2.1 of the methodology element. The methodology element contains helpful hints regarding the circumstances under which certain values may be positive or negative. Thus, the procedures for calculating project emissions are appropriate, adequate and in compliance with the VCS rules.

Because the methodology element does not permit harvest activities in the project scenario (in accordance with applicability condition (7), the requirements of Section 4.5.5 of the AFOLU Requirements (which pertain to the accounting of carbon stock changes due to harvest activities) are not applicable.

3.7 Leakage

The methodology element contains no procedures for calculating leakage. The applicability conditions of the methodology element effectively preclude activity shifting and market leakage from occurring, as the type of area that falls within the scope of the methodology does not produce any output that would be

shifted outside the project boundary with the implementation of the project activity (and, therefore, the requirements of Sections 4.6.8-4.6.9 and 4.6.19, for ARR and WRC projects, respectively, are not applicable). In addition, the methodology element does not allow ecological leakage to occur. The procedures within Section 8.3.2 of the methodology element are sufficient to ensure that the project is planned and implemented in such a way that ecological leakage is avoided. The assessment team agrees that, in the context of the activities within the scope of the methodology element, conformance with relevant federal requirements is sufficient to ensure that ecological leakage does not occur.

Therefore, the procedures for determining leakage are appropriate, adequate and in compliance with the VCS rules.

3.8 Quantification of Net GHG Emission Reductions and/or Removals

The methodology element contains appropriate procedures for calculating the net GHG benefit of the project. As with the procedures for calculating baseline and project emissions, these procedures involve an elegant set of equations that has been found to be without error by the assessment team.

As required by Sections 4.7.1 and 4.7.2 of the AFOLU Requirements, the methodology element contains procedures for quantifying the net change in carbon stocks, which is used to determine the number of buffer credits withheld in the AFOLU pooled buffer account. These procedures are handled through separate equations for the grouped and non-grouped project contexts. Both equations contain one or more beginning terms, in which the difference in carbon stocks at different times is calculated, and a final term, in which the quantity of methane flux released to the atmosphere, is multiplied by the quantity 0.131. As described to the audit team, this term is included in order to account for methane emitted to the atmosphere, during the monitoring period, that was originally sequestered in plant matter. The assessment team agrees that it is appropriate to include this term in the overall quantification of net GHG emission reductions and removals, as it serves to acknowledge that some of the methane that is emitted during a given monitoring period was originally sequestered (either during that monitoring period or in a prior monitoring period) as plant matter that subsequently died. Since the death of the plant matter is already accounted as a carbon stock change, the carbon matter in the emitted methane must be “added back in” to avoid double-counting the change in carbon stocks. (This is analogous to not including CO2 as an emissions source for biomass burning, as is common in VCS-approved methodologies, with the rationale that it is “already accounted as a carbon stock change”.) As described in the methodology element, the multiplier 0.131 accounts for the quantity of carbon dioxide bound up in the emitted methane. While the assessment team agrees that the inclusion of the final term in the equations is clearly appropriate for purposes overall quantification of GHG emission reductions and removals, it may be that the methane that has already been emitted to the atmosphere is most appropriately considered in a calculation of the “gross” (rather than “net”) change in carbon stocks. However, this appears to be a matter of professional judgment, depending on how the phrase "net change in carbon stocks" is interpreted. In addition, the assessment team notes that the inclusion of this positive (i.e., negative of a negative) quantity in the quantification of the net change in carbon stocks will produce a larger quantity of buffer credits than with the quantity excluded. Thus, in a situation where there is opportunity for application of professional judgment, a conservative decision has been made, in accordance with Section 2.4.1 of the VCS Standard.

The methodology element contains procedures to account for uncertainty in the quantification of GHG emission reductions and removals that are consistent with the requirements of Section 4.1.4 of the VCS

Standard. The methodology contains a procedure for estimating a 90% confidence interval that is consistent with typical practices for such estimation in natural resources inventory. The methodology element requires that a deduction be taken for uncertainty that is in excess of 15% of the carbon stock estimates, which is more conservative than the requirements of the VCS Standard (which only require a confidence deduction where uncertainty exceeds 20%). The assessment team agrees that the procedures for quantification of emissions from GHG emissions sources are likely to provide conservative estimates of project emissions, as discussed further in Section 3.9 below. Thus, consistent with the endnote of Section 2.4.1 of the VCS Standard, conservativeness has served as a moderator to accuracy, and direct quantification of the uncertainty of GHG emissions is not necessary.

The methodology element contains useful guidance pertaining to the quantification of GHG emission reductions and removals by vintage over a given monitoring period. Although such guidance is not required by the VCS rules, it has been the experience of the assessment team that there is frequently interest in separating GHG emission reductions and removals by vintage. This is allowed by the VCS rules, but methodologies do not frequently contain procedures for such separation, thus leading to confusion over how to carry out the task. The inclusion of a procedure in the methodology element is anticipated to lead to a helpful degree of clarity.

The methodology element also contains procedures to determine whether emissions from methane and nitrous oxide may be de minimis. These procedures are in full compliance with the requirements of Section 4.3.3 of the AFOLU Requirements.

In summary, the procedures for calculating the net GHG benefit of the project are appropriate, adequate and in compliance with the VCS rules.

3.9 Monitoring

Section 9 and Appendices A-F of the methodology element contain appropriate criteria and procedures for monitoring baseline and project emissions. The guidance is clearly stated and, while opportunities for professional judgment always occur in real-world monitoring situations, said guidance should be sufficiently prescriptive to ensure that, when appropriately carried out by competent professionals, the resulting monitored data is of a high quality.

The guidance on stratification and sample size, as provided in Section 9 and Appendix A of the methodology element, is consistent with current best methods for stratification in a natural resources inventory context. Specific guidance is also applied for unusual situations (e.g., the situation where different monitoring methods are used for different strata).

Procedures for monitoring of biomass and soil organic carbon are set out in Section 9.2.1.3 and Appendices D and E of the methodology element. As required by Section 4.5.1 of the AFOLU Requirements, the requirements of Appendix D are consistent with the guidance of Sections 4.3.5.5.1 and 4.3.5.5.2 of the IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry for aboveground biomass and belowground biomass, respectively. The procedures for sampling aboveground tree biomass include an appropriate procedure for validation of allometric equations. The procedures for sampling aboveground non-tree biomass make use of clip plots, as allowed by the IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry. The procedures for estimation of belowground biomass make use of root-to-shoot ratios, as allowed for by Section 4.3.3.5.2

of the IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry, or through direct measurement as part of the soil carbon pool.

The procedures for monitoring of soil organic carbon, as set out in Appendix E, are consistent with current best practices in soil measurement and are sufficient to ensure a high quality of measured soil data. As described in Section 3.11 below, the VCS-approved module VMD0021, "Estimation of Stocks in the Soil Carbon Pool" is appropriately referenced for guidance on specific topics in soil sampling. The guidance provided for laboratory techniques is appropriate. Appendix E allows for carbon content to be determined either directly or indirectly. The models provided for indirect carbon content estimation, in Table 18 of the methodology element, are derived from sources that comply with the requirements of Section 4.1.6 of the VCS Standard (namely, they are publicly available and have been determined by appropriately qualified experts and appropriately reviewed through the scientific peer-review process). As the models are relatively "simple" (that is, they simply estimate carbon content on the basis of soil organic matter, the assessment team agrees that criteria (4)-(6) do not apply.

For monitoring of methane and nitrous oxide emissions, the methodology element provides three different options: default values, proxy methods or direct measurement. The criteria for models from the literature for methane flux estimation, as set out in Section 9.2.2.1 of the methodology element, are sufficiently prescriptive to ensure that the selected models are appropriately accurate (particularly in combination with Section 4.1.6 of the VCS Standard). The methodology element contains a procedure for validation of the selected model through comparison with measured data. For projects in the absence of external nitrate loading, the methodology provides criteria for selection of default values for estimation of nitrate emissions in Section 9.2.3.1. The values in Table 16 of the methodology element comply with the requirements of Section 4.5.6 of the VCS Standard (namely, they have been reviewed for publication by an appropriately qualified, independent organization or appropriate peer review group, and they are appropriate to the geographic scope of the methodology element). The assessment team agrees that, for projects in the absence of external nitrate loading, these factors will be appropriate to project circumstances.

The guidance for proxy methods is similar for methane flux estimation (Section 9.2.2.2) and nitrous oxide flux estimation (9.2.3.2), respectively, with additional guidance provided by Appendix F. The criteria and procedures provided are statistically sound. The project description requirement PDR.83, in Section 9.2.3.2.3 of the methodology element, serves to enforce the requirement of Section 4.1.8 of the VCS Standard.

The guidance for direct measurement in Section 9 and Appendices B and C (for the default static chamber and eddy covariance methods, respectively) are consistent with best practices in measurement of GHG fluxes. Conservativeness in the collection of flux data is ensured through the location of measurement instruments in the locations in which emissions are expected to be greatest (as required by Sections B.2.1 and C.2.1 for the default static chamber and eddy covariance methods, respectively). The detailed criteria that are provided for the collection of data in both appendices will assist in the collection of accurate data.

The criteria for development of a monitoring plan are consistent with the requirements of Section 4.8.4 of the VCS Standard. The methodology contains an appropriate level of prescription regarding the timelines and schedules for monitoring activities.

In summary, the monitoring procedures are appropriate, adequate and in compliance with the VCS rules.

3.10 Data and Parameters

The specification for data and parameters is provided in Appendices J and K. Due to the structure of the methodology, most of the parameters are monitored (relatively few involve information that is available at validation) The units, equations involved, description and frequency of monitoring (if applicable) are specified clearly, and without any apparent error, in the appendices. Given the inherent complexity of the methodology element, the lack of findings issued as part of either the first or second assessments relating to incorrect or incomplete specification of the data and parameters is indicative of the care and diligence that was exercised in the preparation of Appendices J and K. In summary, the specification for monitored and not monitored data and parameters is appropriate, adequate and in compliance with the VCS rules.

3.11 Use of Tools/Modules

The methodology element references the AFOLU Non-Permanence Risk Tool for determination of the buffer withholding percentage, as required by the VCS rules. The methodology element does not reference any other tool or module. The methodology element also references VCS-approved module VMD0021, “Estimation of Stocks in the Soil Carbon Pool”, for guidance on soil sampling in Appendix E. This module contains generic guidance for soil sampling in non-organic soils (its only applicability condition states “This module is not applicable for sampling or estimation of soil carbon content in organic soils”, the assessment team can confirm that the module is used appropriately within the methodology element.

3.12 Adherence to the Project Principles of the VCS Program

The methodology element adheres to all of the VCS Program principles set out in the VCS Standard, as described below for each principle.

The methodology element adheres to the principle of relevance by selecting the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the VCS program.

The methodology element adheres to the principle of completeness by including all relevant GHG emissions and removals, and including all relevant information to support criteria and procedures.

The methodology element adheres to the principle of consistency by enabling meaningful comparisons in GHG-related information.

The methodology element adheres to the principle of accuracy by reducing bias and uncertainties as far as is practical.

The methodology element adheres to the principle of transparency by disclosing sufficient and appropriate GHG-related information (i.e. providing sufficient and appropriate justification of procedures and criteria) to allow intended users to make decisions with reasonable confidence.

The methodology element adheres to the principle of conservativeness by using conservative assumptions, values and procedures to ensure that net GHG emission reductions or removals are not overestimated.

3.13 Relationship to Approved or Pending Methodologies

At the time of this writing, no approved or pending methodologies related to the restoration of coastal wetlands exist.

3.14 Stakeholder Comments

The VCS webpage for the methodology element (http://www.v-c-s.org/methodologies/methodology-wetland-creation; accessed 1 July 2013) indicates that no comments were posted during the public comment period. Therefore, this section is not applicable.

4 RESOLUTION OF CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS

Please see Appendix A for a record of the findings issued, responses by the methodology developer and the assessment team, and justification for the resolution of findings.

5 ASSESSMENT CONCLUSION

The assessment team concludes that the methodology element is in full conformance with the assessment criteria. It is the recommendation of the assessment team that the VCSA approve the methodology element.

6 REPORT RECONCILIATION

No revisions to this report were required to reconcile with the first assessment report.

It should be noted that the assessment described in this report commenced even though some findings from the first assessment remained in open. In accordance with Section 3.5.3 of the Methodology Approval Process, the comments of the assessment team regarding the first assessment findings that were open as of the start of the second assessment are indicated below. It is the opinion of the assessment team that all findings have been satisfactorily addressed by the methodology developer (which may include the case where the finding is not relevant and, therefore, has been satisfactorily addressed by default).

Finding	Assessment comments
NCR 3	The comment that "...the source of the data in Table 17 is unclear" is no longer relevant, as the table formerly known as Table 17 has been removed from the methodology element. The finding includes a request to "Please state in the methodology that where default factors are used, they must be consistent with the most current version of the VCS Standard's requirements for default factors (currently located in Section 4.5.6 VCS Standard V3.3)." The assessment team does not believe this request to be appropriate. The requirements of Section 4.5.6 (via those of Section 4.1.7(1)) pertain to methodologies, where methodologies require specific default factors. Where methodologies allow a project to establish a default factor, these requirements then apply at the project level. However, this linkage is explicitly

	established in Section 3.1.5 (again, via Section 4.1.7(1)), and therefore it is redundant to require that the methodology element contain any direct reference to Section 4.5.6 of the VCS Standard.
NCR 10	The finding states that "...the statement that socio-economic impacts (example limited to oyster farming) are not common enough is not supported. Also, the statement that this should not vary across different geo-graphic regions is also not supported." The assessment team does not agree that this is relevant. The referenced text, from Section 4.3.9 of the VCS Standard, states that "In establishing the scope of validity of the methodology, the methodology shall clearly demonstrate that there is similarity across the sub-areas of the geographic scope in factors such as socio-economic conditions, climatic conditions, energy prices, raw material availability and electricity grid emission factors, *as such factors relate to the baseline scenario and additionality*" (emphasis added). Because the methodology element only uses an activity method for the determination of additionality, the requirement of the VCS Standard can be further restricted to imply that factors need only be considered insofar as they relate to additionality. It is the opinion of the assessment team that, with respect to additionality, there is broad similarity across the sub-areas of the geographic scope (as set out in Section 7.2 of the methodology element). Although the majority of loss of estuarine vegetated wetlands has occurred in the state of Louisiana, estuarine vegetated wetland loss has occurred throughout the geographic scope set out in Section 7.2 of the methodology element. Similarly, wetland restoration efforts are limited by similar factors (most significantly, monetary resources) across the geographic scope of the methodology element. Therefore, the assessment team concludes that, with respect to the demonstration of additionality, it has been sufficiently demonstrated that similarity exists across the sub-areas of the geographic scope.
NCR 29	The assessment team does not believe that this finding is relevant. The finding appears to remain open on the basis of a misinterpretation of Section 4.2.19(1) of the AFOLU Requirements. The AFOLU Requirements does not require that a specific indication of change in water table depth (e.g., "the project must lower the water table by 2 meters") be provided by the methodology. In the case of the type of project eligible of the methodology (where the appropriate activity is to restore hydrological function, and not necessarily to modify water table depth), the specific requirement is set out in Section 4.2.19(1)(a)(iii): "Activities that restore hydrological function to an open water wetland shall restore the hydrological flow, considering the dynamics of the system and the hydrological connectivity necessary to maintain carbon stock and GHG fluxes". Section 2.1 of the methodology contains appropriate requirements to ensure that restoration activities restore the hydrological flow (e.g. "Wetland creation projects shall be designed such that the wetland, over time, will support the ecological processes and functions of a mature wetland habitat").
NCR 32	As discussed in Section 3.2.3 above, it is the opinion of the assessment team that the requirements of Section 4.3.25 are clearly addressed within Section 5.3 of the methodology element. Therefore, the assessment team does not believe that this finding is relevant.
NCR 37	This finding, and a concurring observation made by the assessment team during the desk review, were discussed at length during the assessment process. The resolution of this issue is described in Section 3.2.2 above. The assessment team does not believe that this finding

	is relevant at this time.
NCR 38	The assessment team's comment regarding NCR 37 also applies here.
NCR 48	The assessment team does not believe that this finding is relevant, as Appendix C of the methodology element contains appropriate procedures for calibration of equipment. It should be noted that Section 3.16.5 of the VCS Standard contains requirements for calibration of equipment that apply at the project level.

7 EVIDENCE OF FULFILMENT OF VVB ELIGIBILITY REQUIREMENTS

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

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

Project and Project ID	**Date validation report issued**	**Date project registered**	**Name of GHG program under which project registered**
INFAPRO Rehabilitation of logged-over dipterocarp forest in Sabah, Malaysia (672)	31-Aug-2011	2-Sep-2011	Verified Carbon Standard
Natural High Forest Rehabilitation Project on degraded land of Kibale National Park (673)	6-Sep-2011	6-Sep-2011	Verified Carbon Standard
Protection of a Tasmanian Native Forest (Project 3: Peter Downie) (587)	18-Mar-2011	7-Apr-2011	Verified Carbon Standard
Redd Forests Grouped Project: Protection of Tasmanian Native Forest (641)	13-May-2011	1-Jul-2011	Verified Carbon Standard
Protection of a Tasmanian native forest – Project 1 – REDD Forests Pilot (605)	18-Mar-2011	3-May-2011	Verified Carbon Standard
Boden Creek Ecological Preserve Forest Carbon Project (647)	24-Jun-2011	18-Jul-2011	Verified Carbon Standard
Peri-urban bamboo planting around South African townships (Project ID confidential)	8-Aug-2011	8-Dec-2011	Verified Carbon Standard

Project and Project ID	Date validation report issued	Date project registered	Name of GHG program under which project registered
Tree planting in South African townships (Project ID confidential)	2-Sep-2011	8-Dec-2011	Verified Carbon Standard
Rimba Raya Biodiversity Reserve Project (674)	31-Aug-2011	7-Sep-2011	Verified Carbon Standard
Reforestation Across the Lower Mississippi Valley (774)	20-Apr-2011	14-Feb-2012	Verified Carbon Standard

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

A VCS-approved expert was not used in the course of this assessment.

8 SIGNATURE

Signed for and on behalf of:

Name of entity: SCS Global Services

Signature:

Name of signatory: Christie Pollet-Young

Date: 9 December 2013

APPENDIX A: FINDINGS ISSUED DURING THE ASSESSMENT PROCESS

NCR 2013.1 dated 07/19/2013
Standard Reference: AFOLU Requirements V3.3, Sections 4.2.16 and 4.2.19(1)(a)(iii)
Document Reference: Methodology for Coastal Wetland Creation v1.165.docx.docx
Finding: The AFOLU Requirements states that "the project area shall meet an internationally accepted definition of wetland, such as from the IPCC, Ramsar Convention on Wetlands, those established by law or national policy, or those with broad agreement in the peer-reviewed scientific literature for specific countries or types of wetlands." The methodology does not contain any criteria to enforce this requirement. In fact, Section 4 of the methodology requires that "Project area must meet the definitions of open water and degraded wetland before project activities are implemented". As "degraded wetland" is defined by the methodology as "area that previously met the definition of a wetland, but now no longer meets that definition...", it appears that areas meeting with the definition of wetland are explicitly excluded from the project area.
While Section 4.2.19(1)(a)(iii) explicitly indicates that restoration of an "open water wetland" as an acceptable activity, and thus it is clear that the type of activity included within the scope of the methodology conforms to the AFOLU Requirements, the methodology must nonetheless ensure that the project area can be defined as a wetland using one of the sources indicated by the AFOLU Requirements.
Client Response: Added reference to definition of wetland in section 3.
Revised section 2.1 and Monitoring Report Requirement (MRR) 1 (section 2.1) to include a requirement that the project proponent demonstrate the project area will meet the definition of a wetland upon completion of project activities.
Note: Using national-level definition of wetland to correspond with geographic scope of methodology.
Auditor Response: Review of the revised methodology confirms that the definition of "wetland" adopted by the United States Environmental Protection Agency (which constitutes an "internationally accepted" definition) is now used in Section 3 of the methodology. In addition, the assessment team received clarification, via email by Sam Hoffer on 1 August 2013, that Section 4.2.16 should be interpreted as requiring that the project area be wetland at some future date, rather than requiring that the project area be wetland prior to the beginning of project activities. Therefore, the definition of "degraded wetland", in Section 3 of the methodology is consistent with the requirements of Section 4.2.16. In addition, the methodology contains criteria (in MRR.1) to require a demonstration that "upon completion of the project activities, the project area shall meet the definition of a wetland." Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.2 dated 07/19/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.165.docx.docx
Finding: Due to broken links in the methodology, the following sections of the methodology contain the following message in place of links to other sections: "Error! Reference source not found."
Section 2.2.1
Section 6.3
Section 6.3.1
Section 9.2
Appendix G
These lack of effective linking in the above sections would make it difficult for the methodology to be used and lead to the potential that the methodology could be interpreted in a way other than that intended. Therefore, the identified errors must be corrected.
Client Response: Revised the methodology to correct the broken links referenced in the finding.
Auditor Response: As indicated, all of the broken references were corrected in the updated version of the methodology. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.3 dated 07/19/2013
Standard Reference: VCS Validation and Verification Manual, V3.0, page 46
Document Reference: Methodology for Coastal Wetland Creation v1.165.docx.docx, Section 5.3
Finding: The VCS Validation and Verification Manual States that "References to specific tools or VCS Program documents must not state specific versions but rather refer to the most recent version of the tool or document." In the sentence beginning "The project area shall be under control of the project proponent..." in Section 5.3, the methodology does not conform to this requirement, as a specific version of a VCS Program document, rather than the most recent version of that document, is referenced.

Client Response: Revised section 5.3 to refer to the most recent version of the VCS AFOLU Requirements.
Auditor Response: The methodology no longer refers to a specific version of the AFOLU Requirements, but now refers to "the most recent version". Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.4 dated 07/19/2013
Standard Reference: Methodology Approval Process V3.4, Section 5.1.3
Document Reference: Methodology for Coastal Wetland Creation v1.165.docx.docx, Appendix E
Finding: The Methodology Approval Process states that "Where the proposed methodology references tools or modules approved under the VCS or an approved GHG program, the validation/verification body shall determine whether the tool or module is used appropriately within the methodology. Reassessment of the actual tool or module is not required."
While a later iteration of the module VMD0021, pertaining to "Estimation of Stocks in the Soil Carbon Pool", was approved by the VCS, the "VCS 2012 Soil Carbon Module/Tool (The Earth Partners Module: Soil Carbon v.1.0)", as referenced in Appendices E.1 and E.5 of the methodology, is not approved under the VCS Program. Please provide a rational for the use of the unapproved draft version of the module in place of the version of the module approved under the VCS Program.
Client Response: Revised sections E.1 and E.5 to correctly reference the approved module.
Auditor Response: As is indicated in the Client Response, this finding has been responded to by updating the methodology to refer to the VCS-approved module VMD0021. Therefore, the information request is no longer relevant and will be closed.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.5 dated 07/19/2013
Standard Reference: AFOLU Requirements V3.3, Section 4.3.3
Document Reference: Methodology for Coastal Wetland Creation v1.165.docx.docx, Sections 3, 8.4.3.1 and 8.4.3.2
Finding: The implied definition of the term de minimis in the AFOLU Requirements is an instance where "together the omitted decrease in carbon stocks (in carbon pools) or increase in GHG emissions (from GHG sources) amounts to less than five percent of the total GHG benefit generated by the project". Section 3 of the methodology defines de minimis as "Considered a negligible source of emissions (<5% of ex ante estimates) and therefore not accounted for", and this definition is echoed in Sections 8.4.3.1 and 8.4.3.2 of the methodology. However, "<5% of ex ante estimates" is not very specific regarding the quantity to be divided by in determining whether one or more sources is de minimis, and it is also not necessarily equivalent to "less than five percent of the total GHG benefit generated by the project", which is the implied definition as used by the AFOLU Requirements.
Client Response: Revised definition of de minimis in section 3: "<5% of total GHG benefit generated by the project."
Revised sections 8.4.3.1 and 8.4.3.2 to clarify the determination of de minimis: "Such emissions are considered de minimis if, together with any other sources which may be de minimis, they account for less than 5% of the total GHG benefit generated by the project."
Auditor Response: The definition of "de minimis", and the criteria for determining whether a given source is de minimis, have been modified to be consistent with the AFOLU Requirements. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.6 dated 07/19/2013
Standard Reference: VCS Standard V3.3, Section 4.6.9(1)
Document Reference: Methodology for Coastal Wetland Creation v1.165, Table H2
Finding: Section 4.6.9 of the VCS Standard requires that "Data used in determining the level of activity penetration shall meet the requirements for data set out for performance benchmarks in Section 4.5.6, mutatis mutandis."
Please provide evidence (as required by Section 4.5.6(2) of the VCS Standard) that the data on acres and/or cubic yards dredged by the United States Army Corps of Engineers, as presented in Table H2, are "available from a recognized, credible source and must be reviewed for publication by an appropriately qualified, independent organization or appropriate peer review group, or be published by a government agency". Please note that the link for the state beneficial use data (http://el.erdc.usace.army.mil/dots/budm/factsheets.cfm?Topic=Wetland Restoration&Id=0) does not work as of the time of issuance of this finding. If demonstrating that the data are published by a government agency, please provide transparent documentation of any modification and/or compilation of the data once received from the government source.
Client Response: Revised Appendix H to provide better documentation and justification of the data used to determine activity penetration. In particular, Table H2 was revised to include readily available data on nationwide dredging activities associated with wetland creation and nourishment (dredge disposal statistics from the USACE Navigation Data Center: http://www.navigationdatacenter.us/dredge/drgdisp.htm (Disposal Type = Wetland Creation and Nourishment)). Data were not modified or compiled.
Auditor Response: The conformance of the data within Table H2 to Section 4.5.6 of the VCS Standard has been appropriately established. The assessment team has been able to access the internet link provided in the methodology and confirm that the values are published by a government agency. In addition, these data are from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector, are publically available and are appropriate to the methodology's geographic scope and the project activities applicable under it (albeit, as noted in the methodology, conservatively including data on wetland nourishment activities that are outside the geographic scope of the methodology). However, the audit team has not been able to confirm the conformance of the data within Table H3 to Section 4.5.6 of the VCS Standard. Please provide evidence that these data are "available from a recognized, credible source and must be reviewed for publication by an appropriately qualified, independent organization or appropriate peer review group, or be published by a government agency".
Client Response 2: Provided communications from state government agency most knowledgeable about Louisiana restoration projects to document source of data in Table H.3. These records are not confidential and would be available to other parties on request.
Auditor Response 2: In response to this finding, the assessment team was provided with an email, dated 28 August 2013, from an employee of the Coastal Protection and Restoration Authority. This email contained a workbook indicating the quantity of wetland acreage created in Lousiana from 2005-2012. However, many of the values in Table H3 do not match with the corresponding values in the workbook. Therefore, the assessment team continues to lack evidence that the data were published by a government agency. Please provide this evidence.
Client Response 3: Some adjustments had been made to the yearly totals in the workbook from CPRA based on specific knowledge of the projects listed for the previous version of the methodology. Because documentation to backup those adjustments was not readily available, table H3 was revised to match the CPRA workbook. This resulted in an insignificant difference to the conservatively calculated overall activity penetration estimate (which, to two significant figures, remains unchanged at 2.7%).
Auditor Response 3: It has been possible, through review of the revised methodology alongside additional information provided by the methodology developer, to trace the values in Table H3 back to data that has been provided by an employee (Dr. James W. Pahl, Coastal Resources Scientist Senior) of the Coastal Protection and Restoration Authority, and thus can be considered "published by a government agency". Therefore, the information request is closed.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.7 dated 07/19/2013
Standard Reference: VCS Standard V3.3, Section 4.8.4
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 8.1.1
Finding: The VCS Standard requires that "The methodology shall establish criteria and procedures for monitoring".
The methodology requires that "Electricity emissions are determined using the most recent U.S. EPA eGRID database." However, while the assessment team agrees that the eGRID database is an appropriate source, review of the eGRID website (http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html) indicates that the website requires some knowledge to use correctly, and the inexperienced user may not retrieve information correctly, thus allowing the potential for GHG emission reductions to be quantified in a manner that is inconsistent with the methodology. The methodology must establish additional criteria and procedures for use of the eGRID database.
Client Response: Revised Appendix N to provide more guidance on which data should be used (e.g., "Use 'annual total output emission rates'") and which sources to use when updating these factors.
Auditor Response: The updated version of Appendix N provides useful guidance for the sourcing of eGRID regional emissions factors, which will provide additional assurance that these factors are accurately sourced. It is understood that the user of the methodology is also obligated to ensure that they have the necessary experience to competently source these factors from the eGRID website, and that the validation/verification body will likewise be obligated to confirm the level of competence of the methodology user. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.8 dated 07/19/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 5.2.1.1
Finding: The use of the term "autochthonous" is inconsistent with the common definition of the term (as established in the scientific literature) in the following references from the last two paragraphs of Section 5.2.1.1:
"... Where river diversions are implemented to enhance growth and maintenance of created wetlands, and where such river diversions are designed to import substantial quantities of mineral-associated carbon, the project proponent shall justify the exclusion of autochthonous carbon..."
"... Where there exists an artificial water impoundment which affects the hydrological regime of the project area, the project proponent shall justify the exclusion of autochthonous carbon..."
Client Response: Revised section 5.2.1.1 to correctly refer to allochthonous vs. autochthonous in the two instances identified in the NCR.
Auditor Response: As indicated, the methodology has been revised to refer to "allocthonous" carbon in the instances referred to in the finding text. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.9 dated 07/19/2013
Standard Reference: VCS Validation and Verification Manual, V3.0, page 45
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 6.3.1
Finding: The VCS Validation and Verification Manual states that "VVBs must also ensure that methodologies are written in a manner that provides a prescriptive set of criteria and procedures that projects can apply and VVBs can audit against, thereby minimizing the scope for subjective interpretation, or gaming, by project proponents and VVBs using the methodology."
Section 6.3.1 of the methodology presents criteria for selecting reference areas for the purpose of predicting baseline methane emissions. While these criteria are considered adequate in general, the term "similar" is not sufficiently prescriptive as to ensure appropriate selection of a reference area in the following instances:
"c. hydrologically similar to the project area"
"e. of similar substrate soil type to the project area as of the project start date (e.g. grain size, percent organic matter, compaction)"
"g. biogeochemically similar to the project area (affected by factors including vegetation type, salinity, tidal influence if any, and presence or absence of external nitrate loading)"
Client Response: Revised section 6.3.1 to provide additional prescriptive criteria for demonstrating that the reference area selection is appropriate:
1. re-organized and combined criteria, specifically items (a), (c) and (g); provided more clear guidance regarding vegetation, salinity, tidal influence and external nitrate loading.
2. substrate soil type: clarified criterion to include an objective designation (Soil Series as reported by the USDA NRCS Soil Survey) or percent organic matter.
3. Also added that in addition to the criteria provided in this section, the suitability of the selected reference area is also "determined by the project validator's expert judgment."
Auditor Response: As indicated, the methodology has been revised to add a more robust set of criteria with which to judge similarity, thus providing a prescriptive set of requirements that can be appropriately assessed against. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.10 dated 07/19/2013
Standard Reference: VCS Validation and Verification Manual, V3.0, page 45
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 9.2.3.1
Finding: The VCS Validation and Verification Manual states that "VVBs must also ensure that methodologies are written in a manner that provides a prescriptive set of criteria and procedures that projects can apply and VVBs can audit against..."
Section 9.2.3.1 of the methodology does not contain an adequate level of clarity to ensure that it will be consistently followed. It was indicated during an office meeting that the idea behind this section was to allow project that are located in Louisiana, and in conformance with the three criteria listed within the section, to select from the default values in Table 16. It was also indicated that Table 17 was strictly included for reference (and not with the idea that default factors would be sourced from Table 17). However, the section does not portray the above with a sufficient level of clarity (and, in fact, the statement that "Values provided in Tables 16 and 17 may be used to determine a default value for nitrous oxide emissions (which may be a combination of values listed in Tables 16 and 17)" in the existing Section 9.2.3.1 are inconsistent with the information provided during the office meeting). In the absence of additional clarity, it will not be possible for the guidance within Section 9.2.3.1 to be consistently applied and audited against.
Client Response: Revised section 9.2.3.1 to more clearly state that the values in Table 16 may be applicable when the proponent demonstrates there are no external nitrate sources (as described in this section), and values in Table 17 may be applicable when external nitrate sources are present. Thus, as prescribed in this section, the project proponent first determines whether the project area is affected by external nitrate loading, and, depending on that determination, may use applicable values from Table 16 (new section 9.2.3.1.1) or Table 17 (new section 9.2.3.1.2).
Auditor Response: As Section 9.2.3.1 has been substantially re-organized, this finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.11 dated 07/19/2013
Standard Reference: VCS Standard Version 3.3, Section 2.4.1
Document Reference: Methodology for Coastal Wetland Creation v1.165, Appendix B
Finding: The principle of conservativeness, as described by the VCS Standard, is to "Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures". The principle of accuracy is to "Reduce bias and uncertainties as far as is practical."
The following problems were noted in the criteria and procedures set out in Appendix B of the methodology for the monitoring of emissions using flux chambers.
- Clipping of emergent plants in order to "accommodate [sic] the dimensions of the flux chamber" is allowed by the methodology. However, the methodology fails to specify that this clipping should be done above the water level in order to ensure that the quantification of emissions is as accurate as possible.
- Appendix B.5 indicates that "If the rate of trace gas change is not linear other curve fitting methods are suitable". However, criteria to establish linearity are not provided by the methodology.

Client Response: Clipping: Revised Appendix B to clarify that clipping of emergent plants "above the water level" is allowable.

Curve fitting: Added the following clarification to section B.5 (equation B.1): "Guidance for assessing goodness of fit is provided in section F.3 of Appendix F. "
Auditor Response: As indicated, additional guidance has been provided to address both of the concerns raised in the finding. Therefore, the discrepancies have been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.12 dated 08/01/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.165, Sections 2.3.2.2 and 2.3.7
Finding: Section 2.3.2.2 contains helpful examples of different types of variable designations. However, in the version of the methodology submitted to SCS, some of the symbols in Tables 2 through 6 do not display correctly. The failure of the symbols to display correctly may lead to confusion on the part of the user regarding how variable designations are intended to be interpreted throughout the methodology. Similarly, many of the symbols in Section 2.3.7 do not display correctly. The failure of the symbols to display correctly may lead to confusion on the part of the user regarding the notation of monitoring periods.
Client Response: Corrected the methodology (section 2.3.2.2 and 2.3.7) so that the symbols display correctly and completely in the pdf version of the methodology.
Auditor Response: During a conversation that occurred subsequent to the issuance of this finding, the methodology developer clarified that the display of some of the symbols in Tables 2 through 6 was purposeful, while the manner in which the symbols were displayed in Section 2.3.7 was accidental. However, it is clear that in the revised methodology, as submitted in a PDF document, all parameters are displayed in a manner that is clear and useful to the reader. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.13 dated 08/01/2013
Standard Reference: VCS Validation and Verification Manual, V3.0, page 46; AFOLU Requirements V3.3, Sections 3.4.1 and 3.4.2(1)
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 5.3
Finding: The VCS Validation and Verification Manual states that "Methodologies must not restate VCS requirements." In the following instances, Section 5.3 of the methodology appears to restate VCS requirements.
The methodology requires that "The project area shall be under control of the project proponent at the time of validation, or shall come to be under the control of the project proponent by the first verification event as described in the VCS AFOLU Requirements (version 3.3, section 3.4.2)." This appears to be a direct re-statement of the requirement of Section 3.4.2(1) of the AFOLU Requirements that "For non-grouped projects, the entire project area shall be under the control of the project proponent at the time of validation, or shall come to be under the control of the project proponent by the first verification event".
The methodology requires that "The spatial boundaries of the project area shall be clearly described in the PD with, at a minimum, the following information reported:
• Name of the project area (e.g., compartment number, allotment number and local name).
• Maps of the project area, including surrounding roads, topography, land use/vegetation types, and a delineation of surrounding hydrologically connected areas (see section 8.3.1)
• Geographic coordinates of the project area boundary, including all relevant projection information, presented in the format specified in the VCS standard
• Details of ownership
• Total size of the project area
This appears to be a direct re-statement of parts of Section 3.4.1 of the AFOLU Requirements.
Client Response: Revised methodology to provide more generic guidance on these requirements, referring the reader to the AFOLU Requirements for the current requirements.
Auditor Response: As indicated in the Client Response, Section 5.3 of the methodology has been revised to avoid direct restatement of the referenced VCS program-level requirements. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.14 dated 08/01/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.165, Section 9.4 and Appendix M
Finding: While MRR.112 is described in Section 9.4 of the methodology as "The value of each variable, data and parameter in Appendix K", the same requirement is described in Appendix M of the methodology as "The value of each variable, data and parameter in Appendix J." The discrepancy could be a source of confusion to the user of the methodology.
Client Response: Revised Appendix M so that MRR.112 correctly refers to Appendix K.
Auditor Response: Review of the revised methodology confirms that MRR.112 consistently refers to Appendix K. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.15 dated 08/01/2013
Standard Reference: AFOLU Requirements V3.3, Section 4.7.1
Document Reference: Methodology for Coastal Wetland Creation v1.165, Sections 8.2.1 and 8.4.2.2
Finding: The AFOLU Requirements requires that "Methodologies shall also establish procedures for quantifying the net change in carbon stocks, so that the number of buffer credits withheld in the AFOLU pooled buffer account and market leakage emissions may be quantified for the project." Section 8.4.2.2 of the methodology indicates that procedures for determining "the change in carbon stocks" are described in Section 8.2.1. Section 8.2.1 indicates that the change in carbon stocks is "given in equation [G.8] for a project that is not grouped and equation [G.9] for a grouped project". However, both [G.8] and [G.9] subtract the quantity (methane emissions * 0.131) from the change in carbon stocks. Please provide a justification for why this quantity should be subtracted from the change in carbon stocks for purposes of quantifying the net change in carbon stocks.
Client Response: Revised methodology to explain and provide justification for the inclusion of methane emissions on equations [G.8] and [G.9]. This term is included in order to avoid double counting of sequestered carbon that subsequently was released to the atmosphere as a methane flux.
Documentation for the calculation of 0.131 was added to the comments for equations [G.8] and [G.9]. The 0.131 coefficient is included to account for the differences between CO2 and CH4 in mass (44 vs. 16) and global warming potential (1 vs. 21). Thus, (44/16)*(1/21) = 0.131. This approach is conservative to determining buffer pool allocation because it increases the quantity of E_(P Δ CS)^[m] the on the righthand side of [G.20].
Corrected sign errors in equations [G.8] and [G.9]
Also revised section 8.4.2.2 to provide reference to equation [G.20] for the calculation of the buffer pool allocation.
Auditor Response: The additional information provided is sufficient to resolve the information request. The assessment team was provided with adequate justification and explanation for the inclusion of the quantity (methane emissions * 0.131) in the calculation of the net GHG emission reductions of a project. It may be that the methane that has already been emitted to the atmosphere is most appropriately considered in a calculation of the gross change in carbon stocks. However, this appears to be a matter of professional judgment, depending on how the phrase "net change in carbon stocks" is interpreted. In addition, the assessment team can confirm that the inclusion of this positive (negative of a negative) quantity in the calculations of [G.8] and [G.9] will produce a larger quantity of buffer credits than with the quantity excluded. Thus, in a situation where there is opportunity for application of professional judgment, a conservative decision has been made, in accordance with Section 2.4.1 of the VCS Standard.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.16 dated 08/14/2013
Standard Reference: Validation and Verification Manual, V3.0, page 46
Document Reference: Methodology for Coastal Wetland Creation v1.165
Finding: The VCS Validation and Verification Manual states that "Methodologies must not restate VCS requirements." The methodology appears to restate VCS requirements in the following locations:
- Applicability condition 2, in Section 4, appears to be a restatement of Section 3.1.3 of the AFOLU Requirements
- Section 5.3 of the methodology states “the project proponent shall demonstrate that the project area was not cleared of native ecosystems within the 10 year period prior to the project start date…”; this appears to be a restatement of Section 3.1.6 of the AFOLU Requirements
- Section 5.4 of the methodology states “For the duration of the project, the project proponent shall conduct a baseline reevaulation at least every 10 years… This reevaulation shall be validated at the same time as the subsequent verification”; this appears to be a restatement of Section 3.1.10 of the AFOLU Requirements
- Section 5.5 of the methodology states “The project proponent shall designate and delineate a geographic area in which project activity instances may be initiated”; this appears to be a restatement of Section 3.4.2 of the VCS Standard
- Section 5.5 of the methodology states “Each project activity instance shall meet all the applicability conditions of this methodology, including applicability conditions related to the baseline scenario”; this appears to be a restatement of Section 3.4.9(1) of the VCS Standard
- Section 5.5 of the methodology states “All project activity instances shall be exactly the same with regard to the baseline scenario (see section 6), demonstration of additionality (see section 7), and leakage (see section 8.3)”; this appears to be a restatement of Sections 3.4.9(4) and 3.4.9(5) of the VCS Standard
- Section 5.5 of the methodology states “… the project proponent must develop additional eligibility criteria in order to determine which project activity instances may be included in the group”; this appears to be a restatement of Section 3.4.9 of the VCS Standard
Client Response: 1. Section 4, Applicability Condition 2:
Previously read: "Within the project area, project activities shall not lead to the violation of any law, even those laws which are not enforced."
Deleted becasue this is an AFLOU project requirement. Modified section 7.1 to reference AFOLU requirement asopposed to this applicability condition "Per current AFOLU requirement, the project activities shall not be mandated by law."

2. Section 5.3
Previously read: "Further, the project proponent shall demonstrate that the project area was not cleared of native ecosystems within the 10 year period prior to the project start date."
Now reads: "Further, the project proponent shall demonstrate that native ecosystems have not been cleared within the project area within the 10 year period prior to the project start date or per current AFOLU requirement"

3. Section 5.4
Previously read: "For the duration of the project, the project proponent shall conduct a baseline reevaulation at least every 10 years... This reevaulation shall be validated at the same time as the subsequent verification."
Now reads: "For the project duration, the project proponent shall reevaluate the baseline per current VCS requirements (see section 6.4). This reevaluation shall be validated per current VCS requirements."

4. Section 5.5
Previously read: "The project proponent shall designate and delineate a geographic area in which project activity instances may be initiated."
Now reads: "The project proponent shall assign and spatially define a specific geographic area in which project activity instances may be initiated, per current VCS requirements"

5. Section 5.5
Previously read: "Each project activity instance shall meet all the applicability conditions of this

methodology, including applicability conditions related to the baseline scenario."
Now reads: "The project proponent shall ensure that each project activity instance shall meet all of the applicability conditions of this methodology, including those applicability conditions related to the baseline scenario, per current VCS requirements"

6. Section 5.5
Previously read: "All project activity instances shall be exactly the same with regard to the baseline scenario (see section 6), demonstration of additionality (see section 7), and leakage (see section 8.3)."
Now reads: "All project activity instances shall be exactly the same with regard to the baseline scenario (see section 6), demonstration of additionality (see section 7), and leakage (see section 8.3) or per current VCS requirements."

7. Section 5.5
Previously read: "In addition to these requirements, the project proponent must develop additional eligibility criteria in order to determine which project activity instances may be included in the group."
Now reads: "In addition to these requirements, the project proponent shall establish criteria at the time of project validation that include the following:"
Auditor Response: As indicated in the Client Response, many adjustments to the language of the methodology have been made. However, while these adjustments have been sufficient to avoid direct restatement of VCS requirements in some cases, the adjustments have not been sufficient for this purpose in all cases. The mere addition of the words "per current VCS requirement" or "per current AFOLU Requirement" are not sufficient to avoid the restatement of VCS requirements. The methodology continues to restate VCS requirements in the following sentences:
- Section 5.3: "...the project proponent shall demonstrate that native ecosystems have not been cleared within the project area within the 10 year period prior to the project start date or per current AFOLU requirement. This may be demonstrated using aerial imagery taken approximately 10 years prior to the project start date." The language in these sentences is not sufficiently flexible to allow graceful adjustment in the event that the requirement of Section 3.1.6 changes to include a different threshold number of years (e.g., 5 years rather than 10) or is removed altogether. In these cases, inconsistency and confusion are likely to result.
- Section 5.5: "The project proponent shall ensure that each project activity instance shall meet all of the applicability conditions of this methodology, including those applicability conditions related to the baseline scenario, per current VCS requirements. All project activity instances shall be exactly the same with regard to the baseline scenario (see section 6), demonstration of additionality (see section 7), and leakage (see section 8.3) or per current VCS requirements. The project proponent shall assign and spatially define a specific geographic area in which project activity instances may be initiated, per current VCS requirements." As with the above, the language in these sentences will result in more, rather than less, confusion in the event that the VCS requirements themselves are modified. In addition, subtle distinctions in wording between the requirements of the methodology and the VCS requirements may cause a potential for conflicting or inconsistent interpretations.
On the basis of the above, the finding remains open.
Client Response 2: 1. Section 5.3
Previously read: "Further, the project proponent shall demonstrate that native ecosystems have not been cleared within the project area within the 10 year period prior to the project start date or per current AFOLU requirement. This may be demonstrated using aerial imagery taken approximately 10 years prior to the project start date. "
Now reads: "Further, the project proponent shall demonstrate compliance with the most current version of the VCS AFOLU Requirements regarding the clearing of native ecosystems."

2. Section 5.5
Previously read: "Grouped projects are allowed according to the guidance provided in the current version of the VCS Standard. The project proponent shall ensure that each project activity instance shall meet all of the applicability conditions of this methodology, including those applicability conditions related to the baseline scenario, per current VCS requirements. All project activity instances shall be exactly the same with regard to the baseline scenario (see section 6), demonstration of additionality (see section 7), and leakage (see section 8.3) or per current VCS requirements. The project proponent shall assign and

spatially define a specific geographic area in which project activity instances may be initiated, per current VCS requirements."
Now reads: "Grouped projects are allowed according to the guidance provided in the current version of the VCS Standard. The project proponent shall specify the eligibility criteria for new project activities, per the current version of the VCS Standard."
Auditor Response 2: Through review of the revised methodology, it is clear that the sections in question have been carefully modified so as to point the user of the methodology to the appropriate VCS requirement while not restating any requirements. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.17 dated 08/23/2013
Standard Reference: VCS Standard V3.3, Section 4.8.2
Document Reference: Methodology for Coastal Wetland Creation v1.177.pdf, Section 9.2.3.1.2
Finding: The VCS Standard requires that "When highly uncertain data and information are relied upon, conservative values shall be selected that ensure that the quantification does not lead to an overestimation of net GHG emission reductions or removals."
The data provided in Table 17 are highly uncertain for the purposes of estimating nitrous oxide emissions, as there is a wide range in the values provided (from -90 mg N20-N/m2/yr to 725 mg N20-N/m2/yr) and there is no mechanistic explanation for the wide range of flux numbers within the table. It appears that the procedure of Section 9.2.3.1.2 would allow the methodology user to select any value from within this very wide range. There appears to be no firm guidance that would preclude a user from consistently selecting the value from "Louisiana freshwater marsh with river diversion not operating" (-90 mg N20-N/m2/yr) as long as there is no river diversion involved. While the methodology does require the user to "justify its applicability to the project area", no criteria are provided against which the applicability of the selected value to the project area can be justified. Therefore, the criteria and procedures of the methodology do not "ensure that conservative values are selected that ensure that the quantification does not lead to an overestimation of net GHG emission reductions or removals", as required by the VCS Standard.
Client Response: Modified Sections 9.2.3.1 and 9.2.3.1.2 to remove Table 17 and option for use of default values for projects in presence of external nitrate loading. Such projects now must estimate N2O flux either through proxy models or direct measurement.
Auditor Response: Through review of the revised methodology, it is clear that all references to Table 17 have been removed, and that the procedures for projects in the presence of external nitrate loading have been modified as described in the Client Response. Therefore, as use of default values is no longer allowed for projects in the presence of external nitrate loading, this finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.18 dated 09/03/2013
Standard Reference: VCS Standard V3.3, Section 4.6.9(1)
Document Reference: Methodology for Coastal Wetland Creation v1.179, Table H3
Finding: Section 4.6.9 of the VCS Standard requires that "Data used in determining the level of activity penetration shall meet the requirements for data set out for performance benchmarks in Section 4.5.6, mutatis mutandis."
As justification that the data on wetland area constructed in Louisiana during FY2005-2012, as presented in Table H3, are "publicly available or made publicly available" (as required by Section 4.5.6(5) of the VCS Standard), please provide documentary evidence that the information provided by the Coastal Protection and Restoration Authority (and reported in Table H3) would be freely available to other parties on request.
Client Response: [No formal response was provided to this finding.]
Auditor Response: In response to this finding, the audit team was copied on an email sent by Dr. James W. Pahl, of the Coastal Protection and Restoration Authority, on 4 September 2013. The email confirmed that the spreadsheet provided to the methodology developer by the Coastal Protection and Restoration Authority is not confidential and would be made available to others on request. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.19 dated 09/10/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.179, Equation E.2
Finding: Equation E.2 has several inconsistencies which may cause erroneous calculation and/or confusion on the part of the user. These inconsistencies are as follows.
1. The units of the output of the equation are tonnes CO2e per acre. However, when interpreted using the standard logic for order of operations in arithmetic, the units of the first term will be grams of C per square centimeter of soil, while the units of the latter two terms will be tonnes CO2e per acre. Therefore, as written, the equation will result in erroneous calculation of soil carbon.
2. The last term of the equation is parameter c(alloch,j), which is calculated in Equation E.4. However, the description of parameter c(alloch,j) is not consistent between equations. Parameter c(alloch,j) is described in Equation E.2 as "allochthonous carbon depth of soil sample collected above a marker horizon (feldspar) or control rod or pin in plot j in stratum k (cm)", while the same parameter is described in Equation E.4 as "allochthonous soil carbon measured at plot j".
Client Response: in the description of E.2
Auditor Response: Through review of the revised methodology, it is clear that Equation E.2 has been corrected for consistent reporting in units of metric tonnes CO2e per acre, as well as to correctly describe parameter c(alloch,j). Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.20 dated 09/11/2013
Standard Reference: VCS Standard V3.3, Section 4.6.9(1)
Document Reference: Methodology for Coastal Wetland Creation v1.180, Appendix H
Finding: Section 4.6.9 of the VCS Standard requires that "Data used in determining the level of activity penetration shall meet the requirements for data set out for performance benchmarks in Section 4.5.6, mutatis mutandis."
Sections H.1 and H.2 of the methodology indicate that 40,420 acres of coastal wetland have been rebuilt in the United States. Section H.3.5 indicates that "Combining both data sets results in an estimate of 40,420 ac (nationwide USACE = 32,355 ac; Louisiana state projects = 8,085 ac) of wetland creation and nourishment that has occurred nationwide through efforts of the USACE and the State of Louisiana, which comprise the most significant sources of wetland creation with dredged material." While the assessment team has been able to confirm the conformance of the estimate of 32,355 acres from the United States Army Corps of Engineers to Section 4.5.6 of the VCS Standard, the assessment team has not been able to confirm the conformance of the estimate of 8,085 from the Coastal Protection and Restoration Agency to Section 4.5.6 of the VCS Standard. The information on area restored in Table H3, which sums to 8,085 acres, is not consistent with the information on area restored in Table H3 in previous versions of the methodology, which summed to 7,479 acres. Please provide evidence that the estimate of 8,085 acres restored by the Coastal Protection and Restoration Agency, and thus the estimate of 40,420 acres restored in total, conforms to Section 4.5.6 of the VCS Standard.
Client Response: The error in Section H of the methodology resulted from a descrepency of versions. The corrected figures, as previously presented, are provided in the attached methodology version 1.181.
Auditor Response: The assessment team can confirm that the revised methodology, Version 1.181, has been modified to contain data on wetland creation that was previously confirmed to conform to Section 4.5.6 of the VCS Standard. Therefore, the information request is no longer relevant and will be closed.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.21 dated 09/13/2013
Standard Reference: NA
Document Reference: Methodology for Coastal Wetland Creation v1.181, PDR.45
Finding: Project description requirement PDR.45 states that "When a new activity / geographic scope is added to the positive list, the methodology author shall provide the following: Documentation of the level of activity penetration, including justification of the selected data set and evidence that alternative data sets were considered and that any discrepancies in penetration levels can be explained through analytical methods and/or data uncertainties." The assessment team understands that the intent is to allow for expansion of the scope of the methodology through the VCS methodology approval process, as indicated in the methodology. The assessment team also understands why it has been deemed helpful for the methodology to identify criteria against which any proposed expansion of scope can be assessed. However, it is unclear as to why this is indicated as a project document requirement, given that a project document would not typically be assessed during the VCS methodology approval process. Please provide a rationale for the indicated project description requirement.
Client Response: [In response to this finding, a new version of the methodology was submitted with the indicated project description requirement deleted.]
Auditor Response: The removal of the indicated project description requirement has effectively resolved the information request. In addition, the audit team was able to confirm that the numbering of all project description requirements occurring later in the methodology was appropriately adjusted, both within the main text of the methodology and in Appendix L.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.21 dated 12-02-2013
Standard Reference: AFOLU Requirements V3.3, Sections 4.1.3 and 4.3.1
Document Reference: Methodology for Coastal Wetland Creation v1.182a, Sections 2.1 and 5.2
Finding: Section 4.1.3 of the AFOLU Requirements states that "Where a methodology combines AFOLU project categories, the methodology shall adhere to all sets of requirements pertaining to each and every project category covered, either separating activities, or where activities cannot be separated, taking a conservative approach to each requirement."
In Section 4.3.1 of the AFOLU Requirements, the aboveground non-tree biomass, belowground biomass, litter and dead wood carbon pools are notated as "S", with the following associated guidance: "Carbon pool shall be included where project activities may significantly reduce the pool, and may be included where baseline activities may significantly reduce the pool, as set out in Sections 4.3.7 to 4.3.25. The methodology shall justify the exclusion or inclusion of the pool in the project boundary."
Section 2.1 of the methodology states that "This methodology is an RWE methodology that includes the potential for ARR." Section 5.2 of the methodology indicates that the above pools are "optional" (for aboveground non-tree biomass and belowground biomass) or "excluded" (for litter and dead wood). However, the methodology does not justify the exclusion or inclusion of each of the pools indicated above.
Client Response: Because of the applicability condition requiring open water in the baseline condition, there is no circumstance under which the project activities could reduce carbon stocks in any of the four pools noted. Therefore all four can be conservatively excluded. Aboveground non-tree biomass and belowground biomass are allowed as optional, since project activities would be expected to increase these pools.
Auditor Response: The assessment team agrees that the procedures for delineating project boundary as indicated in Section 5.2 of the methodology do not lead to non-conservative quantification of GHG emission reductions or removals. In addition, the audit team received written guidance from VCSA personnel, in an email dated 3 December 2013, indicating that the requirement "The methodology shall justify the exclusion or inclusion of the pool in the project boundary" was not necessarily intended to require that the methodology document itself contain a justification for the exclusion or inclusion of the carbon pools in question, but rather that the exclusion or inclusion of the carbon pools in question must be demonstrated at some point in the methodology approval process. As the inclusion and exclusion of the carbon pools in question have been adequately justified by the methodology developer, the finding is not relevant and is withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.