Verification Report

55 - Winton and Westmark Woods Forest Preservation Project

City Forest Credits Project Number 055

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1 INTRODUCTION

City Forest Credits engaged Todd Douglass (a Validation and Verification Body (VVB) acting as a third-party verifier) to verify the Winton and Westmark Woods Forest Preservation Project (Project), in the City of Cincinnati and Springfield Township, in Hamilton County, Ohio, for the reporting period of May 14, 2024 through May 13, 2027. The goal of the verification is to ensure that the GHG assertion is materially correct, and that the assertions made by the project are well documented.

1.1 PROJECT BACKGROUND

The Project preserved 26.77 acres of hardwood forestland across two separate and noncontiguous parcels located in the City of Cincinnati and Springfield Township in Hamilton County, Ohio. The two parcels are separated by three miles and lie on opposite sides of state route 126; Westmark Woods Forest Preserve to the north, and the Winton Preserve to the south. Both parcels are located in a dense patchwork of primarily residential and business developments in the northern suburbs of Cincinnati. This project will preserve three separate stands of mixed hardwood forest across the two parcels that include primarily early successional forest species with smaller portions of mid-tolerant late successional species. The forest age ranges from approximately 50-95 years. The protected area in the Westmark Woods Forest Preserve drains into a small creek that passes through the western half of the parcel, providing a valuable buffer to this tributary that eventually flows into the Ohio River.

1.2 CONTACT INFORMATION

Project Operator
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1.3 OBJECTIVE

The goal of this GHG emission reduction verification is to ensure that the GHG assertion made by the Project is materially correct, that the assertions and assumptions used in the offset calculations are appropriate, that the offset calculations conform to the City Forest Credits (CFC) Protocol, and that the Project is in compliance with all CFC requirements relating to eligibility, accounting, and documentation.

2 VERIFICATION CRITERIA

2.1 GENERAL

The Registry will accredit VVBs to act as third-party verifiers who meet the Registry's qualifications and complete training. Those accredited VVBs can then act to verify compliance with this Tree Preservation Protocol per International Standards Organization 14064-3. Specifically, the Registry adopts and utilizes the following standards from ISO 14064-3:

- Upon receiving a Project Design Document with data on eligibility, quantification of carbon and co-benefits, and a request for credits, the Registry will conduct a validation. If it validates the project at that stage, the Registry will retain a VVB to act as third-party verifier to verify compliance with this Protocol.
- The Registry requires a reasonable level of assurance in the accuracy the asserted GHG removals to a reasonable level.
- The verification items identified in the Tables 1 and 2 are all material elements, and any asserted GHG removals must be free of errors, misstatements, or omissions regarding those elements.
- The Registry will record, store, and track all quantification and verification data and either display it for public review or make it available for public review upon request.

2.2 PROTOCOL

The verification was conducted to the City Forest Credits Tree Preservation Protocol, version 12.40, February 22, 2023.

2.3 LEVEL OF ASSURANCE

This verification was conducted to a reasonable level of assurance. The Verification Report accurately reflects the documentation contained in the Project Design Document and supporting documents.

3 SCOPE OF VERIFICATION

- The Project encompasses land in the City of Cincinnati and Springfield Township, in Hamilton County, Ohio specifically described in the Project Design Document. The Project area includes 26.77 acres of land across two separate and noncontiguous tax parcels totaling 62.57 acres. (Parcel ID numbers 023700020016, and 059002300031)

- The Project Operator, Cardinal Land Conservancy, purchased the Project area parcels with funding from the Clean Ohio Greenspace Program to achieve conservation goals including improving wildlife habitat, sequestering carbon, and adding recreation opportunities for underserved communities. The Project Operator signed separate Declarations of Development Restrictions for both parcels that were recorded on May 14th, 2024. The restrictions are identical for each parcel and require that the, "Declarant shall not cut down, destroy or remove trees located on the property, except as necessary or desirable to control or prevent hazard, disease or fire or to improve forest health."

- The Project avoids emission of CO_2 from trees and soil, by avoiding conversion of forest to non-forest land cover and avoiding conversion of forest soil to impervious surface.

- The Project duration is 40 years, beginning May 14, 2024. The Project Operator commits to protecting the trees within the Project Area and monitoring the project carbon stocks for the entire Project duration.

- The verification includes review of documents, data, imagery and other evidence provided by the Project Operator; independent checking of selected data; independent analysis of aerial imagery to confirm vegetation typing (and reviewing historical imagery to estimate stand ages); checking of calculations for accuracy and conformance with the Protocol.

4 VERIFICATION PROCESS

4.1 VERIFICATION ACTIVITIES

The verification process consisted of the following activities:

- Verifier checked all requirements in the Protocol (outlined in 4.2), confirmed that documentation satisfies the requirements of the Protocol, and that values extracted from the documents and conclusions drawn from the documents are accurate and appropriate.

- Verifier independently checked mapping and calculated values in each stage of calculations.

- Verifier reviewed the credit calculations. Verifier reviewed the Project Operator's assertion that the Project results in GHG emissions mitigation of 3,612 tons CO_2e.

- Verifier submitted to the Project Operator a request for the correction of a misrepresented table in the forest composition report regarding trees per acre in the Project area.

4.2 CITY FOREST CREDITS TREE PRESERVATION PROTOCOL REQUIREMENTS

4.2.1 Eligibility

Verifier reviewed the Project against all CFC Tree Preservation Protocol requirements and confirmed the following:

- Project Operator Identity (Section 1.1): Verifier confirmed identity of the Project Operator by reviewing I.R.S. correspondence and the organization's website. Land ownership was verified upon review of Hamilton County tax records.

- Project Documentation (Section 3): Verifier reviewed and confirmed Project Documentation including Project Design Document is complete and accurate.

- Project Implementation Agreement (Section 1.2): Verifier reviewed and confirmed fully executed Project Implementation Agreement on file. Agreement was signed by the Project Operator on December 4, 2023.

- Project Location (Section 1.3): Verifier reviewed mapping and location data. Verifier confirmed provided maps correspond with official parcel records and that the Project area is located within the U.S. Census Bureau's Cincinnati, OH-KY-IN designated urban area.

- Defining the Project Area (Section 1.4): Verifier confirmed the Project Area meets forest canopy cover requirements. Canopy cover on both parcel's Project area is close to complete coverage, as verified with the i-Tree canopy tool, and aerial imagery.

- Land Ownership or Right to Receive Credits (Section 1.5): Verifier confirmed that there is a clear title to carbon credits and the Project Operator has legal authority to create and dispose of greenhouse gas offsets generated on the project lands. The Project Operator purchased the Winton Preserve on September 9th, 2022, and the Westmark Woods Forest Preserve on November 16th, 2021.

- Demonstrating Preservation and Threat of Loss (Section 4):
    - Verifier confirmed that trees within the Project Area were not protected from removal prior to the Project. The Project area in both parcels is located in residential use zoning districts. The Winton Preserve Project area falls in Cincinnati's SF-6 single-family residential district, and the Westmark Woods Forest Preserve Project area falls in Springfield Township's R-PUD zoning district; both of which allow for residential development without restrictions on tree removal.
    - Verifier confirmed that trees within the Project Area are now preserved from removal by recorded Declarations of Development Restrictions.
    - The Project Operator has committed to meeting the permanence requirements.

- Prior to the Preservation Commitment action by the Project Operator there was threat of conversion of the project lands to non-forest cover. Threat of conversion was verified according to protocol section 4.4A. Verifier confirmed the Project area is bordered on greater than 30% of its perimeter by non-forest use; in this case, residential.

- No Double Counting and No Net Harm (Section 5):
  - Verifier confirmed that Attestation of No Double Counting and No Net Harm is on file.
  - Verifier compared the Project geospatial data to the registered urban forest carbon preservation projects geospatial database using ARCGIS and determined upon manual inspection that no overlap of registered projects occurred.

- Monitoring and Reporting (Section 8): Verifier confirmed that Project Operator has a plan for monitoring and reporting over the Project Duration, and the plan is plausible and reasonable.

4.2.2 Additionality

Verifier reviewed and confirmed that Project lands met the additionality requirements of the Protocol:

- Prior to the Project, lands were not protected from conversion by easement, zoning, or other legal mechanism. The Winton Preserve parcel falls within a Hillside Overlay District, however, verifier confirmed that residential development is permitted granted it meets Cincinnati Municipal Code 1433-19 which does not specify limits on tree removal. The Project Operator was also conservative by removing floodplain and stream buffers from the Project area to avoid any unforeseen limitations that may prevent development during the county floodplain permitting process.

- Zoning allows development including removal of existing trees. Both parcels fall in residential zoning districts that allow for the removal of trees for residential development.

- The trees in the Project Area face some risk of removal or conversion out of forest, demonstrated by greater than the protocol threshold of 30% non-forest use perimeter. Verifier confirmed with tax records and aerial imagery that bordering land on each parcel is greater than 70% and that conveyed value of land is well over $8,000 per acre (Protocol Section 4.4B.)

- Project Operator signed an Attestation of Additionality on April 29th, 2024.

4.2.3 Permanence

The Project Operator has committed to CFC that the Project Operator will protect the trees on the Project Area for at least 40 years. The Declarations of Development Restrictions protecting the Project Trees and lands remain in effect for a duration of 40 years.

4.2.4 Accounting

The Project documents forest type, age and cover, and uses required factors in carbon stock and offset calculations according to Protocol method 11.1.A. This method involved the use of the afforestation table in Appendix B of the US Forest Service GTR NE-343 to determine estimated carbon stock as a factor of forest type and forest age.

The Project Operator accounted for stored carbon stock according to CFC Protocol Section 11.1.A. The forest composition on both parcels was observed, documented and photographed by the Project Operator in January of 2024. The Westmark Woods forested area is made up of one distinct stand type, referred to as Stand 1, and the Winton Preserve forested area is made up of two distinct stand types, referred to as Stand 2 and Stand 3. The forested stands vary in age and species composition. Stand 1, the largest of the three stands, is a 15.58-acre area of multi-aged mixed hardwoods dominated by early successional and intolerant species such as black cherry, hackberry, black walnut, Osage orange, and box elder, and by older remnant tolerant species including sugar maple, red oak, and shagbark hickory. Stand 2, a 2.25 acre stand, has a similar species composition to Stand 1, including several early successional species like black cherry, and black locust along with significant portions of sugar maple, elm, and hickory. Stand 3, an 8.94 acre stand, is also a mixed hardwood stand, but has the largest canopy trees dominated by sugar maple, chinkapin oak and hickory, and a smaller proportion of early successional species. All three stands were classified as northeastern maple-beech-birch forest type (GTR NE-343 Table B2, Page 101), which the verifier confirms is the most appropriate classification from the provided composition descriptions and photographs, and is appropriate for the region. The Project Operator estimated Stand 1 forest age to be 50 years old due to presence of a closed forest canopy condition in 1968 aerial photography. Stand 2 was estimated at 75 years old due to woody succession from open field conditions being present in 1938 aerial photography followed by a closed forested canopy in 1950 imagery. Stand 3, the oldest of the three, had a forested canopy present in 1932, and the Project Operator estimated the forest age to be 95 years old. Verifier confirmed age to be appropriate and conservative for each stand given the closed canopy conditions present in historical imagery.

The Project Operator estimated the canopy cover over the Project area using the i-Tree Canopy tool, which produced an estimate of 100% canopy coverage. The verifier confirmed this assessment to be accurate.

The Project Operator calculated avoided biomass emissions, and avoided soil carbon emissions, and accounted for deductions according to Protocol Section 11. Verifier confirmed that 90% of accounting stock could be counted as “Avoided Biomass Emissions” for Project area within the Winton Preserve parcel according to section 11.2 of the Protocol because minimum lot size is far less than 2.25 acres. For the Westmark Woods parcel, verifier confirmed that 67.77% of the accounting stock could be counted as “Avoided Biomass Emissions” as the minimum lot size was greater than 2.25 acres. Verifier confirmed that zoning lot dimension minimums and yard setback requirements limit the percent coverage of impervious surfaces on building lots to 35.17% on the Westmark Woods parcel and 36% on the Winton Preserve parcel. The verifier repeated and confirmed carbon quantification calculations to be accurate and in compliance with the Protocol.

4.2.5 Leakage

Offset accounting makes deductions for expected displacement of emissions following the requirements of the Protocol.

5 VERIFICATION FINDINGS

All issues raised by Verifier were clarified or corrected by the Project Operator.

The Project documents and data were reviewed, and the Verifier found that the emission reductions claimed are reasonable and in accordance with the Preservation Protocol. The Verifier makes no further recommendations.

6 VERIFICATION RESULTS AND CONCLUSION

This verification of the Winton and Westmark Woods Forest Preservation Project for the reporting period of May 14th, 2024 to May 13th, 2027 was completed in a manner consistent with ISO 14064-3 and in conformance with relevant CFC standards and guidelines. The table below is a summary of the emission reduction or removals.

Table 1. Project GHG Removals

Project Name	Issuance Year	GHG Reductions and Removals Attributed to the Project ($mtCO_2e$)	Reversal Pool Account (10%) ($mtCO_2e$)	Emission Reductions to be Issued to Project ($mtCO_2e$)
Winton and Westmark Woods Forest Preserve	2024	4,014	401	3,612
Cumulative		4,014	401	3,612

The Project Operator calculated ecosystem co-benefits using the CFC tool to determine dollar values of other ecosystem services provided by the forested project area. The verifier corroborated the CFC tool inputs and outputs to produce the values below. The verifier does not make an assessment to the plausibility of these values.

Table 2. Ecosystem Co-Benefits Per Year

Ecosystem Services	*Resource Units*	*Value*
Rainfall Interception (m3/yr)	7,241.5	$51,848.25
Air Quality (t/yr)	0.3031	$456.34
Cooling – Electricity (kWh/yr)	57,005	$4,326.67
Heating – Natural Gas (kBtu/yr)	1,065,893	$10,376.23
Grand Total ($/yr)		**$67,007.50**

Because the Project area is less than 50 acres, all credits are issued in the first year. See Table 1.

Verifier Signature