

## **Verification Report**

### **Lake County Forest Preserve District - Carbon Planting Project**

City Forest Credits Project Number 020

December 20, 2021

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# 1 INTRODUCTION

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Dr. Qingfu Xiao (Verifier) was engaged to verify the Lake County Forest Preserve District - Carbon Planting Project (Project) Libertyville, IL, for the period September 1, 2019 to October 29, 2021. 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

Lake County Forest Preserve District (the District) planted trees at 16 preserves from 2019 through 2021. In total, 2,940 trees representing 24 species were installed at the preserves. The planting areas were varied and ranged from restoration of retired agricultural fields to enlarging and enhancing existing woodlands. All project sites had the overall goal of restoring the historic tree diversity and canopy structure/density that existed prior to settlement (~early 1800s).

## 1.2 CONTACT INFORMATION

### Project Operator

Lake County Forest Preserve District

1899 West Winchester Road

Libertyville, IL 60048

Contact: James L. Anderson, 847-968-3282, janderson@lcfpd.org

### Verification Body

Dr. Qingfu Xiao

4216 Vistosa St

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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 third-party verifiers who will 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 Report with updated data on eligibility, quantification of carbon and co-benefits, and a request for credits, the Registry or the Project Operator will retain a 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 Tables C.1 and C.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 Planting Protocol, version 9, February 7, 2021.

### 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 in Libertyville, IL, specifically described in the Project Design Document.
- Period is September 1, 2019 to October 29, 2021.
- The verification includes review of documents, data, imagery, and other evidence provided by the Project Operator; independent checking of selected data; checking of calculations for accuracy and conformance with the Protocol.

## 4 VERIFICATION PROCESS

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### 4.1 VERIFICATION ACTIVITIES

The verification process consisted of the following activities:

- CFC and Verifier jointly responded to questions from the Project Operator, regarding how to interpret the Protocol
- Verifier reviewed and commented on draft versions of the credit calculations
- Verifier checked all requirements in the Protocol, confirmed that documentation satisfies the requirements of the Protocol, and that values extracted from the documents and conclusions drawn from the document are accurate and appropriate
- Verifier independently checked mapping and at least selected data or calculated values in each stage of calculations
- Verifier submitted to the Project Operator requests for clarifications and corrections, as issues came to light, and reviewed revised and corrected documents and calculations

### 4.2 CFC TREE PLANTING PROTOCOL REQUIREMENTS

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

- Project Operator Identify (Section 1.1): Verifier confirmed identity by reviewing Project Operator website or state/local records.
- Project Design Document (Section 8): Verifier reviewed and confirmed Project Design Document is complete and accurate.
- Project Implementation Agreement (Section 1.2): Verifier confirmed fully executed Project Implementation Agreement on file.
- Location (Section 1.3 and Appendix C): Verifier reviewed mapping and location data.
- Right to Receive Credits (Section 2 and Appendix C): Verifier confirmed either a signed Declaration of Land Ownership or Agreement to Transfer Credits.
- Commencement (Section 5 and Appendix C): Verifier reviewed Approval of Application Letter.
- Project Documentation (Section 6 and Appendix C): Verifier confirmed all required project documentation present.
- Additionality (Section 4 and Appendix C): Verifier reviewed for additionality as follows:
  - Legal requirements test – no law or ordinance for Project Operator to plant trees.
  - Performance Standards Baseline (Appendix D) – per the program wide performance standard baseline showing net tree loss, these trees are additional.
- Permanence (Appendix D): Verifier confirmed Project Implementation Agreement imposes a legal obligation to Project Operator to conduct this project for 25 years, including a reversal obligation.

- Quantification (Appendix B):
  - Verifier confirmed Project Operator utilized the CFC quantification methodology described in Appendix B.
  - Verifier reviewed the accuracy of the data integrity in the quantification methodology.
  - Verifier reviewed geocoded photos and imaging.
  - Verifier reviewed the Declaration of Planting and Declaration of Planting Affirmation.
- Co-Benefits (Appendix B): Verifier also confirmed the calculation of ecosystem co-benefits as set forth in the CFC-developed quantification tool listed below in Section 6.

## 5 VERIFICATION FINDINGS

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All issues raised by Verifier were clarified or corrected by the Project Operator and all issues were closed by appropriate responses by Lake County Forest Preserve District.

## 6 VERIFICATION RESULTS AND CONCLUSION

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This verification of the Lake County Forest Preserve District - Carbon Planting Project for the period September 1, 2019 to October 29, 2021 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.

<b>Site(s)</b>	<b>GHG Removals (tCO<sub>2</sub>e)</b>	<b>GHG Removals After Deductions for Mortality (20%) and Risk Buffer (5%) (tCO<sub>2</sub>e)</b>	<b>CFC Carbon+ Credits to be Issued to Project (tCO<sub>2</sub>e)</b>
Carbon Project	8,097.3	6,154.0	615.4
Cumulative	8,097.3	6,154.0	615.4

**Co-Benefits per year after 25 years (all live trees, includes tree losses)**

<b>Ecosystem Services</b>	<b>Resource Units Totals</b>	<b>Resource Unit/site</b>	<b>Total \$</b>	<b>\$/site</b>
<b>Rainfall Interception (m3/yr)</b>	15,342.38	5.22	\$109,837.06	\$37.360
<b>CO<sub>2</sub> Avoided (t, \$20/t/yr)</b>	345.90	0.12	\$6,918.07	\$2.353
<b>Air Quality (t/yr)</b>				
<b>O<sub>3</sub></b>	0.1967	0.0001	\$657.05	\$0.223
<b>NO<sub>x</sub></b>	0.0316	0.0000	\$105.38	\$0.036
<b>PM<sub>10</sub></b>	0.1033	0.0000	\$293.31	\$0.100
<b>Net VOCs</b>	0.1368	0.0000	\$1,131.15	\$0.385
<b>Air Quality Total</b>	0.4684	0.0002	\$2,186.89	\$0.74
<b>Energy (kWh/yr &amp; kBtu/yr)</b>				
<b>Cooling - Electricity</b>	454,631.80	154.64	\$34,506.55	\$11.74
<b>Heating - Natural Gas</b>	6,746,192.64	2,294.62	\$65,672.38	\$22.34
<b>Energy Total (\$/yr)</b>			\$100,178.93	\$34.07
<b>Grand Total (\$/yr)</b>			\$219,120.95	\$74.53

**Lead Verifier Signature**



**Dr. Qingfu Xiao**