SCIENTIFIC CERTIFICATION SYSTEMS

Certification for a Sustainable World ™

CCBA PROJECT VALIDATION REPORT

THE CONSERVATION FUND'S *MINGO NATIONAL WILDLIFE REFUGE FOREST RESTORATION INITIATIVE* NEAR PUXICO, MISSOURI, USA

MAY 12, 2010

Photo courtesy of The Conservation Fund (Chita Middleton)

Validation Conducted by:

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1.0 Introduction

This report presents the findings of an audit conducted by Scientific Certification Systems (SCS), to validate the claim made by The Conservation Fund that the *Mingo National Wildlife Refuge Forest Restoration Initiative* conforms to the Climate, Community & Biodiversity Project Design Standards (Second 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. Objective

The validation objective was an independent assessment by SCS of the proposed project activity against all criteria defined by the CCBA Project Design Standards. Validation results in a determination by SCS as to whether the project activity complies with the standards and warrants submission for registration with CCBA. The ultimate decision on the registration of a proposed project activity, however, rests with the CCBA.

1.3. Scope and Criteria

The project was assessed against the CCB Project Design Standards, Second Edition, to determine which of the fourteen required and three optional CCB Standards criteria the project satisfies. An "Approved" project is one that satisfies all 14 of the required CCB Standards criteria and a Gold Level approved project is one that additionally satisfies at least one of the optional criteria.

The scope of this assessment encompasses analysis of data and calculations as presented at the time of inception of project validation. The SCS Lead Auditor may issue one or more New Information Requests (NIR) or Non-Conformity Reports (NCR), as needed, and re-analyze new submissions.

1.4. Project Description

The *Mingo NWR Forest Restoration Initiative* (Project) is a project sponsored by The Conservation Fund's Go Zero® program. The Conservation Fund is using donations from its Go Zero program to restore approximately 358 acres of bottomland hardwood forest on the Mingo National Wildlife Refuge (NWR) in southeastern Missouri near the town of Puxico. The restored forest will be managed by the U.S. Fish and Wildlife Service (USFWS) to ensure its long-term protection and stewardship.

The project is intended to:

- Address climate change through the sequestration of carbon in trees planted as part of the restoration effort;
- Restore southeastern Missouri's bottomland hardwood forest ecosystem, including habitat for the endangered Indiana bat (*Myotis sodalis*); and
- Provide long-term community benefits in the form of improved ecosystem services and enhanced recreational and educational opportunities.

All carbon accrued from the project will be withheld from the carbon market and cannot be sold or banked for future offset purposes.

1.5. Summary of Validation Conclusion

Following completion of SCS's duly-accredited validation process, it is our conclusion that the *Mingo NWR Forest Restoration Initiative* conforms to the CCBA Project Design Standards (Second Edition) at the Gold Level (see Appendix A).

2.0 Methodology

SCS began reviewing the Project in January, 2010, 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 in March 2010. A further review of documentation, audit findings, and public comments submitted to the CCBA was conducted in the lead up to a draft report issued in April 2010. The Conservation Fund reviewed the draft report and a final report was issued on May 12, 2010.

2.1. CCBA Standards

SCS conducted its evaluation to validate claims that the Project conforms to the CCBA Climate, Community & Biodiversity Project Design Standards (Second Edition) ("the CCB Standards"). The CCB Standards require conformance to 14 criteria in each of 4 categories: 1) General (5 criteria), 2) Climate (3 criteria), 3) Community (3 criteria), and 4) Biodiversity (3 criteria). In addition, applicants can achieve a higher level of validation through the application of three criteria in the Gold Level section. Gold level validation can be achieved by projects that meet the core requirements and at least one optional Gold Level criterion.

2.2. Auditor Qualifications

Lead Auditor: Michael Thompson. The evaluation was conducted by Michael Thompson, M.Sc., under a contract with SCS. Mr. Thompson is a Certified Wildlife Biologist who 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, as well as evaluations to the CCB 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, forest management, wetland science, and rare species conservation.

Technical Reviewer: Kyle Holland. Mr. Holland is a Certified Forester (#3770) and biometrician specializing in forest inventory, modeling and remote sensing. Prior to joining SCS, Kyle worked with the Potlatch Corporation as a Resource Supervisor. Kyle has also worked with the Chesapeake Bay Program, the State of Maryland and the State of Wisconsin as a specialist in riparian forestry and forest management auditing. Mr. Holland is currently completing his Ph.D. in biometrics and statistics at the University of California, Berkeley. Kyle holds a M.S. in biometrics and remote sensing from Berkeley, and degrees from the University of Minnesota and the University of Idaho in forestry and forest engineering, respectively. He also holds professional memberships with the Society of American Foresters, the American Society for Photogrammetry and Remote Sensing, the Institute of Mathematical Statistics and the International Environmetrics Society. Mr. Holland has conducted numerous verification and validation activities under FSC, CCX, CAR, CCB and VCS. Mr. Holland is also an approved AFOLU expert for IFM and REDD projects under VCS.

2.3. Audit Process

The audit process included the following steps:

- Initial client meeting and project orientation (via phone calls and emails);
- Review of Project documentation, including project design reports, preliminary models, and project background descriptions;
- Review of stakeholder comments;
- Site visit on March 1-3, 2010, that included:
    - Project overview by The Conservation Fund;
    - Review of CCB audit process by the auditor;
    - Overview of the Refuge's history and management by the USFWS;
    - Overview of key elements of the PDD by The Conservation Fund;
    - Description of recently completed planting process; and
    - Field trips to recently planted areas on the Mingo NWR;
- Further document review and draft report preparation;
- Technical review and approval of the draft report by SCS;
- Client review of draft report;
- Final report preparation; and
- Technical review and approval of the final report by SCS.

3.0 Stakeholder Comments

The Project Design Document (PDD) was posted on the CCBA website on January 26, 2010, and the public comment period extended through February 25, 2010. Comments were received from one party (see Appendix B).

Written comments were received from:

- Matt Sprenger, Refuge Supervisor, USFWS, Region 3

All comments have been considered by the auditor in this report. General themes included:

- Recognition of the benefit to the USFWS associated with working with conservation partners such as The Conservation Fund; and
- Recognition of the project benefits, including carbon sequestration, enhanced wildlife habitat values, and increased opportunities for education and public recreation.

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, the findings from the audit and, when applicable, Non-Conformity Reports (NCRs), Opportunities for Improvement (OFIs), and New Information Requests (NIRs). In the case of non-conformance, a Non-Conformity Report stipulates the deficiency and its relation to the CCB protocol. NCRs indicate broad non-conformance at the criterion level that must be satisfied

prior to project validation. An Opportunity for Improvement is issued when overall conformance with a criterion has been achieved but in instances where actions could be taken to further ensure compliance with an indicator. A New Information Request indicates when additional information is necessary to complete the validation. All NIRs must be satisfactorily addressed prior to project validation.

Throughout the remainder of the report, The Conservation Fund will be referred to as the "project proponents" or "the proponents". The project proponents collated much of their Project information in a document entitled *Restoring a Forest Legacy at Mingo NWR,* 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 April 2010 in response to the draft report as part of the validation process.

4.1. General Section

The General Section of the CCB Standards addresses original conditions in the project area, baseline projections, project design and goals, management capacity and best practices, and legal status and property rights.

4.1.1. G1 – Original Conditions in the Project Area

The original conditions at the project area and the surrounding project zone before the project commences must be described. This description, along with baseline projections (see G2), will help to 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 within the USFWS's Mingo NWR in southeastern Missouri and adjacent to the State of Missouri's Duck Creek State Wildlife Management Area. The specific project tracts consist of 17 parcels within the Mingo NWR, as illustrated in Figure 3 of the PDD. The PDD also contains descriptions of the Mingo NWR and its associated climate, geology, topography, soils, and hydrology. As part of the audit, the Refuge Manager provided an overview of the Refuge's soils, hydrology, vegetation, and wildlife. The Refuge Manager also described the extensive history of ecological research on the Refuge.

Conformance:	Yes	☒	No	☐	N/A	☐
Non-Conformity Reports:	None					
New Information Requests:	None					
Opportunities for Improvement:	None					

Indicator G1.2. The types and condition of vegetation within the project area.

Findings: The PDD describes the condition of existing vegetation within the specific project area (i.e., the parcels to be planted), which consists primarily of agricultural cropland, including hay, soybeans, corn, and sorghum. Some tracts have also been used as pasture for grazing livestock. The types and condition of vegetation within the project area were confirmed during site visits by the auditor immediately after restoration planting.

Additional descriptions of the forests found on Mingo NWR are provided in the USFWS's 2007 Comprehensive Conservation Plan (CCP) for the Refuge (see www.fws.gov/Midwest/planning/mingo/index.html).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G1.3. The boundaries of the project area and the project zone.

Findings: The PDD describes the 17 parcels that comprise the project area and further describes the project zone as encompassing Stoddard, Wayne, Butler, and Bollinger Counties, with additional attention given to the boundaries of Mingo NWR. As part of the audit, the Refuge Manager provided more detailed information regarding the location of the project area using the Refuge's GIS and printed maps. The Manager also further described the socio-economic conditions within the project zone and provided an overview of public use of the Refuge and efforts to co-manage resources associated with the adjacent Duck Creek State Wildlife Management Area.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G1.4. Current carbon stocks within the project area(s), using stratification by land-use or vegetation type and methods of carbon calculation (such as biomass plots, formulae, default values) from the Intergovernmental Panel on Climate Change's 2006 Guidelines for National GHG Inventories for Agriculture, Forestry, and Other Land Use or a more robust and detailed methodology.

Findings: Current carbon stocks in the project area were estimated for The Conservation Fund by Environmental Synergy, Inc. (ESI; see www.environmental-synergy.com/main.html), a private contractor, based on direct measurement on a series of permanent plots established specifically

for the project. ESI's methodology, which is proprietary, was provided to the auditor along with evidence for how the methodology complies with the IPCC Guidelines. Pre-project carbon stocks associated with above and below ground woody biomass on the agricultural lands are assumed to be zero based on a complete lack of shrubs or trees. The non-woody (i.e., herbaceous) carbon pool is assumed to be equal in the "with project" and "without project" scenarios and is not included in preliminary calculations. Soil carbon was directly measured at the time of planting (February 2010) and these data will be used to describe the "without project" baseline conditions.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

Opportunities for Improvement: None

New Information Requests: None

Indicator G1.5. A description of communities located in the project zone, including basic socio-economic and cultural information that describes the social, economic and cultural diversity within communities (wealth, gender, ethnicity, etc.), identifies specific groups such as Indigenous Peoples and describes any community characteristics.

Findings: The PDD includes a general description of communities located in the project zone and includes a table with basic data related to cultural diversity, income, and education. Additional detail is provided in the Mingo Comprehensive Conservation Plan. In general, the project zone is rural, with an agriculturally based economy, and income levels tend to be below average for Missouri and the region.

While the Mingo NWR has a rich archaeological heritage, indigenous peoples are not known to currently have specific ties to land in the project zone or project area (see Mingo NWR Comprehensive Conservation Plan). The Federally-recognized Eastern Shawnee Tribe of Oklahoma has offices in Seneca, Missouri, which is in southwestern Missouri, immediately adjacent to Oklahoma. Tribal lands, however, are centered around northeastern Oklahoma. Indigenous peoples without Federal recognition include, but may not be limited to, the Northern Cherokee Tribe of Missouri (Northern Cherokee Nation of the Old Louisiana Purchase), which has offices in Columbia, Missouri (see http://ncnolt.net/), its affiliated SEMO District (see http://members.tripod.com/happytrails_2/ncnolt/), which has a presence in and around Cape Girardeau, Missouri, and the Northern Cherokee Nation of Missouri and Arkansas (Chickamauga Cherokee), which has offices in Clinton, Missouri.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G1.6. A description of current land use and customary and legal property rights including community property in the project zone, identifying any ongoing or unresolved conflicts or disputes and indentifying and describing any disputes over land tenure that were resolved during the last ten years (see also G5).

Findings: The PDD and the Mingo NWR Comprehensive Conservation Plan contain descriptions of land use in the project zone, with additional detail regarding the project area. As noted above, the project zone is predominantly rural agricultural land with small towns and scattered residential homes. Specific easements on the Mingo NWR were described during the audit by the Refuge Manager and do not conflict with the forest restoration project. Public use of the Mingo NWR is described in detail in the Comprehensive Conservation Plan and was reviewed during the audit by the Refuge Manager.

The tracts to be planted as part of the project were farmed by private individuals subject to annual leases with the Mingo NWR. The farmers were kept informed regarding the status of the project and each continues to farm other parcels in and around the NWR.

No ongoing or unresolved land tenure disputes were reported.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

***Indicator G1.7*.** A description of current biodiversity within the project zone (diversity of species and ecosystems) and threats to that biodiversity, using appropriate methodologies, substantiated where possible with appropriate reference material.

Findings: The PDD contains an overview description of current biodiversity in the project zone and project area and the Mingo NWR Comprehensive Conservation Plan includes much more detailed information. During the audit the Refuge Manager and Refuge Ecologist described a wide range of efforts - past, present, and future - to inventory and characterize biodiversity on and around the Mingo NWR. The Refuge has also been a focal point for research and is nationally recognized for pioneering work done on managing waterfowl marshes. As part of the audit the auditor toured the Refuge with the Refuge Manager and Refuge Ecologist.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G1.8. An evaluation of whether the project zone includes any of the following High Conservation Values (HCVs) and a description of the qualifying attributes:

8.1. Globally, regionally or nationally significant concentrations of biodiversity values;
- a. protected areas
- b. threatened species
- c. endemic species
- d. areas that support significant concentrations of a species during any time in their lifecycle (e.g. migrations, feeding grounds, breeding areas).

8.2. Globally, regionally or nationally significant large landscape-level areas where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;

8.3. Threatened or rare ecosystems;[16]

8.4. Areas that provide critical ecosystem services (e.g., hydrological services, erosion control, fire control);

8.5. Areas that are fundamental for meeting the basic needs of local communities (e.g., for essential food, fuel, fodder, medicines or building materials without readily available alternatives); and

8.6. Areas that are critical for the traditional cultural identity of communities (e.g., areas of cultural, ecological, economic or religious significance identified in collaboration with the communities).

Findings: Using information gathered specifically for the PDD, data contained in the Mingo NWR Comprehensive Conservation Plan, and Refuge records from long-term inventory and research efforts, an analysis of potential High Conservation Value (HCV) areas in the project zone was performed. Qualifying areas in the vicinity of the Mingo NWR include: 1) Mingo Wilderness Area (a Federally-designated area located on the Mingo NWR), 2) habitat for the Federally endangered Indiana bat (*Myotis sodalis*) and gray bat (*Myotis grisescens*), 3) critical wintering and migration habitat for waterfowl and waterbirds, 4) threatened ecosystems (i.e., bottomland hardwood forests of the Lower Mississippi Valley), and 5) critical ecosystem services associated with bottomland hardwood forests. Within the larger project zone (i.e., beyond the Mingo NWR), there are smaller areas of HCV that are characterized in the Mingo NWR Comprehensive Conservation Plan or identified in the Refuge's GIS.

There were no areas in the project zone that met the definitions of HCV found in G1.8.5 or G1.8.6. This is not to say that the project zone lacks areas that are culturally important or otherwise important to the community. Such areas, however, were not found to be "...fundamental for meeting the basic needs of local communities..." (G1.8.5) or "...critical for the traditional cultural identity of communities..." (G1.8.6).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.1.2. G2 – Baseline Projections

A baseline projection is a description of expected conditions in the project zone in the absence of project activities. The project impacts will be measured against this 'without-project' reference scenario.

The project proponents must develop a defensible and well-documented 'without-project' reference scenario that must:

Indicator G2.1. Describe the most likely land-use scenario in the absence of the project following IPCC 2006 GL for AFOLU or a more robust and detailed methodology, describing the range of potential landuse scenarios and the associated drivers of GHG emissions and justifying why the land-use scenario selected is most likely.

Findings: Based on a site-specific analysis conducted in cooperation with the Mingo NWR Refuge Manager and other USFWS staff, the project proponents conclude that the most likely land-use scenario in the absence of the project is continued agricultural use, including pasture, hay, and cropland. This conclusion is based on a lack of available funds for site restoration within foreseeable USFWS budgets. As part of the audit the auditor reviewed the itemized list of operating and maintenance needs contained with the Comprehensive Conservation Plan (see Appendix F of the CCP) and discussed budget forecasts with the Refuge Manager. Based on this assessment, the auditor concurs with the project proponents' assertion that absent the project the land would likely remain in agricultural production.

As part of the assessment of potential land use scenarios, the project proponents and the USFWS considered the potential for halting agricultural uses and allowing the land to revert to forest naturally. Based on the USFWS's experience and understanding of the region's ecosystems, however, it was determined that such a course of action would not be consistent with the objectives set forth in the Refuge's Comprehensive Conservation Plan. This determination is based on the high likelihood of abandoned agricultural fields being colonized by weedy, invasive species and the low likelihood of re-establishing a functional bottomland hardwood forest comprised of native species. Abandoned fields in the project zone were observed by the auditor and he concurs with this determination.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G2.2. Document that project benefits would not have occurred in the absence of the project, explaining how existing laws or regulations would likely affect land use and justifying that the benefits being claimed by the project are truly 'additional' and would be unlikely to occur without the project.

Findings: The Mingo NWR Comprehensive Conservation Plan, and its related Environmental Assessment, document that the USFWS has analyzed options for restoring bottomland hardwood forest on the Refuge and concluded that it cannot be accomplished without outside partnerships, specifically with non-governmental organizations, due to a lack of internal funding. Furthermore, there are no laws or regulations requiring the restoration of the bottomland hardwood forests found on Mingo NWR. In addition, as noted above, allowing the agricultural fields to revert naturally would not result in a natural forest with its associated biodiversity and community values. Based on these facts, the auditor concurs with the project proponents that the project benefits are truly additional and unlikely to occur without the project. This conclusion was further supported by statements from Regional and National USFWS Managers, who stated that the funds for such restoration efforts were not available now and not likely to be available in the future. Such projects, however, were included in the Comprehensive Conservation Plan with the understanding that Managers would have to seek outside funds to support them.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G2.3. Calculate the estimated carbon stock changes associated with the 'without project' reference scenario described above. This requires estimation of carbon stocks for each of the land-use classes of concern and a definition of the carbon pools included, among the classes defined in the IPCC 2006 GL for AFOLU. The timeframe for this analysis can be either the project lifetime (see **G3**) or the project GHG accounting period, whichever is more appropriate. Estimate the net change in the emissions of non-CO_2 GHG emissions such as CH_4 and N_2O in the 'without project' scenario. Non-CO_2 gases must be included if they are likely to account for more than 5% (in terms of CO_2-equivalent) of the project's overall GHG impact over each monitoring period.

Projects whose activities are designed to avoid GHG emissions (such as those reducing emissions from deforestation and forest degradation (REDD), avoiding conversion of non-forest land, or certain improved forest management projects) must include an analysis of the relevant drivers and rates of deforestation and/or degradation and a description and justification of the approaches, assumptions and data used to perform this analysis. Regional-level estimates can

be used at the project's planning stage as long as there is a commitment to evaluate locally-specific carbon stocks and to develop a project-specific spatial analysis of deforestation and/or degradation using an appropriately robust and detailed carbon accounting methodology before the start of the project.

Findings: The project proponents believe that carbon stocks associated with the "without project" scenario (i.e., the lands remain in agriculture) would be relatively constant over the project accounting period. Carbon pools associated with woody biomass, for example, would remain at zero due to the absence of shrubs and trees on the agricultural lands. Carbon associated with hay and crops would vary slightly seasonally (i.e., increasing during the growing season), but would remain relatively constant on an annual basis over the project accounting period. Soil carbon is also expected to remain relatively constant, although it might have been reasonable to assume a slight decline over time due to continuing soil tillage on croplands. Carbon emissions would also be associated with tractors and other farm equipment, but these are also expected to remain constant over the project accounting period. The auditor concurs with the project proponents' assertions related to carbon stock changes associated with the "without project" scenario, further noting that the primary net carbon changes associated with the "with project" scenario are associated with the woody biomass carbon pool, which is completely lacking in the "without project" scenario.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G2.4. Describe how the 'without project' reference scenario would affect communities in the project zone, including the impact of likely changes in water, soil and other locally important ecosystem services.

Findings: In the "without project" scenario the lands would remain in agriculture. Over the life of the project, the few farmers leasing the lands would benefit from the economic returns associated with annual crop production and grazing. According to the Refuge Manager, however, the project lands do not represent a significant percentage of the areas operated by any of the farmers. The remaining public would continue to be influenced in the "without project" scenario by farming practices that include tillage, cattle grazing, equipment use, fertilizer use, pesticide application, and periodic burning. Some of these practices can potentially influence water quality, air quality, human health, wildlife habitat, and the aesthetic experience of visitors to the Refuge.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G2.5. Describe how the 'without project' reference scenario would affect biodiversity in the project zone (e.g., habitat availability, landscape connectivity and threatened species).

Findings: In the "without project" scenario the project area would remain in agricultural production, with its associated limited value as wildlife habitat. Moreover, the agricultural lands almost completely lack any native plant species, thereby reducing any biodiversity values associated with natural plant communities. Over the life of the project in the "without project" scenario, breeding birds adjacent to the agricultural lands would continue to be susceptible to increased nest predation and increased brood parasitism.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: 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 must be designed to minimize risks to the expected climate, community and biodiversity benefits and to maintain those benefits beyond the life of the project. Effective local participation in project design and implementation is key to optimizing multiple benefits, equitably and sustainably. Projects that operate in a transparent manner build confidence with stakeholders and outside parties and enable them to contribute more effectively to the project.

The project proponents must:

Indicator G3.1. Provide a summary of the project's major climate, community and biodiversity objectives.

Findings: The project proponents assert that the project's major objectives are: 1) address climate change through carbon sequestration; 2) restore native bottomland hardwood forests and its associated biodiversity values; and 3) create long-term community benefits in the form of enhanced recreational and educational benefits associated with forest restoration. The auditor concludes that these are reasonable objectives, given the scope of the project, that are responsive to the CCB Project Design Standards.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.2. Describe each project activity with expected climate, community and biodiversity impacts and its relevance to achieving the project's objectives.

Findings: Project activities include site preparation and planting and periodic monitoring of planted stock survival, and associated carbon accumulation, biodiversity, and community benefits. Following the initial activity of site preparation and planting, the trees will be allowed to grow over the 100-year project accounting period. Project objectives will then be achieved as the trees develop into a mature bottomland hardwood forest. Specifically, 1) carbon will be sequestered in the maturing trees, 2) planted areas will eventually develop into fully-restored bottomland hardwood forest, and 3) recreational and educational opportunities, as well as ecosystem services, will increase as the planted areas develop into functional forest.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.3. Provide a map identifying the project location and boundaries of the project area(s), where the project activities will occur, of the project zone and of additional surrounding locations that are predicted to be impacted by project activities (e.g. through leakage).

Findings: Figure 2 and 3 of the PDD provide maps identifying the project area and project zone and additional detailed maps are available in the project's comprehensive GIS.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.4. Define the project lifetime and GHG accounting period and explain and justify any differences between them. Define an implementation schedule, indicating key dates and milestones in the project's development.

Findings: Project lands are within the Mingo NWR and are protected in perpetuity. The GHG accounting period is 100 years. Key dates and milestones predominantly include site preparation and planting (completed just before the audit) and periodic monitoring, as

described in the initial carbon, biodiversity, and community benefit monitoring plans (see below).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.5. Identify likely natural and human-induced risks to the expected climate, community and biodiversity benefits during the project lifetime and outline measures adopted to mitigate these risks.

Findings: Potential risks associated with similar planting projects include conversion of the land to other uses (i.e., the proponents abandon the project), vandalism to planted stock, death of planted stock, fire, and storm damage. The project proponents sought to minimize these risks by selecting a project area situated on a Federal National Wildlife Refuge with its associated land use protection, law enforcement to protect against unauthorized uses, and fire protection. In addition, the project proponents have a buffer pool of carbon offsets that will not be sold to mitigate any unavoidable impacts. The project proponents are also committed to re-planting stock in the event of material loss of plants to mortality after planting.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.6. Demonstrate that the project design includes specific measures to ensure the maintenance or enhancement of the high conservation value attributes identified in **G1** consistent with the precautionary principle.

Findings: The project (i.e., restoring bottomland hardwood forest) does not have the capacity to diminish the HCV attributes identified in G1 as specific project activities are limited to replanting areas currently in agricultural production. The project will, instead, enhance HCVs as the restored areas develop into mature bottomland hardwood forest in proximity to areas with identified HCVs. That said, the Mingo NWR Comprehensive Conservation Plan contains specific measures that will be taken by the USFWS to conserve and enhance the HCV attributes associated with areas identified in G1.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.7. Describe the measures that will be taken to maintain and enhance the climate, community and biodiversity benefits beyond the project lifetime.

Findings: The project proponents entered into a Memorandum of Understanding with the USFWS to ensure the long-term stewardship of the project area beyond the 100-year project lifetime. In addition, a one-time payment is made to USFWS to support long-term stewardship activities.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.8. Document and defend how communities and other stakeholders potentially affected by the project activities have been identified and have been involved in project design through effective consultation, particularly with a view to optimizing community and stakeholder benefits, respecting local customs and values and maintaining high conservation values. Project developers must document stakeholder dialogues and indicate if and how the project proposal was revised based on such input. A plan must be developed to continue communication and consultation between project managers and all community groups about the project and its impacts to facilitate adaptive management throughout the life of the project.

Findings: Stakeholders identified by the project proponents included The Conservation Fund's donors, the USFWS, ESI and other contractors, managers of the adjacent Duck Creek State Wildlife Management Area (Missouri Department of Conservation), the Mingo Swamp Friends group, and the farmers who lease lands on the Refuge. In addition, local communities and stakeholders include all members of the public within the project zone and visitors to the Mingo NWR. The Conservation Fund has an established protocol for engaging its particular stakeholders, including its donors and contractors and the USFWS. As part of the audit the project proponents and the USFWS explained initial consultation processes and described how communication will be maintained throughout the project's lifetime, including via phone conferences, correspondence, and periodic site visits. The USFWS went through an extensive public consultation process while developing the 2007 Comprehensive Conservation Plan. This process, and associated public comments about issues that included restoration of bottomland hardwood forest, are documented in the Comprehensive Conservation Plan. The USFWS maintains regular communication with Refuge stakeholders and the local community and must

periodically revise its Comprehensive Conservation Plan, a process that requires extensive stakeholder involvement.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.9. Describe what specific steps have been taken, and communications methods used, to publicize the CCBA public comment period to communities and other stakeholders and to facilitate their submission of comments to CCBA. Project proponents must play an active role in distributing key project documents to affected communities and stakeholders and hold widely publicized information meetings in relevant local or regional languages.

Findings: Availability of the PDD and notification of the CCBA public comment period was announced on the Mingo NWR's website, on The Conservation Fund's website, and in hard copy form at the Refuge's office. On a broader scale, the concept of restoring bottomland hardwood forest was a specific component of the alternatives considered while developing the recently-completed Comprehensive Conservation Plan for the Refuge. This document, and its associated Environmental Assessment, were reviewed in detail by the auditor and discussed during the site visit. Based on this evaluation the auditor concluded that the public stakeholder consultation process associated with the development of the Comprehensive Conservation Plan, which included several widely-publicized public meetings, was directly relevant to the consultation required by the CCBA Standards.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.10. 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 and other stakeholder grievances within a reasonable time period. This grievance process must be publicized to communities and other stakeholders and must be managed by a third party or mediator to prevent any conflict of interest. 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: Conflicts associated with the CCBA-validated project will be heard under the publicized procedures used by the USFWS to hear disputes related to management of the Mingo NWR, as described in the PDD.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G3.11. Demonstrate that financial mechanisms adopted, including projected revenues from emissions reductions and other sources, are likely to provide an adequate flow of funds for project implementation and to achieve the anticipated climate, community and biodiversity benefits.

Findings: The project was funded by donors to The Conservation Fund's Go Zero program. Prior to initiating the project, The Conservation Fund developed a long-term budget that encompassed site preparation and planting followed by subsequent periodic monitoring. The Conservation Fund would not have undertaken the project without first having sufficient funds to cover all anticipated costs.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.1.4. G4 – Management Capacity and Best Practices

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

Best practices for project management include: local stakeholder employment, worker rights, worker safety and a clear process for handling grievances.

The project proponents must:

Indicator G4.1. Identify a single project proponent which is responsible for the project's design and implementation. If multiple organizations or individuals are involved in the project's

development and implementation the governance structure, roles and responsibilities of each of the organizations or individuals involved must also be described.

Findings: The Conservation Fund is the single project proponent and is responsible for the project's design and implementation. The Conservation Fund has partnered with the USFWS to ensure the long-term stewardship of the project area, as defined by an MOU between the parties. The Conservation Fund has contracted with ESI for long-term carbon monitoring efforts and the USFWS has accepted responsibility for long-term biodiversity and community benefit monitoring. The auditor interviewed all the involved parties and found that they understood and accepted their defined roles and responsibilities.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G4.2. Document key technical skills that will be required to implement the project successfully, including community engagement, biodiversity assessment and carbon measurement and monitoring skills. Document the management team's expertise and prior experience implementing land management projects at the scale of this project. If relevant experience is lacking, the proponents must either demonstrate how other organizations will be partnered with to support the project or have a recruitment strategy to fill the gaps.

Findings: The Conservation Fund has the management capacity and experience to organize, fund, and implement projects of this type, which represents its third CCBA-validated project of this nature. The Conservation Fund has contracted with ESI for carbon measurement and modeling services and this firm is internationally recognized for its expertise in these areas. USFWS managers and ecologists are responsible for biodiversity and community benefit monitoring and perform such surveys on a regular basis as part of the long-term stewardship of the Mingo NWR. Tree planting, which was accomplished just prior to the audit, was conducted by a private contracting firm that has many years of planting experience in the Lower Mississippi Valley region.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G4.3. Include a plan to provide orientation and training for the project's employees and relevant people from the communities with an objective of building locally useful skills and

knowledge to increase local participation in project implementation. These capacity building efforts should target a wide range of people in the communities, including minority and underrepresented groups. Identify how training will be passed on to new workers when there is staff turnover, so that local capacity will not be lost.

Findings: The Conservation Fund has worked to orient and train USFWS employees so that similar carbon projects can be considered on other NWRs. USFWS staff, in turn, participate in the USFWS's Climate Strategic Plan workshops to discuss their experience with the current project with colleagues at other NWRs. Training and orientation goals and objectives are described in correspondence between The Conservation Fund and the USFWS, in internal The Conservation Fund and USFWS correspondence, and in documentation associated with the USFWS's Climate Strategic Plan committee work.

Due to the technical nature of the monitoring plan, most monitoring activities must be accomplished by ESI and USFWS staff. The USFWS will, however, seek to employee Job Corps workers from the local community, particularly in association with establishing monitoring plots.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G.4.4. Show that people from the communities will be given an equal opportunity to fill all employment positions (including management) if the job requirements are met. Project proponents must explain how employees will be selected for positions and where relevant, must indicate how local community members, including women and other potentially underrepresented groups, will be given a fair chance to fill positions for which they can be trained.

Findings: The project is not intended to create new long-term employment opportunities. USFWS staff, however, are members of the local community. In addition, members of the Mingo Job Corps will be used to help establish monitoring plots in the project area. The Mingo Job Corps operates in connection with the USDA Forest Service and offers career technical training to young adults as they work toward a General Educational Diploma (GED) or high school diploma.

Federal regulations require equal opportunity hiring practices for Refuge staff and women make up a significant percentage of The Conservation Fund's Go Zero program. ESI, the project's carbon monitoring contractor, has a female President.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G4.5. Submit a list of all relevant laws and regulations covering worker's rights in the host country.

Describe how the project will inform workers about their rights. Provide assurance that the project meets or exceeds all applicable laws and/or regulations covering worker rights and, where relevant, demonstrate how compliance is achieved.

Findings: Lists of relevant laws and regulations were provided in the PDD, Mingo NWR Comprehensive Conservation Plan, and the Environmental Assessment for the Mingo NWR Comprehensive Conservation Plan. During the audit the USFWS demonstrated how the agency assures compliance with these regulations. ESI also explained how worker rights are assured within their organization as well as with the planting subcontractor. As required by Federal regulations, workers rights information was posted on bulletin boards at the Mingo NWR's offices, as observed during the audit.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G4.6. 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: The project proponents conducted a job hazard assessment and determined that there were no substantial risks to worker safety associated with the project, but that there were minor potential risks associated with planting and long-term monitoring activities. Safety briefings were conducted prior to planting and the planting contractor was observed by ESI during all phases of operation. ESI has a comprehensive safety program and workers were required to wear proper personal protective equipment (PPE) while conducting site activities. USFWS employees who will be conducting monitoring activities must take mandatory health and safety training classes as a condition of their employment with the agency.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G4.7. Document the financial health of the implementing organization(s) to demonstrate that financial resources budgeted will be adequate to implement the project.

Findings: The Conservation Fund is a large non-profit organization with publicly available audits and tax returns (see PDD). As noted above, The Conservation Fund prepares a long-term project budget and only undertakes a project when resources are available for project implementation and long-term monitoring. Although the USFWS lacks the financial resources to implement the restoration project, absent partner support, the Mingo NWR has been under the stewardship of the agency since 1944 and the Service has the resources necessary to implement its portion of the monitoring program. As previously noted, The Conservation Fund also makes a one-time payment to the USFWS to support their long-term involvement in the project.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.1.5. G5 – Legal Status and Property Rights

The project must be based on a solid legal framework (e.g., appropriate contracts are in place) and the project must 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 in order to allow adequate time to earn necessary approvals. The project design should be sufficiently flexible to accommodate potential modifications that may arise as a result of this process.

In the event of unresolved disputes over tenure or use rights to land or resources in the project zone, the project should demonstrate how it will help to bring them to resolution so that there are no unresolved disputes by the start of the project.

Based on information about current property rights provided in **G1**, the project proponents must:

Indicator G5.1. Submit a list of all relevant national and local laws and regulations in the host country and all applicable international treaties and agreements. Provide assurance that the project will comply with these and, where relevant, demonstrate how compliance is achieved.

Findings: There are no specific local, state, or national laws that specifically relate to planting trees on the Mingo NWR to restore bottomland hardwood forest. That said, there are a number

of Federal regulations that relate to management of the Refuge and the designated Wilderness Area. These regulations were listed in the PDD, as well as in the Comprehensive Conservation Plan, and the Refuge Manager explained the USFWS protocols for ensuring compliance. The Conservation Fund's attorneys have also been involved to ensure that all agreements with the USFWS comply with applicable regulations.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G5.2. Document that the project has approval from the appropriate authorities, including the established formal and/or traditional authorities customarily required by the communities.

Findings: The Conservation Fund and the USFWS entered into an MOU, signed by the Service's Director, that authorizes all aspects of the USFWS's participation in the project.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G5.3. Demonstrate with documented consultations and agreements that the project will not encroach uninvited on private property, community property, or government property and has obtained the free, prior, and informed consent of those whose rights will be affected by the project.

Findings: The project area is entirely located on Federal lands managed by the USFWS and, as previously noted, the USFWS has entered into an MOU with The Conservation Fund to authorize the project.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G5.4. Demonstrate that the project does not require the involuntary relocation of people or of the activities important for the livelihoods and culture of the communities. If any relocation of habitation or activities is undertaken within the terms of an agreement, the project proponents must demonstrate that the agreement was made with the free, prior, and informed consent of those concerned and includes provisions for just and fair compensation.

Findings: The project does not require the involuntary relocation of any people or activities. There were three farmers who leased some of the agricultural tracts that are being restored to native forest. One recently stopped farming for his own reasons and the other two picked up these parcels in 2009 with the understanding that they would not be available in 2010. The Refuge Manager offered other Refuge lands for these farmers to operate following implementation of the restoration project. The farmers were available to be interviewed by the auditor, to confirm that they were not involuntarily relocated, but this was deemed to be unnecessary given the detailed description of the consultation process provided by the Refuge Manager.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G5.5. Identify any illegal activities that could affect the project's climate, community or biodiversity impacts (e.g., logging) taking place in the project zone and describe how the project will help to reduce these activities so that project benefits are not derived from illegal activities.

Findings: Illegal activities that could negatively influence the project's benefits primarily include vandalism to the planted stock and illegal harvest of trees once they mature. Access to the Refuge, however, is controlled and law enforcement personnel regularly patrol the property, thereby minimizing the risk associated with potential illegal activities.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator G5.6. Demonstrate that the project proponents have clear, uncontested title to the carbon rights, or provide legal documentation demonstrating that the project is undertaken on behalf of the carbon owners with their full consent. Where local or national conditions preclude

clear title to the carbon rights at the time of validation against the Standards, the project proponents must provide evidence that their ownership of carbon rights is likely to be established before they enter into any transactions concerning the project's carbon assets.

Findings: As part of the agreement with the USFWS, The Conservation Fund's ownership of the carbon rights is specified, with the understanding that all carbon benefits will be retired and not banked or re-sold on any market.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.2. Climate Section

4.2.1. CL1 – Net Positive Climate Impacts

The project must generate net positive impacts on atmospheric concentrations of greenhouse gases (GHGs) over the project lifetime from land use changes within the project boundaries.

The project proponents must:

Indicator CL1.1. Estimate the net change in carbon stocks due to the project activities using the methods of calculation, formulae and default values of the IPCC 2006 GL for AFOLU or using a more robust and detailed methodology. 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**). This estimate must be based on clearly defined and defendable assumptions about how project activities will alter GHG emissions or carbon stocks over the duration of the project or the project GHG accounting period.

Findings: The PDD includes a description of how the project plans to estimate the net change in carbon stocks, using a predictive model for the first 15 years and then direct measurements thereafter. ESI has been contracted to measure and monitor the project's carbon sequestration using direct measurement on sample plots. Using the data collected from these sample plots, ESI will use proprietary methodologies to develop baseline carbon conditions and estimates of carbon accrual. SCS was provided with the proprietary model and determined that the methodology conforms to the IPCC GPG. As such, carbon estimates are based on clearly defined and defendable assumptions. ESI is also committed to monitoring the evolving research on carbon sequestration measurement and estimation and will update the methodologies, as needed, to ensure accuracy.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL1.2. Estimate the net change in the emissions of non-CO_2 GHG emissions such as CH_4 and N_2O in the *with* and *without* project scenarios if those gases are likely to account for more than a 5% increase or decrease (in terms of CO_2-equivalent) of the project's overall GHG emissions reductions or removals over each monitoring period.

Findings: Non-CO_2 GHG emissions are not expected to account for more than a 5 percent increase or decrease in the project's overall emissions reductions or removals over any monitoring period, based on an assessment by the project proponents that was presented during the audit site visit.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL1.3. Estimate any other GHG emissions resulting from project activities. Emissions sources include, but are not limited to, emissions from biomass burning during site preparation, emissions from fossil fuel combustion, direct emissions from the use of synthetic fertilizers, and emissions from the decomposition of N-fixing species.

Findings: *De minimis* emissions were associated with fossil fuel combustion from the tractors used for planting. These emissions were monitored and will be deducted from the final project sequestration estimates.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL1.4. Demonstrate that the net climate impact of the project is positive. The net climate impact of the project is the net change in carbon stocks plus net change in non-CO_2 GHGs where appropriate minus any other GHG emissions resulting from project activities minus any likely project-related unmitigated negative offsite climate impacts (see CL2.3).

Findings: The restoration initiative will result in an overall positive GHG benefit estimated to be approximately 259 metric tons of CO_2 equivalent per acre (286 short tons/acre) at year 50 and 328 metric tons of CO_2 equivalent per acre (361 short tons/acre) at year 100. The annualized average for the first 50 years is 5.2 metric tons of CO_2 equivalent per acre (5.7 short tons). As previously noted, emissions from fossil fuel combustion generated during the planting phase of project implementation will be subtracted from these totals.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL1.5. Specify how double counting of GHG emissions reductions or removals will be avoided, particularly for offsets sold on the voluntary market and generated in a country with an emissions cap.

Findings: All the carbon benefits generated by the project will be withheld from regulated greenhouse gas markets and will be retired upon their sale. The Conservation Fund has a secure computer tracking system for ensuring that sold carbon benefits cannot be re-sold or allocated to other Go Zero projects.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.2.2. CL2 – Offsite Climate Impacts ('Leakage')

The project proponents must quantify and mitigate increased GHG emissions that occur beyond the project area and are caused by project activities (commonly referred to as 'leakage').

The project proponents must:

Indicator CL2.1. Determine the types of leakage that are expected and estimate potential offsite increases in GHGs (increases in emissions or decreases in sequestration) due to project activities. Where relevant, define and justify where leakage is most likely to take place.

Findings: The only potential source of leakage would be the farmers clearing forests to create new agricultural lands to offset the lands no longer available to them due to the project. The

Refuge Manager, however, has made additional Refuge lands available to these farmers and has been assured that no forests will be cleared as a result of the project.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL2.2. Document how any leakage will be mitigated and estimate the extent to which such impacts will be reduced by these mitigation activities.

Findings: No leakage is anticipated.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL2.3. Subtract any likely project-related unmitigated negative offsite climate impacts from the climate benefits being claimed by the project and demonstrate that this has been included in the evaluation of net climate impact of the project (as calculated in **CL1.4**).

Findings: No leakage is anticipated.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL2.4. Non-CO_2 gases must be included if they are likely to account for more than a 5% increase or decrease (in terms of CO_2-equivalent) of the net change calculations (above) of the project's overall off-site GHG emissions reductions or removals over each monitoring period.

Findings: Non-CO_2 gases are not expected to account for more than a 5 percent increase or decrease in the net change calculations.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: 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 (within and outside the project boundaries) in project-related carbon pools, project emissions, and non-CO2 GHG emissions if appropriate. The monitoring plan must identify the types of measurements, the sampling method, and the frequency of measurement.

Since developing a full 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 validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

The project proponents must:

Indicator CL3.1. Develop an initial plan for selecting carbon pools and non-CO_2 GHGs to be monitored, and determine the frequency of monitoring. Potential pools include aboveground biomass, litter, dead wood, belowground biomass, wood products, soil carbon and peat. Pools to monitor must include any pools expected to decrease as a result of project activities, including those in the region outside the project boundaries resulting from all types of leakage identified in CL2. A plan must be in place to continue leakage monitoring for at least five years after all activity displacement or other leakage causing activity has taken place. Individual GHG sources may be considered 'insignificant' and do not have to be accounted for if *together* such omitted decreases in carbon pools and increases in GHG emissions amount to less than 5% of the total CO_2-equivalent benefits generated by the project. Non-CO_2 gases must be included if they are likely to account for more than 5% (in terms of CO_2-equivalent) of the project's overall GHG impact over each monitoring period. Direct field measurements using scientifically robust sampling must be used to measure more significant elements of the project's carbon stocks. Other data must be suitable to the project site and specific forest type.

Findings: The PDD includes a description of the key elements of the project's climate impact monitoring plan that will be carried out by ESI. The monitoring plan has been developed by ESI and is in compliance with the IPCC Good Practice Guidance. The monitoring regime includes a base-year analysis, tree survival analysis, and periodic soil and tree biomass measurement. Following an initial 15-year period in which modeled carbon estimates will be used, carbon sequestration estimates will be based on direct field measurements and not default emission factors. Because the project will use direct, continuous measurement for their monitoring

efforts, the plan meets the requirements for the accuracy criteria of IPCC Tier 3 estimation methods.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CL3.2. Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings: The Conservation Fund and ESI have already developed a full monitoring plan, as described above, and The Conservation Fund has committed to making monitoring results publicly available.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.3. Community Section

4.3.1. CM1 – Net Positive Community Impacts

The project must generate net positive impacts on the social and economic well-being of communities and ensure that costs and benefits are equitably shared among community members and constituent groups during the project lifetime.

Projects must maintain or enhance the High Conservation Values (identified in **G1**) in the project zone that are of particular importance to the communities' well-being**.**

The project proponents must:

Indicator CM1.1. Use appropriate methodologies to estimate the impacts on communities, including all constituent socio-economic or cultural groups such as indigenous peoples (defined in **G1**), resulting from planned project activities. A credible estimate of impacts must include changes in community well-being due to project activities and an evaluation of the impacts by

the affected groups. This estimate must be based on clearly defined and defendable assumptions about how project activities will alter social and economic well-being, including potential impacts of changes in natural resources and ecosystem services identified as important by the communities (including water and soil resources), over the duration of the project. The 'with project' scenario must then be compared with the 'without project' scenario of social and economic well-being in the absence of the project (completed in **G2**). The difference (i.e., the community benefit) must be positive for all community groups.

Findings: Restoring bottomland hardwood forest on the Mingo NWR by planting agriculture areas was specifically addressed in the Refuge's 2007 Comprehensive Conservation Plan. Completion of the Plan required an assessment of impacts associated with proposed management activities and extensive public involvement. The farmers leasing the project lands are the only group that will be directly impacted by the project and these impacts, as previously noted, have already been mitigated by offering new lease lands. Other community impacts are expected to be positive and are associated with improved wildlife habitat, increased recreational opportunities, enhanced educational opportunities, and increased ecosystem services, as described in the PDD.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CM1.2. Demonstrate that no High Conservation Values identified in **G1.8.4-6** will be negatively affected by the project.

Findings: As noted above, the act of planting the existing agricultural fields does not have the capacity to negatively impact the HCVs defined in G1.8.4-6. The project will, instead, indirectly enhance existing HCVs. As partners to the project, the USFWS has specific plans, as described in the Comprehensive Conservation Plan, for conserving and enhancing identified HCV areas on the Mingo NWR.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.3.2. CM2 – Offsite Stakeholder Impacts

The project proponents must evaluate and mitigate any possible social and economic impacts that could result in the decreased social and economic well-being of the main stakeholders living outside the project zone resulting from project activities. Project activities should at least 'do no harm' to the well-being of offsite stakeholders.

The project proponents must:

Indicator CM2.1. Identify any potential negative offsite stakeholder impacts that the project activities are likely to cause.

Findings: No negative offsite stakeholder impacts are expected to be associated with planting trees and restoring bottomland hardwood forests on the Mingo NWR. This is supported, in part, by the extensive stakeholder consultation process associated with the Mingo Comprehensive Conservation Plan. As part of that process it was found that the majority of stakeholders supported the restoration effort.

The only direct impact associated with the project relates to the three farmers who previously leased the fields for agricultural purposes. As noted above, one of these farmers relinquished use of the fields prior to the project and the remaining two who picked up his leases knew that the fields were not going to be available after 2010. Both farmers continue to lease other agricultural lands on the Mingo NWR.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

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

Findings: None anticipated.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CM2.3. Demonstrate that the project is not likely to result in net negative impacts on the well-being of other stakeholder groups.

Findings: As previously described, the Refuge Manager met with the farmers working the project area fields in 2009, when they took over the leases, and explained that the fields would not be available after 2010. Additional lease areas on the Refuge, however, were available to these farmers. No other potentially negative project impacts were identified.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: 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 well-being resulting from the project activities (for communities and other stakeholders). The monitoring plan must indicate which communities and other stakeholders will be monitored, and identify the types of measurements, the sampling method, and the frequency of measurement.

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 validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

The project proponents must:

Indicator CM3.1. Develop an initial plan for selecting community variables to be monitored and the frequency of monitoring and reporting to ensure that monitoring variables are directly linked to the project's community development objectives and to anticipated impacts (positive and negative).

Findings: The project proponents developed an initial plan for monitoring community variables based on periodic monitoring of community use days (see PDD). The full scope of this initial plan, however, was not clear and a New Information Request (NIR) was issued (see NIR 1, below).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: See NIR2010.1 dated March 25, 2010

Opportunities for Improvement: None

Indicator CM3.2. Develop an initial plan for how they will assess the effectiveness of measures used to maintain or enhance High Conservation Values related to community well-being (G1.8.4-6) present in the project zone.

Findings: As previously noted, the planting project does not have the capacity to negatively impact HCVs defined in G1.8.4-6. None-the-less, the USFWS has protocols for monitoring the effectiveness of its measures to conserve defined HCV areas (see Comprehensive Conservation Plan).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator CM3.3. Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings: The Conservation Fund has committed to developing and publishing a full monitoring plan within 12 months of project validation.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.4. Biodiversity Section

4.4.1. B1 – Net Positive Biodiversity Impacts

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

The project should maintain or enhance any High Conservation Values (identified in **G1**) present in the project zone that are of importance in conserving globally, regionally or nationally significant biodiversity**.**

Invasive species populations must not increase as a result of the project, either through direct use or indirectly as a result of project activities.

Projects may not use genetically modified organisms (GMOs) to generate GHG emissions reductions or removals. GMOs raise unresolved ethical, scientific and socio-economic issues. For example, some GMO attributes may result in invasive genes or species.

The project proponents must:

Indicator B1.1. Use appropriate methodologies to estimate changes in biodiversity as a result of the project in the project zone and in the project lifetime. This estimate must be based on clearly defined and defendable 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: Positive changes in biodiversity will be associated with restoring the agricultural fields in the project area to bottomland hardwood forest. This assumption is based on the USFWS's extensive monitoring and research related to the biodiversity values associated with bottomland hardwood forest. The project proponents identify birds as being particularly sensitive to habitat changes and assert that bird species richness will be higher in the "with project" scenario as opposed to the "without project" scenario. Improved bird habitat will provide positive benefits in both the project area and the project zone, in addition to benefiting populations of neo-tropical migrant warblers, a taxonomic group of particular conservation concern. In addition, biodiversity benefits are expected to be associated with replacing agricultural crops and invasive herbaceous species with native plants and animals. Finally, the proposed project will have demonstrable benefits for endangered bats (see below).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B1.2. Demonstrate that no High Conservation Values identified in G1.8.1-3 will be negatively affected by the project.

Findings: As previously noted, the planting project does not have the capacity to negatively impact HCVs defined in G1.8.1-3. None-the-less, the USFWS has protocols for monitoring the effectiveness of its measures to conserve defined HCV areas (see Comprehensive Conservation Plan).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B1.3. Identify all species to be used by the project and show that no known invasive species will be introduced into any area affected by the project and that the population of any invasive species will not increase as a result of the project.

Findings: The project area will be planted with native bottomland hardwood species selected by USFWS staff, including black walnut, northern red oak, white oak, shellbark hickory, Nutall oak, willow oak, pin oak, blackgum, bald cypress, pecan, bur oak, black cherry, swamp chestnut oak, cherrybark oak, overcup oak, persimmon, and water tupelo. None of these species is considered to be invasive.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B1.4. Describe possible adverse effects of non-native species used by the project on the region's environment, including impacts on native species and disease introduction or facilitation. Project proponents must justify any use of non-native species over native species.

Findings: All species are native to the region.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B1.5. Guarantee that no GMOs will be used to generate GHG emissions reductions or removals.

Findings: The project proponents asserted that none of the planted stock included GMOs, but evidence to support this claim was lacking (see NIR 2, below).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: See NIR2010.2 dated March 25, 2010

Opportunities for Improvement: None

4.4.2. B2 – Offsite Biodiversity Impacts

The project proponents must evaluate and mitigate likely negative impacts on biodiversity outside the project zone resulting from project activities.

The project proponents must:

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

Findings: No potentially negative offsite biodiversity impacts were identified.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

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

Findings: No potentially negative offsite biodiversity impacts were identified.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: 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 potentially negative offsite biodiversity impacts were identified.

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: 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 must identify the types of measurements, the sampling method, and the frequency of measurement.

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 validated against the Standards. This is acceptable as long as there is an explicit commitment to develop and implement a monitoring plan.

The project proponents must:

Indicator B3.1. Develop an initial plan for selecting biodiversity variables to be monitored and the frequency of monitoring and reporting to ensure that monitoring variables are directly linked to the project's biodiversity objectives and to anticipated impacts (positive and negative).

Findings: The project proponents have an initial plan for quantifying biodiversity benefits through monitoring breeding bird species richness and diversity on permanent point count sampling plots (see PDD). Sampling plots will be surveyed following initial planting in 2010 and then annually for the first 5 years of the project. Thereafter the project proponents propose monitoring breeding birds every 5 years for the life of the project.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B3.2. Develop an initial plan for assessing the effectiveness of measures used to maintain or enhance High Conservation Values related to globally, regionally or nationally significant biodiversity (**G1.8.1-3)** present in the project zone.

Findings: As previously noted, the planting project does not have the capacity to negatively impact HCVs defined in G1.8.1-3. None-the-less, the USFWS has protocols for monitoring the effectiveness of its measures to conserve defined HCV areas (see Comprehensive Conservation Plan).

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator B3.3. Commit to developing a full monitoring plan within six months of the project start date or within twelve months of validation against the Standards and to disseminate this plan and the results of monitoring, ensuring that they are made publicly available on the internet and are communicated to the communities and other stakeholders.

Findings: The Conservation Fund has committed to developing and publishing a full monitoring plans within 12 months of project validation.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.5. Gold Level Section

4.5.1. GL1 – Climate Change Adaptation Benefits

This Gold Level Climate Change Adaptation Benefits criterion identifies projects that will provide significant support to assist communities and/or biodiversity in adapting to the impacts of climate change. Anticipated local climate change and climate variability within the project zone could potentially affect communities and biodiversity during the life of the project and beyond. Communities and biodiversity in some areas of the world will be more vulnerable to the negative impacts of these changes due to: vulnerability of key crops or production systems to climatic changes; lack of diversity of livelihood resources and inadequate resources, institutions and capacity to develop new livelihood strategies; and high levels of threat to species survival from habitat fragmentation. Land-based carbon projects have the potential to help local communities and biodiversity adapt to climate change by: diversifying revenues and livelihood strategies; maintaining valuable ecosystem services such as hydrological regulation, pollination, pest control and soil fertility; and increasing habitat connectivity across a range of habitat and climate types.

The project proponents must:

Indicator GL1.1. Identify likely regional climate change and climate variability scenarios and impacts, using available studies, and identify potential changes in the local land-use scenario due to these climate change scenarios in the absence of the project.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL1.2. Identify any risks to the project's climate, community and biodiversity benefits resulting from likely climate change and climate variability impacts and explain how these risks will be mitigated.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL1.3. Demonstrate that current or anticipated climate changes are having or are likely to have an impact on the well-being of communities *and/or* the conservation status of biodiversity in the project zone and surrounding regions.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL1.4. Demonstrate that the project activities will assist communities53 *and/or* biodiversity to adapt to the probable impacts of climate change.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.5.2. GL2 – Exceptional Community Benefits

This Gold Level Exceptional Community Benefits criterion recognizes project approaches that are explicitly pro-poor in terms of targeting benefits to globally poorer communities **and** the poorer, more vulnerable households and individuals within them. In so doing, land-based carbon projects can make a significant contribution to reducing the poverty and enhancing the sustainable livelihoods of these groups. Given that poorer people typically have less access to land and other natural assets, this optional criterion requires innovative approaches that enable poorer households to participate effectively in land-based carbon activities. Furthermore, this criterion requires that the project will 'do no harm' to poorer and more vulnerable members of the communities, by establishing that no member of a poorer or more vulnerable social group will experience a net negative impact on their well-being or rights.

Project proponents must:

Indicator GL2.1. Demonstrate that the project zone is in a low human development country OR in an administrative area of a medium or high human development55 country in which at least 50% of the population of that area is below the national poverty line.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL2.2. Demonstrate that at least 50% of households within the lowest category of well-being (e.g., poorest quartile) of the community are likely to benefit substantially from the project.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL2.3. Demonstrate that any barriers or risks that might prevent benefits going to poorer households have been identified and addressed in order to increase the probable flow of benefits to poorer households.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL2.4. Demonstrate that measures have been taken to identify any poorer and more vulnerable households and individuals whose well-being or poverty may be negatively affected by the project, and that the project design includes measures to avoid any such impacts. Where negative impacts are unavoidable, demonstrate that they will be effectively mitigated.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Indicator GL2.5. Demonstrate that community impact monitoring will be able to identify positive and negative impacts on poorer and more vulnerable groups. The social impact monitoring must take a differentiated approach that can identify positive and negative impacts on poorer households and individuals and other disadvantaged groups, including women.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

4.5.3. GL3 – Exceptional Biodiversity Benefits

All projects conforming to the Standards must demonstrate net positive impacts on biodiversity within their project zone. This Gold Level Exceptional Biodiversity Benefits criterion identifies projects that conserve biodiversity at sites of global significance for biodiversity conservation. Sites meeting this optional criterion must be based on the Key Biodiversity Area (KBA) framework of vulnerability and irreplaceability. These criteria are defined in terms of species and population threat levels, since these are the most clearly defined elements of biodiversity. These scientifically based criteria are drawn from existing best practices that have been used, to date, to identify important sites for biodiversity in over 173 countries.

Project proponents must demonstrate that the project zone includes a site of high biodiversity conservation priority by meeting either the vulnerability *or* irreplaceability criteria defined below:

Indicator GL3.1. Vulnerability

Regular occurrence of a globally threatened species (according to the IUCN Red List) at the site:

1.1. Critically Endangered (CR) and Endangered (EN) species - presence of at least a single individual; or

1.2. Vulnerable species (VU) - presence of at least 30 individuals or 10 pairs.

Findings: The Federally endangered Indiana bat (*Myotis sodalis*), an IUCN Red List EN species, has been documented as regularly occurring on the Mingo NWR, with specific roosting habitat in close proximity to the forest restoration areas.

Conformance: Yes ☒ No ☐ N/A ☐

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

Or,

Indicator GL3.1. Irreplaceability

A minimum proportion of a species' global population present at the site at any stage of the species' lifecycle according to the following thresholds:

2.1. Restricted-range species - species with a global range less than 50,000 km2 *and* 5% of global population at the site; or

2.2. Species with large but clumped distributions - 5% of the global population at the site; or

2.3. Globally significant congregations - 1% of the global population seasonally at the site; or

2.4. Globally significant source populations - 1% of the global population at the site.

Findings: N/A

Conformance: Yes ☐ No ☐ N/A ☒

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

5.0 CCB Validation Conclusion

Following completion of SCS's duly-accredited validation process, it is our opinion that the *Mingo NWR Forest Restoration Initiative* conforms to the CCBA Climate, Community and Biodiversity Project Design Standards (Second Edition) at the Gold Level (see Appendix A).

6.0 Corrective Action Requests

Non-Conformity Reports: None

New Information Requests:

NIR2010.1 issued March 25, 2010
Finding: Section CM3.1 of the PDD indicates that data from car counters placed near the Go Zero tracts will be used to monitor anticipated increasing community use days over the life of the project. It is not clear, however, what data will be used for the baseline or 'without project' scenario to demonstrate net positive community impacts. The Conservation Fund has committed to developing a full monitoring plan within 12 months of validation (see CM3.3), but a more fully developed initial monitoring plan is warranted. **Proponents Response:** Mingo NWR staff will monitor the community benefits generated by the Mingo NWR Restoration Initiative with specific attention paid to the anticipated rise in community use of the Go Zero Tracts. As the seedlings develop into a mature bottomland hardwood forest, public activity on the Tracts, including hunting, birding, environmental

education and celebratory events, is expected to increase as illustrated in Figure 12 below [auditor's note: the referenced Figure 12 is from the PDD]. All of the Go Zero Tracts are open to hunting at some point during the year, and hunting conditions will be especially improved once the lands are restored. In addition, the Refuge is developing a scenic pull-out stop by one of the Tracts which is already along the Refuge's existing auto tour. The pull-out stop will feature signage explaining the forest restoration processes taking place at Mingo NWR through the Restoration Initiative. Explanatory brochures will be available next to the display. Community use of the Tracts (and the entire Refuge) for public education and enjoyment is a significant benefit of the Go Zero project and, therefore, an appropriate variable for community impact monitoring.

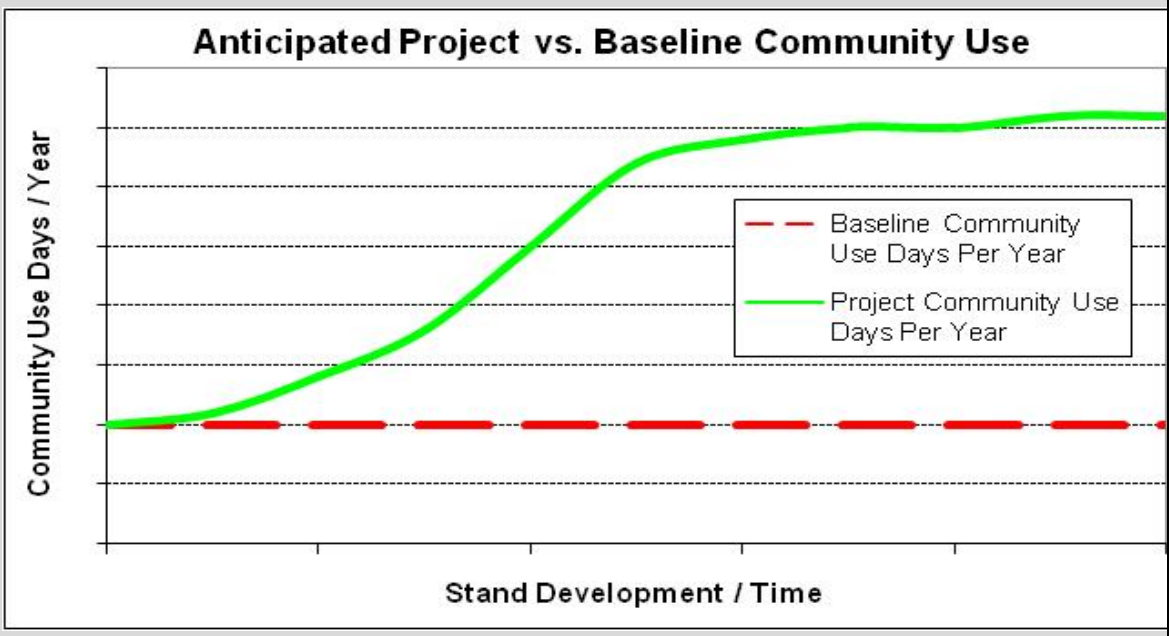

Figure 12: Anticipated Project vs. Baseline Community Use Over Time

Mingo NWR already tracks visitors to the Refuge through the use of car counters. There are about 8-10 car counters in place at different points within the Refuge, including one along the Refuge's auto tour route. The Refuge's auto tour is a one-way road which travels through the Refuge and passes several of the Go Zero Tracts, including the Tract which will soon feature the educational display. The Refuge has had a car counter along this route (at a location near the Tracts) for the past several years and has collected baseline data on the number of visitors using this route. The Refuge will continue to monitor traffic along this route and will compare it to the baseline. Also, once the environmental display near the Tracts is complete, the Refuge will use either a car counter or a person counter positioned at the pull-out to track how many people stop at the new display on the Go Zero Tract. Visitor usage will also be monitored by tracking the number of individuals who take educational brochures from the display. This will allow the Refuge to monitor changes in visitor use specifically on the Tracts.

Within the next 5 years, the Refuge also plans to develop a walking trail that would depart from the new scenic pull-out. This will also likely increase the number of visitors to the Tracts. Car and person counters will be used to monitor the increase in usage caused by the new walking trail.

Auditor's Evaluation of Response: The project proponent's response elaborates on their initial plan for monitoring community variables and is consistent with the CCB Standards requiring only an initial plan. Furthermore, the proposed methods are based on accepted techniques for monitoring use-days on public lands.

NIR2010.2 issued March 25, 2010

Finding: Indicator B1.5 requires a guarantee that no genetically modified organisms (GMOs) will be used to generate emission reductions or removals. The PDD states that all areas will be planted with natural, native trees. During the audit, however, no evidence was provided to support this claim. Tracing the source of the planting stock, please provide additional support for the claim that no GMOs will be used during the initial planting or over the life of the project.

Proponents Response: All Go Zero projects are planted with natural, native trees and no genetically modified seedlings were used to generate carbon for the Mingo NWR Restoration Initiative. The Conservation Fund contracted with Environmental Synergy Inc. (ESI) to coordinate the tree planting for the Mingo project and ESI's foresters worked with Bradshaw Tree Inc., a professional tree planting service, to order the appropriate seedlings, package and store the seedlings, and plant the seedlings on the Go Zero Tracts. The seedlings used for the Mingo NWR Restoration Initiative were ordered from two separate nurseries: SuperTree Seedlings in Arkansas and the Morgan County Nursery in Kentucky. Attached are letters from both nurseries confirming that no genetically altered seedlings were sold to Mr. Bradshaw for use in the Go Zero project.

Auditor's Evaluation of Response: The referenced letters were reviewed and support the claim that no GMOs will be used as part of the project.

Opportunities for Improvement: None

General Section

			Conformance		
G1.	Original Conditions in the Project Area (Required)	Yes	☒	No	☐
G2.	Baseline Projections (Required)	Yes	☒	No	☐
G3.	Project Design and Goals (Required)	Yes	☒	No	☐
G4.	Management Capacity and Best Practices (Required)	Yes	☒	No	☐
G5.	Legal Status and Property Rights (Required)	Yes	☒	No	☐

Climate Section

CL1.	Net Positive Climate Impacts (Required)	Yes	☒	No	☐
CL2.	Offsite Climate Impacts ("Leakage") (Required)	Yes	☒	No	☐
CL3.	Climate Impact Monitoring (Required)	Yes	☒	No	☐

Community Section

CM1.	Net Positive Community Impacts (Required)	Yes	☒	No	☐
CM2.	Offsite Community Impacts (Required)	Yes	☒	No	☐
CM3.	Community Impact Monitoring (Required)	Yes	☒	No	☐

Biodiversity Section

B1.	Net Positive Biodiversity Impacts (Required)	Yes	☒	No	☐
B2.	Offsite Biodiversity Impacts (Required)	Yes	☒	No	☐
B3.	Biodiversity Impact Monitoring (Required)	Yes	☒	No	☐

Gold Section

GL1.	Climate Change Adaptation Benefits (Optional)	Yes	☐	No	☐
GL2.	Exceptional Community Benefits (Optional)	Yes	☐	No	☐
GL3.	Exceptional Biodiversity Benefits (Optional)	Yes	☒	No	☐

CCBA Validation Level Attained:

APPROVED	(all requirements met)	☒
GOLD	(all requirements and at least one optional Gold Level criterion met	☒

The Mingo National Wildlife Refuge restoration project includes restoring approximately 358 acres of bottomland hardwood forest in several areas that had previously been cleared and utilized for agriculture production and cattle grazing. This restoration project will meet the carbon sequestration goals of the GoZERO program while also assisting the Refuge in achieving objectives outlined in the Comprehensive Conservation Plan.

This project is an excellent example of the benefits of working with our conservation partners to achieve management goals. The Mingo project will have positive impacts on carbon sequestration and climate change and will restore native habitat that will provide habitat for a wide variety of species for the next 50 – 60 years. In addition to providing wildlife habitat, the project will enhance recreational activities such as hunting, wildlife observation, and photography. Also, increased environmental education and interpretation activities will incorporate the benefits of bottomland hardwood forests and the positive impacts to climate change.

The U.S. Fish and Wildlife Service supports this project and looks forward to enhancing this beneficial partnership with The Conservation Fund in the future. Thank you for the opportunity to comment.

Matt Sprenger
Refuge Supervisor
USFWS, Region 3
612-713-5327
February 26, 2010