



# **Carbon Credits for Lotus Country and Brownlee Properties Validation Report**

Document Prepared by City Forest Credits

February, 25, 2026

## PROJECT OVERVIEW

<i>Project Name</i>	Carbon Credits for Lotus Country and Brownlee Properties
<i>Project Registry Number</i>	070
<i>Project Type</i>	Tree Preservation
<i>City Forest Credits Protocol Version</i>	Version 13.40, February 29, 2024
<i>Project Start Date</i>	October 28 <sup>th</sup> , 2025
<i>Project Location</i>	Lake County, Illinois
<i>Project Operator</i>	Lake County Forest Preserve District

## SUMMARY

The Project Operator, Lake County Forest Preserve District, seeks to obtain carbon credits for a 26.52-acre Project Area spanning six recently acquired forested parcels in Lake County, Illinois. Five of the parcels are contiguous and collectively referred to as Lotus Country, totaling 19.49 acres of Project Area. The sixth parcel, Brownlee, comprises 7.03 acres. Both areas contain significant ecological features and provide important habitat for a variety of wildlife species.

## ELIGIBILITY

### **Project Operator Identity (Section 1.1)**

#### *Criteria*

A Project requires at least one Project Operator (“PO”), an entity organized and licensed under the laws of its jurisdiction, or a governmental body, which undertakes a Project, registers it with the registry of City Forest Credits (the “Registry”), and is ultimately responsible for all aspects of the project and its reporting.

#### *Issue Validated*

Lake County Forest Preserve District is a governmental agency.

### **Project Submittal Dates (Section 2.1, 2.3, 6)**

#### *Criteria*

Project must submit applications to the Registry within two years of the date of the Preservation Commitment. The Preservation Commitment must be recorded no later than 6 months after Registry Approval of the Project Application. Projects whose Preservation Commitment dates from prior to November 1, 2017 are not eligible.

If the landowner is a land trust or other entity with a conservation mission, the Project lands must have been acquired within two years of the date of the application.

#### *Issue Validated*

Project Operator submitted the application on May 28<sup>th</sup>, 2025. CFC approved the application on May 29<sup>th</sup>, 2025. The Preservation Commitment effective date is October 28<sup>th</sup>, 2025 which meets protocol criteria Section 2.1 and 2.3.

The Project Operator is the landowner. Brownlee was acquired May 30<sup>th</sup>, 2023, and Lotus Country was a part of two acquisitions, October 2024, and May 2025, respectively, all of which is within two years of the application date.

## **Permanence – Project Duration and Reversals**

### **A. Project Duration (Section 1.2 and 2.2)**

#### *Criteria*

Project Operator must sign a Project Implementation Agreement with the Registry setting forth the Project Operator’s obligation to comply with the protocol. Project Operator must monitor and report for 40 years.

#### *Issue Validated*

Lake County Forest Preserve District and City Forest Credits signed a Project Implementation Agreement on July 23rd, 2025 for the Hambden Hills project (Project Registry Number 070). The project has a 40-year duration under City Forest Credits Tree Preservation Protocol Version 13.40.

### **B. Reversals (Section 9)**

#### *Criteria*

A “Reversal” is loss of stored carbon such that the remaining stored carbon within the Project Area is less than the amount of stored carbon for which Registry credits have been issued. The Registry will retain in a Reversal Pool account 10% of all credits issued to preservation projects. This Reversal Pool account shall be used to compensate for Unavoidable Reversals.

#### *Issue Validated*

The Project Design Document and request for credits based on GHG mitigation includes a 10% deduction for the Reversal Pool of credits. 208 were contributed from this Project to the Registry Reversal Pool. The carbon quantification and Reversal Pool deduction were verified by the Validation and Verification Body, Matthew Lee.

## **Project Location (Section 1.3 and 1.4)**

#### *Criteria*

Project Area must be located in parcels within or along the boundary of at least one of the urban area criteria 1.3 A to D, or within criterion E. The Project Operator must specify the Project Area and provide an electronic map of the Project area with geospatial location.

#### *Issue Validated*

The project areas, located in Lake County, Illinois, lie within the Chicago Metropolitan Agency for

Planning (CMAP) region boundary which meets protocol criteria Section 1.3 D. The Project Operator has provided maps as supporting evidence, including geospatial location, regional-scale, and project area maps.

The 26.52-acre Project Area is divided into two sections. Brownlee consists of a single parcel with 7.03 acres of Project Area (Parcel No. 03-26-300-007), located in the Village of Wadsworth in Newport Township, Illinois. The Lotus Country portion consists of five parcels totaling 19.49 acres of Project Area (Parcel Nos. 01-25-100-002, 01-25-100-011, 01-25-100-013, 01-25-100-008, and 01-25-100-009), located in an unincorporated area of Antioch Township, Illinois.

The Project Area is in a location that receives more than 20 inches of precipitation per year and has more than 80% tree canopy, meeting protocol criteria Section 1.4 C. The Project Operator has provided an iTree Eco report to demonstrate the percentage of canopy cover for the Project Area is about 80.0%.

### **Ownership or Eligibility to Receive Potential Credits (Section 1.5)**

#### *Criteria*

Project Operator must demonstrate ownership of potential credits or eligibility to receive potential credits.

#### *Issue Validated*

The Project Operator is the landowner and provided deeds to all the parcels as proof of ownership, meeting protocol criteria Section 1.5 C.

### **Tree Preservation Commitment (Section 4.1)**

#### *Criteria*

Project Operator must demonstrate that trees in the Project Area are preserved for at least 40 years.

#### *Issue Validated*

The Lake County Board of Commissioners approved and ratified a preservation project application and project implementation agreement with City Forest Credits for the verification and administration of carbon credits and approving declarations of development restrictions for portions of the Lotus Country and Brownlee parcels. These restrictions include language that specifically protect the trees within the Project Area.

The project meets protocol criteria Section 4.1.

### **Demonstration of Threat of Loss (Section 4.2, 4.3, 4.4)**

#### *Criteria*

Project Operator must demonstrate that prior to the Preservation Commitment, the project trees were not preserved from removal. The Project Area must be in a land use designation that allows for at least one non-forest use and excludes relevant critical areas. The Project Area must also meet one of three conditions that demonstrate threat of loss as described in Section 4.4 A, B, or C such as surrounding developed or improved uses, per acre value, or fair market value.

### *Issue Validated*

Project Operator has signed an Attestation of Additionality on October 28th, 2025, stating that prior to the start of the Project, the trees in the Project Area were not protected by easement, recorded encumbrance, or protected zoning status.

The Project Area meets both conditions 4.4 A and B for threat of loss. The project area parcels are surrounded by more than 30% developed uses along their perimeters, and Brownlee and Lotus Country properties sold for more than \$8,000/acre. Brownlee sold for \$16,000/acre, Lotus Country acquisition 1 sold for \$9,000/acre, and Lotus Country acquisition 2 sold for more than \$27,000/acre per their sale agreements. The Project Operator provided a map demonstrating developed uses along the perimeters as well as sale agreements showing the sale price of the properties.

Zoning for the Brownlee property is suburban estate and zoning for the Lotus Country property is agriculture and open space. The area zoned as open space was completely excluded from the project area. Both suburban estate and agricultural zoning allow for residential development and a wide variety of agricultural uses.

### **No Double Counting of Credits and No Net Harm (Section 5)**

#### *Criteria*

The City Forest Credits Standard describes safeguards and the “No Net Harm” Principle in Section 5. Project activities shall not cause net harm to the environment or urban communities. Project Operator must sign an Attestation of No Net Harm.

The City Forest Credits Standard describes prevention of double-counting in Section 5. Project Operator must sign an Attestation of No Double Counting of Credits. Per Section 5.2 of the Tree Preservation Protocol, the Project Operator must submit documentation showing no overlap of Project Area with any other registered urban forest carbon project. As part of Validation, the Registry shall use the appropriate tool on GIS software (such as the Intersect tool on ArcGIS) to independently investigate whether there is any overlap between the Project Area and other registered urban forest carbon projects.

### *Issue Validated*

Project Operator has submitted a signed Attestation of No Double Counting and No Net Harm on August 26<sup>th</sup>, 2025, and the Registry sees no evidence of net harm from this project. The Registry has analyzed geospatial data of the Project Area against that of all other registered urban forest carbon preservation projects to confirm that the Project Area for this project has not already received credits under the CFC standard.

### **Additionality (Section 6)**

#### *Criteria*

The City Forest Credits Standard and Tree Preservation Protocol (Section 6) ensure additionality for every carbon project. A project activity is additional if it can be demonstrated that the activity results in emission reductions or removals that are in excess of what would be achieved under a “business as usual” scenario and the activity would not have occurred in the absence of the incentive period provided by the carbon markets.

Projects must demonstrate the following:

- Prior to the Preservation Commitment, the trees in the project area cannot be protected via easement or recorded encumbrance or in a protected zoning status that preserves the trees.
- Prior to the Preservation Commitment, the zoning in the project area allowed for a non-forest use.
- Prior to the Preservation Commitment, the trees in the project area passed one of three tests to show risk of removal or conversion out of forest.

The Tree Preservation Protocol sets out three tests to determine whether the trees or forest in a project area face a threat or risk of tree removal or conversion out of a forested use, as described in Section 4.4. Taken together, these elements allow crediting only for unprotected trees, at risk of removal, which are then protected by a project action of preservation, providing additional avoided GHG emissions.

Additionality is embedded also in the quantification methodology. Projects cannot receive credits for trees that would have remained had development occurred, nor can they receive soil carbon credits for soil that would have been undisturbed had development occurred.

Project Operator must sign an Attestation of Additionality that attests to the above, as well as provides information on the impact of carbon revenues to project success.

Project Operator has demonstrated that prior to the start of the project the trees were not protected, the zoning allows for a non-forest use, and the trees are at risk of removal or conversion out of forest. Project Operator has followed the carbon quantification methodology to demonstrate how the number of credits to be issued. Project Operator signed the Attestation of Additionality on October 28th, 2025.

#### *Issue Validated*

Project Operator has demonstrated that prior to the Preservation Commitment, the trees were not protected, the zoning allowed for a non-forest use, and the trees were at risk of removal or conversion out of forest. Project Operator has followed the carbon quantification methodology to demonstrate how the number of credits to be issued. Project Operator signed the Attestation of Additionality on October 28<sup>th</sup>, 2025. The Lake County Forest Preserve District has worked with CFC on a Planting Carbon Project in 2019. The Project Operator does not have habitat maintenance funds in any of the general operating budgets, therefore the revenue from the sale of carbon credits will play a material role in the successful and durable preservation of the Project Area's carbon stock by providing funding for stewardship and maintenance that ensure the forest's long-term health and resilience.

### **Carbon Quantification (Section 11)**

#### *Criteria*

Project Operator must follow the carbon stock and soil carbon quantification methods outlined in Section 11 of the Protocol.

#### *Issue Validated*

Project Operator completed on-site sampling to determine accounting stock, per protocol criteria Section 11.1.B. The tree canopy percentage was measured using i-Tree Eco.

To quantify carbon, the Project Operator contracted with Davey Resource Group (DRG) to complete an on-site plot sample inventory to determine carbon stock. DRG conducted a sample forest assessment to the standards set in CFC Tree Preservation Protocol Section 11.1.B. The sample established 7 plots at Brownlee, and 22 plots at Lotus Country. The plots were sized 1/10th acre. Within each plot, each live tree was inventoried that was at least 5 inches in diameter. Species, diameter, and overall tree condition were recorded for each tree. The data was analyzed using i-Tree Eco to determine carbon storage. The CFC Carbon Calculator was used for quantification for the subsequent steps 11.2, 11.4, and 11.5

Forest composition from the plot-sample inventory was provided as supporting documentation, but forest age was not necessary for carbon quantification for this project.

#### Accounting Stock at Risk

##### Lotus Country

Lotus Country is zoned Agriculture. Under Section 11.2.A of the CFC Tree Preservation Protocol, parcels in agricultural, industrial, commercial, mixed-use, or other primarily non-residential zones may count 90% of the Accounting Stock as "Avoided Biomass Emissions." Because Lotus Country falls within this zoning category, 90% of its Accounting Stock is included as the applicable fraction at risk of removal.

##### Brownlee

The Village of Wadsworth zoning code protects mature woodlands, allowing only 30% of a forest that meets the definition of a mature forest to be cleared. A mature woodland is defined as: "An area or stand of trees whose total combined canopy covers an area of one acre or more at least fifty percent (50%) of which is composed of canopies of trees having a diameter at breast height (dbh) of at least ten inches (10"), or any grove consisting of eight (8) or more individual trees having a dbh of at least twelve inches (12") whose combined canopies cover at least fifty percent (50%) of the area encompassed by the grove; provided, however, that no trees grown for commercial purposes shall be considered a mature woodland." Based off the onsite data collected by DRG, the Brownlee Project Area meets the criteria for a mature woodland, thus only 30% of the accounting stock can be counted as biomass at risk of removal. Therefore, Brownlee uses 30% of its Accounting Stock in this calculation.

#### Avoidance of Soil Carbon Emissions

##### Lotus Country

For areas zoned Agricultural, the Lake County Zoning Code allows a maximum impervious surface coverage of 10%. Accordingly, 10% of the Lotus Country Project Area is included as the portion that could be converted to impervious surfaces under existing zoning.

##### Brownlee

Under the Wadsworth Code of Ordinances, lots zoned Suburban Estate are permitted a maximum impervious surface coverage of 15%. Therefore, 15% of the Brownlee Project Area is included as the portion that could be converted to impervious surfaces.

#### Project Area Impervious Surface Percentage

To calculate the impervious surface percentage for the overall Project Area, the Quantification Calculator applies an acreage-weighted average of the stand-level impervious surface limits, using the following equation:

$$\frac{(\text{Lotus Country impervious \%} * \text{Lotus Country acreage}) + (\text{Brownlee impervious \%} * \text{Brownlee acreage})}{\text{total project acreage}}$$

$$(0.10 \times 19.49) + (0.15 \times 7.03) / 26.52 = 0.11$$

Therefore, the Project Area impervious surface percentage is 11%.

A deduction of 18.3% for displaced development was included in carbon quantification, per Protocol Section 11.4.

The Carbon Quantification Summary is as follows:

Project Area (acres)	26.52
Does carbon quantification use stratification (yes or no)	no
Percent tree canopy cover within Project Area	81%
Accounting Stock (tCO <sub>2</sub> e)	3,624
On-site avoided biomass emissions (tCO <sub>2</sub> e)	2,243
On-site avoided soil carbon emissions (tCO <sub>2</sub> e)	360
Deduction for displaced biomass emissions (tCO <sub>2</sub> e)	410
Deduction for displaced soil emissions (tCO <sub>2</sub> e)	109
Credits from avoided biomass emissions (tCO <sub>2</sub> e)	1,833
Credits from avoided soil emissions (tCO <sub>2</sub> e)	251
Total credits from avoided biomass and soil emissions (tCO <sub>2</sub> e)	2,084
Credits attributed to the project (tCO <sub>2</sub> e), excluding future growth	2,084
Contribution to Registry Reversal Pool Account	208
<b>Total credits to be issued to the Project Operator (tCO<sub>2</sub>e)</b> <i>(excluding future growth)</i>	<b>1,875</b>

### Co-Benefits Quantification (Section 11.5)

#### Criteria

Project Operator follows co-benefit quantification for rainfall interception, air quality, and energy savings, per protocol criteria Section 11.5.

#### Issue Validated

Project Operator has followed the co-benefits quantification method using the templates provided by City Forest Credits. Project Operator included 81% percent deciduous, and 0% percent coniferous for the 26.52 acre Project Area. The following table documents the quantified ecosystem services in resource units and avoided costs.

<b>Ecosystem Services</b>	<b>Resource Units</b>	<b>Value</b>
Rainfall Interception (m <sup>3</sup> /yr)	5,837.60	\$41,796.24
Air Quality (t/yr)	0.2443	\$367.87
Cooling – Electricity (kWh/yr)	45,953	\$3,487.85
Heating – Natural Gas (kBtu/yr)	859,244	\$8,364.55
<b>Grand Total (\$/yr)</b>		<b>\$54,016.51</b>

### Monitoring and Reporting (Section 8)

#### Criteria

Project Operator must report on tree conditions across the Project Area for the Project Duration. Reports must be submitted no less frequently than on the triennial anniversary of the date of the first Verification Report.

*Issue Validated*

Project Operator has agreed to submit written reports every three years using the template provided by City Forest Credits.

**Social Impacts (Section 12)**

*Criteria*

Project Operator shall use the Carbon Project Social Impact template to evaluate the SDGs to determine how a Project provides social impacts that contribute towards achievement of the global goals, as described in Section 12.

*Issue Validated*

Project Operator has submitted a completed Carbon Project Social Impact document. The project meets protocol criteria Section 12.

## VERIFICATION REPORT

CFC reviewed the Verification Report to ensure it accurately reflects the documentation contained in the Project Design Document and supporting documents.

## VALIDATION CONCLUSION

All the information provided in this validation report is free of material misstatement, to the best of our knowledge. The project complies with the validation criteria outlined in the City Forest Credits Standard and Tree Preservation Protocol Version 13.40.

Approved by City Forest Credits on February 25, 2026.