

Verification Report

Glade Run Lake Conservation Project

City Forest Credits Project Number 048

April 26, 2024

Matthew Lee

1307 Ashbourne Dr.

Lynchburg, VA 24501

TABLE OF CONTENTS

1	INTRODUCTION	3
1.1	PROJECT BACKGROUND	3
1.2	CONTACT INFORMATION.....	3
1.3	OBJECTIVE	3
2	VERIFICATION CRITERIA.....	4
2.1	GENERAL	4
2.2	PROTOCOL.....	4
2.3	LEVEL OF ASSURANCE	4
3	SCOPE OF VERIFICATION	4
4	VERIFICATION PROCESS.....	5
4.1	VERIFICATION ACTIVITIES	5
4.2	CFC TREE PRESERVATION PROTOCOL REQUIREMENTS.....	6
4.2.1	Eligibility	6
4.2.2	Additionality.....	7
4.2.3	Permanence	7
4.2.4	Accounting	7
4.2.5	Leakage	8
5	VERIFICATION FINDINGS.....	9
6	VERIFICATION RESULTS AND CONCLUSION	9

1 INTRODUCTION

City Forest Credits engaged Matthew Lee (a Validation and Verification Body (VVB) acting as a third-party verifier) to verify the Glade Run Lake Conservation Project (Project), Middlesex Township, Pennsylvania, for the reporting period October 17, 2023 through October 16, 2026. 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

Allegheny Land Trust purchased the 53-acre property in May 2022 from a private organization in a joint effort with the Glade Run Lake Conservancy to expand the protected area around Glade Run Lake in Middlesex Township, PA. Increasing the conservation buffer around the lake is part of a long-term effort to improve water quality in the lake for habitat health and preserve recreational access. Allegheny Land Trust transferred the property to the Pennsylvania Fish and Boat Commission in October 2023, who manages the lake.

The project area includes 43.123 acres of an early succession forest recovering from early 1900s through 1950s agricultural uses. All areas of the carbon area were fully occupied by the end of the 1980s if not earlier. The main tree species are red maple, black cherry with mixed oaks throughout, there was a major component of ash before the Emerald Ash Borer. The property is zoned Rural-Residential (Ag-A).

1.2 CONTACT INFORMATION

Project Operator

Allegheny Land Trust

416 Thorn St., Sewickley, PA, 15143

Contact: Alyson Fearon, Vice President of Land Conservation

Phone: 412-701-4073; Email: afearon@alleghenylandtrust.org

Verification Body

Matthew Lee

1307 Ashbourne Dr., Lynchburg, VA 24501

Email: leemattthew82@gmail.com

Phone: 434-426-2448

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 Middlesex Township, PA, specifically described in the Project Design Document.
- The Project area is protected through a restrictive covenant included in the property’s deed of transfer from Allegheny Land Trust to Pennsylvania Fish and Boat Commission. Known as the “Allegheny Land Trust Carbon Credit Restrictive Covenant”, it states “during the term of the 40-year Carbon Preservation Project, the Grantee [PA Fish and Boat] shall not engage in any commercial or other timbering on the Property conveyed hereby nor shall Grantee cut down, remove, or destroy any trees on the Property”, with exceptions for prevention of hazard and

disease and to promote forest health. The deed of transfer also included the transfer of carbon rights to Allegheny Land Trust.

- The Project avoids emission of CO₂ 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 October 17, 2023. 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 included reviewing historical aerial imagery over multiple time periods to estimate stand age, an iTree Canopy report which documents existing canopy cover for the project area, local zoning codes and planning documents that reference allowed development, and a forest composition report which included photo points both in leaf-on and leaf-off seasons.

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 3,516 tons CO₂e.
- Verifier submitted to the Project Operator a request for clarification on a tree and forest preservation code requirement in the subdivision ordinance. The township's code lacked specific standards on the required forest or tree preservation amount (for example minimum percentage or acres required) and contains a clause that clearing is allowed for a "harmonious design of the development" which leaves a lot of discretion for removal by a developer. Additional documentation was submitted by the PO on two recent and nearby subdivision developments where forest cover was cleared completely from the site for the new development. The documentation included historical imagery that shows that little to no forest or tree preservation was enforced. Therefore, the verifier concurred with the protocol's use of a minimum 90% fraction for risk for residential development based on the allowable development footprint in the zoning ordinance. The PO updated the PDD with the text from the subdivision ordinance and clarified the lack of standards and recent development practices as additional documentation to justify these clauses have little to no protection for the forests at this site.

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 by reviewing Project Operator's website (<https://allegHENYlandtrust.org/>) and by reviewing the certificate of good standing issued by the Commonwealth of Pennsylvania.
- 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.
- Project Location (Section 1.3): Verifier reviewing mapping and location data.
- Defining the Project Area (Section 1.4): Verifier confirmed the Project Area meets forest canopy cover requirements
- 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
- 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. Verifier confirmed no pre-existing encumbrance on the Project Area nor any overlay that would prohibit the conversion to a non-forest use. Verifier confirmed the accuracy of the zoning map on the township's website, and reviewed the zoning code and verified that the zoning class Rural Residential allowed for development of 1-acre single family dwelling units which would convert the site from a forest use to a non-forest use.
 - Verifier confirmed that trees within the Project Area are now preserved from removal by a recorded Special Warranty Deed made effective as of October 11, 2023, and recorded on October 17, 2023.
 - The Project Operator has committed to meeting the permanence requirements stated in the PIA.
 - Prior to the Preservation Commitment action by the Project Operator there was threat of conversion of the project lands to non-forest cover through potential development conversion based on the underlying designated zoning class Rural Residential and that the property is bordered by developed uses on over 30% of its perimeter.
- No Double Counting and No Net Harm (Section 5):
 - Verifier confirmed that Attestation of No Double Counting and No Net Harm is on file.

- o Verifier compared the Project geospatial data to the registered urban forest carbon preservation projects geospatial database using ESRI's ArcGIS Pro Intersect Tool to intersect the project shapefile with the registry's geodatabase. The analysis returned an empty feature output which signifies there is no overlap between the project area and any other CFC forest preservation projects.
- 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.
- Zoning allows development including removal of existing trees.
- The trees in the Project Area face some risk of removal or conversion out of forest, demonstrated by more than 61% of the project area's perimeter is surrounded by improved uses (developed and agricultural uses) based on measuring the project area's perimeter using ESRI's ArcGIS Pro software.
- Project Operator signed an Attestation of Additionality on March 11, 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 according to the recorded encumbrance. The Special Warranty Deed protecting the Project Trees and lands describe the 40-year time period for protecting the trees and prohibits the forest land from any timbering or clearing of trees for new trails by the Pennsylvania Fish and Boat Commission.

4.2.4 Accounting

The Project documents a Maple-Beech-Birch Forest stand of approximately 35 years old and with an 80% canopy cover according to an iTree Canopy report (dated 2/22/2024) and uses required factors in carbon stock and offset calculations per the protocol.

The Project Operator determined carbon stock according to CFC Protocol Section 11.1.A, using carbon storage reference tables for maple-beech-birch from the US Forest Service General Technical Report NE-343. The forest type identification and stand delineation was based on site visits by Allegheny Land Trust staff and a consulting forester. The verifier confirmed this forest type classification is appropriate.

The age of the forest was conservatively estimated at 35 years old, based on historical imagery. The Project Operator also used i-Tree Canopy to estimate canopy cover at 80%. The verifier confirmed these estimates to be appropriate.

The Project Operator calculated avoided biomass emissions and avoided soil carbon emissions according to Protocol Section 11. The verifier confirmed that the fraction at risk of tree removal was estimated at 90% based on the allowed development footprint in the zoning code, and confirmed in the zoning code that the maximum lot footprint for the zoning class is 20%.

4.2.5 Leakage

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 and all issues were closed by appropriate responses by 4/22/2024.

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 Glade Run Lake for the reporting period October 17, 2023 – October 16, 2026 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

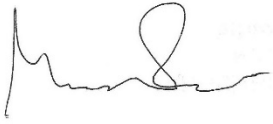
Project Name	Issuance Year	GHG Reductions and Removals Attributed to the Project (mtCO ₂ e)	Reversal Pool Account (10%) (mtCO ₂ e)	Emission Reductions to be Issued to Project (mtCO ₂ e)
Glade Run Lake	2024	3,907	391	3,516
Cumulative		3,907	391	3,516

Table 2. Ecosystem Co-Benefits Per Year

<i>Ecosystem Services</i>	<i>Resource Units</i>	<i>Value</i>
Rainfall Interception (m ³ /yr)	17,688.2	\$37,385.87
Air Quality (t/yr)	1.2203	\$3,008.35
Cooling – Electricity (kWh/yr)	53,710	\$7,524.80
Heating – Natural Gas (kBtu/yr)	2,223,327	\$31,096.10
Grand Total (\$/yr)		\$79,015.12

Due to the project area being less than 50 acres all credits are issued after the finalization of the initial project verification.

Verifier Signature

A handwritten signature in black ink, appearing to read 'Matthew Lee', with a large loop at the end of the last name.

Matthew Lee