

Old Mill Forest Project Design Document

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INSTRUCTIONS

Project Operators must complete and submit this Project Design Document (PDD) to request credits. City Forest Credits (CFC) then reviews this PDD as part of the validation process along with all other required project documents. An approved third-party verifier then does an independent check of all documents and compliance with the Protocol known as verification.

The Protocol Requirements at the end of this document are a list of eligibility requirements for informational purposes which are also found in more detail in the CFC Tree Preservation Protocol Version 12.40, dated February 22, 2023.

Project Operators should enter data and supporting attachments starting on page 3 under Project Overview where you find "[Enter text here]" as thoroughly as possible and provide numbered attachments for maps and other documentation (ex: 1 – Regional Map). Keep all instructions in the document.

Below is a list of documents that are needed to complete a successful project:

- Geospatial Location Map
- Regional Map
- Project Area Map
- Proof of Land Ownership or Agreement to Transfer Credits
- Preservation Commitment
- Land Use Regulations
- Land Use/Zoning Map
- Overlay Zones or Restrictions
- Threat of Loss Demonstration
- Attestation of No Double Counting and No Net Harm
- Attestation of Additionality
- Carbon Quantification Calculator
- Plot Sampling Map (if relevant)
- Sampling Raw Data
- Carbon Biomass calculations
- *i*-Tree Eco file
- Forest Composition
- Co-Benefit Quantification Calculator
- iTree Canopy Report
- Social Impacts

PROJECT OVERVIEW

Project Name: Old Mill Forest Preservation Project
Project Number: 044
Project Type: Preservation Project (under the Tree Preservation Protocol – version 12.40, dated February 22, 2023)
Credit Commencement Date: October 4, 2023

Project Location: The Project is located in unincorporated Vernon Township on the north side of Half Day Road at Old Mill Road in Lake County, Illinois.

Project Operator Name: Lake Forest Open Lands Association Project Operator Contact Information: Ryan London, President/847-234-3880 x15/rlondon@lfola.org

Project Description:

Describe overall project details and goals as summarized in application. Include information about where the Project is located, Project Area acreage and other relevant background. If the Project Area is part of a larger program or preservation effort, include one sentence with more information (2 paragraphs).

The 102-acre natural landscape, which is prominently sited on the north side of Half Day Road at Old Mill Road, had been proposed for a 265-unit mixed-use development. With our acquisition on November 15, 2021, we have protected 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, we will accelerate our restoration and maintenance plans for this critical piece of the Chicago River watershed. The Old Mill Forest project site along with the Illinois Nature Preserve Florsheim Park that is directly north comprises the headwaters of the Westfork with 0.6 miles of the Westfork of the Chicago River and 0.38 miles of tributary streams. Additionally, the site boasts an impressive matrix of high-quality wetland, a sedge meadow, and the Project Area which is 55.54 acres of forest with stands of old-growth oak and hickory trees.

Future plans for the property include creating walking paths for pedestrian use. The site is contiguous with Florsheim Woods, an Illinois Nature Preserve Commission site, and is near several Lake County Forest Preserve District sites. It is not far from LFOLA's Everett Farm and is part of the protected corridor that includes Deerpath Farm. It is currently zoned in unincorporated Lake County as E (Estate).

This project is part of the Chicago Region Carbon Program (CRCP) and complements other tree planting and preservation projects in the seven-metro counties supervised by the Chicago Region Trees Initiative (CRTI). CRCP began in 2021 with the goal of improving the health and canopy of the urban forest in the Chicago region through increased tree planting or preservation while also generating revenue. CRTI has been conducting regular outreach about the CRCP, including direct outreach to Lake Forest Open Lands Association.

DEFINING THE PROJECT AREA (Section 1.3 and 1.4)

Project Area Location

Describe the city, town, or jurisdiction where the Project is located. State which urban location criteria is met from Protocol Section 1.3.

Old Mill Forest Project meets the following Project Location eligibility requirement:

A. The Urban Area or Urban Cluster boundary ("Urban Area"), defined by the most recent publication of the United States Census Bureau;

Project Area Parcel Information

List parcel(s) in the Project Area.

Municipality	Parcel Number	Notes Include total acres and acres included in Project Area
Township of Vernon	15-13-200-012	Portion of parcel included –38.4 acres out of 68.66 acres
Township of Vernon	15-13-300-050	Portion of parcel included – 13.15 acres out of 28.18 acres
Village of Lincolnshire	15-13-300-040	Portion of parcel included – 0.61 acres out of 0.89 acres
Township of Vernon	15-13-300-067	Portion of parcel included – 3.38 acres out of 4.15 acres
	Total Project Area	55.54 acres out of 101.88 acres

Project Area Maps

Provide three maps of the Project Area that illustrate the location: geospatial location, regional, and detailed. Maps should include project title, relevant urban or town boundaries, defined Project Area, and legend.

- Geospatial Location Map Show the boundaries of the Project Area in a KML, KMZ, or shapefile format Filename A: Old Mill Forest Shapefiles
- Regional Map

Show where the Project Area is located in relation to the state and/or region Filename B: Old Mill Forest Regional Map Detailed map of Project Area
 Show the Project Area and parcel boundaries.
 Filename C: Old Mill Forest Project Map

OWNERSHIP OR ELIGIBILITY TO RECEIVE POTENTIAL CREDITS (Section 1.5)

Project Operator must demonstrate ownership of potential credits or eligibility to receive potential credits. If Project Operator is the landowner, attach a deed showing ownership and explanation of when the property was acquired. If the Project Operator is not the landowner, provide the Agreement between Project Operator and landowner authorizing Project Operator to execute this project.

Name of landowner of Project Area and explanation

Lake Forest Open Lands Association is the landowner and Project Operator. Old Mill Forest was acquired November 15, 2021. Lake Forest Open Lands Association is a 501(c)3 Conservation Land Trust that has encumbered the Project Area with a deed restriction which prohibits development on the site and explicitly protects the trees from removal as per City Forest Credit's Protocol (see Preservation Commitment section).

Filename: D Old Mill Forest Original Deed

PROJECT DURATION (Section 2.2)

Project Operator commits to the 40- or 100-year project duration requirement through a signed Project Implementation Agreement with City Forest Credits and agrees to the statement below.

Project Operator has committed to the 40-year project duration and signed a Project Implementation Agreement with City Forest Credits on June 1, 2023.

PRESERVATION COMMITMENT (Section 4.1)

Describe the Preservation Commitment terms and attach a complete copy of the recorded document. If Project Area does not have the same boundaries as Preservation Commitment, please state the reasons why.

Preservation Term: The Project Area will be protected for 40 years by Lake Forest Open Lands Association.

Date recorded: October 4, 2023

Preservation Commitment Explanation:

Lake Forest Open Lands Association acquired the 102 acre Old Mill Forest in November 2021. A deed restriction (Declaration of Development Restrictions) with clear protection of the trees in this acreage was recorded on October 4, 2023.

This Preservation Commitment ensures uniform and effective stewardship as the deed terms will align with the goals and objectives set forth in the Protocol. Specific language in Paragraph 1 of the recorded deed restriction titled Declaration of Development Restrictions states:

<u>"Removal of Trees</u>. Declarant shall not cut down, destroy, or remove trees located on the Property, except as necessary to remove invasive species such as European buckthorn (*Rhamnus cathartica*), control or prevent hazard, disease or fire or to improve forest health, provided however that recreational non-motor-use trails have negligible or de minimis impacts on biomass and carbon stock and are permissible."

Filename: E Old Mill Forest Preservation Commitment

Date Recorded: October 4, 2023

DEMONSTRATION OF THREAT OF LOSS (Section 4.2, 4.3, and 4.4)

Demonstrating the Threat of Loss is shown in several ways: land use designation that allows a non-forest use, overlay zones, existing restrictions, and one of three conditions that illustrate pressure to convert the Project Area to a non-forest use.

Land use designation

Describe the land use designation, including what types of non-forest use it allows. Attach a copy of the relevant land use designations, which may include development regulations such as zoning ordinances. Include a map depicting the designation of the relevant municipality, with the Project Area boundaries clearly indicated on the map.

The Project parcels are zoned E Estate. Per the Lake County zoning regulations, this zoning allows for residential development:

§ 151.088 E, ESTATE AND R-1 RESIDENTIAL DISTRICTS.

(A) *Description.* The E, Estate and R-1 Districts are intended to accommodate low-density, large-lot residential development and to ensure the protection of areas that develop in such a manner. These districts are a higher density version of the very-low density RE District. Like the RE District, the E and R-1 Districts are expected to accommodate only a very small amount of the county's overall housing needs. These districts primarily serve those households who desire to live in low-density estate areas and are willing to assume the costs of doing so. Because of the relatively sparse population in E-zoned and R-1-zoned areas, the county will not give high priority to the provision of public services in the areas. Instead, public service provision by the county will be concentrated in areas where more intense future development is called for by the Regional Framework Plan. The low densities permitted in the E and R-1 Districts generally permit (in accordance with applicable Lake County Health Department rules; see Chapter 171) on-site, individual sewage disposal systems and wells, thereby reducing the need for inefficient public expenditures. The E and R-1 Districts are intended to implement and correspond to the Regional Framework Plan's "Residential-Medium Lot" future land use designation.

(B) Uses. Uses are allowed in the E and R-1 Districts in accordance with the use table of § 151.111.

(C) *Dimensional standards*. All development in the E and R-1 Districts is subject to the density and dimensional standards of §§ <u>151.125</u> through <u>151.132</u>.

Attachment: F Old Mill Forest Parcel and Zoning Map, F1 Old Mill Forest Lake County Zoning E Estate

Overlay zones or other restrictions

Describe any overlay zones that prohibit development or forest clearance such as critical areas, wetlands, or steep slopes and their protection buffers. Describe any legal encumbrances or other pre-existing tree/forest restrictions that may have hindered removal of the Project Trees (in the pre-Preservation Commitment condition). If present, attach a copy of the applicable restriction and a map depicting the overlay boundaries, with the Project Area boundaries clearly indicated on the map.

According to the National Wetland Inventory, there are 22.4 acres of wetlands within the Project Area. Based on Federal and Lake County regulations, any proposed wetland impacts require permitting. Wetland impacts means loss of wetlands due to filling, excavation or other development activity that substantially alters the hydrology of wetlands. Mechanized clearing of trees within wetlands typically requires a permit from Lake County or the U.S. Army Corps of Engineers (USACE) due to the significant ground disturbance and re-deposition of soil associated with this activity. However, based on conversations with Lake County wetlands staff on November 6, 2023, if trees are removed from wetlands without disturbing the soil or in a mechanized manner (i.e., by hand with chain saw or hand saw along with careful haul-out), a permit is usually not required. The agencies strongly recommend that they be notified prior to proposed tree removals in wetlands to confirm the planned removal method is acceptable and no permit will be required. This still allows the fraction at risk of tree removal to remain, based on the USACE and Lake County wetland policies/regulations.

Attachment: F2 Old Mill Forest Lake County Watershed Development Ordinance, F3 Old Mill Forest Overlay Zones Map – Wetlands

Threat of loss demonstration (Section 4.4 A, B, or C)

Describe one of the three threat of loss conditions that are applicable prior to the Preservation Commitment. Provide supporting evidence such as maps, sale or assessed value documentation, or appraisal information.

- A) Developed or improved uses surrounding at least 30% of perimeter of Project Area
 - A map depicting the Project Area with parcel boundaries, perimeter of developed or improved uses, and calculation of the border with these uses
- B) Sold, conveyed, or assessed in past three years at value greater than \$8K/acre for bare land
 - A settlement statement, assessor statement, or other evidence of land transaction
- *C)* Fair market value higher after conversion to a non-forested use
 - A "highest and best use" study from a state certified general real estate appraiser stating that the Project Area Would have a fair market value after conversion to a nonforested "highest and best use" greater than the fair market value after preservation]

In the pre-Preservation Commitment condition, the project trees are not preserved from removal from either development or agricultural production. Permanent protection under the City Forest Carbon Credit program will preserve the carbon sequestration values of the project.

Attachment G (Perimeter Development Map) demonstrates how the project area meets Protocol Section 4.3 B – "was surrounded on at least 30% of its perimeter by non-forest, developed, or improved uses, including residential, commercial, agricultural, or industrial." 43% of the perimeter of the Project Area is adjacent to a developed use.

At the time of LFOLA's initial engagement with the preservation of this property, it was marketed as a commercial real estate development project, with as many as 265 residential units and commercial anchors along IL Route 22, a major east-west corridor for Lake County.

Filenames: G Old Mill Forest Perimeter Development Map

ATTESTATION OF NO DOUBLE COUNTING OF CREDITS AND NO NET HARM (Section 5)

Complete and attach the following attestation: Attestation of No Double Counting of Credits and Attestation of No Net Harm. Provide any additional notes as relevant. Provide a map that includes both the Project Area and the closest registered urban forest Preservation Project based on the registered urban forest preservation database KML/Shapefile provided by CFC to demonstrate that the Project does not overlap with any existing urban forest carbon projects.

Project Operator has mapped the Project Area against the registered urban forest preservation project database and determined that there is no overlap of Project Area with any registered urban forest preservation carbon project.

Project Operator has signed the Attestation of No Double Counting of Credits and No Net Harm on October 10, 2023.

Attachment: H Old Mill Forest No Double Counting Map, I Old Mill Forest Attestation of No Double Counting

ADDITIONALITY (Section 6)

Additionality is demonstrated by the Project in several ways, as described in the City Forest Credits Standard Section 4.9.1 and Tree Preservation Protocol.

Project Operator demonstrates that additionality was met through the following:

- Prior to this project, the trees in the Project Area were not protected via easement or recorded encumbrance or in a protected zoning status that preserves the trees
 - See Demonstration of Threat of Loss section above
- The land use designation/zoning in the Project Area must currently allow for a non-forest use
 - See Demonstration of Threat of Loss section above
- The trees in the Project Area face some threat risk of removal or conversion out of forest
 - \circ ~ See Demonstration of Threat of Loss section above

- The Project Operator records in the public land records an easement, covenant, or deed restriction specifically protecting the trees for the project duration of 40 years or 100 years (40 or 100 years depending on the Protocol version)
 - See Preservation Commitment section above

Taken together, the above 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 also embedded 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. Leakage is prevented by a deduction for displaced development in Protocol Section 11.4.

City Forest Credits completed an <u>activity penetration analysis</u> to demonstrate that urban and peri-urban forest conservation project activities are not common practice.

As discussed above, the fact that there was a tangible development plan in place on this property further demonstrates additionality.

Additionality is also reflected in the project financing. 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.

Lake Forest Open Lands Association has signed an Attestation of Additionality.

Attachment: J Old Mill Forest Attestation of Additionality

CARBON QUANTIFICATION DOCUMENTATION (Section 11)

Follow detailed instructions in the Protocol for conducting quantification and use the Carbon Quantification Calculator to show calculations. CFC will provide the Carbon Quantification Calculator and Forest Composition Report Template. Ensure that your requested credit issuance schedule (issuance dates) is accurate and complete in the calculator. Project Operators should describe and appropriately reflect in their carbon quantification any and all planned future activities that may affect the percent canopy or carbon stocking.

Summary numbers from Carbon Quantification Calculator

Project Area (acres)	55.54
Does carbon quantification use stratification (yes or no)	No
Accounting Stock (tCO ₂ e)	8,436
On-site avoided biomass emissions (tCO ₂ e)	7,593
On-site avoided soil carbon emissions (tCO ₂ e)	1,193
Deduction for displaced biomass emissions (tCO ₂ e)	1,389
Deduction for displaced soil emissions (tCO ₂ e)	361
Credits from avoided biomass emissions (tCO ₂ e)	6,203

Credits from avoided soil emissions (tCO ₂ e)	832
Total credits from avoided biomass and soil emissions (tCO ₂ e)	7,035
Credits attributed to the project (tCO ₂ e), excluding future growth	7,035
Contribution to Registry Reversal Pool Account	703
Total credits to be issued to the Project Operator (tCO ₂ e)	6,331
(excluding future growth)	

GHG Assertion:

Project Operator asserts that the Project results in GHG emissions mitigation of 6,331 tons CO₂e issued to the project.

The Project Operator is not claiming any avoided emissions from development on the site that would occur or human activities on the site that would occur if development took place. Project Operators are claiming emissions avoided only from trees and soil that would have been removed or disturbed under existing development regulations.

To verify on-site inventory sampling, CFC compared the biomass amount in the US Forest Service General Technical Report (GTR) NE-343 Tables. Using the GTR tables, the biomass is 56.2 tC/acre, whereas the biomass calculated from on-site inventory work is 41.43 tC/acre.

Approach to quantifying carbon

Describe the forest conditions and general approach used to quantify carbon (e.g., 11.1.B with full inventory, i-Tree Eco plots, other). Attach the Carbon Quantification Calculator.

Davey Resource Group (DRG) provided on-site plot-sample inventory work to determine the carbon stock. DRG conducted a sample forest assessment adhering to the standards set in CFC Tree Preservation Protocol Section 11.1.B. The sample established 30 sample plots sized at 1/10th-acre. Within every plot, each live tree was inventoried that was at least 5" in diameter at 4.5' above the ground, where the height above the ground is measured on the uphill side of the tree. Species, diameter, and overall tree condition were recorded for each tree. Davey Resource Group utilized i-Tree Eco to input the sample plot data to determine the carbon storage. The CFC Carbon Calculator was used for quantification for subsequent steps 11.2, 11.3, and 11.5.

Attachment: K Old Mill Forest Carbon Quantification Calculator, L Old Mill Forest Plot Location Map, M Old Mill Forest Raw Data, N Old Mill Forest i-Tree Eco

Accounting Stock Measurement Method

Provide an overview to describe quantification methods, including which method was used to determine the accounting stock.

DRG completed a sample inventory using randomized 1/10th- acre plots, following section 11.1.B in the CFC Tree Preservation Protocol. DRG used i-Tree Eco to determine the accounting stock and used a standard error of 10%.

Filename: O Old Mill Forest Carbon Biomass

Plot Sampling Map and Raw Data

If sampling was utilized to estimate the carbon stock, include the map of plot sample locations and raw data collected.

Davey Resource Group sampled 30 plots to estimate the carbon stock. See attached map for location of plot samples and raw data associated with each plot location.

Attachment: L Old Mill Forest Plot Location Map, M Old Mill Forest Raw Data

Carbon Biomass Calculations

Include calculations used to determine the biomass in the Project Area. Attach i-Tree Eco file if i-Tree was used to calculate the carbon biomass.

Carbon quantification is based on the sample plots. The metric tons of Carbon is 2,567.43. The standard error is 266.6.

Biomass tC/ac = (metric tons of carbon – standard error)/project area acres = (2567.43-266.6)/55.54 = 41.43 (cell B11 on attachment K)

Attachment: N Old Mill Forest i-Tree Eco

Stratification

If stratification is used, maps of strata and stratum definitions. If not used, list not applicable.

Not applicable, the Project Area was treated as one stand, thus DRG did not use stratification.

Forest Composition

Summarize the forest composition and attach the Forest Composition Report.

The three most common species are American elm (22.0 percent), Bur oak (20.1 percent), and White oak (16.4 percent). DRG completed a sample inventory using randomized 1/10th- acre plots, following section 11.1.B in the CFC Tree Preservation Protocol.

Attachment: P Old Mill Forest Composition Report

Area Expected to Remain in Trees after Potential Development (11.2)

Describe the land use designation, any restrictions, and the method used to determine the area expected to remain in trees after potential development (fraction at risk of removal). If residential land use, follow

11.2.B. and provide the calculation showing which percentage of accounting stock at risk of removal is appropriate to include.

Old Mill Forest is zoned as Estate which is a type of residential zoning. Section 11.2 in CFC's Tree Preservation Protocol allows for 90% of the Accounting Stock on the Project Area is the "Avoided Biomass Emissions" on residential lands.

Quantification of Soil Carbon - Existing Impervious Area and Impervious Limits (11.3)

The Project may claim avoidance of emissions from soil carbon caused by conversion of soils to impervious surfaces. Describe applicable land use designation and development rules, any restrictions, existing impervious area and maximum fraction impervious cover.

Old Mill Forest is zoned as Estate and the applicable zoning and development rules do limit impervious area to a maximum of 30%. For the Project Area that is wetlands, 0% of that can be converted into impervious surface.

Future Planned Project Activities

Describe future activities that may affect the percent canopy or carbon stocking in any way. Describe maintenance and stewardship activities that could improve the carbon stock.

Lake Forest Open Lands has no planned projects other than ecosystem management activities for forest health within the project area. Some trails may be installed with no impact on the trees. Lake Forest Open Lands has obtained preliminary approval from the Illinois Nature Preserves Commission, for a conservation easement with the State that will designate the entire property as an Illinois Nature Preserve – the highest level of permanent land protection available in the state of Illinois. Within the proposed dedication, LFOLA has reserved the right to partner with Indigenous groups with their use of the site as well as reintroduce bison to the non-forested portions of the preserve.

CO-BENEFITS QUANTIFICATION DOCUMENTATION (Section 11.5)

Summarize co-benefit quantification per year and provide supporting documentation. CFC will provide a Co-Benefits Quantification calculator for quantifying rainfall interception, reduction of certain air compounds, and energy savings.

Ecosystem Services	Resource Units	Value
Rainfall Interception (m3/yr)	12,079.4	\$86,486.37
Air Quality (t/yr)	0.5055	\$761.21
Cooling – Electricity (kWh/yr)	95,088	\$7,217.18
Heating – Natural Gas (kBtu/yr)	1,777,981	\$17,308.25
Grand Total (\$/yr)		\$111,773.02

Co-benefits were quantified using CFC's Co-Benefits Quantification Calculator. These ecosystem services represent values in avoided costs of \$111,773.02 annually and \$4,470,920.70 over 40 years.

Attachment: Q Old Mill Forest CoBenefit Calculator

Canopy Cover

i-Tree Canopy report was completed to quantify the cobenefits. Include the results below.

An on-site inventory was completed, so no documentation of canopy cover is necessary for carbon quantification for this project. Canopy cover was derived from the plot sample inventory, and was calculated by i-Tree Eco at 80.4%.

Attachment: P Old Mill Forest Composition Report

SOCIAL IMPACTS (Section 12)

Project Operators shall use the Carbon Project Social Impacts template to evaluate how their Project aligns with the UN Sustainable Development Goals (SDGs). CFC will provide the template. Summarize the three to five main SDGs attributed to this Project.

SDG 15 – Life on Land: This project supports enhanced wildlife habitat including supporting pollinators and bird populations as well as enhanced soil health through soil formation, nutrient and water cycling and photosynthesis. The trees in the project will provide enhanced biodiversity for habitat and food for wildlife, including supporting pollinators as it lies within a larger complex of protected areas in the region. The project is moderately sloped from the upland forest to the floodplain forest along the creek, and protecting the soils from erosion is a function of a healthy forest floor that manages and removes invasive species to allow for a robust cover of ephemeral and other native groundcover holding the soils in place. Removal of invasive species that shade out a healthy native groundcover will also improve the soil infiltration rates for recharging our groundwater aquifers and reducing stormwater runoff.

SDG 13 – Climate Action: This project is a tree protection project that will reduce/remove air pollutants through preserving those regulating ecosystem services that protecting tree provides. This project provides an opportunity for residents to improve their wellness and mental health through the creation of nature experiences either guided by our staff and volunteers, or self-guided. Interpretative signage is planned for installation. This protection project will also optimize biodiversity as it is located adjacent to a larger complex of protected lands.

Our organization has a robust community volunteer program engaging the local community. This site will also have guided walks to encourage the public to participate in volunteer and learning activities, and also to provide an easily accessible area for the enjoyment of nature, their well-being and providing a significant aesthetic value.

This project is located within the Chicago River watershed. The upland forest will continue to improve infiltration rates and prevent soil erosion. Protection of the forested floodplain will enhance water quality and protect the stream from channel down-cutting and degradation, resulting in cleaner water downstream.

This project supports enhanced wildlife habitat including supporting pollinators and bird populations as well as enhanced soil health through soil formation, nutrient and water cycling and photosynthesis. This

protection project provides climate regulating services as it is a sink for greenhouse gasses including CO2 and evapotranspiration.

SDG 6 – Clean Water and Sanitation: This project is located within the Chicago River watershed. Ecologically, restoration efforts will have a direct downstream positive effect on nutrient loading, flooding, algae blooms and water temperature. Many of the downstream residents in the Chicago River system have inequitable access to green infrastructure and thus are forced to contend with the challenges of flooding and impaired river nutrient loading exacerbated by our region's changing climate. By reducing the density of invasive species and increasing the species richness and biodiversity on the site through restoration, the downstream residents will experience cleaner water with reduced flash flooding. Additionally, the upland forest will continue to improve infiltration rates and prevent soil erosion.

Additionally, the property is open to the public and is a valuable resource for the surrounding neighborhood and community to access nature. Approximately 992 residents live within a 10-minute walk of the Old Mill Forest project. Additionally, 65,142 residents live within a 10-minute drive of the Project Area.

Attachment: R Old Mill Social Impacts Report

MONITORING AND REPORTING (Section 8)

Throughout the Project Duration, the Project Operator must report on tree conditions across the Project Area.

Monitoring Reports

Monitoring reports are due every three years determined by the date of the verification report. For example, if the verification report is dated January 1, 2023, the first report will be due by January 1, 2026 and every three years thereafter for the duration of the project. CFC will provide a list of dates to Project Operator after the first verification report is approved. Project Operators must submit reports in writing and must attest to the accuracy of the reports. The reports must contain any changes in eligibility status of the Project Operator and any significant tree loss. The information includes updates to land ownership, changes to project design, changes in implementation or management and changes in tree or canopy loss. The reports must be accompanied by some form of telemetry or imaging that captures tree canopy, such as Google Earth, aerial imagery, or LiDAR. The reports must estimate any loss of stored carbon stock or soil disturbance in the Project Area.

Monitoring Plans

Describe your monitoring plans. If Project Operator plans to claim credits for future growth, describe methods that will be used to quantify future growth.

The Project Area, is encumbered with a deed restriction, held by Lake Forest Open Lands Association (LFOLA), a 501(c)3 non-profit organization. The protections afforded by the deed restriction will preserve the current forest and tree canopy. LFOLA will reserve the right to quantify the future growth of the Project Trees. LFOLA is an accredited land trust and has a professional team dedicated to the stewardship of over 900 acres consisting of 92 conservation easements and land owned in fee, each of which are monitored annually. Staff members will visit the Old Mill Forest Preservation Project annually,

walking the Project Area and property in their entirety to ensure that the tenets of the deed restriction are being upheld and to resolve any issues with encroachment or non-permitted activities on-site. LFOLA will submit written monitoring reports every three years attesting to the accuracy of the reports. The reports will include imagery of leaf-on trees. LFOLA will monitor for tree canopy loss and follow Protocol requirements as necessary.

PROJECT OPERATOR SIGNATURE

Signed on November 14 in 2023, by Ryan London, President, for Lake Forest Open Lands Association.

Kyon G. Lordon

Signature

_____Ryan London______ Printed Name

_____847-234-3880 x15_____ Phone

rlondon@lfola.org

* with clarifying amendments on April 24, 2025

ATTACHMENTS

Update the attachments list as appropriate for your project.

- 1 Geospatial Location Map
- 2 Regional Map
- 3- Project Area Map
- 4 Proof of Land Ownership
- 5 Preservation Commitment
- 6 Land Use Regulations
- 7 Land Use/Zoning Map
- 8 Overlay Zones or Restrictions
- 9 Threat of Loss Demonstration
- 10 Attestation of No Double Counting and No Net Harm
- 11 Attestation of Additionality
- 12 Carbon Quantification Calculator
- 13 Plot Sampling Map
- 14 Sampling Raw Data
- 15 Carbon Biomass calculations
- 16 i-Tree Eco file
- 17 Forest Composition
- 18 Co-Benefit Quantification Calculator
- 19 Social Impacts

PROTOCOL REQUIREMENTS

Project Operator (Section 1.1)

Identify a Project Operator for the project. This is the entity or governmental body who takes responsibility for the project for the 40-year duration.

Project Duration and Project Implementation Agreement (Section 1.2, 2.2)

Project Operator must commit to a 40-year duration and sign a Project Implementation Agreement. This is a 40-year agreement between the Project Operator and City Forest Credits (the "Registry") for an urban forest carbon project.

Location Eligibility (Section 1.3)

Projects must be located in or along the boundary of at least one of the following criteria:

- A. "Urban Area" per Census Bureau maps; see https://www.census.gov/geographies/referencemaps/2010/geo/2010-census-urban-areas.html
- B. The boundary of any incorporated city or town created under the law of its state;
- C. The boundary of any unincorporated city, town, or unincorporated urban area created or designated under the law of its state;
- D. The boundary of any regional metropolitan planning agency or council established by legislative action or public charter. Examples include the Metropolitan Area Planning Council in Boston, the Chicago Municipal Planning Agency, the Capital Area Council of Governments (CAPCOG) in the Austin area, and the Southeastern Michigan Council of Governments (SEMCOG)
- E. The boundary of land owned, designated, and used by a municipal or quasi-municipal entity for source water or watershed protection. Examples include Seattle City Light South Fork Tolt River Municipal Watershed (8,399 acres owned and managed by the City and closed to public access);
- F. A transportation, power transmission, or utility right of way, provided the right of way begins, ends, or passes through some portion of A through D.

Ownership or Right to Receive Credits Eligibility (Section 1.5)

Project Operator must demonstrate ownership of property and eligibility to receive potential credits by meeting one of the following:

- A. Own the land and potential credits upon which the Project trees are located; or
- B. Own an easement or equivalent property interest for a public right of way within which Project trees are located and accept ownership of those Project trees by assuming responsibility for maintenance and liability for them; or
- C. Have a written and signed agreement from the landowner, granting ownership to the Project Operator of any credits for carbon storage, other greenhouse gas benefits, and other cobenefits delivered by Project trees on that landowner's land. If the Project Area is on private property, the agreements in this sub-section must be recorded in the public records in the county where the property is located. The recordation requirement can be satisfied if the agreements specified in this sub-section are contained in a recorded easement, covenant, or deed restriction on the property.

Demonstrate Tree Preservation (Section 4.1)

The Project Operator must show that the trees in the Project Area are preserved from removal by a recorded easement, covenant, or deed restriction (referred to hereafter as "Recorded Encumbrance") with a term of at least 40 years. This action is referred to as the "Preservation Commitment." This Recorded Encumbrance must be recorded not later than 12 months after Registry approval of the Project's Application.

Demonstrate Threat of Loss (Section 4.2, 4.3, and 4.4):

The Project Operator must show that prior to the Preservation Commitment:

- Project trees were not preserved from removal through a Recorded Encumbrance or other prohibitions on their removal,
- The Project Area was:
 - In a land use designation that allowed for at least one non-forest use. Non-forest uses include industrial, commercial, transportation, residential, agricultural, or resource other than forest, as well as non-forest park, recreation, or open space uses.
 - Is not in an overlay zone that prohibits all development. Examples include critical areas or wetland designations.
- The Project Area met one of the following conditions:
 - Surrounded on at least 30% of its perimeter by non-forest, developed or improved uses, or
 - Sold, conveyed, or had assessed value within three years of preservation for greater than \$8,000 average price per acre for the bare land, or
 - Would have a fair market value after conversion to a non-forested "highest and best use" greater than the fair market value after preservation in subsection 4.1, as stated in a "highest and best use" study from a state certified general real estate appraiser in good standing

Additionality (Section 6)

Additionality is ensured through the following:

- Prior to the start of the project, the trees in the Project Area are not protected via easement or recorded encumbrance or in a protected zoning status that preserves the trees.
- The zoning in the Project Area must currently allow for a non-forest use
- The trees in the Project Area face a threat or risk of removal or conversion out of forest
- The Project Operator records in the public land records an easement, covenant, or deed restriction specifically protecting the trees for the project duration of 40 years or 100 years (40 or 100 years depending on the protocol version)

Quantification for Credits (Section 11)

The full Protocol describes the following steps for carbon stock and soil carbon quantification in detail:

- Stored carbon stock present in Project Area (Section 11.1)
 Estimate the biomass stock present and adjust for uncertainty to calculate the "Accounting Stock". This can be done using the US Forest Service General Technical Report NE-343 tables, on-site inventory of some live trees with i-Tree methods and tools, or an on-site forest inventory
- 2. Areas expected to remain in trees after potential development (Section 11.2)

Calculate the fraction of the Accounting Stock that likely would be emitted as a result of development, to calculate "Avoided Biomass Emissions"

- Quantification of soil carbon (Section 11.3) Calculate "Avoided Soil Carbon Emissions" caused by conversion of soils to impervious surfaces in the Project Area
- 4. Deduction for displaced development (Section 11.4) Apply the deductions in Section 11.5 and Appendix B to Biomass and Soil Carbon calculations to adjust for development and emissions that would be displaced by the preservation of the Project Area (leakage deductions). This will reduce the creditable tonnes of Avoided Biomass Emissions and Avoided Soil Carbon Emissions to adjust for displaced development
- Quantify Co-Benefits (Section 11.5) The Project Operator will calculate co-benefits separately from CO₂(e). The Registry will supply a spreadsheet template based on their climate zone, and will provide values for rainfall interception, reductions of air compounds, and energy savings.
- Claiming additional credit for growth (Section 11.6) The Project Operator may elect to also account for ongoing growth of trees within the Project Area after Project Commencement

Social Impacts (Section 12)

The Project Operator will describe how the Project impacts contribute towards achievement of the global UN Sustainable Development Goals (SDGs). The Registry will supply a template to evaluate how the Project aligns with the SDGs.

Attestation of No Net Harm and No Double Counting (Section 5)

The Project Operator will sign an attestation that no project shall cause net harm and no project shall seek credits on trees, properties, or projects that have already received credits.

Validation and Verification by Third-Party Verifiers (Section 13)

Project compliance and quantification must be verified by a third-party Validation and Verification Body approved by the Registry.

Issuance of Credits to Project Operator (Section 7)

Ex-post credits are issued after the biomass is protected via a recorded encumbrance protecting the trees. Issuance is phased or staged over one and five years at the equivalent of 50 aces of crediting per year. This staged issuance reflects the likely staging of development over time if the Project Area were to have been developed.

After validation and verification, the Registry issues credits to the Project Operator based on the Project Area size:

- \circ 50 acres or less: all credits are issued after validation and verification
- Greater than 50 but less than 200 acres: credits are issued in the equivalent of 50 acres per year
- Greater than 200 acres: credits are issued in equal amounts over five years

Credits for Reversal Pool Account (Section 7.3):

The Registry will issue 90% of Project credits earned and requested and will hold 10% in the Registry's Reversal Pool Account.

Understand Reversals (Section 9)

If the Project Area loses credited carbon stock, the Project Operator must return or compensate for those credits if the tree loss is due to intentional acts or gross negligence of Project Operator. If tree loss is due to fire, pests, or other acts of god (i.e., not due to the Project Operator's intentional acts or gross negligence), the Registry covers the reversed credits from its Reversal Pool Account of credits held back from all projects.

Monitoring and Reporting (Section 8)

The Project Operator must submit a report every three years for the project duration. The reports must be accompanied by some form of telemetry or imaging that captures tree canopy, such as Google Earth, aerial imagery, or LiDAR. The reports must estimate any loss of stored carbon stock or soil disturbance in the Project Area.