

# Verification Report

## **Old Mill Forest Preservation Project**

City Forest Credits Project Number 044

January 29, 2024

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Rochester, NY 14617

# TABLE OF CONTENTS

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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.....	10
6	VERIFICATION RESULTS AND CONCLUSION .....	10

# 1 INTRODUCTION

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City Forest Credits engaged Zachary Boerman (a Validation and Verification Body (VVB) acting as a third-party verifier) to verify the Old Mill Forest Preservation Project (Project), Lake Forest, IL, for the reporting period October 4, 2023 through October 3, 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

This 102-acre natural landscape, which is prominently sited on the north side of Half Day Road at Old Mill Road, had previously been proposed for a 265-unit mixed-use development. With Lake Forest Open Land Associations (LFOLA) acquisition on November 15, 2021, they were able to protect one of the last remaining significant parcels in this area. It is LFOLA's goal to restore the land and create a future public nature preserve for all to enjoy. By enrolling these parcels in a preservation carbon project, LFOLA plans to accelerate their restoration and maintenance plans for this critical piece of the Chicago River Watershed.

## 1.2 CONTACT INFORMATION

### Project Operator

Lake Forest Open Lands Association

350 N. Waukegan Road

Lake Forest, IL 60067

Primary Contact: Ryan London

[rlondon@lfol.org](mailto:rlondon@lfol.org)

(847) 234-3880 ext. 15

Secondary Contact: Susan Lenz

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### Verification Body

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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

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### 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 Planting 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

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- The Project encompasses land within parcels 15-13-200-012, 15-13-300-050, 15-13-300-040 and, 15-13-300-067 specifically described in the Project Design Document.
- Lake Forest Open Lands Association purchased these parcels on November 15, 2021, and within the declaration of development restrictions, have agreed not to cut down, destroy, or remove trees located on the property, except as necessary to control or prevent hazard, disease or fire or to improve forest health.

- The Project avoids emission of CO<sub>2</sub> 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 4, 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 includes a review of supporting documents, data, shapefiles and other evidence provided by the Project Operator; independent checking of selected data; independent review of ownership records, tax maps, and municipal zoning ordinances; analysis of forest composition reports as well as checking of calculations for accuracy and conformance with the Protocol. All forest carbon input values were independently checked and calculations were independently replicated.

## 4 VERIFICATION PROCESS

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### 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 6,331 tons CO<sub>2</sub>e.
- Verifier submitted to the Project Operator requests for clarification regarding the exact parcel ID's attributed to the Project Area outlined in the Carbon Quantification Calculator. The Registry clarified that parcel 15-13-300-044 was a carryover from an earlier stage of the Project and was no longer relevant. The Parcel ID was subsequently removed from the Carbon Quantification Calculator. Verifier reviewed the response and no changes were requested.
- Verifier submitted to the Project Operator an additional request for clarification on the requirement to supply canopy cover data when using the quantification method outlined in Protocol Section 11.1 B of the verification protocol. The Registry clarified that this was not necessary when using plot sample data to quantify carbon. Verifier reviewed the response and no changes were requested.
- Verifier submitted to the Project Operator an additional request for clarification regarding discrepancies noted between the i-Tree Canopy cover estimates and the i-Tree Eco plot sample inventory data. The data gathered from plot sampling showed the Project Area falling short of the required 80% canopy cover outlined in Protocol Section 1.4 C while i-Tree Canopy data

exceeded the target. This suggested an incorrect estimate from i-Tree Canopy due to a misrepresentation of low vegetative cover as tree canopy. Based on guidance from the Registry and Davey Resource Group, who conducted the plot sample inventory, the Project Operator reduced the Project Area from 61.48 acres to 55.54 acres. This removed the previously misrepresented 5.94 acres of low vegetation and brought the Project back in compliance with the Protocol. The Project Operator submitted updated project documents reflecting the revised Project Area (maps, geospatial data, carbon quantification data and spreadsheets, Project Design Document). Verifier reviewed the updated documents and determined that the issue was resolved and that the Project Area was now in compliance with the Protocol.

## 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 visiting their website at [www.lfolia.org](http://www.lfolia.org) and reviewing the Certificate of Good Standing provided by the State of Illinois. Verifier also confirmed that the Project Operator is the landowner by reviewing the Project parcel deeds.
- 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 the fully executed Project Implementation Agreement signed June 1, 2021 is on file.
- Project Location (Section 1.3): Verifier reviewed mapping information and confirmed the property is located within an Urban Area as defined by the most recent publication of the United States Census Bureau (2022). This satisfies section 1.3 A of the Protocol.
- Defining the Project Area (Section 1.4): Verifier confirmed that 80% of the project area is covered by tree canopy after reviewing the provided i-Tree Eco 'Tree Characteristics of the Urban Forest' report, which estimated canopy of 80.4% based on the plot sample inventory. This satisfies Protocol section 1.4 C that states that the Project Area must have at least 80% canopy cover in locations that receive at least 20" of precipitation per year.
- 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. Previously, trees in the Project Area were subject to (E) Estate

zoning. This zoning regulation allowed for at least one non-forest use including the development of residential homes.

- Verifier confirmed that trees within the Project Area are now preserved from removal by a recorded declaration 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. After viewing the parcel locations on [maps.lakecountyl.gov](https://maps.lakecountyl.gov), the Verifier confirmed that 43% of the Projects boundary is adjacent to non-forest, developed or improved uses. This satisfies Section 4.3 B of the Protocol.
- No Double Counting and No Net Harm (Section 5):
    - Verifier confirmed that an Attestation of No Double Counting and No Net Harm is on file.
    - Verifier compared the Projects geospatial data to the registered urban forest carbon preservation projects geospatial database using ArcGIS and determined no overlap was present between current projects and the proposed boundaries of the Old Mills Forest Preservation Project.
  - 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 as evidenced by 43% of the project boundary being adjacent to developed uses and roadways.
- Project Operator signed an Attestation of Additionality on October 10, 2023.

#### 4.2.3 Permanence

The Project Operator has committed to CFC that the Project Operator will protect the trees on the Project Area for 40 years. The declaration of development restrictions protecting the Project Trees and lands are applicable for 40 years from October 4, 2023.

#### 4.2.4 Accounting

The Project Operator elected to follow Protocol Section 11.1 B and uses the required factors in carbon stock and offset calculations.

To meet the requirements outlined in Protocol Section 11.1 B, the Project Operator contracted Davey Resource Group (DRG) to provide an on-site plot-sample inventory. The sample established 30 1/10<sup>th</sup>

acre plots. Within every plot, each live tree was inventoried that was at least 5" diameter at 4.5' above the ground on the uphill side. Species, diameter and crown condition were measured. Verifier confirmed this sampling design achieved a standard error of 10%.

The Verifier confirmed that all 30-sample plots fell within the outlined 55.54 acres of the Project area via the plot location map supplied by the Project Operator.

The Verifier confirmed that the tC/ac of biomass calculated by the Project Operator is correct. This number was verified by repeating the calculation (biomass tC/ac = (metric tons of carbon–standard error)/Project Area acre) where metric tons of carbon and standard error were supplied by the Project Operators i-Tree Eco carbon biomass results. tCO<sub>2</sub>e/ac was then verified by dividing tC/ac by the ratio of the molecular weight of carbon dioxide to that of carbon (44/12). The Verifier confirmed that the measurement of 151.89 tCO<sub>2</sub>e/ac is correct for the Project Area using this method.

Following the Protocol outlined in 11.2 B, the Verifier confirmed that based on its (E) Estate zoning, 90% of the Accounting Stock on the Project Area can be claimed as avoided biomass emissions.

The Project Operator elected to follow Protocol Section 11.3 A to claim avoidance of emissions from soil carbon caused by conversion of soils to impervious surfaces in the Project Area. The zoning ordinance provided by the Project Operator indicates that maximum impervious surface area for (E) Estate zoning is 30% in the forested area and 0% in wetlands. The Verifier agrees that 30% of the forested area (33.14 acres) equals 10 acres of avoided impervious surface.

The Verifier confirmed that with 10 acres of avoided impervious surface in the Project Area, and the stipulation in section 11.4 of the Protocol that allows the Project to claim 120 metric tonnes of carbon dioxide equivalent of avoided soil carbon emissions per acre of net avoided impervious surface, the Project accounts for 1,193 tCO<sub>2</sub>e of avoided soil carbon emissions.

#### 4.2.5 Leakage

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

The Verifier confirmed that the Project Operator accurately followed Protocol section 11.4 A to determine that, of the total number of tonnes of avoided biomass emissions from within the Project Area, 18.3% are assumed to be emitted from development displaced from the Project Area. After repeating the calculations to remove the Displaced Biomass Emissions from the total Avoided Biomass Emissions, the Verifier confirmed the total Credits from Avoided Biomass Emissions (6,203 tCO<sub>2</sub>e) is correct.

The Verifier confirmed that the Project Operator accurately followed Protocol Section 11.4 B to determine that, of the total number of tonnes of Avoided Soil Carbon Emissions from within the Project Area, 30.3% are assumed to be emitted from development displaced from the Project Area. After



repeating the calculations to remove the Displaced Soil Emissions from the total Avoided Soil Carbon Emissions, the Verifier confirmed the total Credits from Avoided Soil Emissions (832 tCO<sub>2</sub>e) is correct.

## 5 VERIFICATION FINDINGS

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All issues raised by Verifier were clarified and corrected by the Project Operator and all issues were closed by appropriate responses by Lake Forest Open Lands Association.

The Project documents and data, including the revised Project documents, 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

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This verification of the Old Mill Forest Preservation Project for the reporting period October 4, 2023 through October 3, 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 <sub>2</sub> e)	Reversal Pool Account (10%) (mtCO <sub>2</sub> e)	Emission Reductions to be Issued to Project (mtCO <sub>2</sub> e)
Old Mill Forest Preservation Project	2024 (after verification)	6333	633	5699
	2024 (October 4, 2024 annual anniversary of Preservation Commitment recordation)	702	70	632
Cumulative		7035	703	6331

The Project Operator calculated ecosystem co-benefits using the CFC tool to determine dollar values of other ecosystem services. 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**

<b><i>Ecosystem Services</i></b>	<b><i>Resource Units</i></b>	<b><i>Value</i></b>
Rainfall Interception (m3/yr)	12079.4	\$86,486.37
Air Quality (t/yr)	0.5055	\$761.21
Cooling – Electricity (kWh/yr)	95,088	\$7217.18
Heating – Natural Gas (kBtu/yr)	1,777,981	\$17,308.25
<b>Grand Total (\$/yr)</b>		<b>\$111,773.02</b>

Because the Project area is greater than 50 acres, credits will be issued attributable to the equivalent of 50 acres of the Project area annually until all credits have been issued.

**Verifier Signature**



**Zachary Boerman**