



City Forest Credits Carbon Planting Project Application

1. Project Name

Lake County Forest Preserve District – Carbon Planting Project

2. Project Type

Planting

3. Project Location

Projects must be in or adjacent to one of the following. Describe which one of the criteria the project meets and provide name of city, town, or jurisdiction where project is located.

- *“Urban Area” per Census Bureau maps; see <https://www.census.gov/geographies/reference-maps/2010/geo/2010-census-urban-areas.html>*
- *An incorporated or unincorporated city or town*
- *A planning area for a metropolitan planning agency or entity, such as the Chicago Metropolitan Agency for Planning*
- *Land owned, designated, and used by a municipal or quasi-municipal entity such as a utility for source water or watershed protection*
- *A transportation or utility right of way through one of above*

This planting project is located at 16 preserves in Lake County that are all within the planning area of the Chicago Metropolitan Agency for Planning. Some planting sites are within incorporated and unincorporated cities or towns, and some lie within “Urban Areas” per Census Bureau maps.

Additionally, all planting sites are owned by the Lake County Forest Preserve District a County agency established for the purpose “...of protecting and preserving the flora, fauna, and scenic beauties within such district, and to restore, restock, protect and preserve the natural forests and such lands together with their flora and fauna, as nearly as may be, in their natural state and condition, for the purpose of the education, pleasure, and recreation of the public.” –Illinois Downstate Forest Preserve Act

4. Project Operator

Provide name of organization/entity, and contact information

Organization/Entity: Lake County Forest Preserve District

Address: 1899 West Winchester Road

City: Libertyville

State: Illinois

Zip: 60048

Contact(s): James L. Anderson

Phone: 847-968-3282

Email: janderson@lcfpd.org

5. Project Description

Provide short narrative including location, number or acres of trees, and overall goals

Lake County Forest Preserve District (the District) planted trees at 16 preserves from 2019 through 2021. In total, 2,660 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).

6. Project Impacts

Provide short narrative of the impacts this project will achieve. Examples include how the project addresses increased access to green spaces for under-resourced communities, flood control, watershed protection, human health benefits, recreation or bird and wildlife habitat.

The District manages nearly 31,000 acres of land for conservation, recreation, and education. In order to restore and enhance preserve lands that were historically altered (e.g., forests cleared and converted to agricultural use), the Lake County Forest Preserve District implements the Reforestation Program to restore natural forest types to historically altered or degraded lands, reduce habitat fragmentation, restore forest connectivity, enhance wildlife habitat, and improve the aesthetic quality of the preserves. The “Lake County Forest Preserve District – Carbon Planting Project” is an example of the types of projects that continue to be implemented by the District’s Reforestation Program.

This project is also an example of work that the District is implementing under the Chicago Wilderness Oak Ecosystems Recovery Program. This program includes the history of oak ecosystems, the importance of oaks, current issues and threats, a vision for the future, and management strategies.

Benefits we expect from our planting effort includes:

INCREASED BIODIVERSITY

We plant a diverse mix of native hardwoods and shrubs that include several oak species which are a keystone species for northeastern Illinois forest. This forest communities provides critical habitat for a wide variety of plant and animal species. Tree diversity in Midwestern woodlands is relatively low and is dominated by oak species. In contrast, ground flora diversity is high with, for example, 300–500 species being present over a hundred hectares or so in woodlands. There are approximately 2600 animal species that are dependent upon oak woodlands, of which 500 species are insects.

https://www.fs.fed.us/nrs/pubs/jrnl/2015/nrs_2015_dey_001.pdf

We are also restoring horizontal and vertical structure which influences the kinds and numbers of animals that occur in oak woodlands. Generally, an oak woodland habitat with complex or well-developed horizontal and vertical structure supports a greater diversity of wildlife. Complex habitat structure increases the options available to animals.

EDUCATION & OUTREACH

Involving the local communities with the tree plantings gives volunteers the satisfaction of helping to restore the rich natural heritage of their area, as well as physical exercise and a sense of community.

Volunteers are also educated on why reforestation is needed at the project site and how the newly created forest will benefit them. The District sells trees to the general public twice a year at plant sales where we offer native species and education.

WILDLIFE HABITAT

Reforestation makes the land more hospitable to wildlife by providing food and shelter and creating better connectivity to other forested areas. For example, golden-winged warblers and other songbirds will benefit from early successional forest cover and the reduction in forest fragmentation. The endangered Indiana bat and forest interior dependent species will find new habitat as the forest matures. Pollinators also benefit from flowering trees and plants used in our projects.

IMPROVED WATER QUALITY

By mitigating soil compaction, the ground allows for greater water infiltration and storage, which reduces surface runoff which transports sediment. Trees also uptake and intercept precipitation, further reducing inputs to streams and the trees can uptake metals and minerals that pose water quality concerns.

7. Number of trees to be planted and general planting-design

Provide number of trees and general planting design. Tree planting design options include:

- *single-tree dispersed (spaced 10" or more apart, i.e. street trees or linear plantings)*
- *single-tree canopy (spaced 10" apart but continuously so to generate canopy over time, i.e. natural areas)*
- *forest canopy (closely planted with spacing less than 10" apart so to generate canopy and forest ecosystem, high tree mortality expected, i.e. riparian areas)*

The District planted 2,660 trees using the single-tree dispersed canopy method. The trees were planted in a random distribution to approximate the natural landscape composition and arrangement. They will be tracked using the single-tree dispersed method.

Approximately 70% of the species planted are categorized as broadleaf deciduous trees, representing many species of oak, hickory, hackberry, black cherry, and cottonwood. The top five species planted include white oak, bur oak, apple, hawthorn, and sumac.

8. Additional Information

Provide additional information about your project. Examples include collaboration with other partners or how this project fits into a larger effort.

This project was implemented entirely by the Lake County Forest Preserve District; however, this project and its outcomes support many regional and state (Illinois) objectives including Oak Ecosystem Recovery and Urban Canopy goals of the Chicago Region Trees Initiative; Key Findings and Recommendations of Chicago Wilderness' Biodiversity Recovery Plan; Illinois Forest Resource Strategies and Actions of the Illinois Forest Action Plan; and numerous actions from several campaigns listed within The Illinois Comprehensive Wildlife Conservation Plan & Strategy (Illinois Wildlife Action Plan)

The Chicago Region Trees Initiative (CRTI) is a partnership for coordinated action on key issues facing trees. It is the largest such initiative in the country, with leading organizations and agencies from across

the seven-county metropolitan region working together. CRTI is leveraging funding, knowledge, skills, and expertise to build a healthier, more diverse regional forest.

As mentioned above, the District worked with other regional partners to help develop the Chicago Wilderness Oak Ecosystems Recovery Program as cited here:

Full report of the Oak Ecosystems Recovery Plan led by the Chicago Wilderness and the Oak Ecosystems Recovery Working Group. Includes the history of oak ecosystems, the importance of oaks, current issues and threats, a vision for the future, and management strategies. Report funded by USDA Forest Service and U.S. Fish and Wildlife Service with collaboration provided by Lake County Forest Preserves and The Morton Arboretum.

Chicago Wilderness, Oak Ecosystems Recovery Working Group, Lake County Forest Preserves, The Morton Arboretum
2017

<http://chicagorti.org/sites/chicagorti/files/OERP-Full-Report-lowres.pdf>

Signed on November 5, in 2021, by James L. Anderson, Director of Natural Resources for the Lake

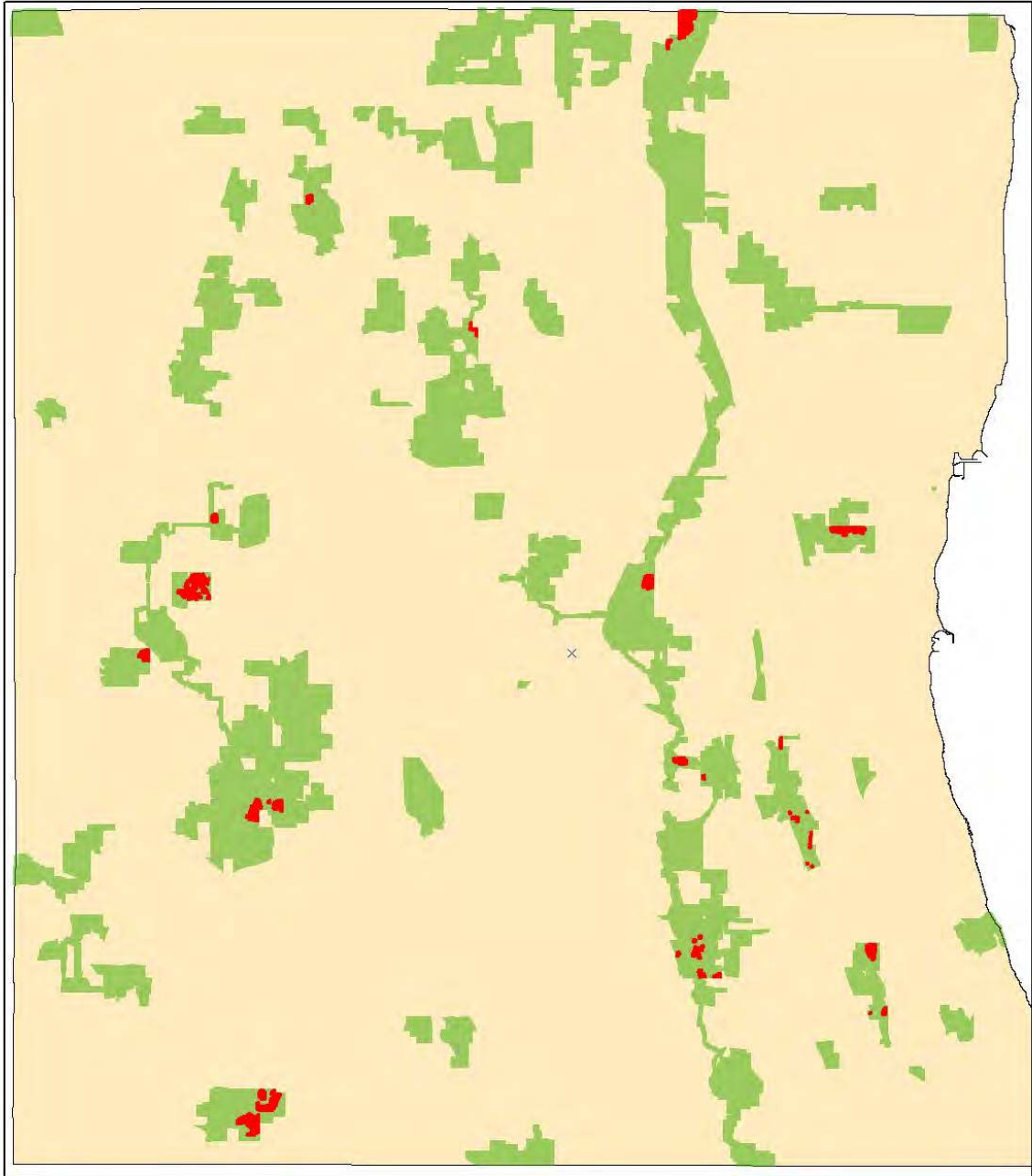
County Forest Preserve District.


Signature

847-968-3282
Phone

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Email

Project Area Map



LAKE COUNTY FOREST PRESERVE DISTRICT CARBON PLANTING PROJECT PROJECT (PLANTING) LOCATIONS 2019-2021

0 8,000 16,000 32,000 Feet

Legend

- Project Locations
- Lake County Forest Preserves
- Lake County, Illinois