

FINAL CCBA PROJECT VALIDATION REPORT

RED RIVER NATIONAL WILDLIFE REFUGE HABITAT RESTORATION PROJECT NATCHITOCHE PARISH, LOUISIANA, USA

THE CONSERVATION FUND

MAY 13, 2009



Photo courtesy of The Conservation Fund

Validation Conducted by:

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Appendix A CCBA Compliance Checklist

Appendix B Stakeholder Comments

1.0 INTRODUCTION

This report presents the findings of an audit conducted by Scientific Certification Systems, Inc. (SCS), to validate the claim made by The Conservation Fund that the *Red River National Wildlife Refuge Habitat Restoration Project* conforms to the Climate, Community and Biodiversity Project Design Standards (First Edition). SCS has been accredited by the Climate, Community & Biodiversity Alliance (CCBA) to perform such validation audits.

1.1. Contact Information

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1.2. Project Description

The *Red River NWR Habitat Restoration Project* (“the Project”) is an effort to restore native bottomland hardwood forests in the Red River watershed of northern Louisiana (USA) through land acquisition, replanting, and long-term monitoring. The Project will restore and protect 1,182 acres (478 ha) of bottomland hardwood forest that had been converted to crop-based agriculture. The project will provide benefits to biodiversity protection, wildlife habitat conservation, and community values while restoring natural habitats and sequestering carbon in planted trees over a 100-year project accounting period. The carbon offsets that are generated and purchased from this project will be retired and cannot be sold or banked for future offset purposes.

Project models predict 259 metric tons (286 short tons) of CO₂ equivalent per acre at year 50 and 328 metric tons (361 short tons) per acre at year 100. The annualized average for the first 50 years is 5.2 metric tons (5.7 short tons) of CO₂ equivalent per acre per year.

1.3. Summary of Validation Conclusion

Following completion of SCS’s duly-accredited validation process, it was our conclusion that The Conservation Fund’s *Red River NWR Habitat Restoration Project* conforms to the CCBA Climate, Community and Biodiversity Project Design Standards (First Edition) at the Gold Level (see Appendix A).

2.0 METHODOLOGY

SCS began reviewing the Project in January, 2009, beginning with a desk audit of Project documentation and phone calls and email correspondence with The Conservation Fund. An independent auditor was then authorized by SCS to conduct a formal site visit and validation assessment, which took place during February 8-10, 2009. The Project Design Document (PDD) was posted for public comment on the CCBA website during February 3-24, 2009¹, and the auditor reviewed all stakeholder input prior to drafting this report. Project stakeholders were also interviewed during the site visit.

As a result of the site visit, The Conservation Fund was asked to provide supplemental information regarding certain aspects of the PDD². This information was provided in March of 2009 and culminated in a revised PDD, which is the subject of this draft validation report. The revised PDD will be posted to the CCBA website.

2.1. CCBA Standards

SCS conducted its evaluation to validate claims that the Project conforms to the CCBA Climate, Community and Biodiversity Project Design Standards (First Edition) (“the CCB

¹ The CCBA approved holding the site visit prior to the conclusion of the public comment period as long as no final conclusions were reached, and no reports were drafted, prior to the close of the public comment period.

² In SCS’s system these are called New Information Requests (NIR) and project proponents are required to respond to specific requests for supplemental materials within a specified period of time.

Standards”). The CCB Standards require conformance to 15 criteria in each of 4 categories: 1) General (6 criteria), 2) Climate (3 criteria), Community (3 criteria), and Biodiversity (3 criteria). In addition, each of the 4 categories contains 2 optional criteria, valued at 1 point each, that applicants can address to achieve a higher level of validation. Projects meeting the core requirements that also achieve 1 point from at least three different categories can be validated at the Silver level. Gold level validation can be achieved by projects meeting the core requirements while achieving 6 additional points, with at least 1 point from each of the 4 different categories.

2.2. Auditor Qualifications

The evaluation was conducted by Michael Thompson, M.Sc., under a contract with SCS. Mr. Thompson is the President of Penobscot Environmental Consulting, Inc., and a Certified Wildlife Biologist³. He has worked as a subcontractor to SCS for over 10 years, conducting certification evaluations to the Forest Stewardship Council’s (FSC) forest management and chain-of-custody standards. Mr. Thompson has also conducted audits to the Sustainable Forestry Initiative (SFI) forest management standards. He received his B.Sc. degree in wildlife from the University of Idaho and his M.Sc. degree in wildlife from the University of Maine. Mr. Thompson has over 25 years of experience in ecology, wildlife management, wetland science, and rare species conservation.

2.3. Audit Process

The audit process included the following steps:

- Initial client meeting and project orientation (via conference call);
- Review of Project documentation, including Project design reports, preliminary models, and project background descriptions;
- Site visit on February 8-10, 2009, that included:
 - Project overview by The Conservation Fund (various PowerPoint presentations);
 - Presentation of Project accounting model (information from Environmental Synergy, Inc., [ESI], a consultant to the project proponents);
 - Meetings with project partners and supporters, including the U.S. Fish & Wildlife Service (USFWS); and
 - Field trip to the Lower Cane Unit of the Red River NWR that included: visits to properties that had been purchased for conservation, observation of planting converted cropland to restore bottomland hardwood forest, and an interview with the Red River NWR Refuge Manager;
- Review of stakeholder comments;
- Response to NIRs by project proponents;
- Further document review and draft report preparation;
- Technical review and approval of the draft report by SCS;

³ See www.penobscotenvironmental.com and contact at [mike \[at\] penobscotenvironmental.com](mailto:mike[at]penobscotenvironmental.com) or 207.846.1115.

3.0 STAKEHOLDER COMMENTS

The Project Design Document (PDD) was posted on the CCBA website for an official public comment period of February 3-24, 2009. Comments were received from 2 representatives of the U.S. Fish and Wildlife Service during this time (see Appendix B) and both were strongly supportive of the project.

4.0 CCB VALIDATION FINDINGS

This report of our validation findings addresses each of the CCBA criteria and indicators. For each criterion, the CCBA indicators are listed along with a description of the evidence that was considered and our findings. In the case of non-conformance, a Corrective Action Request (CAR) would be issued stipulating the deficiency and what needs to be done to address it. Major CARs are cases where the weight of evidence indicates broad non-conformance at the criterion level. Major CARs are considered to be “pre-conditions” that must be satisfied prior to project validation. Minor CARs are issued when there is a non-conformance with an indicator, but overall conformance with the associated criterion has been achieved. Minor CARs must still be adequately addressed prior to issuing the final CCB validation report. Formal recommendations (REC) may also be issued in instances where actions could be taken to further ensure compliance with an indicator.

Throughout the remainder of the report, The Conservation Fund will be referred to as the “Project Proponents” or “the Proponents” and the U.S. Fish and Wildlife Service will be referred to as “the Service”, “USFWS”, or “Project Partners”. The Project Proponents collated much of their Project information in a document entitled *Restoring a Legacy at Red River National Wildlife Refuge*, which is available to the public on the CCBA website (<http://www.climate-standards.org>). The CCBA refers to such documents as Project Design Documents (PDD). The PDD was revised in March 2009 in response to NIRs issued in the as part of the evaluation process. Upon completion of the validation process, an updated PDD will be posted to the CCBA website.

4.1. General Section

The General Section of the CCB Standards addresses project site conditions, baseline projections, project design and goals, management capacity, land tenure, legal status, adaptive management, and knowledge dissemination.

4.1.1. G1 – Original Conditions at Project Site

The original conditions at the project site before the project commences must be described. This description, along with projections (see G2), will help determine the likely impacts of the project.

Indicator G1.1. The location of the project and basic physical parameters (e.g., soil, geology, climate).

Findings: The PDD contains a detailed description of the project location, which is in the West Gulf Coastal Plain of the Lower Mississippi River Valley in northwestern Louisiana (see Figure 1 in PDD). The PDD also contains descriptions of the Red River National Wildlife Refuge (NWR), climate, geology and topography, and soils and hydrology in the Project area (see also <http://www.fws.gov/northlouisiana/RedRiver/>).

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G1.2. The types and condition of vegetation at the project site.

Findings: The PDD contains a description of the natural vegetation in the project area and an overview of the history of land clearing in the region for agriculture. The project partners (USFWS) provide additional information about vegetation in the project area in the 2008 Comprehensive Conservation Plan (CCP) for the Red River NWR⁴. The immediate project area consists of former bottomland hardwood forest that had been converted to cropland.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

⁴ USFWS. 2008. Comprehensive Conservation Plan, Red River National Wildlife Refuge, Caddo, Bossier, DeSoto, Red River, and Natchitoches Parishes, Louisiana. U.S. Department of the Interior, Fish and Wildlife Service, Southeast Region, Atlanta, Georgia.

Indicator G1.3. Current carbon stocks at the project site(s), using methodologies from the Intergovernmental Panel on Climate Change’s Good Practice Guidance (IPCC GPG) or other internationally-approved methodologies (e.g., from the CDM Executive Board).

Findings: The project lands are currently croplands that are devoid of woody vegetation and the project proponents assume that pre-project carbon stocks of woody vegetation are zero. Herbaceous biomass is neglected and assumed to be constant in the baseline and the with-project scenario. In summary, for the purposes of the project, the proponents assume that the only significant current carbon stocks are associated with soil carbon. Current soil carbon stocks in the project area have been sampled and will be reported in future project monitoring reports. For similar re-planted sites in the region, however, consultants to the project proponents (ESI and TerraCarbon, LLC) have observed mean values of 35.0 tons (t) C/ha (14.2 t C/acre) in the 0-20 cm soil layer (standard deviation [sd] = 10.14).

ESI/TerraCarbon use proprietary methods, established by Winrock International, to estimate carbon pools. Documents describing these methods were made available to the auditor and the consultants were asked to provide additional documentation proving that these methods conform to the IPCC GPG. A response was provided by David Shoch, TerraCarbon, LLC, who was a contributing author to the IPCC GPGs. The response noted that project methods for quantifying carbon stocks (present and future) conform to the IPCC GPGs, with specific reference to Chapter 4.3, Guidance for Projects. With the proposed project, carbon sequestration estimates will be derived from direct measurements on permanent plots, without reliance on default emission factors, which satisfies the IPCC Tier 3 highest level of accuracy standards. Proposed methodologies further conform to IPCC GPGs related to quantifying uncertainties and quality assurance/quality control (QA/QC).

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G1.4. A description of communities located in and around the project area, including basic socio-economic information (using appropriate methodologies such as the livelihoods framework).

Findings: The PDD includes general descriptions of the communities in the project zone and summary statistics for population, household income, and education based on U.S. Census Bureau statistics. The CCP for the Red River NWR contains additional information related to the socioeconomic environment of the project zone.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G1.5. A description of current land use and land tenure at the project site (see also G5).

Findings: The PDD describes the current land use of the project area, noting that all sites were privately owned agricultural fields used to grow rice, soybeans, and corn. The Conservation Fund purchased 922 acres of this land in 2008 and will acquire the remaining property in 2009. The first parcel has already been re-planted with native tree species and the second parcel will be planted in 2010. Adjacent and nearby land uses include the Red River NWR and private agricultural croplands.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G1.6. A description of current biodiversity in the project area and threats to that biodiversity, using appropriate methodologies (e.g., key species habitat analysis, connectivity analysis), substantiated where possible with appropriate reference material.

Findings: The PDD contains an overview of current biodiversity in the project area along with an assessment of threats to that biodiversity. Much more detailed information related to these subjects, including methodology and reference material, is found in the Red River NWR CCP. The process used to develop the CCP was discussed with USFWS staff members. USFWS staff members also gave a detailed history of the biodiversity of the region, noting past and present threats to that biodiversity. In the Service's opinion, the proposed re-planting project is an important step in restoring native plant and animal communities within a watershed threatened by urbanization and intensive agriculture.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G1.7. A list of all IUCN Red List threatened species (which encompasses endangered and vulnerable species) and species on nationally recognized list (where applicable) found within the project boundary (see also B1).

Findings: A list of IUCN Red List threatened species is provided in the PDD and the Red River NWR also has more detailed records concerning State-listed and Federally-listed rare species. The PDD list was derived from the IUCN Red List website, the USFWS Endangered Species Program, and the Louisiana Natural Heritage Program. Listed species believed to occur in the project zone include alligator snapping turtle (*Macrochelys temminckii*), bald eagle (*Haliaeetus leucocephalus*), interior least tern (*Sterna antillarum*), Louisiana slimy salamander (*Plethodon kisatchie*), and rusty blackbird (*Euphagus carolinus*). Although not included in the PDD, the document references a more detailed list of species of conservation concern for Natchitoches Parish that was prepared by the Louisiana Natural Heritage Program. The Red

River NWR Refuge Manager also indicated that additional species inventories are planned to further document plants and animals on Refuge. The annual report of activities for the Red River NWR was provided to the auditor and it included a quantitative list of wildlife observations for the previous year.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.2. G2 – Baseline Projections

An analysis of projected land-use trends is necessary to predict likely on-site changes without implementation of a project. This “without-project” future land-use scenario enables comparison of the project’s likely impact with what would otherwise have occurred.

Indicator G2.1. Description of the most likely land-use scenario in the absence of the project, identifying whether the scenario assumes that existing laws or regulations would have required that project activities be undertaken anyway.

Findings: The PDD notes that the project lands were currently in an agricultural use, but that the land was for sale. If sold, it was anticipated that the land could be used for residential or commercial purposes, or another farmer could buy it for cropland. The land had been on the market for over a year, though, and it did not appear that there is active interest in the site for residential or commercial purposes. For the purposes of the project, therefore, the most likely land-use scenario in the absence of the project was assumed to be continued agricultural use as cropland. There are no laws or regulations that would require restoring forested habitats on existing agricultural lands.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G2.2. A projection of future carbon stock changes in the absence of the project, based on the land-use scenario described above. The timeframe for this analysis can be either the project lifetime (see G3) or the project accounting period, whichever is more appropriate. If there is evidence that non-CO₂ greenhouse gas (GHG) emissions such as CH₄ or N₂O are more than 15% of the baseline GHG fluxes at the project site (in terms of CO₂ equivalents), they must be estimated.

Findings: As previously noted, current soil carbon stocks in the project area have been sampled and will be reported in future project monitoring reports. For similar re-planted sites in the region, however, consultants to the project proponents (ESI and TerraCarbon, LLC) have observed mean values of 35.0 tons (t) C/ha (14.2 t C/acre) in the 0-20 cm soil layer (standard deviation [sd] = 10.14). The PDD states that no major future changes in carbon

stocks are anticipated over the life of the project under the agricultural use scenario. It is possible, though, that carbon stocks might decline slightly with ongoing annual plowing and crop removal.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G2.3. Description of how the “without-project” scenario would affect local communities in the project area.

Findings: In the without project scenario the proponents believe that the land would most likely remain in private agriculture and unavailable to public use by the local community. As the land in question represented only a portion of the farmer’s operations, the incremental community benefits associated with the without project scenario are expected to be minor.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G2.4. Description of how the “without-project” land-use scenario would affect biodiversity in the project area.

Findings: If the property remained in agricultural use it would continue to have very low biodiversity values. In addition, the project proponents note that there would be ongoing impacts associated with farming operations (heavy equipment, fertilizers, and pesticides). During the site visit several areas of active erosion were also noted on the farmland; such areas result in sedimentation of waterbodies and subsequent impacts to biodiversity. The USFWS has already begun stabilizing such areas on the recently acquired parcel.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G2.5. Description of how the “without-project” land-use scenario would affect water and soil resources (see also B5).

Findings: The PDD notes that with continued agricultural use (the without project scenario), the lands would remain susceptible to soil erosion as well as soil degradation due to chemical and fertilizer use. Runoff of sediment, fertilizers, and chemicals would then contribute to diminished water quality. We further note that heavy farm equipment would continue to compact soils and the lack of natural vegetation would continue to result in high soil temperatures and low soil moisture.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.3. G3 – Project Design and Goals

The project must be described in sufficient detail so that a third-party can adequately evaluate it. Projects that operate in a transparent manner enable stakeholders and outside parties to contribute more effectively to the project.

Indicator G3.1. Provide a description of the scope of the project and a summary of the major climate, community, and biodiversity goals.

Findings: The PDD describes the scope of the Project as purchasing 1,182 acres of bottomland forest habitat that had been converted to cropland, re-planting the area with native hardwoods, and conveying the land to the USFWS to become part of the Red River NWR. Major biodiversity goals of the project include decreasing the effects of climate change via carbon sequestration, restoring native ecosystems, and creating long-term community benefits in the form of recreational lands within the Red River NWR. The project is well-defined and the goals encompass climate, community, and biodiversity elements.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.2. Describe each major project activity (if more than one) and its relevance to achieving the project's goals.

Findings: The PDD explains each major project activity, including adding the project to a larger effort to monitor similar restoration projects in the Lower Mississippi Valley, evaluating current carbon stocks, measuring carbon stocks in reference forests, site preparation and planting, long term project monitoring, and project verification. The description in the PDD was comprehensive and relatively specific concerning each major activity. The PDD, however, lacked specific information regarding the methods that would be used to monitor carbon stocks during the life of the project. This topic, therefore, was specifically addressed during the site visit where consultants to the project (ESI and TerraCarbon) explained in detail how they would be using proprietary methods to monitor carbon stocks. Following the site visit the consultants also provided copies of manuals that detailed the sampling and analytical methodologies that would be employed on the project. These methodologies were found to be thorough, academically rigorous, and tested through their application on a number of sites over a period of several years.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.3. Provide a map identifying the project location, where the major project activities will occur, and geo-referenced boundaries of the project site(s).

Findings: The PDD contains a map of the project area (see G1) and the USFWS has a GIS with additional maps for the entire Red River NWR. ESI and TerraCarbon also provided maps showing the location of long-term monitoring plots.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.4. Provide a timeframe for the project's duration and the rationale used for determining the project lifetime. If the accounting period for carbon credits differs from the project lifetime, explain.

Findings: Project properties will become part of the Red River NWR and will be owned by the USFWS in perpetuity. The accounting period for the carbon credits, however, is 100 years.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.5. Identify likely risks to climate, community, and biodiversity benefits during the project lifetime. Outline measures that the project plans to undertake to mitigate these risks.

Findings: The PDD describes potential risks as including drought, fire, and hurricane. Such risks are present throughout the region and the project proponents sought to minimize them through a careful site selection process (see Section 3.5 of the PDD). Such weather-related risks, however, are the norm in any region and can be considered natural events. There is also the potential for illegal human activities (e.g., off-trail ATV use) that might destroy some of the planted stock, particularly when the plants are small. The USFWS mitigates this risk, however, through regular patrols of the area and enforcement of existing regulations. The Red River NWR also partners with local citizens groups (e.g., Friends of the Red River NWR; see <http://www.friendsofredriver.org/>) that seek to conserve the refuge. Such groups work within the community to advocate for the responsible use of refuge properties.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.6. Document and defend how local stakeholders have been or will be defined.

Findings: The PDD identified the following stakeholders to the project: donors to The Conservation Fund, the USFWS, and local citizens of Natchitoches and the surrounding parishes (i.e., local parish governments, local environmental groups), and the Friends of the Red River NWR. The project proponents, however, were asked to provide more specific information to document who stakeholders are, how they were identified, and how they were, or will be, involved in the project. This information was promptly provided and Section G3.6 of the PDD was revised. What was revealed, in the revised documentation and through interviews with the USFWS, was a wide-ranging and comprehensive process for engaging stakeholders at the local, regional, and national level. The project, for example, is supported by the USFWS at the regional and national levels. More importantly, perhaps, the project is actively supported by members of the local community, as evidenced by the participation of groups like the Friends of the Red River NWR. The recent process for developing the CCP for the Refuge also involved extensive consultation with stakeholders.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G3.7. Demonstrate transparency by: making all project documentation publicly accessible at, or near, the project site; only withholding information when the need for confidentiality is clearly justified; informing local stakeholders how they can access the project documentation; and by making key project documents available in local or regional languages, where applicable.

Findings: Project-related documents are available to the public at the Red River NWR and the Friends of the Red River NWR office; electronic copies are available on the CCBA website and on The Conservation Fund's website (see www.conservationfund.org and www.gocarbonzero.org).

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.4. G4 – Management Capacity

The success of a project depends upon the competence of the implementing management team.

Indicator G4.1. Document the management team’s experience implementing land management projects. If relevant experience is lacking, the proponents must demonstrate how other organizations will be partnered with to support the project.

Findings: The PDD lists the management team experience for The Conservation Fund, the USFWS, and ESI, long-term consultant to the project. Through a review of background information and personal interviews the management team was found to be fully qualified to implement all aspects of the project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G4.2. Demonstrate that management capacity is appropriate to the scale of the project.

Findings: The management team has a documented history for implementing projects of similar and even larger scales. The management capacity is appropriate to getting the project started, implementing changes over time, and managing the property in perpetuity.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G4.3. Document key technical skills that will be required to successfully implement the project and identify members of the management team or project partners who possess appropriate skills.

Findings: The PDD identifies the key technical skill areas that will be required to successfully implement the Project and it further describes the technical skills of the management staff assigned to each skill area. The technical skill of the management team was confirmed through group interviews and one-on-one discussions with staff members from The Conservation Fund, ESI, and the USFWS. The Friends of the Red River NWR have also already demonstrated their commitment to supporting the long-term management of the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G4.4. Document the financial health of the implementing organization(s).

Findings: Copies of The Conservation Fund's consolidated audit and recent tax returns can be found on their website. These document a large and financially stable organization. The USFWS, while subject to annual budget constraints, is an agency within the US Federal government and is considered to be financially stable for the purposes of this project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.5. G5 – Land Tenure

There should be no significant land tenure disputes in the project area, or the project should fundamentally help to resolve these tenure issues.

Indicator G5.1. Guarantee that the project will not encroach uninvited on private property, community property, or government property.

Findings: The two parcels were willing sales by a private landowner.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G5.2. Guarantee that the project does not require the relocation of people, or any relocation is 100% voluntary and fundamentally helps resolve land tenure problems in the area.

Findings: The two parcels were willing sales of cropland by a private landowner that will not result in the dislocation of people or agricultural operations.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G5.3. Describe potential “in-migration” of people from surrounding areas, if relevant, and explain how the project will respond.

Findings: Considered to be not relevant to the Project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.6. G6 – Legal Status

The project must be based on a solid legal framework (e.g., appropriate contracts are likely to be in place) and the project must seek to satisfy applicable planning and regulatory requirements.

During the project design phase, the project proponents should communicate early on with relevant local, regional, and national authorities and allow adequate time to earn necessary approvals. The project design should be flexible to accommodate potential modifications that may arise to secure regulatory approval.

Indicator G6.1. Guarantee that no laws will be broken by the project.

Findings: The purchase of lands by The Conservation Fund was subject to legal review by that organization's attorneys. Further, the transfer of these lands from the Fund to the USFWS was subject to the scrutiny of attorneys working for the Federal government. Management of the Red River NWR is subject to a variety of laws and regulations (see Section G6.1 of the PDD).

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G6.2. Document that the project has, or expects to secure, approval from the appropriate authorities.

Findings: The Conservation Fund has a signed agreement with the USFWS to re-plant the cropland with the intention of conveying it to the USFWS to become a part of the Red River NWR. Interviews with USFWS staff confirmed that the project activities have been approved at regional and national levels of the USFWS.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.7. G7 – Adaptive Management for Sustainability

Adaptive management is a formal, systematic, and rigorous approach to learning from the outcomes of management actions, accommodating change and improving management. It involves synthesizing existing knowledge, exploring alternative actions and making forecasts about their outcomes.

Adaptive management is based upon the premise that ecosystems and social systems are complex and inherently unpredictable. Adaptive management views land management actions as learning opportunities and as potential experiments for systematically testing assumptions and identifying adjustments that could benefit the project. It enables a project to evolve to meet changing or unanticipated needs, and can help ensure that the project realizes its goals over the long term.

Indicator G7.1. Demonstrate how management actions and monitoring programs are designed to generate reliable feedback that is used to improve project outcomes.

Findings: Following the site visit, The Conservation Fund elected to modify the PDD and submitted additional documentation related to compliance with this voluntary indicator. The revised PDD will be posted on the CCBA website. The project is part of a network of similar projects that are being monitored under a coordinated “umbrella population” of sites. These monitoring efforts will improve the accuracy of carbon modeling and monitoring programs for the subject project, partner projects, and any future projects in the region. The revised PDD also notes that the Red River NWR is subject to a host of regulations and requirements related to monitoring biodiversity and Refuge use by the public. Interviews with the Refuge Manager confirm that the USFWS is already taking steps to adaptively manage the Refuge as new information accumulates.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G7.2. Have a management plan for documenting decisions, actions and outcomes and sharing this information with others within the project team, so experience is passed on rather than being lost when individuals leave the project.

Findings: The revised PDD describes a plan for documenting decisions and actions that includes The Conservation Fund, ESI, and the USFWS. Interviews confirmed that these activities take place and it was clear that information that results from this project, and projects like it, is being stored and disseminated to all members of the project team. As appropriate, some of the information is summarized in technical papers in peer-reviewed journals, ensuring that the information is also available to a wide range of scientists. The Red River NWR prepares an annual report of activities that is available to future Refuge managers and the general public.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G7.3. Demonstrate how the project design is sufficiently flexible to accommodate potential changes and that the project has a defined process in place to adjust project activities as needed.

Findings: The revised PDD documents how the measurement and monitoring of carbon stocks will adapt over time as new data becomes available. Scientists from ESI and TerraCarbon also explained how their monitoring program has evolved even in recent years as better data becomes available. The PDD also explains the process for revising and updating the Refuge's CCP.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G7.4. Demonstrate an early commitment to the long-term sustainability of project benefits once initial project funding expires. Potential activities may include: designing a new project that builds on initial project outcomes; securing payments for ecosystem services; promoting micro-enterprise; and establishing alliances with organizations or companies to continue sustainable land management.

Findings: The long-term sustainability of the project is assured by the involvement of the USFWS and inclusion of the subject properties in the Red River NWR. The project is also allied with the Friends of the Red River NWR, which has already proven to be a thriving and dynamic citizen's organization.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.1.8. G8 – Knowledge Dissemination

Field-based knowledge can be of value to other projects. If actively disseminated, this information can accelerate the adoption of innovative practices that bring benefits both globally and locally.

Indicator G8.1. Describe how they will document the relevant or applicable lessons learned.

Findings: Relevant lessons learned about the Project will be documented via monitoring plant survival and an assessment of planting and growth conditions in the event of significant seedling mortality. The efficiency and accuracy of measuring carbon stocks is also subject to periodic review by ESI as part of their region-wide monitoring effort in the Lower Mississippi Valley, including the Red River NWR project. In addition, The Conservation Fund documents the cost effectiveness of its projects through an internal review and evaluation program.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator G8.2. Describe how they will disseminate this information in order to encourage replication of successful practices. Examples include: undertaking and disseminating research that has wide-reaching applications; holding training workshops for community members from other locales; promoting “farmer to farmer” knowledge-transfer activities; linking to regional databases; and working with interested academic, corporate, governmental or non-governmental organizations to replicate successful project activities.

Findings: Relevant lessons learned about the Project will be disseminated on The Conservation Fund’s website. Further documentation will be prepared and disseminated by the USFWS via project reports and annual reports for the Refuge, all of which are available to the public. Through a review of ESI’s proprietary carbon monitoring manuals it was demonstrated that the project consultants are documenting and improving their methodologies as projects develop. As noted previously, applicable lessons learned are also periodically documented in articles published in peer-reviewed scientific journals. The USFWS also disseminates information about the project through its internal Refuge management system.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.2. Climate Section

The Climate Section of the CCB Standards addresses net positive climate impacts, offsite climate impacts (“leakage”), climate impact monitoring, adapting to climate change and climate variability, and carbon benefits withheld from regulatory markets.

4.2.1. CL1 – Net Positive Climate Impacts

The project must generate net positive impacts on atmospheric concentrations for greenhouse gases (GHGs) within the project boundaries and over the project lifetime.

Indicator CL1.1. Use the methodologies of the Intergovernmental Panel on Climate Change’s Good Practice Guidance (IPCC GPG) to estimate the net change in carbon stocks due to the project activities. The net change is equal to carbon stock changes *with* the project minus carbon stock changes *without* the project (the latter having been estimated in G2). Alternatively, any methodology approved by the CDM Executive Board may be used. This estimate must be based on clearly defined and defensible assumptions about how project activities will alter carbon stocks and non-CO₂ GHG emissions over the duration of the project or the project accounting period.

Findings: The PDD provided a detailed explanation of how net changes in carbon stocks resulting from restoring bottomland hardwood forests were estimated. The methodology to be used is a proprietary approach developed by Winrock and implemented by ESI and TerraCarbon, consultants to the project. The PDD, however, did not demonstrate how these methodologies conformed to the IPCC GPG and the project proponents were asked to provide additional information during the site visit. David Shoch, of TerraCarbon, explained in an interview how the proposed methodologies conformed to the IPCC GPG, based on his experience as a contributing author to the GPGs. Following the site visit ESI provided copies of the proprietary Winrock methodology and Shoch provided additional support for the claim that the methodologies conform to the IPCC GPG. Table 2 of the PDD provides modeled estimates for increases in carbon stocks associated with growth of the planted trees over the 100-year life of the project. These estimates are added to USDOE estimates of soil, dead wood, and understory stocks to derive an estimate of the total carbon stock. As the project is implemented, however, the ESI and USDOE estimates will be replaced with measured monitoring results.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CL1.2. Factor in the non-CO₂ gases CH₄ and N₂O to the net change calculations (above) if they are likely to account for more than 15% (in terms of CO₂ equivalents) of the project's overall GHG impact.

Findings: The Project Proponents believe that there are no additional non-CO₂ gases that are relevant to the Project and we concur with this statement.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CL1.3. Demonstrate that the net climate impact of the project (including changes in carbon stocks, and non-CO₂ gases where appropriate) will give a positive result in terms of overall GHG benefits delivered.

Findings: Project models are conservative and demonstrate that there will be net positive changes in carbon stocks over the life of the project, resulting in overall GHG benefits. The PDD further notes that partnering with the USFWS will ensure the long-term stability of the project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.2.2. CL2 – Offsite Climate Impacts (“Leakage”)

The project proponents must quantify and mitigate likely negative offsite climate impacts; namely, decreased carbon stocks or increased emissions of non-CO₂ GHGs outside the project boundary, resulting from project activities (referred to as “leakage” in climate change policy).

Indicator CL2.1. Estimate potential offsite decreases in carbon stocks (increases in emissions or decreases in sequestration) due to project activities.

Findings: The PDD describes the potential risk of offsite decreases in carbon stocks – primarily through farmers clearing additional forestland – and then describes why this risk is low. Given the relatively small scope of the project, and the abundance of available cropland, we concur that the project is unlikely to result in offsite decreases in carbon stocks.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CL2.2. Document how negative offsite impacts resulting from project activities will be mitigated, and estimate the extent to which such impacts will be reduced.

Findings: No off-site impacts are anticipated.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CL2.3. Subtract any likely project-related unmitigated negative offsite climate impacts from the climate benefits being claimed by the project. The total net effect, equal to the net increase in onsite carbon stocks (calculated in the third indicator in CL1) minus negative offsite climate impacts, must be positive.

Findings: No off-site impacts are anticipated and the total net effect of the project on carbon stocks is conservatively estimated to be positive. The indicator is considered to not apply to the project due to the lack of measurable offsite impacts.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.2.3. CL3 – Climate Impact Monitoring

Before a project begins, the project proponents must have an initial monitoring plan in place to quantify and document changes in project-related carbon pools, and non-CO₂ GHG emissions, if appropriate (within and outside project boundaries). The monitoring plan should state which measurements will be taken and which sampling strategy will be used.

Indicator CL3.1. Have an initial plan for how they will select carbon pools and non-CO₂ GHGs to be monitored, and the frequency of monitoring. Potential pools include aboveground biomass, litter, dead wood, belowground biomass and soil carbon. Pools to monitor must include any pools expected to decrease as a result of project activities. Relevant non-CO₂ gases must be monitored if they account for more than 15% of the project’s net climate impact expressed in terms of CO₂ equivalents.

Findings: ESI and TerraCarbon, consultants to the project, have a detailed plan for selecting and monitoring carbon pools, including soil carbon and above ground woody biomass. The methodologies are proprietary and part of a larger effort to monitor carbon stocks throughout the Lower Mississippi Valley. ESI and TerraCarbon were asked to provide copies of the methodologies and explain in detail the proposed monitoring plan. This information was provided and interviews confirmed the robustness of the proposed plan for monitoring the development of carbon stocks over time. During the site visit the consultants further explained the pre-project measurement of soil carbon that had already taken place. Key elements of the monitoring plan are described in the PDD.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.2.4. CL4 – Adapting to Climate Change & Climate Variability

Projects designed to anticipate and adapt to probable impacts of climate change and climate variability are more likely to sustain the benefits generated by the project over the long term.

Indicator CL4.1. Identify likely regional climate change and climate variability impacts, using available studies.

Findings: The PDD provides a comprehensive assessment of likely regional climate change and climate variability based on several recent studies. Anticipated variability includes modification of precipitation amounts, changes in temperature, and changes in CO₂ levels. There is also a discussion about possible changes in hurricane frequency.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CL4.2. Demonstrate that the project has anticipated such potential impacts and that appropriate measures will be taken to minimize these negative impacts.

Findings: Anticipated changes in climate may reduce growth rates in the planted tree stock, but they may also result in increased growth rates. The actual survival and growth of the planted stock, however, will be directly measured as part of the long-term monitoring effort, which will document any declines in carbon stocks below the modeled estimates. A variety of native tree species were selected for planting and the project proponents have indicated that if any one species fails to thrive based on climate or site conditions, it will be replaced with a different species. Over the life of the project, the USFWS will also monitor the development of vegetation and take appropriate steps to manage the plant communities should that become necessary. Overall, we conclude that potential climate change and climate variability is unlikely to influence the overall positive impact of the planting and habitat restoration project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.2.5. CL5 – Carbon Benefits Withheld from Regulatory Markets

When some carbon benefits generated by a project are *not* sold to satisfy regulatory requirements, additional mitigation action will be required elsewhere to meet these requirements. Therefore, withholding a portion of the project’s carbon benefits from being used in capped markets will result in greater overall climate change mitigation.

Moreover, projects that do not sell all their carbon benefits in regulated regimes have the opportunity to experiment with climate change mitigation activities other than the ones eligible under these regimes (such as avoided deforestation, which is not currently creditable under the Clean Development Mechanism). Such experimentation may generate new knowledge that is of value to carbon rule makers and other project developers.

Indicator CL5.1. Not sell at least 10% of the total carbon benefits generated by the project into regulated GHG markets (e.g., CDM, New South Wales GHG Abatement Scheme, Oregon Standard). Projects can sell these carbon benefits in a voluntary market or retire them.

Findings: All of the carbon benefits generated by the project will be withheld from regulated markets and will be retired upon their sale in voluntary markets.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.3. Community Section

The Community Section of the CCB Standards addresses net positive community impacts, offsite community impacts, community impact monitoring, capacity building, and best practices in community involvement.

4.3.1. CM1 – Net Positive Community Impacts

The project must generate net positive impacts on the social and economic wellbeing of communities within the project boundaries and within the project lifetime. In addition, local communities and other stakeholders should be engaged early on so that the project design can be revised based on their input. Finally, projects should ensure that stakeholders can express concerns and grievances to project proponents and that these concerns are responded to in a timely manner.

Indicator CM1.1. Use appropriate methodologies (e.g. the livelihoods framework) to estimate the net benefits to communities resulting from planned project activities. A credible estimate of net benefits must include changes in community wellbeing given project activities. This estimate must be based on clearly defined and defensible assumptions about how project activities will alter social and economic wellbeing over the duration of the project. The “with project” scenario must then be compared with the baseline scenario of social and economic wellbeing in the absence of the project (completed in G2). The difference (i.e., the net community benefit) must be positive.

Findings: The original PDD provided general information about the community benefits associated with the expanding Red River NWR, but did not describe how the specific project would positively change community well being. More specifically, the PDD did not indicate which community variables would be expected to change as a result of the project and how they would be monitored over the life of the project. This topic, therefore, was addressed through a series of interviews with The Conservation Fund and USFWS Refuge staff during the site visit. The project proponents also provided additional information following the site visit and revised Section CM1.1 of the PDD. The interviews demonstrated the community benefits that have been shown to result from similar restoration efforts on other NWRs, including increased hunting opportunity, improved conditions for bird watching and nature appreciation, and increased opportunities for using the refuge for recreational and educational purposes. The Refuge manager also explained how the USFWS monitors and reports on visitor-use-days. The revised PDD reflects these clarified points and demonstrates that the project will result in numerous community benefits, as measured by community use-days, over the life of the project. Further, information provided by the Friends of the Red River NWR demonstrates that the Refuge and its associated habitat restoration projects have already had measurable positive community benefits.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM1.2. Document local stakeholder participation in the project’s planning. If the project occurs in an area with significant local stakeholders, the project must engage a diversity of stakeholders, including appropriate sub-groups, underrepresented groups and women living in the project vicinity. Stakeholders in the project’s area of influence must have an opportunity before the project design is finalized, to raise concerns about potential negative impacts, express desired outcomes and provide input on the project design. Project developers must document stakeholder dialogues and indicate if and how the project proposal was revised based on such input.

Findings: The original PDD provided general information related to legal claims, the CCBA comment period, and a public scoping meeting held as part of the Red River NWR’s CCP process. It did not, however, document the process for stakeholder input for the proponent’s CCBA project, describe how stakeholder comments were documented, or describe how stakeholder comments were addressed in project development. This topic, therefore, was addressed during the site visit through extensive interviews with The Conservation Fund staff and USFWS staff. It was apparent from these discussions that a great deal of stakeholder consultation had taken place leading up to project implementation. The project proponents, therefore, were asked to provide supplemental information to document such consultation. Section CM1.2 of the PDD was revised accordingly. Our conclusion is that The Conservation Fund went through an extensive consultation process with the USFWS prior to selecting the subject properties and entering into an agreement to restore bottomland hardwood forests and add the properties to the Red River NWR. USFWS staff documented the history of this consultation and expressed appreciation and satisfaction with the efforts. The CCP process also documents the public participation process used to develop the document for the Refuge and the Friends of the Red River NWR express appreciation for their opportunities to participate in the future of the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM1.3. Formalize a clear process for handling unresolved conflicts and grievances that arise during project planning and implementation. The project design must include a process for hearing, responding to and resolving community grievances within a reasonable time period. This grievance process must be publicized to local stakeholders. Project management must attempt to resolve all reasonable grievances raised, and provide a written response to grievances within 30 days. Grievances and project responses must be documented.

Findings: The original PDD provided general information related to Federal, State, and local laws and noted that the USFWS must comply with these laws. The PDD also referenced the NWR CCP process and the CCBA comment period for the project. This information, however, did not document a clear process for receiving and responding to grievances related to the specific CCBA project. During interviews, The Conservation Fund and the USFWS explained how they handle grievances or concerns between the parties and how they jointly fielded any comments received from within the Service or from the public. The proponents, therefore, were asked to clarify and further document this process, resulting in an updated Section CM1.3 in the PDD. The revised documentation provides a clear process for handling conflicts and grievances that might arise during project planning and implementation. Our conclusion, as well, is that such grievances are highly unlikely given the positive working relations between The Conservation Fund and the USFWS and the close cooperation with the Friends of the Red River NWR.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.3.2. CM2 – Offsite Community Impacts

The project proponents must quantify and mitigate likely negative social and economic offsite impacts; namely, the decreased social and economic wellbeing of communities or people living outside the project boundary, resulting from project activities.

Indicator CM2.1. Identify potential negative offsite community impacts that the project is likely to cause.

Findings: The project is not expected to have negative offsite community impacts and will, instead, result in direct positive community benefits.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

CM2.2. Describe how the project plans to mitigate these negative offsite social and economic impacts.

Findings: No negative offsite social or economic impacts are anticipated.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM2.3. Evaluate likely unmitigated negative offsite social and economic impacts against the social and economic benefits of the project within the project boundaries. Justify and demonstrate that the net social and economic effect of the project is positive.

Findings: No negative offsite social or economic impacts are anticipated.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.3.3. CM3 – Community Impact Monitoring

The project proponents must have an initial monitoring plan to quantify and document changes in social and economic wellbeing resulting from the project activities (within and outside the project boundaries). The monitoring plan should indicate which measurements will likely be taken and which sampling strategy will be used to determine how the project affects social and economic wellbeing.

Since developing a full community-monitoring plan can be costly, it is accepted that some of the plan details may not be fully defined at the design stage, when projects are being evaluated by the CCB Standards. This will especially be true for small-scale projects.

Indicator CM3.1. Have an initial plan for how they will select community variables to be monitored, and the frequency of monitoring. Potential variables include income, health, roads, schools, food security, education and inequality. Community variables at risk of being negatively impacted by project activities should be monitored.

Findings: The original PDD provided a brief reference to the fact that Red River NWR staff will monitor community benefits described in CM1.1. More specific information, however, was warranted. The Conservation Fund consulted with the USFWS and determined that the Refuge Manager will monitor community-use-days on an annual basis and report these in the annual report for the Refuge. The Refuge manager will also conduct a public use survey for the Refuge every 5 years and include the results in the annual report. This is an effective approach based on adapting existing USFWS Refuge management protocols to meet the needs of the CCBA standards. The revised PDD captures the scope of the initial plan for monitoring community benefit variables.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.3.4. CM4 – Capacity Building

Projects that include a significant capacity-building (training, skill building, etc.) component are more likely to sustain the positive outcomes generated by the project and have them replicated elsewhere. The project proponents must include a plan to provide orientation and training for the project’s employees and relevant community members with an eye to building locally relevant skills and knowledge over time.

The Conservation Fund updated the original PDD to address the optional capacity building criteria.

Indicator CM4.1. [Capacity building is] structured to accommodate the needs of communities, not only of the project.

Findings: The revised PDD demonstrates that efforts to build capacity for similar kinds of projects are being targeted at the community of Refuge managers and administrators in the USFWS system. Such efforts are designed to assist other Refuges in implementing projects similar in nature to the Red River NWR restoration effort. Refuge managers will then describe and explain the benefits of such projects to the communities in their areas as specific projects are developed and implemented. The activities of the Friends of the Red River NWR are also a model for how to involve the community in similar projects in other areas.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM4.2. [Capacity building is] targeted to a wide range of groups, not just elites.

Findings: Capacity building is targeted at the full range of NWR users, including hunters, anglers, bird watchers, hikers, and educators. Occurring on public lands, projects such as the Red River NWR restoration effort benefit the full range of citizens and do not target any elite groups. As noted above, capacity building is being directed toward NWR Refuge Managers who may then implement specific similar projects that would benefit communities near the specific Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM4.3. [Capacity building is] targeted to women to increase their participation.

Findings: Capacity building is targeted toward a wide range of USFWS staff, including women. Refuge managers also target a wide range of citizens and make specific attempts to encourage women to visit and use NWR properties. The PDD further notes women make up a significant percentage of The Conservation Fund's Go Zero project, the USFWS's lead project biologist is a woman, and the President of the Go Zero program is female, as is the President of the Friends of the Red River NWR.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM4.4. [Capacity building is] aimed to increase community participation in project implementation.

Findings: The Conservation Fund and the USFWS have included members of the community in the project design and implementation and the cooperative relationship between The Conservation Fund, the USFWS, and the Friends of the Red River NWR is notable. The Refuge's annual report and recent newsletters from the Friends of the Red River NWR document active community participation in the project and the development of the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.3.5. CM5 – Best Practices in Community Involvement

Projects that use best practices for community involvement are more likely to benefit communities. Best practices include: respect for local customs, local stakeholder employment, worker rights and worker safety.

The Conservation Fund updated the original PDD to address the optional best practices in community involvement criteria.

Indicator CM5.1. Demonstrate that the project was developed with a strong knowledge of local customs and that, where relevant, project activities are compatible with local customs.

Findings: The project was developed and is being implemented with strong involvement from The Conservation Fund, ESI, and USFWS staff members who live in the region. During the site visit all demonstrated a strong knowledge of local customs and a commitment to the community. Collaboration with the Friends of the Red River NWR further demonstrates close linkages to the community and its customs.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM5.2. Show that local stakeholders will fill all employment positions (including management) if the job requirements are met. Project proponents must explain how stakeholders will be selected for positions and where relevant, must indicate how traditionally underrepresented stakeholders and women, will be given a fair chance to fill positions for which they can be trained.

Findings: The Project will not directly result in the creation of any new jobs. As noted above, however, many staff members are from the local community. The USFWS is an equal opportunity employer and USFWS hiring practices are governed by Federal Equal Employment Opportunity requirements. In addition and as noted above, women occupy many of the leadership positions within The Conservation Fund, ESI, the Friends of the Red River NWR, and the USFWS. Many Friends of the Red River NWR members volunteer their time at the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM5.3. Show that the project will inform workers about their rights, and that the project complies with international rules on worker rights.

Findings: Interviews with staff members and contractors confirmed that they were aware of their rights as employees and that they felt free to advocate for those rights with management. USFWS employees are subject to Federal rules and regulations guaranteeing worker rights.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator CM5.4. Comprehensively assess situations and occupations that pose a substantial risk to worker safety. A plan must be in place to inform workers of risks and to explain how to minimize such risks. Where worker safety cannot be guaranteed, project proponents must show how the risks will be minimized using best work practices.

Findings: Most project occupations are low-risk positions that involve tasks related to computer use, driving in vehicles, and walking over uneven terrain. The USFWS has comprehensive safety training programs that seek to minimize these risks. The updated PDD further describes the specific safety practices that have been employed on the project. Interviews during the site visit confirmed that safety is a priority for The Conservation Fund, its contractors and consultants, and the USFWS.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.4. Biodiversity Section

The Biodiversity Section of the CCB Standards addresses net positive biodiversity impacts, offsite biodiversity impacts, biodiversity impact monitoring, native species use, and water and soil resource enhancement.

4.4.1. B1 – Net Positive Biodiversity Impacts

The project must generate net positive impacts on biodiversity within the project boundaries and within the project lifetime, measured against the baseline conditions.

Projects should have no negative effects on species included in the IUCN Red List of threatened species (which encompasses endangered and vulnerable species) or species on a nationally recognized list (where applicable). Invasive species must not be planted by the project.

Genetically Modified Organisms (GMOs), as a relatively new form of technology, raise a host of ethical, scientific and socio-economic issues. Some GMO attributes may result in invasive genes or species. In the future, certain GMOs may be proven safe. However, given the currently unresolved issues surrounding GMOs, projects cannot use genetically modified organisms to generate carbon credits.

Indicator B1.1. Use appropriate methodologies (e.g., key species habitat analysis, connectivity analysis) to estimate changes in biodiversity as a result of the project. This estimate must be based on clearly defined and defensible assumptions. The “with project” scenario should then be compared with the baseline “without project” biodiversity scenario completed in G2. The difference (i.e., the net biodiversity benefit) must be positive.

Findings: The original PDD provided a narrative description of biodiversity resources that are expected to benefit from the project, including bird habitat, habitat for threatened and endangered species, water quality, flood control, and soil erosion. The PDD, however, did not identify specific biodiversity variables that are expected to be sensitive to project activities. More specifically, the PDD did not include a comparison of the “with” and “without project” scenarios. This topic was the focus of several in-depth discussions during the site visit that involved The Conservation Fund and the USFWS, including the Refuge Manager. While all agreed that restoring bottomland hardwood forest would benefit biodiversity, they realized that the PDD had not captured the specific ways in which biodiversity benefits would be measured. The Red River NWR is particularly important to birds (migratory and nesting) and the Service recommended monitoring bird species richness over the life of the project. The revised PDD references recent research concerning avian colonization of reforested sites in the region and explains how bird species richness will be monitored and used to document the net difference between the with and without project scenarios.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B1.2. Describe possible adverse effects of non-native species on the area's environment, including impacts on native species and disease introduction or facilitation. If these impacts have a substantial bearing on biodiversity or other environmental outcomes, the project proponents must justify the necessity of using non-native species over native species.

Findings: No non-native species will be used for the implementation of the project. The CCP for the Red River NWR lists invasive and nuisance wildlife and plants that occur on the Refuge and the Refuge Manager demonstrated an awareness of the threats that these species represent. Management of invasive and non-native species is a component of the USFWS's long-term stewardship of the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B1.3. Identify all IUCN Red List threatened species and species deemed threatened on nationally recognized lists that may be found within the project boundary. Project proponents must document how project activities will not be detrimental in any way to these species.

Findings: The PDD identifies all IUCN Red List threatened species as well as species deemed to be threatened on nationally-recognized lists that are believed to occur in the Project zone. No species are believed to be in the Project area, so project activities and species do not coincide and detrimental impacts were not documented. However, Project Proponents have considered the potential impact of Project activities on these species in a general sense and have concluded that if these species were in the Project area all would benefit from the restoration and conservation of native bottomland hardwood forest. Conservation of rare, threatened, and endangered species is a key element of the USFWS's stewardship of the Refuge. During the site visit, the Refuge Manager demonstrated his knowledge and expertise regarding the conservation of the threatened species found on the Refuge.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B1.4. Identify all species to be used by the project and show that no known invasive species will be used.

Findings: The PDD lists the species that will be planted as part of the restoration effort. The Conservation Fund, ESI, and USFWS described the process used to select species that would be used for planting, demonstrating that the final list was reviewed and approved by experts knowledgeable in the local ecology of bottomland hardwood forests. None of the selected species are known to be invasive.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B1.5. Guarantee that no genetically modified organisms will be used to generate carbon credits.

Findings: All Go Zero projects are planted with native, natural trees and ESI staff confirmed that no GMO planting stock was used.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.4.2. B2 – Offsite Biodiversity Impacts

The project proponents must quantify and mitigate likely negative offsite biodiversity impacts; namely, decreased biodiversity outside the project boundary resulting from project activities.

Indicator B2.1. Identify potential negative offsite biodiversity impacts that the project is likely to cause.

Findings: No negative offsite biodiversity impacts are anticipated.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B2.2. Describe how the project plans to mitigate these negative offsite biodiversity impacts.

Findings: No negative offsite biodiversity impacts are anticipated.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B2.3. Evaluate likely unmitigated negative offsite biodiversity impacts against the biodiversity benefits of the project within the project boundaries. Justify and demonstrate that the net effect of the project on biodiversity is positive.

Findings: No negative offsite biodiversity impacts are anticipated and the net effect of the project on biodiversity is expected to be positive (see Section B1.1).

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.4.3. B3 – Biodiversity Impact Monitoring

The project proponents must have an initial monitoring plan to quantify and document the changes in biodiversity resulting from the project activities (within and outside the project boundaries). The monitoring plan should state which measurements will likely be taken and which sampling strategy used.

Since developing a full biodiversity-monitoring plan can be costly, it is accepted that some of the plan details may not be fully defined at the design stage, when projects are being evaluated by the CCB Standards. This will especially be true for small-scale projects.

Indicator B3.1. Have an initial plan for how they will select biodiversity variables to be monitored, and the frequency of monitoring. Potential variables include species abundance and diversity, landscape connectivity, forest fragmentation, habitat area and diversity, etc. Biodiversity variables at risk of being negatively impacted by project activities should be monitored.

Findings: The original PDD did not include specific plans for biodiversity monitoring of the CCBA project and instead noted that the USFWS monitors biodiversity throughout the Refuge. Monitoring plans were discussed in detail during the site visit and The Conservation Fund provided supplemental information, based on consultation with the USFWS, following the site visit. The PDD was also revised accordingly. To supplement Refuge-wide monitoring efforts, the Refuge Manager will conduct a bird species richness survey on the planted tracts every 5 years and include the results in the publicly available annual report of activities.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.4.4. B4 – Native Species Use

In most cases, species that are native to a region will have a higher biodiversity benefit than non-native species. In other cases, non-native species can be more effective than native species for rehabilitating degraded areas or providing fast growing biomass, timber, fruits and other beneficial products. For instance a project may need to use non-native species on severely degraded land to achieve ecological restoration before native species can be reintroduced.

Indicator B4.1. Show that the project will only use species that are native to the region or justify that any non-native species used by the project are superior to native species for generating concrete biodiversity benefits (e.g., for rehabilitating degraded areas unlikely to support natives, or for producing fuel wood that reduces logging pressure on intact ecosystems).

Findings: The Project will only use native species as part of the bottomland hardwood forest restoration project. As noted previously, the species selection process involved several regional experts familiar with the ecology of Louisiana’s bottomland hardwood forests.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

4.4.5. B5 – Water & Soil Resource Enhancement

Climate change and other factors may stress and degrade water and soil resources at the project site over time. Projects should enhance the quality and quantity of water and soil resources.

Indicator B5.1. Identify project activities that are likely to enhance water and soil resources.

Findings: The updated PDD provides a list of activities associated with the project that are likely to enhance water and soil resources. The anticipated net positive effect of the project was also confirmed by the Refuge Manager during the site visit. Anticipated activities likely to enhance water and soil resources include reduced soil compaction by eliminating the use of heavy farm equipment, the development of more natural soil conditions as planted stock grows, elimination of impacts associated with chemical use, stabilization of eroded banks, and restoration of natural hydrological conditions.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

Indicator B5.2. Credibly demonstrate that these activities are likely to improve water and soil resources compared to the baseline, using justifiable assumptions about cause and effect, and relevant studies.

Findings: The original PDD provided general statements indicating an anticipated benefit to soil, flood control, and water quality. It did not, however, demonstrate how the project activities would specifically benefit water and soil resources. During the site visit, the Refuge Manager provided examples of how project activities were already resulting in stabilized banks, restoration of natural hydrology, and reduced sedimentation in water bodies. He further explained how soil conditions will improve over the life of the project, based on studies conducted at similar areas. The PDD, therefore, was revised accordingly. Our overall conclusion, based on the site visit, is that the proposed project activities will markedly improve soil and water quality over the life of the project.

Conformance: Yes No N/A

Corrective Action Requests: None

Recommendations: None

5.0 CCB VALIDATION CONCLUSION

Following completion of SCS's duly-accredited validation process, it is our opinion that The Conservation Fund's *Red River NWR Habitat Restoration Project* conforms to the CCBA Climate, Community and Biodiversity Project Design Standards (First Edition) at the Gold Level (see Appendix A).

General Section

Conformation

G1.	Original Conditions at Project Site (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G2.	Baseline Projections (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G3.	Project Design and Goals (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G4.	Management Capacity (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G5.	Land Tenure (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G6.	Legal Status (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G7.	Adaptive Management for Sustainability (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
G8.	Knowledge Dissemination (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

Climate Section

CL1.	Net Positive Climate Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CL2.	Offsite Climate Impacts (“Leakage”) (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CL3.	Climate Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CL4.	Adapting to Climate Change & Climate Variability (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CL5.	Carbon Benefits Withheld from Markets (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

Community Section

CM1.	Net Positive Community Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CM2.	Offsite Community Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CM3.	Community Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CM4.	Capacity Building (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
CM5.	Best Practices in Community Involvement (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

Biodiversity Section

B1.	Net Positive Biodiversity Impacts (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
B2.	Offsite Biodiversity Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
B3.	Biodiversity Impact Monitoring (Required)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
B4.	Native Species Use (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
B5.	Water & Soil Resource Enhancement (Optional; 1 pt)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

CCBA Validation Level Attained:

APPROVED	(all requirements met)	<input type="checkbox"/>
SILVER	(all requirements met plus one point minimum from at least 3 different sections)	<input type="checkbox"/>
GOLD	(all requirements met plus six points minimum, at least one point from four different sections)	<input checked="" type="checkbox"/>

From: George_Chandler@fws.gov [mailto:George_Chandler@fws.gov]
Sent: Tuesday, February 17, 2009 7:35 AM
To: info@climate-standards.org
Subject: CCB Audit Comments

I have served as Project Leader for Red River National Wildlife Refuge since its authorization by Congress in 2000 and its establishment in 2002. Having observed firsthand the birth and growth of this refuge I can state with certainty that without the partnership of The Conservation Fund and their carbon partners that we would not be nearly advanced as we are today. TCF continues to be a strategic and viable partner in our efforts to carry out our mission for the benefit of present and future generations of Americans.

George Chandler
Project Leader
North La. Refuges Complex
318 726-4222 ex:111

From: Pete_Jerome@fws.gov [mailto:Pete_Jerome@fws.gov]
Sent: Thursday, February 26, 2009 12:56 PM
To: info@climate-standards.org
Subject: CCB Audit Comments

To Whom It May Concern:

My name is Pete Jerome and I supervise Refuges in the Southeast Region of the U.S. Fish and Wildlife Service. On behalf of the Fish and Wildlife Service, I'd like to express my support and endorsement for the Red River National Wildlife Refuge Carbon Sequestration Legacy Project. As a result of the leadership and project management by The Conservation Fund, this newly established national wildlife refuge has been the beneficiary of several thousand acres of restored bottomland hardwood forest. The Conservation Fund was able to establish an effective partnership that will now only help mitigate atmospheric carbon dioxide but will also support the Fish and Wildlife Strategic Climate Change Plan. By creating habitat on these former ag lands, wildlife will be able to adapt to changing climate conditions in the future. If you have any questions, please do not hesitate to contact me at (404) 679-7157. Thank you for the opportunity to comment on this unique conservation carbon sequestration partnership project.

Sincerely, Pete Jerome