Spring Creek Preserve
Project Design Document

Table of Contents

INSTRUCTIONS 2
PROJECT OVERVIEW 3
DEFINING THE PROJECT AREA (Section 1.3 and 1.4) 3
OWNERSHIP OR ELIGIBILITY TO RECEIVE POTENTIAL CREDITS (Section 1.5) 4
PROJECT DURATION (Section 2.2) 5
PRESERVATION COMMITMENT (Section 4.1) 5
DEMONSTRATION OF THREAT OF LOSS (Section 4.2, 4.3, and 4.4) 6
ATTESTATION OF NO DOUBLE COUNTING OF CREDITS AND NO NET HARM (Section 5) 7
ADDITIONALITY (Section 6) 7
CARBON QUANTIFICATION DOCUMENTATION (Section 11) 8
CO-BENEFITS QUANTIFICATION DOCUMENTATION (Section 11.6) 12
SOCIAL IMPACTS (Section 12) 13
MONITORING AND REPORTING (Section 8) 14
PROJECT OPERATOR SIGNATURE 15
ATTACHMENTS 16
PROTOCOL REQUIREMENTS 17

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: Spring Creek Preserve
Project Number: 49
Project Type: Preservation Project (under the Tree Preservation Protocol – version 12.40, dated February 22, 2023)
Credit Commencement Date: October 7, 2022
Project Location: Montville Township, Geauga County, Ohio

Project Operator Name: West Creek Conservancy
Project Operator Contact Information: Brett Rodstrom, Director of Conservation, (440) 867-6659, brett@westcreek.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 Spring Creek Preserve property, located in Montville Township, Geauga County, Ohio was identified as a priority conservation acquisition by West Creek Conservancy due to the property's tremendously high-quality natural resources – including dense, mature upland hardwood forest stands – combined with the risk of development of the property caused by its listing on the open market, its residential zoning, and land use conversion trends in area. West Creek purchased the property in October of 2022 using funding through the Ohio EPA's Water Resource Restoration Sponsor Program, and encumbered the property with an environmental covenant to preserve the property's trees and natural assets in perpetuity.

The total Spring Creek Preserve property protected by West Creek Conservancy is 361 acres, but the project area as it relates to this proposed Urban Forest Carbon Program project is 150.76 acres comprising three mature forest stands, predominated by hardwood species including red maple and sugar maple with significant presence of American beech, tulip tree, black cherry and northern red oak as well. West Creek Conservancy's goal is to manage the property as a nature preserve, integrating the property into West Creek Conservancy's guided nature hike series to promote public access and appreciation for the unique natural heritage of the area, as well as providing an opportunity to educate adjacent landowners on the importance of sustainable forest management. West Creek Conservancy's acquisition of the Spring Creek Preserve property is intended to serve as a catalyst for other conservation acquisitions in the immediately surrounding area, where large tracts of unprotected forested land serve as important buffers for an expansive and regionally significant 700-acre wetland complex known as Montville Swamp.

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.

The Spring Creek Preserve project is located in Montville Township, Geauga County, Ohio, an unincorporated community. The project meets the urban area criteria because it is part of the planning area for the Northeast Ohio Areawide Coordinating Agency (NOACA), the planning agency responsible for transportation and environmental planning for greater Cleveland.

Address: 17120 Hart Rd, Montville, OH
Property Centroid: 41.620345, -81.023443

Project Area Parcel Information
List parcel(s) in the Project Area.

Municipality	**Parcel Number**	**Notes** *Include total acres and acres included in Project Area*
Montville Twp	20-047400	305.93 total acres, 117.25 acres in Project Area
Montville Twp	20-070969	55.63 total acres, 33.51 acres in Project Area
	Total Project Area	150.76 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
  Attachment: 1. Spring Creek Shapefiles

- Regional Map
  Show where the Project Area is located in relation to the state and/or region
  Attachment: 2. Spring Creek Regional Map

- Detailed map of Project Area
  Show the Project Area and parcel boundaries.
  Attachment: 3. Spring Creek Project Area 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
The Project Operator, West Creek Conservancy, is the landowner of the Spring Creek Preserve property. West Creek Conservancy purchased the property in October of 2022 using funding through the Ohio EPA's Water Resource Restoration Sponsor Program.

Attachment: 4. Spring Creek Preserve 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 November 9, 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: Perpetuity

Date recorded: October 7, 2022

Preservation Commitment Explanation: See Section 9n of the Environmental Covenant recorded by West Creek Conservancy. "Except for those actions that are necessary for environmental preservation, management or restoration purposes, for the protection of human health and safety, or for the maintenance of a diversity of naturally occurring habitat types and control of exotic species of plants, there shall be no removal, destruction, cutting, trimming, or mowing of any trees or other vegetation."

The 5-acre non-covenant area, which is described on pages 23 and 24 of the Preservation Commitment, does not overlap with the Project Area (see Attachment 5b, Non-Covenant Area Map).

Attachment: 5 Spring Creek Preservation Commitment; 5b Spring Creek Non-Covenant Area Map

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 Spring Creek Preserve property is zoned as R-1: Residential District in Montville Township. This zoning designation as defined in Section 402 of the Montville Township Zoning Resolution permits cemeteries, certified foster homes, churches, governmental offices, licensed residential facilities, police and fire stations, public parks, schools, and single family detached dwellings.

Attachment: 6. Spring Creek Montville Zoning Resolution; 7. Spring Creek Montville Zoning Map

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.

The property containing the Project Area includes a substantial wetland complex. Of the 150.76 acres in the Project Area, 137.07 of them contain wetlands. These 137.07 acres were excluded from the calculation of Avoided Impervious Surface, as regulations in the state of Ohio would require additional permit(s) from the Ohio EPA and/or the US Army Corps of Engineers to allow development of impervious surface area on the wetland areas of the property. However, the trees within the wetland acreages were at risk of removal due to the lack of regulations requiring permitting for timbering in isolated wetlands in Ohio, as explained in the letter from the Ashtabula County Soil and Water District, provided as Exhibit D to Attachment 8b. Timber harvesting in wetlands is a very common practice in Ohio, as described in a Statement from a forester, provided as Exhibit C in Attachment 8b, as well as in Exhibit D to Attachment 8b. The trees within the Spring Creek Preserve project area were at immediate threat of loss as evidenced both by previous logging activities on the property, as well as the commercial timber harvesting in wetland areas on several parcels of land immediately adjacent to the project area (shown in Exhibits A and B of Attachment 8b).

Attachment: 8a. Spring Creek Wetlands; 8b. Spring Creek Evidence of Timbering Threat

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 non-forested "highest and best use" greater than the fair market value after preservation]*

61.3% of the Project Area perimeter is surrounded by developed or improved uses, meeting Threat of Loss criteria A. Several adjacent parcels have been commercially timbered in the past 20 years (see pages 5 and 6 of Attachment 8b).

Attachment: 8b. Spring Creek Evidence of Timbering Threat; 9. Spring Creek Developed Perimeter 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 April 1, 2024.

Attachment: 10. Spring Creek Attestation No Double Count and No Net Harm; 10b. Spring Creek No Double Counting Map

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
    - 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.

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. Revenue generated from the sale of carbon credits will support West Creek Conservancy's ongoing stewardship and management of the property, including supporting invasive species and deer population management to protect and enhance the ecological quality of the forest habitat within the project area.

West Creek Conservancy became aware of carbon crediting as a potential source of revenue for projects through the success that another conservation organization in Northeast Ohio, Western Reserve Land Conservancy, had in securing carbon credits to fund ongoing stewardship of protected forested properties in the region. West Creek Conservancy became aware of the work of City Forest Credits in the same manner. West Creek Conservancy first engaged City Forest Credits in January of 2023, and Spring Creek Preserve was identified as a potentially viable property for carbon crediting in February.

Project Operator has signed an Attestation of Additionality on April 1, 2024.

Attachment: 11. Spring Creek 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)	**150.76**
Does carbon quantification use stratification (yes or no)	**Yes**
Accounting Stock (tCO_2e)	**28,634**
On-site avoided biomass emissions (tCO_2e)	**19,852**
On-site avoided soil carbon emissions (tCO_2e)	**657**
Deduction for displaced biomass emissions (tCO_2e)	**3,633**
Deduction for displaced soil emissions (tCO_2e)	**199**
Credits from avoided biomass emissions (tCO_2e)	**16,219**
Credits from avoided soil emissions (tCO_2e)	**458**
Total credits from avoided biomass and soil emissions (tCO_2e)	**16,677**
Credits attributed to the project (tCO_2e), excluding future growth	**16,677**
Contribution to Registry Reversal Pool Account	**1,668**
Total credits to be issued to the Project Operator (tCO_2e) *(excluding future growth)*	**15,009**

GHG Assertion:
Project Operator asserts that the Project results in GHG emissions mitigation of 15,009 tons CO_2e issued to the project.

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.

Kathryn Downie, ACF (contracted forester) of Legacy Forestry Consulting, provided on-site plot-sample inventory work to determine the carbon stock. A plot sample forest assessment adhering to the standards set in CFC Tree Preservation Protocol Section 11.1.B was conducted. The sample established 46 sample plots sized at $1/10^{th}$ acre. Within every plot, each live tree at least 5" in diameter at 4.5' above the ground where the height is measured on the uphill side of the tree was inventoried. Species, diameter, and overall tree condition were recorded for each tree. i-Tree Eco was utilized 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, 11.4 and 11.5.

Attachment: 12. Spring Creek Carbon Quantification Calculator; 13. Spring Creek Plot Sampling Map; 14. Spring Creek Sampling Raw Data; 15. Spring Creek Carbon Biomass Report; 16. Spring Creek i-Tree Eco File

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

A plot sample forest assessment adhering to the standards set in CFC Tree Preservation Protocol Section 11.1.B was conducted, using randomized 1/10th-acre plots. I-Tree Eco was used to determine the accounting stock, with a standard error of 5.9%.

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.

Kathryn Downie, ACF of Legacy Forestry Consulting sampled 46 plots to estimate the carbon stock. See attached map for the location of plot samples and raw data associated with each plot location.

Attachment: 13. Spring Creek Plot Sampling Map; 14. Spring Creek Sampling 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 8,625.44. The standard error is 505.47.

Biomass tC/acre = (metric tons of carbon - standard error)/project area acres
(8625.44-505.47/150.76 = 53.86) (cell B11 on carbon calculator, Attachment 12)

Additionally, natural regeneration rates were estimated and included as a deduction in the biomass calculations to be conservative. A consulting forest carbon scientist estimated that at year 40, results show that ingrowth would average 2.06 tonnes C/acre, resulting in 51.80 tc/acre for biomass.

Attachment: 15. Spring Creek Carbon Biomass Report

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

The Project Area was stratified into three distinct strata, identified as Area A-SW Corner (29.79 acres), Area B-Center (20.73 acres) and Area C-SE Corner (100.24 acres).

Attachment: 13. Spring Creek Plot Sampling Map

Forest Composition
Summarize the forest composition and attach the Forest Composition Report.

Based on the plot sample inventory and iTree Eco analysis conducted by Legacy Forest Consulting on behalf of the Project Operator, the Spring Creek Preserve Project Area has an estimated 28,000 trees with a tree cover of 93%. An estimated 41.6% of trees are red maples, with the next most abundant

species being sugar maple (13.3%) and northern red oak (9.2%). Other species identified include black cherry, American beech, American basswood, American elm, hickory spp., tulip tree, yellow birch, silver maple, white ash, cucumber tree, black tupelo, eastern hophornbeam, eastern cottonwood, bigtooth aspen, swamp white oak, and black willow.

Attachment: 15. Spring Creek Carbon Biomass Report; 17. Spring Creek 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.

All 150.76 acres of the Project Area are zoned as R-1: Residential District. However, only 13.69 acres are upland and able to be developed into residential housing. The Montville Zoning Resolution stipulates a minimum lot size of 3 acres; 4 total residential units could thus be developed within the 13.69 acres that are outside of the designated wetland. Clearing for each unit is estimated at 2 acres per unit (8 acres), plus an additional 10% of the remaining area (0.57 acres) for a total of 8.6 potentially cleared acres. As such the Fraction at Risk was calculated to be 62.59% of the 13.69-acre upland portion of the Project Area vulnerable to conversion into housing. Since 100% of the wetland areas are at risk of timbering, a fraction of risk was calculated for the 137.07 acres of wetlands. Based on the consulting foresters opinion for timber harvesting rates in this region, a 0.018 removal rate over a 40-year period was determined which calculated a fraction of risk of 70%. A fraction of risk of tree removal was calculated using both upland and wetland fractions of risk to determine a weighted fraction of risk of 69.33% for the entire site. To be conservative and align with the Protocol Section 11.2 guidance on quantifying the fraction at risk of removal, 69.33% was used as the Fraction at Risk.

Quantification of Soil Carbon - Existing Impervious Area and Impervious Limits (11.4)
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.

State and federal permitting requirements for construction and draining/filling in wetlands would be required for conversion to impervious surface on the 137.07 wetland acres within the Project Area. To be conservative, West Creek Conservancy is therefore not claiming avoidance of impervious surface and emissions from soil carbon for those 137.07 acres of the Spring Creek Preserve property.

The Montville Zoning Resolution stipulates a maximum lot coverage of 40% for residentially zoned parcels. Therefore, 40% avoided impervious surface was used for the 13.69 non-wetland acres of the Spring Creek property.

Attachment: 6. Spring Creek Montville Zoning Resolution; 8a. Spring Creek Wetlands

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.

West Creek Conservancy plans to manage the Spring Creek Preserve property as a nature preserve for passive recreation and nature observation. Any public access improvements to facilitate this use of the property would avoid disruption of the natural landscape and would not result in any reduction to the tree canopy, in accordance with the terms of the Environmental Covenant and in alignment with West Creek Conservancy's conservation priorities. West Creek Conservancy intends to implement invasive species and deer population management which would relieve stress on the native forest and enhance the ecological quality of the forest habitat within the Spring Creek 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)	71,704.8	$151,555.67
Air Quality (t/yr)	4.9470	$12,195.30
Cooling – Electricity (kWh/yr)	217,732	$30,504.19
Heating – Natural Gas (kBtu/yr)	9,012,973	$126,058.07
Grand Total ($/yr)		**$320,313.23**

Co-benefits were quantified using CFC's Co-Benefits Quantification Calculator. These ecosystem services represent values in avoided costs of $320,313.23 annually and $12,812,529.21 over 40 years.

Attachment: 18. Spring Creek Northeast CoBenefit Calculator

Canopy Cover

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

The i-Tree Eco analysis of the raw data from the on-site inventory revealed a 93% canopy cover. An i-Tree Canopy report was also completed on the property, which indicated a 96% canopy cover. The canopy cover of 93% was used for quantification of cobenefits, with the assumption that the calculation resulting from the on-site inventory data would be more accurate than the calculation resulting from the remote assessment.

Attachment: 17. Spring Creek Forest Composition Report; 19. Spring Creek i-Tree Canopy 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.

Preservation of the Spring Creek Preserve property contributes to numerous SDGs, including primarily Good Health and Well-Being, Clean Water and Sanitation, and Life on Land.

SDG 3 – Good Health and Well-Being

West Creek Conservancy pursued conservation of the Spring Creek Preserve property in order to permanently protect its high-quality natural resources present, including the numerous ecosystem services provided and biodiversity housed by this ecologically significant property. The forested wetlands and upland hardwood forest found within the Spring Creek Preserve provides habitat for many wildlife species, including a number of state- and federally listed species that have been documented on or within range of the property. The property's dense upland forest also provides important buffer for the adjacent 700-acre wetland complex, Montville Swamp, and preserves downstream water quality in the Grand River watershed by slowing and filtering stormwater runoff, with an estimated 71,705 cubic meters of rainfall intercepted annually within the project area. The trees within the project area also intercept and absorb an estimated 4.9 tons of air pollutants, including ozone (O3), nitrogen oxides (NOx), particulate matter (PM10) and volatile organic compounds (VOCs), per year.

Just downstream of Spring Creek Preserve lies Montmere Lake, a residential lake community that relies on the impoundment for recreation including boating and fishing. This residential community also relies primarily on groundwater sources for drinking water supply. The preservation of water quality through protection of wetlands and forested riparian areas upstream from this community is therefore imperative for the health and wellbeing of this community, as well as to preserve the recreational opportunities that the Montmere Lake community and visitors enjoy.

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series to promote public access and appreciation for the unique natural heritage of the area. This also presents an opportunity to educate surrounding landowners on the importance of preserving the mature hardwood forests and forested wetlands in the immediate area.

SDG 6 – Clean Water and Sanitation

Spring Creek Preserve contains unnamed headwater streams that drain into the mainstem of Spring Creek, a tributary of Trumbull Creek which itself feeds into the Grand River, a State designated Wild and Scenic River in the state of Ohio. Trumbull Creek is designated by the EPA as a Cold Water Habitat, and Spring Creek once sustained a population of brook trout, a fish species native to Ohio that now faces extinction due to water quality degradation and loss of aquatic life use attainment. With an estimated 71,705 cubic meters of rainfall intercepted annually within the project area, preserving the upland forest buffer and forested wetlands of the Spring Creek Preserve property will protect downstream water quality within Spring Creek, Trumbull Creek, the Grand River, and ultimately Lake Erie. Additionally, the permanent protection and enhancement of Spring Creek Preserve's wetlands and forested riparian areas will protect water quality downstream in Montmere Lake, an impoundment relied on heavily for

recreational boating and fishing, while also preserving the water quality of the groundwater that the Montmere Lake residential community relies on for their drinking water supply.

SDG 15 – Life on Land

Conservation of the Spring Creek Preserve property permanently protects wildlife habitat for several listed species that have been documented on or within range of the property. The Ohio potentially threatened howe's sedge (*Carex atlantica spp. capillacea*), and the Ohio endangered one-cone club moss (*Lycopodium lagopus*) and swamp red currant (*Ribes triste*), were all identified on the property. The property is also likely to contain the Ohio threatened hobblebush (*Viburnum lantanoides*), which has been identified on the adjacent wetland complex. Several bird and bat species have been documented on the property, including nesting populations of sandhill crane (*Grus canadensis*), threatened in the state of Ohio, as well as red headed woodpecker (*Melanerpes erythrocephalus*), an Ohio species of concern. Five state-listed species of bat have been documented by West Creek Conservancy staff on the Spring Creek Preserve property, including the big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), and red bat (*Lasiurus borealis*) (all listed as species of concern in the state of Ohio), as well as the Ohio endangered tricolored bat (*Perimyotis subflavus*).The property was also identified as providing suitable habitat for two federally endangered bat species whose known habitat includes Geauga County: the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). Habitat surveys also revealed a likelihood that the property provides suitable breeding habitat for the four-toed salamander (*Hemidactylium scutatum*), a species of concern in Ohio, as well as the spotted turtle (*Clemmy gutatta*) and the Blanding's turtle (*Emydoidea blandingii*), both listed as threatened species in the state of Ohio. The tremendous biodiversity found on the property will be further enhanced through West Creek Conservancy's ongoing stewardship of the property, including invasive species and deer population management.

Additionally, the trees within the project area intercept an estimated 71,705 cubic meters of rainfall annually, reducing stormwater runoff into the adjacent high-quality wetland complex.

Attachment: 20. Spring Creek Social Impacts

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 Spring Creek Preserve property is included in the annual monitoring schedule for all protected properties under West Creek Conservancy's stewardship. West Creek Conservancy will monitor the Spring Creek Preserve annually, per the terms of the Environmental Covenant. West Creek Conservancy will create a report of each annual inspection, which will be retained in the Spring Creek Preserve stewardship file. West Creek Conservancy will submit triennial monitoring reports for the project duration as specific in the protocol.

Should West Creek Conservancy decide to claim additional credits for future growth of the Spring Creek Preserve carbon stock, this future growth will be quantified in adherence with the standards set in CFC Tree Preservation Protocol Section 11.6. At such time, updated project and eligibility documentation will be provided along with the updated carbon quantification for validation and verification.

PROJECT OPERATOR SIGNATURE

Signed on June 26 in 2024, by Derek Schafer, Executive Director for West Creek Conservancy.

Signature

Derek Schafer

Printed Name

440-915-2940

Phone

dschafer@westcreek.org

Email

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 or Agreement to Transfer Credits
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 (if relevant)
14 - Sampling Raw Data
15 - Carbon Biomass calculations
16 - i-Tree Eco file
17 - Forest Composition
18 – Co-Benefit Quantification Calculator
19 – iTree Canopy Report
20 – 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/reference-maps/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 co-benefits 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:

1. 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"

3. 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

5. Quantify Co-Benefits (Section 11.5)
   The Project Operator will calculate co-benefits separately from CO_2(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.

6. 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:

- 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.

Attachments

Deed

Project Area Map

Regional Area Map

Preservation Commitment

Zoning Maps

Zoning Description(s)

Wetlands & Evidence of Timbering Threat

Threat of Loss Demonstration

Attestation of No Double Counting and No Net Harm

Attestation of Additionality

Carbon Quantification Tool

Plot Sampling Map & Data

Carbon Biomass Report

Tree Characteristics Chart(s)

iTree Canopy Report & Data

Cobenefit Calculator

Social Impacts

Deed

DocId:8095865
Tx:4070197

REAL PROPERTY TRANSFER TAX
TRANSFERRED AND PAID

OCT 07 2022

FEE $ Exempt
Geauga County Auditor
BY:

202201005698
Filed for Record in
GEAUGA COUNTY OHIO
Celesta Mullins, Recorder
10/07/2022 09:32 AM
D 74.00
OR Book 2160 Page 265

LIMITED WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS that this Limited Warranty Deed is given as of September 30, 2022, by HAPPY HUNTING GROUND, LTD. ("**Grantor**"), in favor of WEST CREEK CONSERVANCY, an Ohio non-profit corporation ("**Grantee**"), whose tax mailing address will be P. O. Box 347113, Parma, Ohio 44134. As used in this Limited Warranty Deed, the terms "Grantor" and "Grantee" include those parties' respective successors and assigns where the context requires or permits.

Grantor, for good and valuable consideration, the receipt and sufficiency of which are acknowledged, does hereby grant, sell, and convey to Grantee that parcel of land described in Exhibit A attached hereto ("**Property**"). Grantor became vested in the Property pursuant to an instrument previously recorded in the Official Records of Geauga County in Volume 1931, Page 2547.

TO HAVE AND TO HOLD the Property, with all the recorded easements and appurtenances thereto, belonging to the use and benefit of Grantee forever, subject to (i) the Permitted Exceptions listed on Exhibit B attached hereto and made a part hereof, (ii) zoning ordinances, if any, (iii) taxes and assessments, both general and special, which are a lien but not yet due and payable, (iv) the Usage Right (as such term is hereinafter defined), and (v) the Lease (as such term is hereinafter defined).

Grantor will warrant and defend the Property with the appurtenances thereunto belonging unto Grantee forever against the lawful claims and demands of all persons claiming by, through or under Grantor, but against none other.

Grantor's caretaker may remain in possession of the house situated on the Property until September 30, 2023, pursuant to that certain Lease dated as of even date herewith, it being acknowledged that Grantee shall be entitled to exclusive possession of the remainder of the Property.

IN WITNESS WHEREOF, the Grantor has hereunto set Grantor's hand, as of September 30, 2022.

Grantor:

Happy Hunting Ground, Ltd.

By: _____
James A. Asher

Its: President

STATE OF OHIO)
) SS.
COUNTY OF Cuyahoga)

The foregoing instrument was acknowledged before me this 29 day of September 2022, by James A. Asher, the President, of Happy Hunting Ground, Ltd., on behalf of the Grantor.

_____
Notary Public
My commission expires _____

This Instrument Was Prepared By:
Christopher E. Soukup, Esq.
Ziegler Metzger LLP
1111 Superior Avenue, Suite 1000
Cleveland, Ohio 44114
216.781.5470
fax: 216.781.0714
ces@zieglermetzger.com

NOTARY PUBLIC STATE OF OHIO

FRANCIS C. SANTOIEMMO, Attorney at Law
Notary Public - State of Ohio
My Commission Has No Expiration Date
Sec. 147.03 R.C.

EXHIBIT A

LEGAL DESCRIPTION

PARCEL NO. 1:
Situated in the Township of Montville, County of Geauga and State of Ohio;
And known as being part of Section No. 7 in said Montville Township and bounded and described as follows:
Commencing at the Northeast corner of said Section No. 7;

Thence South 4 degrees 28' 30" West, 4737.86 feet along the east line of said Section No. 7, to a point in the north line of a parcel of land conveyed to G. Brown by deed recorded in Volume 418, Page 993 of Geauga County Records of Deeds;

Thence North 85 degrees 52' 00" West, 929.28 feet along said north line of G. Brown, to a point in the east line of a 123.50 acre parcel of land conveyed to L.F. & E.E. Schutrum by deeds recorded in Volume 246, Page 37 and Volume 580, Page 1168 of Geauga County Records of Deeds;

Thence North 4 degrees 28' 30" East, 468.60 feet along the east line of said L.F. & E.E. Schutrum land, to the northeast corner of said L.F. & E.E. Schutrum land;

Thence North 85 degrees 52' 00" West, 1995.92 feet along the north line of said L.F. & E.E. Schutrum to the interesection of the southerly prolongation of the eas tline of a 4 acre parcel of land conveyed to K. & R. Bushman by deed recorded in Volume 562, Page 1029 of Geauga County Records of Deeds;

Thence North 1 degree 01' 10" East, 4012.44 feet along the southerly prolongation of the east line of said K. & R. Bushman land and along the east line of said K. & R. Busman land and along the east line of a 51 acre parcel of land conveyed to C. & E. Sussman by deeds recorded in Volume 247, Page 395 and Volume 255, Page 4437 of Geauga County Records of Deeds and along an east line of a 136.12 acre parcel of land conveyed to M. Beardsley etal, by deeds recorded in Volume 199, Page 85-88 and Volume 199, Page 428-510 of Geauga County Records of Deeds to a corner of said M. Beardsley land;

Thence South 86 degrees 08' 47" East, 528.00 feet along a south line of said M. Beardsley land to another corner of said land;

Thence North 1 degree 01' 10" East, 247.50 feet along an east line of said Montville Township and the northeast corner of said M. Beardsley land;

Thence South 86 degrees 08' 47" East, 2654.10 feet along the north line of said Section No. 7 which is also the south line of a 73 acre parcel of land conveyed to J. & M. Twarogowski by deed recorded in Volume 213, Page 583 of Geauga County Records of Deeds and of a 93 acre parcel of land conveyed to P. Tommer by deeds recorded in Volume 203, Page 94 and Volume 580, Page 130 of Geauga County Records of Deeds to the northeast corner of said Section No. 7 and the place of beginning and containing 305.7512 acres of land, surveyed by Richard R. Mackay Ohio Surveyor No. 4195, be the same more or less, but subject to all legal highways.

PARCEL NO. 2:
Situated in the Township of Montville, County of Geauga and State of Ohio:

And known as being part of Section 7 of said township and further bounded and described as follows:

Beginning at a point at the centerline intersection of Madison Road (S.R. 528) and Hart Road;

Thence South 85 deg. 30' East, along said centerline of Hart Road, a distance of 2636.78 feet to a point at the northwest corner of land conveyed to J. and T. Van Norman by deed recorded in Volume 756, Page 1000 of Geauga County Record of Deeds;

Thence South 4 deg. 30' West, along the west line of said Van Norman land, a distance of 630.21 feet to a 5/8" capped rebar set at the southwest corner thereof and the true place of beginning for the parcel herein described;

Thence South 85 deg. 30' East, along the south line of said Van Norman's land, and along the south line of land conveyed to C.S. Taylor by deed recorded in Volume 633, Page 301 of Geauga County Record of Deeds, along the south line of land conveyed to N. and S. Miller by deed recorded in Volume 663, Page 818 of Geauga County Record of Deeds, and along the south line of land conveyed to C.Y. Watt by deed recorded in Volume 1064, Page 1056 of Geauga County Record of Deeds, a distance of 1678.00 feet to a 1/2" iron pin found on the west line of land conveyed to C. and H. Mitchell by deed recorded in Volume 862, Page 1047 of Geauga County Record of Deeds;

Thence South 1 deg. 38' West, along said west line of Mitchell's land, a distance of 1677.31 feet to a 5/8" rebar found on the north line of land conveyed to L. and E. Schutrum by deed recorded in Volume 680, Page 1167 of Geauga County Records of Deeds;

Thence North 85 deg. 16' West, along the north line of said Schutrum's land, a distance of 764.81 feet to a 5/8" rebar found at the southeast corner of land conveyed to R. and M. Difranco by deed recorded in Volume 508, Page 3 of Geauga County Record of Deeds;

Thence North 4 deg. 44' East, along the east line of said Difranco's land, a distance of 462.00 feet to a 5/8" rebar found;

Thence North 85 deg. 16' West, along the north line of said Difranco's land, a distance of 978.97 feet to a 5/8" rebar set;

Thence North 4 deg. 30' East, a distance of 1206.03 feet to a point and the true place of beginning, and containing therein 55.6266 acres of land as surveyed in May 1997 by Jerry W. Danieal, Registered Surveyor No. 6222, be the same more or less, but subject to all legal highways.

PARCEL #'S 20-047400 & 20-070969

DESCRIPTION
Reviewed by BWS "C+G"
Date 10/7/2022
GEAUGA COUNTY AUDITOR
* East Line

EXHIBIT B

PERMITTED EXCEPTIONS

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the Grantee acquires for value of record the Property.

2. Any facts, rights, interest, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.

3. Any encroachment, encumbrance, violation, variation or adverse circumstance affecting the title including discrepancies, conflicts in boundary lines, shortage in area, or any other facts that would be disclosed by an accurate and complete land survey of the land, and that are not shown in the public records.

4. Any lien or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

5. Rights of parties in actual possession of all or any part of the Property, including but not limited to easements, claims of easements or encumbrances that are not shown in the public records.

6. Special taxes or assessments approved, levied or enacted by the State, County, Municipality or similar taxing authority, but not yet certified to the tax duplicate of the County in which the land is situated, including but not limited to reassessment and recapture by way of CAUV, Homestead or other similar programs, or retroactive increases in the valuation of the land by the State, County, Municipality, Township or other taxing authority.

7. Oil, gas, coal and other mineral interests together with the rights appurtenant thereto whether created by deed, lease, grant, reservation, severance, sufferance or exception.

8. Subject to any oil and/or gas lease, pipeline agreement, or other instrument related to the production or sale of oil or natural gas which may arise subsequent to the effective date hereof.

9. Right of Way Agreement by and between Gerard F. Perko and Romac Petroleum Inc. recorded June 23, 1978 in Volume 623, Page 1063 in the Geauga County, Ohio records.

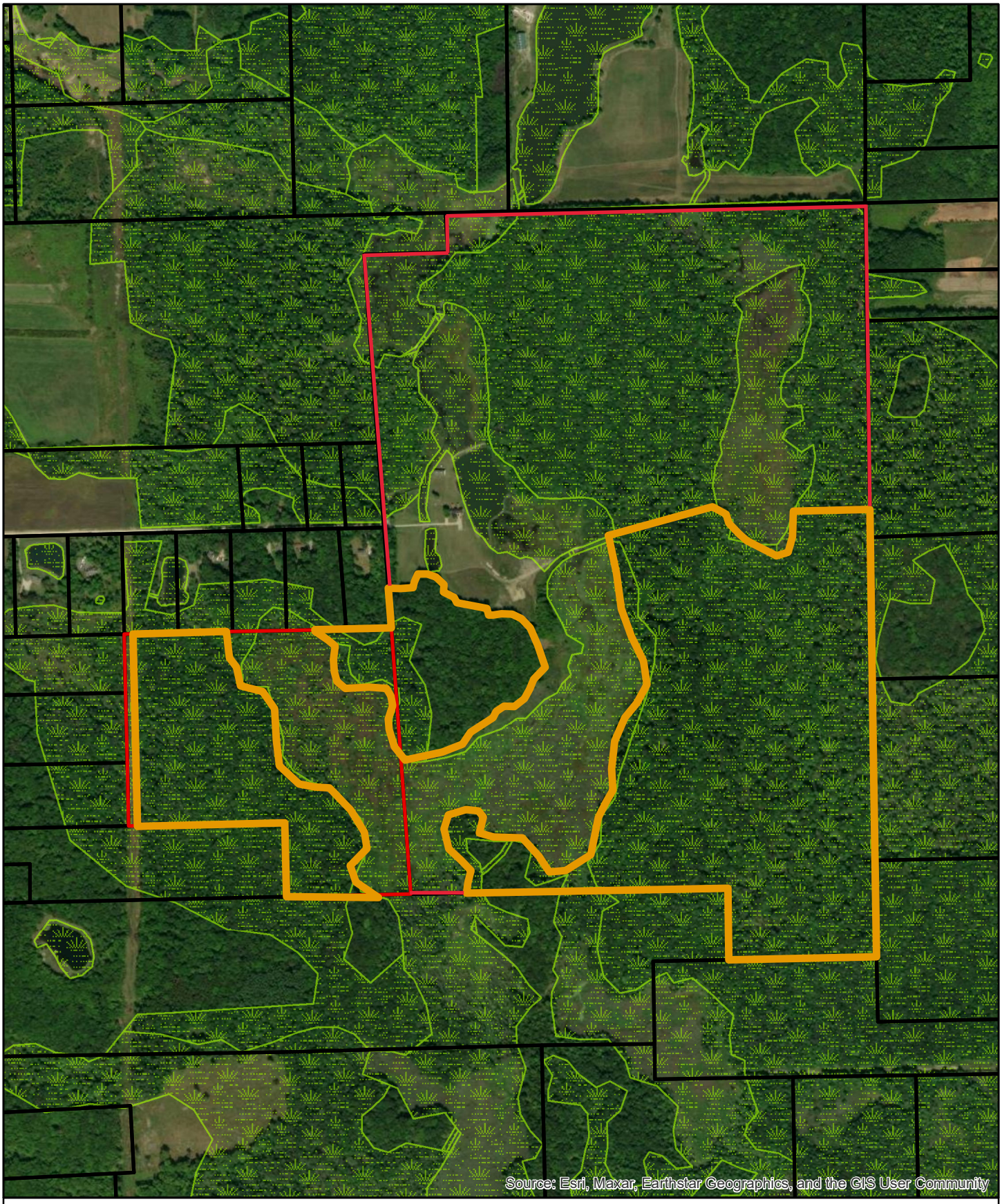
10. Right of Way Agreement by and between Catherine T. Perko Family Trust by Anthony J. Perko Jr., Trustee and Lomak Petroleum, Inc. recorded November 21, 1983 in Volume 707, Page 274 in the Geauga County, Ohio records.

11. Easement for Highway Purposes by and between Charles S. Mitchell and Helen E. Mitchell, husband and wife and Geauga County Board of Commissioners, recorded October 9, 1996 in Volume 1074, Page 338 in the Geauga County, Ohio records.

12. Easement by and between Anthony Jude Asher, et al and the Cleveland Electric Illuminating Company, recorded June 4, 2012 in OR Book 1925, Page 78 in the Geauga County, Ohio records.

13. Taxes and assessments, both general and special, which are a lien but not yet due and payable.

Project Area Map



WEST CREEK
CONSERVANCY

Spring Creek Preserve Project Area

0 0.1 0.2
Miles

OH_Wetlands
Project Area Boundary
Parcel Boundary
Parcels_2023July

N

Regional Area Map

WEST CREEK CONSERVANCY

Spring Creek Preserve - Regional Area

0 2.5 5 Miles

Spring Creek Preservation Project

NOACA Planning Boundaries

N

Preservation Commitment

DocId:5095869
Tx:4070198

202201005699
Filed for Record in
GEAUGA COUNTY OHIO
Celesta Mullins, Recorder
10/07/2022 09:42 AM
RSTS 210.00
OR Book 2160 Page 272

Environmental Covenant
Bronson Creek Preserve
WPCLF WR392014-0002 Project

To be recorded with Deed - ORC §317.08

ENVIRONMENTAL COVENANT
RESTRICTIONS
Fee Simple Covenant – Title to Property is Transferred
Ohio Water Pollution Control Loan Fund

Water Resource Restoration Sponsor Program
Bronson Creek Watershed
WPCLF WR392014-0002
[Happy Hunting Ground]
Bronson Creek Preserve Project

This Environmental Covenant ("Covenant") is entered into by West Creek Conservancy, an Ohio non-profit corporation ("Owner"), and the State of Ohio Environmental Protection Agency, including its successor agencies ("Ohio EPA"), a non-holding party, pursuant to Ohio Revised Code ("R.C.") §5301.80 to §5301.92, for the purpose of restoring, maintaining and protecting, in perpetuity, the Conservation Values identified herein by subjecting the property described below to the activity and use limitations set forth herein. For the purposes of this Covenant, the Owner, the Holder and Ohio EPA shall be known collectively as the "Parties." This Covenant concerns the Property described in Section 2. below.

Ohio EPA, through its Water Pollution Control Loan Fund ("Fund") and the Fund's Water Resource Restoration Sponsor Program ("Program"), offers financial assistance pursuant to R.C.§6111.036 for the restoration or protection, or both, and maintenance of Ohio's aquatic ecosystem resources. Ohio EPA has awarded financial assistance to Northeast Ohio Regional Sewer District ("Loan Recipient") for the implementation of the environmental response project as approved by Ohio EPA (referred to herein as the "Project") that is the basis for this Covenant as set

forth in R.C. §5301.80(E)(3). As part of the Project, the Loan Recipient will cause the restoration, or protection, or both, and the maintenance, of the aquatic ecosystem resources associated with the Property.

As a condition of Ohio EPA's award of financial assistance from the Fund for the Project, Ohio EPA, the Loan Recipient, and the Owner have agreed to legally restrict the activities that will be conducted upon, and uses that will be made of, the Property in order to prevent direct and indirect adverse impacts to surface and ground waters, and to the Conservation Values associated with the Property.

All persons shall take notice that if the Loan Recipient or any party acting on behalf of or at the behest of the Loan Recipient violates this Covenant, the violation will be considered a default on the part of the Loan Recipient under the terms of the Fund's agreement for financial assistance for the implementation of the Project, entered into by Ohio EPA and the Loan Recipient.

Now therefore, the Owner, the Holder(s) and Ohio EPA agree to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to R.C. §5301.80 to §5301.92.

2. Property. This Covenant concerns an approximately 356 acre tract of real property, owned by West Creek Conservancy located in Montville Township, Geauga County, Ohio, and more particularly described in Exhibit A attached to this Covenant and incorporated by reference (the "Property").

3. Owner. West Creek Conservancy of 7381 Camelot Drive, Parma, Ohio, 44134 is the Owner of the Property. All references to "Owner" in this Covenant shall include a reference to all owners of the Property executing this Covenant, jointly and severally, if there is more than one owner, and all assigns and successors in interest of the present owner(s), including any Transferee. The term "Transferee," as used in this Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.

4. Ohio EPA. References to "Ohio EPA" include the Ohio Environmental Protection Agency and any successor agency.

5. Holder. West Creek Conservancy of P. O. Box 347113, Parma, Ohio, 44134 is a Holder of this Covenant ("Holder"). All references to "Holder" in this Covenant shall include all present and future

holders under this Covenant, jointly and severally, if there is more than one holder. Holders may be added in accordance with the section of this Covenant entitled "Amendment of the Covenant or the Plan."

6. Conservation Values. The Parties recognize the value of the Property as an aquatic ecosystem resource, as well as a scenic, natural, and aesthetic resource. The Property in its current state contributes to the physical, biological, and chemical integrity of water resources in the Bronson Creek watershed. The restoration, preservation, and maintenance of the Property as an aquatic ecosystem resource is a part of the attainment and maintenance of the aquatic life uses of the waters of the State of Ohio pursuant to §303 of the Clean Water Act, 33 U.S.C. §1313 and §6111.041 of the Ohio Revised Code.

The Parties hereby agree that effective perpetual protection and maintenance of the Property and of any environmental improvements to the Property made as part of the Project or thereafter, are essential to preserve the Conservation Values of the Property. The Owner and Holder further agree to use their best efforts to identify and prevent from occurring reasonably foreseeable actions that may be detrimental to the accomplishment of the purposes of this Covenant and the Plan.

7. Natural Condition. As used herein, "aquatic ecosystem resource," and "scenic, natural, and aesthetic values" shall, without limiting the generality of the terms, mean a condition that is no less natural than the condition of the Property at the time of the execution of this Covenant, and no less natural than any improved environmental conditions that may be attained subsequently. For the purposes of this Covenant, "natural" means that native plants and animals are permitted to carry out their life cycles without adverse direct or indirect human interference or neglect of the purposes of this Covenant.

8. Restoration and Protection Plan. The above Conservation Values and other conservation values of the Property have been identified and included by the Owner in the Property's final Restoration and Protection Plan as approved by Ohio EPA ("Plan"). The Plan is hereby incorporated by reference into this Covenant, and without limitation is intended to serve as a supplement to the purposes of this Covenant, and further defines the commitments of the Owner for future management of the Property. The Owner represents that this Plan accurately describes the Property at the time of the execution of this Covenant.

No provision of the Plan shall supersede the purposes or terms of the Covenant. If there is a conflict between the language in the Plan and the language in the Covenant, the language of the Covenant shall govern.

Copies of the Plan may be viewed at the headquarters offices of Ohio EPA's Division of Environmental and Financial Assistance, at 50 W. Town Street, Columbus, Ohio, or its successor division.

9. Activity and Use Limitations. The Owner covenants on behalf of the Owner and the Owner's heirs, successors and assigns, with the Holder, its successors and assigns, and with Ohio EPA, to refrain from, severally and collectively, any activity on, or use of, the Property which is inconsistent with the purposes of this Covenant or detrimental to the Conservation Values expressed herein. Such activity or use is expressly prohibited. By way of example and without limitation, the Owner hereby imposes upon the Property and agrees to comply with the following limitations of activity and use of the Property:

a. **Conservation.** Restoration, maintenance, and protection of the Conservation Values of the Property shall be carried out and maintained in accordance with the conservation activities as defined in the Plan and this Covenant.

b. **Natural Area.** The Property shall be maintained in perpetuity as a natural area. The Property shall be managed to accomplish the purposes of this Covenant. If there may be occasion when the management of the Property for a purpose other than those of the Covenant conflicts with the management of the Property for the purposes of the Covenant, the management of the Property for the purposes of the Covenant shall be superior to the management of the Property for any other purpose or use, and the management for the other purpose shall therefore be modified to eliminate conflict, or terminated, in favor of management for the purposes of the Covenant.

In order to maintain the ecological balance of the Property or to protect human health and safety, hunting and trapping may be permitted by the Owner in consultation with the Ohio Department of Natural Resources, Division of Wildlife and in accordance with State regulations.

c. **Division.** The Property may not be voluntarily divided, partitioned, subdivided, or conveyed except in its current configuration; i.e., the Property must be conveyed in its entirety.

d. **Uses of Land.** There shall be no agricultural, industrial, commercial, or residential activity on the Property.

e. **Structures.** No buildings, or other structures including, but not limited to, billboards or advertising of any kind, camping accommodations, and mobile homes shall be erected or placed on the Property.

f. **Resource Extraction.** Owner shall grant no rights for mining, drilling, exploring for or removal of, water, minerals, oil, gas, or other substances from the Property. There shall be no mining, drilling, exploring for or removal of, water, minerals, oil, gas, or other substances from the Property except as identified and described in Exhibit B.

g. **Earth Moving and Land Surface Alteration.** There shall be no ditching, draining, diking, filling, excavating, or removal or disturbance of topsoil, sand, gravel, rock, or other materials.

h. **Drainage Alterations.** There shall be no manipulation or alteration of wetlands, creeks, streams, surface or subsurface springs or other bodies of water, or any activities on, or uses of, the Property that may be detrimental to the aquatic or terrestrial ecosystems of the Property. There shall be no activity that disturbs water bodies, riparian zones, or drainage ways without prior approval of Ohio EPA, consistent with the purposes of this Covenant.

i. **Roads.** There shall be no building of roads or other rights of way. Existing roads may be maintained, but shall not be widened or improved.

j. **Trails.** Limited development of foot trails (including boardwalks) for hiking, photography, or nature observation may be permitted upon the condition that their construction and use shall produce minimum levels of disturbance to the environment, and that their construction and use shall not be detrimental to the Conservation Values of this Covenant. The Owner shall construct no trail without first submitting a plan for the proposed construction and maintenance of the trail to Ohio EPA, and receiving prior approval from Ohio EPA.

k. **Vehicles.** There shall be no operation of automobiles, trucks, snowmobiles, dune buggies, motorcycles, all-terrain vehicles, or any recreational motorized vehicles on the Property, except: (i) law enforcement vehicles, (ii) emergency vehicles, (iii) equipment of Owner used by Owner, or of an agent or contractor of Owner, used for the purpose of maintaining the Property or in connection with activities conforming to the terms of the Covenant that are permitted by the Plan, and (iv) as otherwise provided in Exhibit B of this Covenant.

l. **Dumping.** There shall be no dumping of trash, garbage, or hazardous or toxic substances on the Property. All trash or nonconforming material that is dumped or placed on the Property shall be removed from the Property by the Owner within thirty (30) days of its discovery.

m. **Plants and Animals.** There shall be no purposeful introduction of domestic livestock or non-native plants or animals. Non-native, non-invasive cover crops may be planted temporarily to control erosion and assist in the establishment and restoration of permanent

native habitats. There shall be no feedlots permitted on the Property. No plants or animals shall be removed from the Property except as permitted by the Owner, this Covenant, and State law.

n. **Vegetation Controls.** Except for those actions that are necessary for environmental preservation, management or restoration purposes, for the protection of human health and safety, or for the maintenance of a diversity of naturally occurring habitat types and control of exotic species of plants, there shall be no removal, destruction, cutting, trimming, or mowing of any trees or other vegetation.

o. **Chemical Control of Invasive Species.** Except as may be necessary for environmental preservation, management, or restoration purposes, for the protection of human health and safety, or for the prevention of the spread of a nonnative species, there shall be no use of fertilizers, insecticides, fungicides, or rodenticides. Herbicides may be used for the control of state-designated noxious weeds and for the control of other invasive exotic plant species consistent with best ecosystem management practices and government regulations.

p. **Other Interests in Property.** No new power lines, transmission lines, utility lines, nor communications towers may be constructed on the Property, nor shall any easements or other interests in the Property be granted for this purpose.

10. Running with the Land. This Covenant shall be binding upon the Owner and all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to R.C. §5301.85(A) or any other applicable provision of law.

11. Violation and Corrective Action

a. **Notice and Cure.** If Ohio EPA determines that a violation of the terms of this Covenant has occurred or is threatened, Ohio EPA shall provide written notice of such violation to the Owner, and shall request corrective action sufficient to cure the violation. Where the violation involves injury to the Conservation Values of the Property resulting from use, activity, or neglect that is inconsistent with this Covenant, upon request by Ohio EPA the Owner will restore the portion of the Property so injured to its prior condition in accordance with a plan approved in advance in writing by Ohio EPA.

b. **Injunctive Relief.** If the Owner fails to cure the violation within thirty (30) days after receipt of notice thereof from Ohio EPA, or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, fails to begin curing such violation within the thirty (30) day period, or fails to continue diligently to cure such violation until finally

cured, Ohio EPA may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Conservation Easement, to enjoin the violation, *ex parte* if necessary, by temporary or permanent injunction, and to require the restoration of the Property in the condition that existed prior to any such injury.

c. **Emergency Enforcement.** If Ohio EPA determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Ohio EPA may pursue its remedies under this section without prior notice to the Owner or without waiting for the period provided for cure to expire.

Except as provided in the Section of this Covenant entitled "Ohio EPA's Rights and Remedies," each Party shall bear its own costs incurred in enforcing the terms of this Covenant, including, without limitation, costs and expenses of suit and attorney's fees. Costs of environmental restoration necessitated by the Owner's violation of the terms of this Covenant shall be borne by the Owner.

12. Compliance Enforcement. Compliance with this Covenant may be enforced pursuant to R.C. §5301.91. Failure to timely enforce compliance with this Covenant or the use limitations contained herein by any person to whom relief for violation of the Covenant is available shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Covenant shall restrict the Director of Ohio EPA from exercising any other authority or remedy under applicable law.

All costs incurred by Ohio EPA and/or any Holder other than the Owner in enforcing the terms of this Covenant against the Owner, including, without limitation, costs and expenses of suit and attorney's fees, and any costs of environmental restoration necessitated by the Owner's violation of the terms of this Covenant shall be borne by the Owner.

13. Rights of Access. Owner hereby grants to Ohio EPA, its agents, contractors, and employees, and any Holder other than the Owner, the right of access to the Property for implementation or enforcement of this Covenant, including inspection of the Property or the Project.

14. Right to Post Signs. Ohio EPA shall have the right to post one or more signs on the Property which indicate that the Property's acquisition has been financed by Ohio EPA and the Program. The Owner agrees to notify Ohio EPA if it discovers a sign is damaged or removed.

15. Compliance Reporting. Beginning with a submittal one year and 30 days after the effective date of this Covenant, the Holder and Owner shall annually submit to Ohio EPA written documentation describing the status of the Conservation Values which are the subject of this

Covenant or the Plan, and verifying the extent to which the activity and use limitations remain in place and are being complied with in accordance with this Covenant and the Plan. Each report shall include a complete enumeration and description of any alterations or disturbances made to the Property or the Project that have occurred within or beyond the terms of the Covenant and the Plan that have not been identified in a previous compliance report.

Beginning five years after completion of the Project, the Owner and Ohio EPA may agree to an alternative compliance reporting schedule according to Ohio EPA's determination regarding the needs of the Covenant.

16. Conveyance of the Property and Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property shall contain a notice of the activity and use limitations set forth in this Covenant, and provide the recorded location of this Covenant. The notice shall be substantially in the following form:

"THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED, 20__, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE GEAUGA COUNTY RECORDER ON OCT. 3, 2022 IN [DOCUMENT ___, *or* BOOK *, PAGE ___]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS: * VOL. 2160 PG. 265

[At this point, the notice shall restate Section 9. of this Covenant.]"

The Owner shall notify Ohio EPA, and any Holder other than the Owner, of any intended conveyance not less than thirty (30) days in advance of conveyance of any interest in the Property. The notice shall include the name, address, and telephone number of the proposed transferee, a copy of the proposed deed or other documentation which will evidence the conveyance, and a survey map that shows the boundaries of the Property as it is being transferred.

17. Representations and Warranties. The Owner hereby represents and warrants to the other signatories hereto:

a. that the Owner has the power and authority to enter into this Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder; and

b. that this Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which the Owner is a party of or by which the Owner may be bound or affected; and

c. that the Owner has identified all persons that hold any interest in, or right to, the Property ("Encumbrance") in Exhibit B attached to this Covenant.

18. Encumbrances. The Parties agree that a holder of an effective Encumbrance shall be permitted to conduct activities on, and make uses of, the Property for the limited purposes provided in the Encumbrance, subject to the provisions of the following paragraph.

When a holder of an Encumbrance performs any activity on the Property, the Owner and the Holder shall, or shall cause the Encumbrance holder to, restore the Property as quickly as possible to its original condition. Such restoration shall be designed and implemented with prior consultation with Ohio EPA and shall be incorporated into the Plan for future maintenance.

19. Termination of the Covenant. This Covenant may be terminated only (1) as a result of the exercise of the power of eminent domain, or (2) (a) when Ohio EPA and all persons consent in accordance with the requirements of §5301.90(A) of the Revised Code and (b) when it becomes impossible to secure, to a substantial degree, the benefits sought through the Covenant.

Certain changes in the character of land use in and around the Property are inevitable, and are considered to be within the contemplation of the Parties. Only where the changes which have occurred are of such importance as to amount to a defeat of the purposes of the Covenant may the Parties initiate termination. Changes which merely reduce the benefits derived from the enforcement of the Covenant are not sufficient grounds for the Parties to seek to terminate the Covenant.

Termination means the elimination of all activity and use limitations set forth herein and all other obligations under this Covenant.

20. Amendment of the Covenant or the Plan.

a. This Covenant may be amended to accommodate an assignment of the Covenant to a new Holder pursuant to R.C. §5301.90(C).

b. Otherwise, the Covenant or the Plan may be amended only upon agreement by all the persons identified in R.C. §5301.90(A) that a proposed amendment is consistent with the purposes of the restoration or preservation of the Property, and is without adverse direct or indirect impact to the Property's Conservation Values. Each person shall document in writing that it has reviewed the proposed amendment, found it to be consistent and without such adverse direct or indirect impact, and shall state the basis for those findings. The documentation shall be submitted to Ohio EPA.

c. Any amendment shall be made only by a written instrument duly executed by the Director of Ohio EPA, the Owner, and Holder pursuant to R.C. §5301.90 and other applicable law.

The Owner shall file such instrument for recording with the Geauga County Recorder's Office within thirty (30) days of signature by all requisite parties. Within ten (10) days of recordation, the Owner shall distribute a file- and date-stamped copy of the amended recorded Covenant to: Ohio EPA's Division of Environmental and Financial Assistance, the County of Geauga, the Township of Montville, , any Holder, any lessee, each person who signed the Covenant (unless the person waived in a signed record the right to consent or unless a court finds that the person no longer exists or cannot be located or identified with the exercise of reasonable diligence), each person holding a recorded interest in the Property, and any other person designated by Ohio EPA.

d. Amendment means any changes to this Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining.

21. Exercise of eminent domain. The Owner and the Holder shall use their best efforts against any attempt to exercise the power of eminent domain or other involuntary attempt to extinguish, limit, or impair this Covenant.

In the event of a valid exercise of eminent domain, the Owner, Holder and Ohio EPA, may collectively agree to a settlement of terms that includes but is not limited to location of any easement, construction practices related thereto, or the fair market value of said interest in the Property. Such settlement shall be incorporated into the Covenant upon the approval of Ohio EPA.

22. Restitution.

a. If as a result of the reduction of the burden of this Covenant, or as a result of the termination of this Covenant or, as a result of the termination of the Covenant and transfer of all or part of any interest in the Property, proceeds or compensation are received by the Owner, then any such proceeds or compensation received by the Owner in exchange for an interest in the Property or in exchange for use of the Property, including without limitation rent or other income, shall be divided between Ohio EPA and the Owner, in proportion to their respective individual investments in the Property.

That proportion shall be established by using the ratio of (A) the monetary contribution by Ohio EPA for the Project to (B) the monetary contribution of the Owner for the acquisition

of the Property, or for the restoration of the Property for the purposes of this Covenant, all as valued at the time the Project is completed.

b. If the proceeds or compensation are not in the form of money (e.g., proceeds in the form of a grant of another parcel of land or easement on another parcel of land), the fair market value of the proceeds shall be determined by appraisal or other agreed method, and the Owner shall pay to Ohio EPA a sum equivalent to that portion of the fair market value equal to the proportional share of Ohio EPA's investment in the Property.

c. Ohio EPA hereby covenants to apply its share of such proceeds to a project of the Fund or, if the Fund no longer exists, to a project at any location in Ohio that accomplishes the same water resource restoration and protection purposes as this Covenant.

d. The Owner hereby covenants to apply its share of such proceeds to a project at any location in Ohio that accomplishes the same water resource restoration and protection purposes as this Covenant.

e. The Owner shall provide written notice to Ohio EPA not less than sixty (60) days prior to the initiation of any judicial proceedings pursuant to this section.

23. Ohio EPA's Rights and Remedies. Notwithstanding other rights and remedies available to Ohio EPA under this Covenant and pursuant to R.C. §5301.80 to §5301.92, in order to accomplish the purposes of this Covenant the following rights and remedies are conveyed to Ohio EPA so that it may: (1) preserve and protect the Conservation Values of the Property, (2) prevent any activity on or use of the Property which is inconsistent with the purposes of this Covenant, and (3) require the restoration of any areas of the Property that may be damaged by any unauthorized activity or use.

a. **Scope of Relief.** The Owner agrees that Ohio EPA may be entitled to the injunctive relief described in this section in addition to such other relief to which Ohio EPA may be entitled, including specific performance of the terms of this Covenant, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Ohio EPA's remedies described in this Covenant shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

b. **Damages.** Where injunctive relief or specific performance does not sufficiently repair or restore Conservation Values damaged or diminished by a violation of this Covenant, Ohio EPA shall be entitled to recover damages for violation of the terms of this Covenant or for injury to any Conservation Values protected by this Covenant, including, without limitation, damages for adverse impacts to water quality or aquatic ecosystems. Without limiting the Owner's liability

therefore, Ohio EPA, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Property.

c. **Cost of Enforcement**. All costs incurred by Ohio EPA in enforcing the terms of this Covenant against the Owner, including, without limitations, costs and expenses of suit and attorney's fees, and any costs of restoration necessitated by the Owner's violation of the terms of this Covenant shall be borne by the Owner.

d. **Forbearance.** Forbearance by Ohio EPA to exercise its rights under this Covenant in the event of any breach of any of its terms shall not be deemed or construed to be a waiver by Ohio EPA of such term or of any subsequent breach of the same. No delay or omission by Ohio EPA in the exercise of any right or remedy shall be construed as a waiver.

e. **Waiver of Certain Defenses**. The Owner or any Transferee hereby waives any defenses of laches, estoppel, adverse possession, or prescription.

24. Liability. The Owner and the Holder agree that the State of Ohio, Ohio EPA, its officers, employees, and agents shall not be liable for any loss or damage to property, or for any loss or injury to or death of any person, or for any other loss or damage, that may be occasioned by any cause whatsoever pertaining to the Project, or the use thereof, provided that such damages are not the caused by negligent or intentional acts of Ohio EPA, its officers, employees and agents.

25. Severability. If any provision of this Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

26. Governing Law. This Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.

27. Effective Date. The effective date of this Covenant shall be the later of: (a) the date upon which both the Owner and Holder, and Ohio EPA have signed the Covenant, or (b) the date the Owner has acquired title to the Property, in which latter case representations made by the Owner in this Covenant as to the Property will take effect on the date of title acquisition.

28. Recordation. Not more than thirty (30) days after the Effective Date of this Covenant, the Owner shall file the Covenant for recording, in the same manner as a deed to the Property, with the [*Name of County where Property is located*] County Recorder's Office.

29. Distribution of Environmental Covenant. Within ten (10) days of recordation, the Owner shall distribute a file- and date-stamped copy of the recorded Covenant to: Ohio EPA, the Township of

Montville, Geauga County, any Holder, any lessee, each person who signed the Covenant, each person holding a recorded interest in the Property, and any other person designated by Ohio EPA.

30. Notice. Unless Ohio EPA notifies the Owner in writing otherwise, any document or communication required by this Covenant to be submitted to Ohio EPA shall be submitted to:

Ohio Environmental Protection Agency
Lazarus Government Center
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049
Attn: Environmental Manager, Division of Environmental and Financial Assistance

or, where this address is no longer valid and Ohio EPA has not notified otherwise, to the Director of Ohio EPA at his headquarters offices.

31. Authorized Representative. The undersigned representatives of the Owner and the Holder represent and certify that they are each authorized to execute this Covenant.

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Environmental Covenant
Bronson Creek Preserve
WPCLF WR392014-0002 Project

IT IS SO AGREED:

OWNER

West Creek Conservancy

Signature

8/11/2022
Date

Derek Schafer
Name of Signatory

Executive Director
Title

State of Ohio)

ss:

County of Cuyahoga)

Before me, a notary public, in and for said county and state, personally appeared Derek Schafer, a duly authorized representative of West Creek Conservancy who acknowledged to me that he did execute the foregoing instrument on behalf of West Creek Conservancy.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 11 day of August, 20 22.

Notary Public

Amy L. Napoli
Notary Public
State of Ohio
My Commission Expires
August 18, 2026

SEAL

HOLDER

West Creek Conservancy

Signature _____ Date 8/11/2022

Derek Schafer
Name of Signatory

Executive Director
Title

State of Ohio)
ss:
County of Cuyahoga)

Before me, a notary public, in and for said county and state, personally appeared Derek Schafer, a duly authorized representative of West Creek Conservancy who acknowledged to me that he did execute the foregoing instrument on behalf of West Creek Conservancy.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 11 day of August, 20 22.

Amy L. Napoli
Notary Public
State of Ohio
My Commission Expires
August 18, 2026

Notary Public

SEAL

Environmental Covenant
Bronson Creek Preserve
WPCLF WR392014-0002 Project

OHIO ENVIRONMENTAL PROTECTION AGENCY

Laurie A. Stevenson, Director

5/1/22
Date

State of Ohio)

ss:

County of Franklin)

Before me, a notary public, in and for said county and state, personally appeared, Laurie A. Stevenson, the Director of the Ohio Environmental Protection Agency, who acknowledged to me that she did execute the foregoing instrument on behalf the Ohio Environmental Protection Agency.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 1ST day of SEPTEMBER, 20 22.

Notary Public

CHARMA DIANE CASTEEL
NOTARY PUBLIC
STATE OF OHIO
MY COMMISSION EXPIRES
May 10, 2024

NOTARIAL SEAL STATE OF OHIO

SEAL

Environmental Covenant
Bronson Creek Preserve
WPCLF WR392014-0002 Project

This instrument was prepared by:
Janine Maney, Senior Staf f Attorney, Ohio EPA
50 West Town St., Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049 (614) 644-3037

The remainder of this page intentionally blank.

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

PARCEL NO. 1:
Situated in the Township of Montville, County of Geauga and State of Ohio;
And known as being part of Section No. 7 in said Montville Township and bounded and described as follows:
Commencing at the Northeast corner of said Section No. 7;

Thence South 4 degrees 28' 30" West, 4737.86 feet along the east line of said Section No. 7, to a point in the north line of a parcel of land conveyed to G. Brown by deed recorded in Volume 418, Page 993 of Geauga County Records of Deeds;

Thence North 85 degrees 52' 00" West, 929.28 feet along said north line of G. Brown, to a point in the east line of a 123.50 acre parcel of land conveyed to L.F. & E.E. Schutrum by deeds recorded in Volume 246, Page 37 and Volume 580, Page 1168 of Geauga County Records of Deeds;

Thence North 4 degrees 28' 30" East, 468.60 feet along the east line of said L.F. & E.E. Schutrum land, to the northeast corner of said L.F. & E.E. Schutrum land;

Thence North 85 degrees 52' 00" West, 1995.92 feet along the north line of said L.F. & E.E. Schutrum to the interesection of the southerly prolongation of the eas tline of a 4 acre parcel of land conveyed to K. & R. Bushman by deed recorded in Volume 562, Page 1029 of Geauga County Records of Deeds;

Thence North 1 degree 01' 10" East, 4012.44 feet along the southerly prolongation of the east line of said K. & R. Bushman land and along the east line of said K. & R. Busman land and along the east line of a 51 acre parcel of land conveyed to C. & E. Sussman by deeds recorded in Volume 247, Page 395 and Volume 255, Page 4437 of Geauga County Records of Deeds and along an east line of a 136.12 acre parcel of land conveyed to M. Beardsley etal, by deeds recorded in Volume 199, Page 85-88 and Volume 199, Page 428-510 of Geauga County Records of Deeds to a corner of said M. Beardsley land;

Thence South 86 degrees 08' 47" East, 528.00 feet along a south line of said M. Beardsley land to another corner of said land;

Thence North 1 degree 01' 10" East, 247.50 feet along an east line of said Montville Township and the northeast corner of said M. Beardsley land;

Thence South 86 degrees 08' 47" East, 2654.10 feet along the north line of said Section No. 7 which is also the south line of a 73 acre parcel of land conveyed to J. & M. Twarogowski by deed recorded in Volume 213, Page 583 of Geauga County Records of Deeds and of a 93 acre parcel of land conveyed to P. Tommer by deeds recorded in Volume 203, Page 94 and Volume 580, Page 130 of Geauga County Records of Deeds to the northeast corner of said Section No. 7 and the place of beginning and containing 305.7512 acres of land, surveyed by Richard R. Mackey Ohio Surveyor No. 4195, be the same more or less, but subject to all legal highways.

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PARCEL NO. 2:
Situated in the Township of Montville, County of Geauga and State of Ohio:

And known as being part of Section 7 of said township and further bounded and described as follows:

Beginning at a point at the centerline intersection of Madison Road (S.R. 528) and Hart Road;

Thence South 85 deg. 30' East, along said centerline of Hart Road, a distance of 2636.78 feet to a point at the northwest corner of land conveyed to J. and T. Van Norman by deed recorded in Volume 756, Page 1000 of Geauga County Record of Deeds;

Thence South 4 deg. 30' West, along the west line of said Van Norman land, a distance of 630.21 feet to a 5/8" capped rebar set at the southwest corner thereof and the true place of beginning for the parcel herein described;

Thence South 85 deg. 30' East, along the south line of said Van Norman's land, and along the south line of land conveyed to C.S. Taylor by deed recorded in Volume 633, Page 301 of Geauga County Record of Deeds, along the south line of land conveyed to N. and S. Miller by deed recorded in Volume 663, Page 818 of Geauga County Record of Deeds, and along the south line of land conveyed to C.Y. Watt by deed recorded in Volume 1064, Page 1056 of Geauga County Record of Deeds, a distance of 1678.00 feet to a 1/2" iron pin found on the west line of land conveyed to C. and H. Mitchell by deed recorded in Volume 862, Page 1047 of Geauga County Record of Deeds;

Thence South 1 deg. 38' West, along said west line of Mitchell's land, a distance of 1677.31 feet to a 5/8" rebar found on the north line of land conveyed to L. and E. Schutrum by deed recorded in Volume 680, Page 1167 of Geauga County Records of Deeds;

Thence North 85 deg. 16' West, along the north line of said Schutrum's land, a distance of 764.81 feet to a 5/8" rebar found at the southeast corner of land conveyed to R. and M. Difranco by deed recorded in Volume 508, Page 3 of Geauga County Record of Deeds;

Thence North 4 deg. 44' East, along the east line of said Difranco's land, a distance of 462.00 feet to a 5/8" rebar found;

Thence North 85 deg. 16' West, along the north line of said Difranco's land, a distance of 978.97 feet to a 5/8" rebar set;

Thence North 4 deg. 30' East, a distance of 1206.03 feet to a point and the true place of beginning, and containing therein 55.6266 acres of land as surveyed in May 1997 by Jerry W. Danieal, Registered Surveyor No. 6222, be the same more or less, but subject to all legal highways.

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Excepting from the above described Parcel No. 1, the following described 5.00 acre parcel:

Situated in the Township of Montville, County of Geauga, and State of Ohio, and known as being part of Parcel No. 20-047400, being part of a parcel of land conveyed to Happy Hunting Grounds, LTD. by deed recorded in OR Book 1931, Page 2547 of Geauga County Records of part of Section No. 7 in Original Montville Township, and bounded and described as follows:

Beginning at a point in the centerline of Hart Road, 60 feet wide, at its intersection with the westerly line of said land conveyed to Happy Hunting Grounds, LTD;

Thence North 1 degree 01 minutes 10 seconds East along the westerly line of said land conveyed to Happy Hunting Grounds, LTD., 59.95 feet to a point, and the principal place of beginning of the easement herein described;

Thence North 1 degree 01 minutes 10 seconds East along the westerly line of said land conveyed to Happy Hunting Grounds, LTD., 27.00 feet to a point;

Thence South 87 degrees 47 minutes 29 seconds East, 289.00 feet to a point;

Thence North 4 degrees 32 minutes 45 seconds East, 49.00 feet to a point;

Thence North 10 degrees 39 minutes 08 seconds East, 181.00 feet to a point;

Thence North 33 degrees 58 minutes 23 seconds East, 62.00 feet to a point;

Thence South 88 degrees 05 minutes 53 seconds East, 95.00 feet to a point;

Thence South 9 degrees 04 minutes 12 seconds East, 94.00 feet to a point;

Thence South 15 degrees 45 minutes 29 seconds East, 73.00 feet to a point;

Thence South 21 degrees 19 minutes 49 seconds East, 108.00 feet to a point;

Thence South 10 degrees 51 minutes 42 seconds East, 83.00 feet to a point;

Thence South 2 degrees 07 minutes 01 seconds West, 285.00 feet to a point;

Thence North 85 degrees 56 minutes 31 seconds West, 341.00 feet to a point;

Thence North 70 degrees 23 minutes 55 seconds West, 50.00 feet to a point;

Thence North 48 degrees 30 minutes 52 seconds West, 81.00 feet to a point;

Thence North 65 degrees 24 minutes 10 seconds West, 100.00 feet to a point at its intersection with the westerly line of said land conveyed to Happy Hunting Grounds, LTD.;

Thence North 1 degree 01 minutes 10 seconds East along the westerly line of said land conveyed to Happy Hunting Grounds, LTD., 113.00 feet to a point;

Thence South 86 degrees 06 minutes 50 seconds East, 51.00 feet to a point;

Thence North 1 degree 01 minutes 10 seconds East, 90.00 feet to a point;

Thence North 86 degrees 06 minutes 50 seconds West, 51.00 feet to the principal place of beginning, and containing 5.000 acres of land as described by Donald G. Bohning & Associates, Inc. in March, 2022.

The courses used in this description are referenced to an assumed meridian, and are used to indicate angles only.

The remainder of this page is intentionally left blank.

EXHIBIT B

MAP, EASEMENTS AND OTHER ENCUMBRANCES

Right of Way Agreement by and between Gerard F. Perko and Romac Petroleum Inc. recorded June 23, 1978 in Volume 623, Page 1063 in the Geauga County, Ohio records.

Right of Way Agreement by and between Catherine T. Perko Family Trust by Anthony J. Perko Jr., Trustee and Lomak Petroleum, Inc. recorded November 21, 1983 in Volume 707, Page 274 in the Geauga County, Ohio records.

Easement for Highway Purposes by and between Charles S. Mitchell and Helen E. Mitchell, husband and wife and Geauga County Board of Commissioners, recorded October 9, 1996 in Volume 1074, Page 338 in the Geauga County, Ohio records.

Easement by and between Anthony Jude Asher, et al and the Cleveland Electric Illuminating Company, recorded June 4, 2012 in OR Book 1925, Page 78 in the Geauga County, Ohio records.

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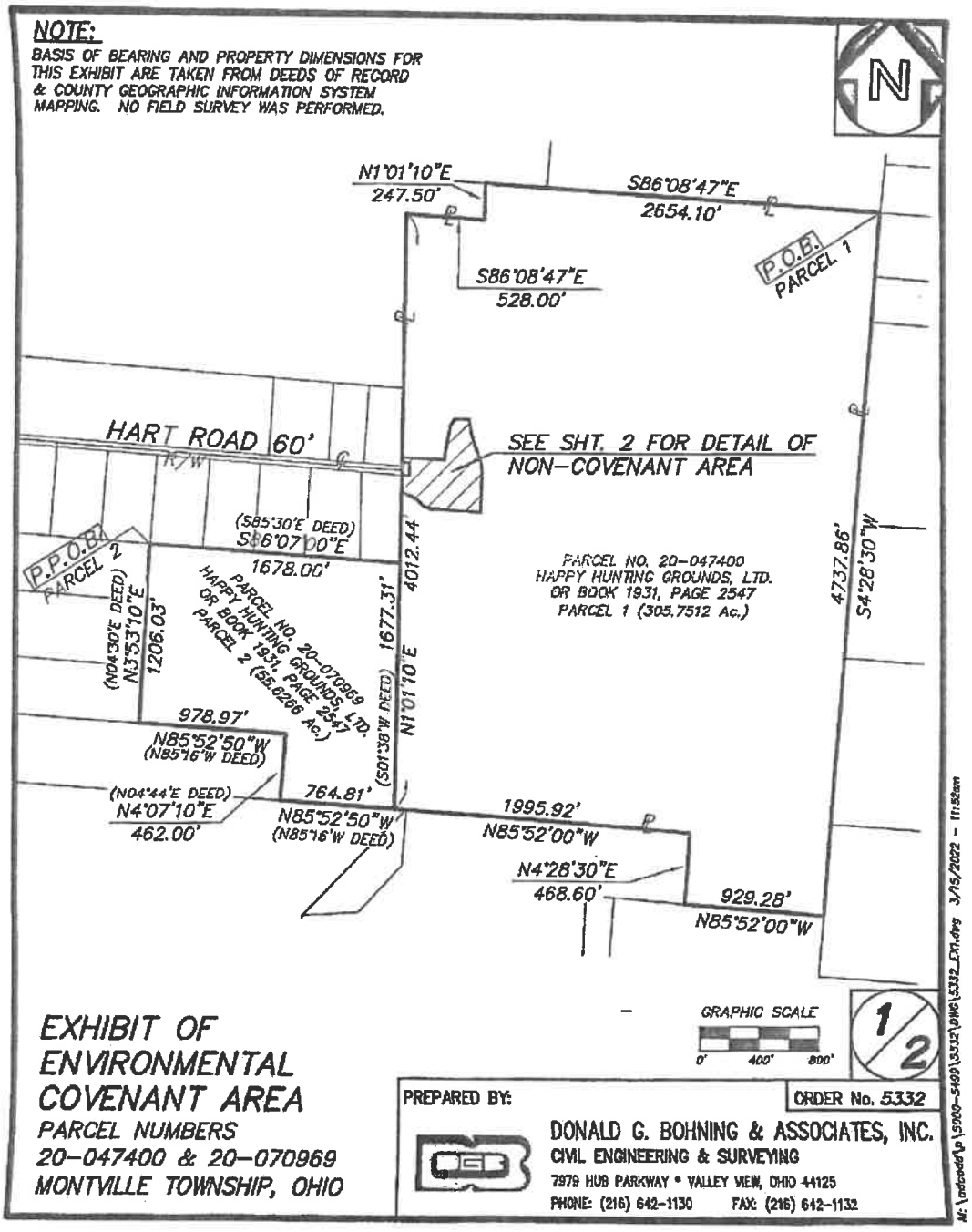
NOTE:
BASIS OF BEARING AND PROPERTY DIMENSIONS FOR THIS EXHIBIT ARE TAKEN FROM DEEDS OF RECORD & COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING. NO FIELD SURVEY WAS PERFORMED.
N
N1°01'10"E
247.50'
S86°08'47"E
2654.10'
P.O.B. PARCEL 1
S86°08'47"E
528.00'
HART ROAD 60'
R/W
SEE SHT. 2 FOR DETAIL OF NON-COVENANT AREA
(S85°30'E DEED)
S86°07'00"E
1678.00'
P.O.B. PARCEL 2
(N04°30'E DEED)
N3°53'10"E
1206.03'
PARCEL NO. 20-070969
HAPPY HUNTING GROUNDS, LTD.
OR BOOK 1931, PAGE 2547
PARCEL 2 (55.6266 Ac.)
1677.31'
(S01°38'W DEED)
N1°01'10"E
4012.44'
PARCEL NO. 20-047400
HAPPY HUNTING GROUNDS, LTD.
OR BOOK 1931, PAGE 2547
PARCEL 1 (305.7512 Ac.)
4737.86'
S4°28'30"W
978.97'
N85°52'50"W
(N85°16'W DEED)
(N04°44'E DEED)
N4°07'10"E
462.00'
764.81'
N85°52'50"W
(N85°16'W DEED)
1995.92'
N85°52'00"W
N4°28'30"E
468.60'
929.28'
N85°52'00"W
GRAPHIC SCALE
0' 400' 800'
1/2
EXHIBIT OF ENVIRONMENTAL COVENANT AREA
PARCEL NUMBERS
20-047400 & 20-070969
MONTVILLE TOWNSHIP, OHIO
PREPARED BY:
ORDER No. 5332
DONALD G. BOHNING & ASSOCIATES, INC.
CIVIL ENGINEERING & SURVEYING
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125
PHONE: (216) 642-1130 FAX: (216) 642-1132
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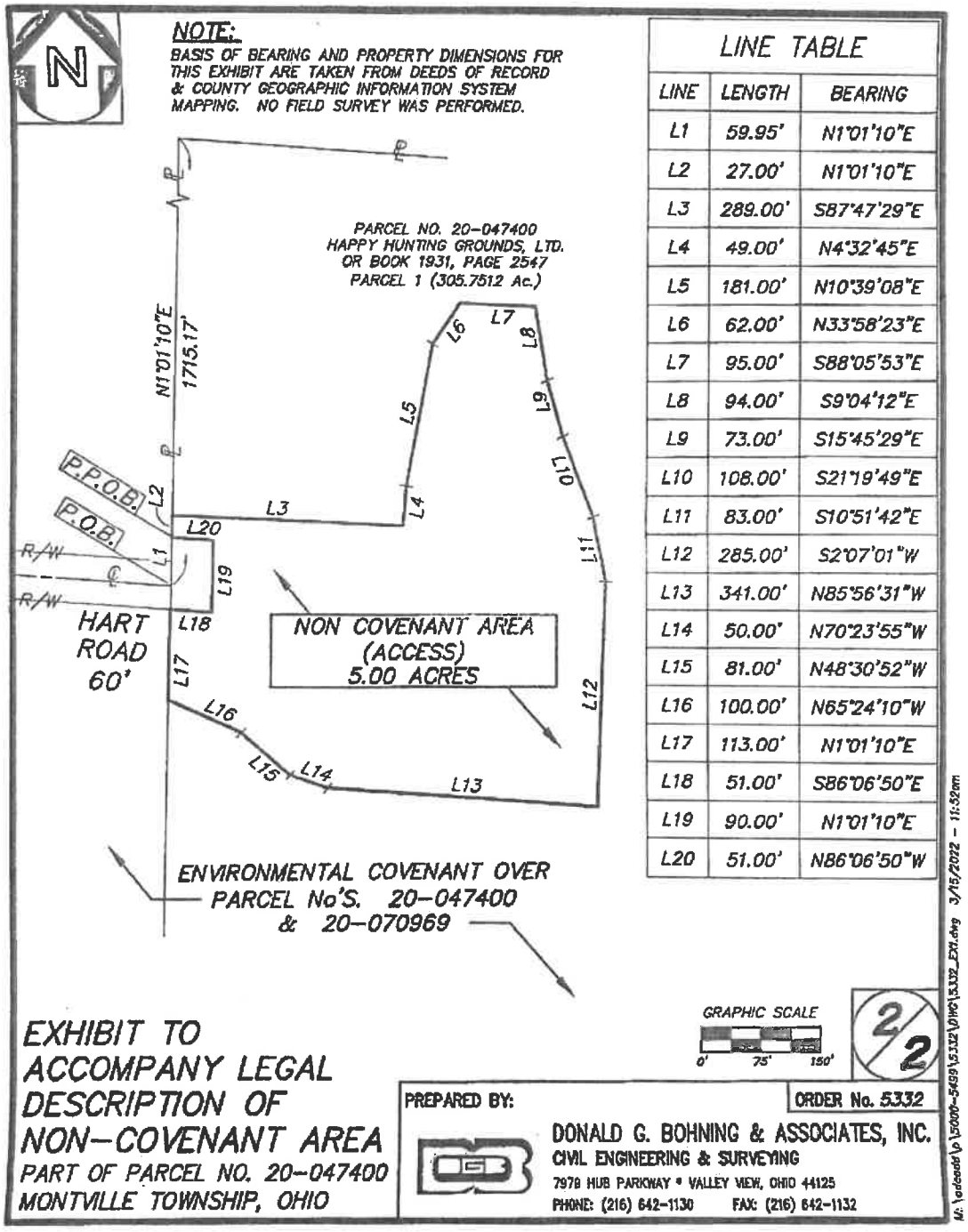

LINE TABLE		
LINE	LENGTH	BEARING
L1	59.95'	N1°01'10"E
L2	27.00'	N1°01'10"E
L3	289.00'	S87°47'29"E
L4	49.00'	N4°32'45"E
L5	181.00'	N10°39'08"E
L6	62.00'	N33°58'23"E
L7	95.00'	S88°05'53"E
L8	94.00'	S9°04'12"E
L9	73.00'	S15°45'29"E
L10	108.00'	S21°19'49"E
L11	83.00'	S10°51'42"E
L12	285.00'	S2°07'01"W
L13	341.00'	N85°56'31"W
L14	50.00'	N70°23'55"W
L15	81.00'	N48°30'52"W
L16	100.00'	N65°24'10"W
L17	113.00'	N1°01'10"E
L18	51.00'	S86°06'50"E
L19	90.00'	N1°01'10"E
L20	51.00'	N86°06'50"W

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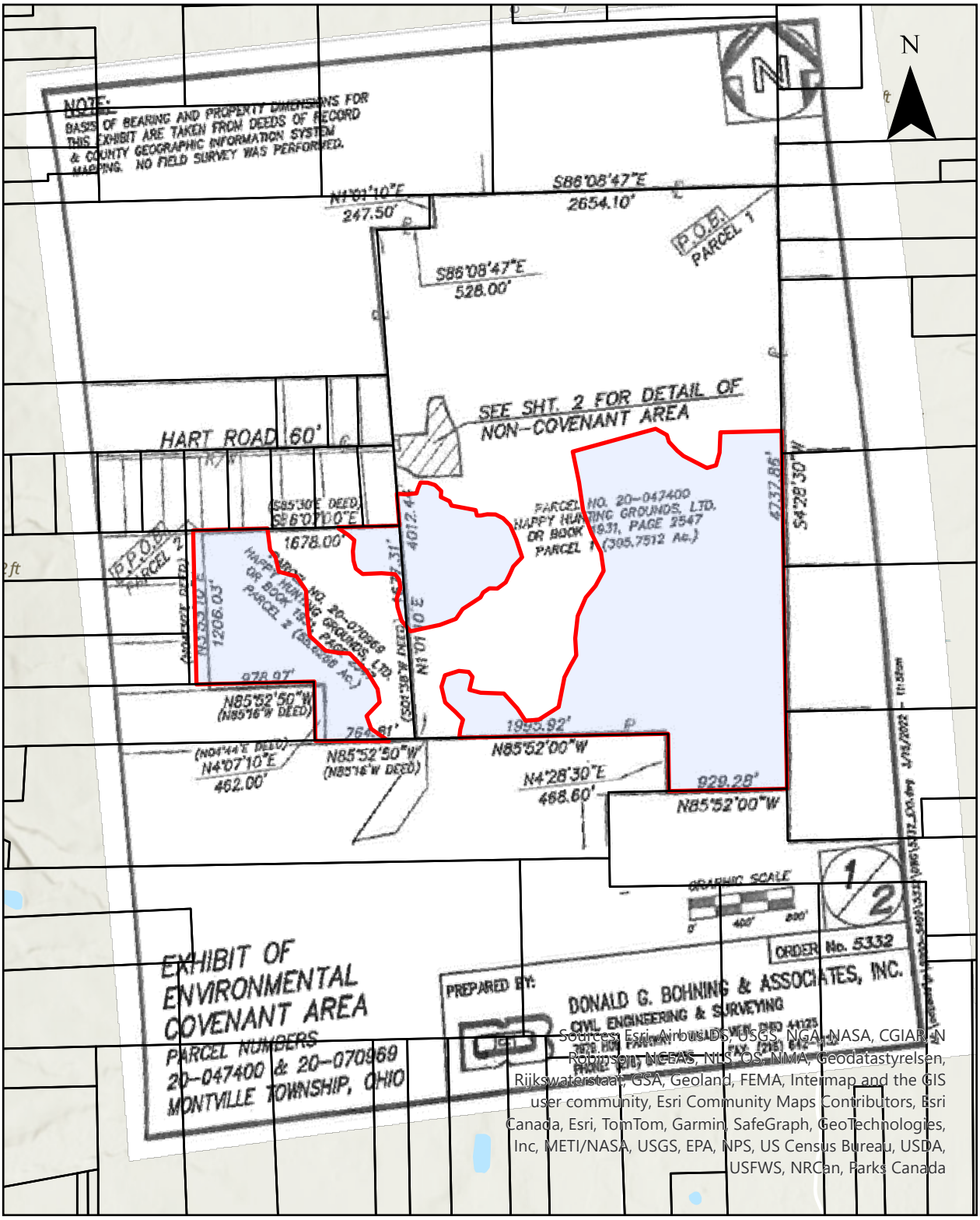
Spring Creek Non-Covenant Area

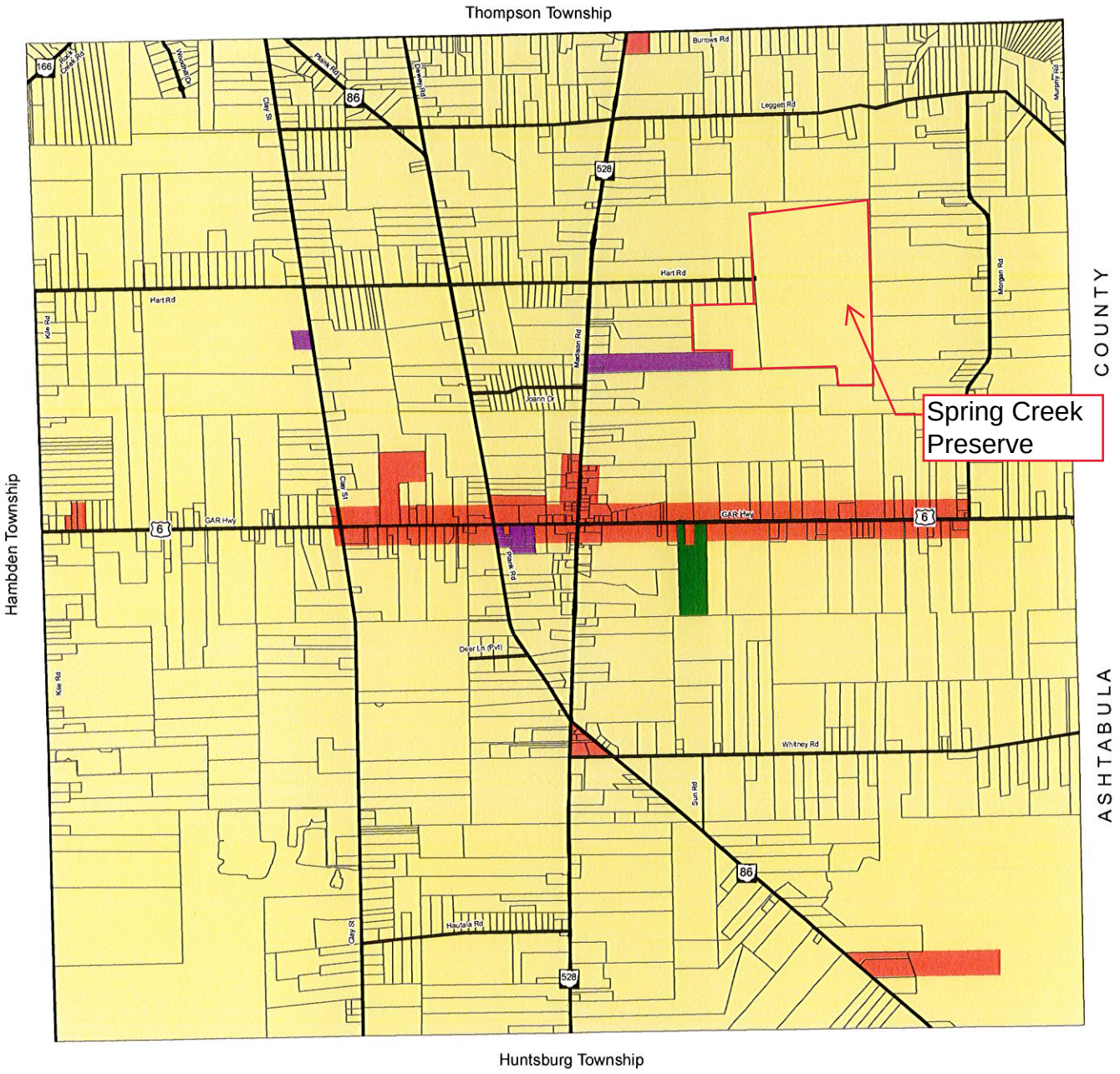


0 0.07 0.15 0.3 Miles

Legend

- County Parcels Geauga
- Spring Creek Project Area

Zoning Maps



Montville Township Zoning Map

Zoning Districts

- R-1: Residential
- C: Commercial
- I: Industrial
- P-2: Active Park

Prepared by the Geauga County Planning Commission, May 1993.
Revised: March 1998, September 1999, November 2000, September 2011.
Lot Lines and Roads Revised March 2008, September 2011, January 2016.

Note: The Geauga County Planning Commission does not warrant the accuracy of this map. It is not based upon a land survey.

Amendment No. 2011-1 and 2011-2 is Hereby Adopted by the Montville Township Board of Trustees this 5th Day of December, 2011.

Alexa Holbert
Randal Peterson
Jim Marsic

Effective the 4th Day of January, 2012.

Sarah McDonald, Fiscal Officer

Lot Lines and Roads Updated This 2nd Day of February, 2016

Frank Antenucci, Trustee

Randal Peterson, Trustee

Jim Marsic, Trustee

Sarah McDonald, Fiscal Officer

Zoning Description(s)

ARTICLE IV

DISTRICT REGULATIONS

Section 400.0 General

A. The uses set forth as principal uses in each zoning district shall be permitted by right as the principal building, structure or use of a lot.

B. The uses set forth as accessory uses in each zoning district shall be permitted by right as buildings, structures, or uses which are subordinate and incidental to principal buildings, structures and uses.

C. The uses set forth as conditional uses in each zoning district shall not be permitted by right. Such buildings, structures, and uses may be permitted only under specific conditions and in accordance with the provisions of Article V.

Section 401.0 Prohibited Uses in All Zoning Districts

A. Any use not specifically listed in this resolution shall not be permitted nor shall any zoning certificate be issued therefor, unless and until a zoning amendment to provide for such use has been adopted and is in effect in accordance with Article XII or a variance has been granted in accordance with Article X.

B. The following uses shall be prohibited in any residential, commercial or industrial district:
   1. Amusement arcade
   2. Brewery
   3. Metallic powder works
   4. Bulk petroleum station with tanks above ground
   5. Chemical plant
   6. Crematory
   7. Distilling of bones, fat or glue or gelatin manufacturing
   8. Manufacturing of or storage of explosives, gunpowder or fireworks.
   9. Dumping, storing, burying, reducing, disposing of or incineration of garbage, refuse, scrap metal, rubbish or dead animals or hazardous or infectious waste.
   10. Junk yards, automobile graveyards, automotive wrecking or places for the collection of scrap metal, paper, bags, glass or junk for salvage storage purposes. No junk vehicle, as defined herein, including an unlicensed collector's vehicle shall be stored or located outside of a fully enclosed fence or building so as to conceal it from view.
   11. Outdoor theaters
   12. Slaughter houses
   13. Mobile homes
   14. Solid waste facilities, solid waste transfer facilities, and construction and demolition debris facilities
   15. Basements, wholly or partially below grade, or garages for dwelling purposes.
   16. Gun clubs and competitive use of firearms
   17. Lighting fixtures and devices from which direct glare is visible on adjoining roads or lots including flashing lights
   18. Trucks, trailers, and other vehicles for temporary or permanent storage of materials, supplies or merchandise of any type on a lot.
   19. Manufactured home parks

20. Harboring, maintaining or controlling wild, dangerous or undomesticated animals. A "wild, dangerous or undomesticated animal" means an animal whose natural habitat is the wilderness and which, when maintained in human society, is usually confined to a zoological park or exotic animal farm and which:

    a. Is a poisonous or venomous animal or snake, or a snake that is a constrictor;

    b. Is an omnivorous or carnivorous animal weighing more than twenty (20) pounds and which is a predator in its natural habitat;

    c. Is an animal which, by reason of its size, strength or appetite, if unrestrained and free in the township, could cause peril to persons, pets or other domesticated animals, buildings, landscaping or personal property.

    d. Is, by illustration, and without limitation to the following: a lion, tiger, lynx, mountain lion, jaguar, cheetah, bear, leopard, panther, wolverine, elk, moose, caribou, boar, elephant, giraffe, rhinoceros, hippopotamus, wild ox, wolf, crocodile, alligator, caiman, gavial, hyena, gorilla, or coyote.

Section 402.0 R-1: Residential District

Section 402.1 Permitted Principal Buildings, Structures and Uses

A. Cemeteries

B. Certified foster homes

C. Churches

D. Governmental offices

E. Licensed residential facility subject to the regulations set forth in Section 402.12

F. Police and fire stations

G. Public parks owned or leased by a political subdivision of the state of Ohio

H. Schools

I. Single family detached dwellings, including industrialized units and manufactured homes subject to the regulations set forth in Section 402.11. There shall be no more than one (1) single family detached dwelling on a lot.

Section 402.2 Permitted Accessory Buildings, Structures and Uses (which are on the same lot with and incidental or subordinate to the principal permitted building, structure or use)

A. The following are a list of permitted accessory buildings, structures and uses that require a zoning certificate and must conform to 402.6 except as may otherwise be provided herein.

1. Private garages designed and used for the storage of motor vehicles owned and/or operated by the occupants of the principal building or structure.

2. Signs in accordance with Article VII.

3. Swimming pools in accordance with the following regulations:

    a. A Zoning certificate shall be required for the construction of an above or inground pool one hundred (100) feet or larger in perimeter.

    b. A swimming pool shall be used solely by the occupants of the principal use or their guests of the property on which it is located.

    c. A swimming pool shall not be located closer than twenty-five (25) feet to any lot line.

    d. An inground swimming pool shall be completely enclosed by a locked gated fence or wall at least four (4) feet in height and not less than six (6) feet from the perimeter of the pool.

4. Ponds/Lakes - A zoning certificate shall be required for the construction of a pond, lake or dam. The applicant should contact the Geauga Soil and Water Conservation District office for on-site recommendations of construction and location of proposed ponds, lakes and dams. The zoning inspector shall refer a copy of each application to the Montville Township fire department concerning the need for installation of a dry hydrant and the specifications of the same. A pond, lake or dam shall be a minimum of fifty (50) feet from any lot line.

5. Storage buildings, sheds, and barns that exceed two hundred (200) square feet in gross floor area.

6. Porches and decks with or without a roof that exceed one hundred fifty (150) square feet and shall not project into the minimum front, side or rear yard.

7. Freestanding solar panels and solar panel arrays in accordance with the following regulations:

    a. Location: Shall not be located in front of the principal building and shall not project past the width of the principal building.

    b. Minimum setbacks: Shall be setback from all lot lines as follows:
        1. Front: 100 feet
        2. Side: 25 feet
        3. Rear: 25 feet

c. Height: Maximum height shall be thirty-five (35) feet measured vertically from the finished grade level immediately adjacent to the mounting base of the solar panel to its highest point. A solar panel shall be subordinate in size and height to the building it serves.

d. Lot coverage: Maximum lot coverage shall be forty percent (40%), measured as the area of the face of the solar panels and added to the lot coverage in conjunction with all building/structures existing on the lot.

e. Glare: Shall not be positioned so as to create glare on to adjacent rads or buildings on adjacent lots.

f. Other codes: Shall be installed in accordance with all applicable building and electrical codes.

g. Signage: Shall not have any signage attached except any owner's, manufacturer's and installer's identification and appropriate warning signage. The sign face of such signage shall not exceed one (1) square foot.

h. Other regulations: Shall be in accordance with all other applicable regulations for the zoning district in which located.

8. Wind Energy Conversion Systems (WECS), whether freestanding or mounted to a building, shall be permitted and shall be subject to the following regulations:

a. Accessory use: A WECS shall be classified as an accessory use on a lot.

b. Connection: A WECS shall have an electrical connection to the principal building, structure, or use on the same lot on which it is located and may be connected to other accessory buildings, structures, or uses plus the electrical power grid utilized by the utility company.

c. Minimum lot area: The minimum lot area for a WECS shall be three (3) acres.

d. Number: There shall be no more than one (1) WECS on a lot.

e. Minimum setback from lot lines: A WECS tower shall be setback a minimum distance equal to 1.5 times its total height measured from all lot lines. Total height shall mean the vertical distance measured from the finished grade level at the base of the tower to the tip of the wind turbine blade or airfoil at its highest point. A WECS tower shall not have guy wires attached to it and shall be of monopole construction only. Lattice towers are prohibited.

f. Minimum setback from public buildings and uses: A WECS tower shall be setback a minimum of 1.5 times its total height from public buildings and uses.

g. Location on lot: A WECS shall not be located in front of the principal building on a lot.

h. Clearance: No portion of a WECS including blades shall extend within thirty-five (35) feet of the ground. No portion of a WECS may extend over parking areas, driveways, or overhead utility lines.

i. Climb prevention: A WECS tower shall not have climbing rungs within twenty (20) feet of the ground.

j. Lighting: A WECS shall not be artificially lighted unless required by Federal Aviation Administration (FAA) regulations.

k. Signage: No signs shall be attached or painted on a WECS except identification signage related to the manufacturer, installer, and owner and high voltage warning signage. Such signage shall be a maximum total sign face area of six (6) square feet and shall not be lighted.

l. Wiring: All wiring from a WECS to any buildings, structures or connections shall be underground.

m. Color: If painted, a WECS shall be a non-reflective neutral color.

n. Maintenance: A WECS shall be maintained in working condition at all times, shall be structurally sound and free of surface defects.

o. Compliance with other regulations: The owner shall be responsible to secure any necessary approvals and inspections from other applicable departments and agencies; including but not limited to, the county building department, the fire department, and the FAA.

p. Over-speed controls: A WECS shall be equipped with manual and automatic over-speed controls to retain blade rotation speed within design limits.

q. Maximum height: The maximum height of a WECS shall be eighty (80) feet measured vertically from the finished grade level at the base of the WECS tower to the tip of the blade or airfoil at its highest point.

r. Engineering study: A written engineering study by a qualified consultant retained by the owner that analyzes the potential effects of a WECS on the public safety microwave network maintained by the Geauga County Sheriff's office may be required. Said study shall be submitted to the Radio System Coordinator, Geauga County Sheriff's office, for review. A WECS shall not obstruct or otherwise detrimentally impact the radio signal and operation of the Geauga County public safety microwave network.

s. Mounting on a building: If mounted to a building other than a tower, a WECS shall comply with all of the applicable regulations set forth herein.

t. Design: The tower and foundation design shall be shall be certified by a registered professional engineer in the state of Ohio.

u. Application and site plan: A site plan drawn to scale shall be required and shall depict all of the items necessary to ensure compliance with all of the

conditions set forth herein. Specific information on the type, size, rotor material, rated power output, performance, safety, and noise characteristics of all parts of the system, including the name and address of the component manufacturers model and serial numbers of all system components shall be provided and a statement from the manufacturer that the system meets all applicable electrical codes.

v. Shadow flicker: A shadow flicker study may be required to determine any negative impact on surrounding lots; or, buildings not on the same lot as the WECS.

w. Decommissioning: A WECS shall be completely removed within six (6) months from discontinuance of use. The affected lot shall be fully restored to its preconstruction condition within six (6) months.

x. Compliance with other provisions of zoning resolution: A WECS shall comply with all other applicable regulations for the zoning district in which it is located.

9. Home Occupations shall be limited to the following:

a. A home occupation is an accessory use which is an activity, profession, occupation, service, craft or revenue enhancing hobby which is clearly incidental and subordinate to the use of the lot as a dwelling and residence conducted on the premises which does not diminish the use and enjoyment of adjacent properties, does not alter the exterior of the property, or affect the residential character of the community. Home occupations are subject to the following regulations:

b. Regulations for home occupations:

1. A home occupation may be established only within a dwelling. Only one (1) home occupation may be established on a lot.

2. The use of a dwelling unit for a home occupation is an accessory use and shall be clearly incidental and subordinate to its use for residential purposes by its occupants. Not more than twenty-five (25%) percent of the total floor area of a dwelling unit, not to exceed eight hundred (800) square feet shall be used in the conduct of a home occupation. Floor area of a dwelling unit shall be determined by measuring its interior dimensions, in accordance with Section 402.9

3. There shall be no change in the exterior appearance of a dwelling unit or accessory building other visible evidence of the conduct of a home occupation therein with the exception of one (1) sign, erected in accordance with Article VII.

4. Off-street parking spaces shall be provided in accordance with Article VI.

5. The minimum width of a driveway for ingress and egress to a home occupation shall be ten (10) feet. Shall be constructed with a suitable all-

weather surface in accordance with Section 606.0.

6. The dwelling unit in which a home occupation is conducted shall conform with all the regulations for the zoning district in which it is located.

7. No more than three (3) persons other than the occupants of the premises may be employed or engaged in a home occupation.

8. Articles offered for sale on the premises shall be limited to those produced in the dwelling unit.

9. A home occupation shall be owned or operated by the owner or resident of the property or his immediate family.

10. A home occupation shall conform to all of the "R-1" district regulations set forth in this resolution.

c. The following is a list of permissible home occupations.

1. Architect and draftsman

2. Attorneys

3. Building Contractor and skilled trades

4. Computer services

5. Clerical services

6. Engineer

7. Financial services

8. Fine arts and crafts

9. Food preparation

10. Insurance services

11. Health Care

12. Sewing of apparel or home furnishings

13. Surveyor

14. Training, education or instruction

15. Type B family day care home per R.C. 5104.01(UU)

B. The following are a list of permitted accessory buildings, structures and uses that shall not require a zoning certificate and shall be in accordance with Section 402.6 except as may otherwise be provided herein.

1. Farm markets, provided that fifty percent (50%) or more of the gross income received from the market is derived from produce raised on farms owned or operated by the market operator in a normal crop year.

2. Outdoor fireplaces with a permanent foundation in accordance with Section 402.6.

3. Outdoor wood fired boilers in accordance with the following regulation: Outdoor wood fired boilers shall not be located in the minimum front yard setback, the side yard setback, rear yard setback, or in front of the principal building on a lot.

4. Storage buildings, sheds, and barns used for keeping tools, equipment, supplies, and other personal property shall not exceed two hundred (200) square feet in gross area and shall not project into the minimum front, side, or rear yard.

5. Porches and decks with or without a roof that do not exceed one hundred fifty (150) square feet and shall not project into the minimum front, side or rear yard.

6. Ramps and steps attached to a building on a lot and used for ingress/egress in accordance with Section 402.6.

7. Antennas: Radio or television antennas including satellite dish antennas designed to receive direct broadcast satellite service, including direct to home satellite service, or to receive or transmit fixed wireless signals via satellite, antennas designed to received video programming services via broadband radio service (wireless cable) or to receive or transmit fixed wireless signals other than via satellite; and antennas designed to receive local television broadcast signals. An antenna shall be setback from the nearest lot line a distance equal to 1.1 times its total height measured from all lot lines. Such antennas and dish antennas shall not be located in the front yard or in front of the principal building on a lot. Pursuant to O.R.C. Section 519.214 and O.R.C. Section 5502.031, an antenna for amateur radio service communications shall be permitted and shall be setback a minimum distance equal to 1.1 times its total height measured from all lot lines. An antenna for amateur radio service communications shall not be located in any front yard or in front of any principal building on a lot. Provided, however, if such antennas are designed so as to implode or have a controlled fall in order to remain fully within the boundaries of the affected lot, then the setback specified herein shall not apply.

8. Roof mounted solar panels and solar panel arrays.

Section 402.3 Conditional Buildings, Structures and Uses

Conditional buildings, structures and uses may be allowed in accordance with Article V and the following conditions:

A. Bed & Breakfast in accordance with Section 403.3

B. Private Recreational Facilities

1. Definition - recreation facilities as listed in 402.3 (B)(2) owned, leased or managed by a private, non-governmental entity.

2. Principal buildings, structures and uses limited to the following:

   a. Ball fields and facilities related thereto

   b. Boating of non-motorized origin

   c. Cabins for occupancy, said temporary occupancy not to exceed thirty (30) consecutive days during a calendar year

   d. Camping and facilities related thereto for temporary occupancy, said temporary occupancy not to exceed thirty (30) consecutive days during a calendar year

   e. Equestrian trails

   f. Fishing

   g. Hiking trails

   h. Picnicking and picnic shelters

   i. Playground and non-motorized recreational equipment

   j. Swimming pools

   k. Water slides

   l. Tennis courts

   m. Golf driving ranges

3. Accessory buildings, structures and uses (which are on the same lot with and of nature customarily incidental or subordinate to the principal building, structure or use):

   a. Bath houses related to swimming

   b. Fences, gates and walls located outside of any public or private road right-of-way.

   c. Offices for employees

   d. Off-street parking spaces in accordance with article VI in this resolution

   e. Sales of supplies to employees and patrons

   f. On-site sanitary sewage treatment and water well systems.

g. Signs in accordance with article VII in this resolution

h. Storage buildings for tools, equipment, recreational vehicles

I. Wind energy conversion system devices

4. Recreational Facilities:

a. The minimum lot area shall not be less than fifty (50) acres, except for:

Recreational Facilities of the following uses shall have minimum areas:
Golf 18 hole course --160 acres

Golf 9 hole course -- 80 acres

Amusement or recreational park --100 acres

Resort or campgrounds -- 50 acres

b. Recreational facilities shall be subject to the regulations of this resolution in sections 402.5 through 402.7.

Section 402.4 Minimum Lot Area

The minimum lot area shall be three (3) acres.

Section 402.5 Minimum Lot Frontage and Width

A. The minimum lot frontage and width shall be two hundred forty (240) feet, except for lots located on the arc of a permanent cul-de-sac road turnaround.

B. For any lot located on the arc of a permanent cul-de-sac road turnaround, the minimum lot frontage shall be eighty (80) feet at the front lot line and a minimum width of two hundred forty (240) feet at the minimum building set-back line.

Section 402.6 Minimum Yards

A. The minimum yards for all buildings, structures and uses, including accessory buildings, structures, and uses shall be as follows:

1. Front yard: 100 feet

2. Each side yard: 25 feet

3. Rear yard: 25 feet

B. There must be a minimum of twenty-five (25) feet of spacing between buildings on the same lot.

C. The minimum side yard contiguous with the road right-of-way for all buildings, structures, and uses on corner lots shall be the same as the minimum front yard.

Section 402.7 Maximum Height

A. The maximum height of all buildings, structures, and uses except those listed in paragraph B herein shall be thirty five (35) feet or two and one half (2 1/2) stories whichever is lesser.

B. Special maximum heights

1. Belfries, church spires, clock towers, cupolas, chimneys and flagpoles - no maximum height restrictions.

2. Telecommunications towers and appurtenant facilities shall be in accordance with Article XIII.

3. Radio, television, and satellite dish antennas shall not exceed forty-five (45) feet in height, if mounted in the ground or twelve (12) feet above the roof line if attached to a building or structure. There shall be no maximum height for amateur radio service communication antennas.

Section 402.8 Maximum Lot Coverage

The maximum lot coverage shall be forty percent (40%).

Section 402.9 Minimum Floor Area

The minimum floor area for a single family detached dwelling shall be one thousand two hundred (1,200) square feet.

In calculating the minimum floor area, the following areas shall not be included: basements, attics, garages, enclosed or unenclosed porches, patios, decks, ramps, breezeways and crawl-spaces.

Section 402.10 Permitted Buildings, Structures, and Uses in Required Yards

The following buildings, structures, and uses shall be permitted in the minimum yards set forth in this resolution without a zoning certificate, unless otherwise indicated.

A. Awnings or canopies over windows and doors in accordance with Article VII.

B. Clotheslines and support poles

C. Driveways in accordance with Article VI, Section 606.0

D. Fences, gates, and walls, located outside of any public or private road right-of-way

E. Flagpoles

F. Landscaping features, including earthen mounds and retaining walls.

G. Mailboxes and newspaper tubes

H. Off-street parking spaces in accordance with Article VI

I. On -site sanitary sewage treatment and water well systems

J. Ornamental and security lighting fixtures

K. Student bus shelters

L. Swing sets and related recreational equipment

M. Walkways, trails, and sidewalks

Section 402.11 Manufactured Homes

Manufactured homes shall conform with all of the following regulations:

A. A manufactured home shall be permanently sited on a lot and shall:

1. Conform to the Federal Manufactured Housing Construction and Safety Standards Acts of 1974 and have a certification to that effect, in the form of a label or tag permanently affixed to such manufactured home in the manner required by 42 S.C.A. Section 5415, and be manufactured after January 1, 1995

2. Have all hitches, axles, wheels, running lights and other indicia of mobility removed from the home

3. Be exclusive of any addition, have a width of not less than twenty-two (22) feet at one point, and a minimum floor area in accordance with the residential district in which it is located;

4. Have a minimum "A" roof pitch of 3:12, conventional residential siding, and a minimum six (6) inch eaves overhang, including appropriate guttering;

5. Be permanently installed upon and properly attached to a continuous perimeter foundation that meets the manufacturer's installation requirements and applicable state and county building regulations and connected to appropriate facilities;

6. Conform to all residential district regulations for the district in which it is located.

B. In addition to the above requirements, the owner shall:

1. Surrender the title to the manufactured home to the county auditor upon its placement on a permanent foundation and such surrender shall be notice to the county auditor to tax the manufactured home as real property.

Section 402.12 Licensed Residential Facility [R.C. 5123.19 (A) (5) (a)]

A. Requirements for a licensed residential facility as defined in R.C. 5123.19 (A) (5) (a) and which is operated pursuant to R.C. 5123.19 (O) shall include the following:

1. The area, height, and yard requirements for the residential district in which it is located shall be met.

2. Proof of compliance with applicable state regulations regarding licensing of the facility shall be provided to the zoning inspector.

3. There shall be no more than one (1) detached licensed residential facility on a lot.

Section 402.13 Exterior Lighting

All sources of exterior illumination of a building, structure, or lot shall be shielded so as not to cause direct glare and shall be directed away from any perimeter lot lines and toward the principal building, structure, or use on a lot. In order to minimize light trespass, all exterior lighting fixtures with lamps rated at 2,500 lumens or more shall be of the full cutoff type. Such exterior lighting fixtures shall be installed so that they operate at all times as full cutoff fixtures as defined in this resolution.

Section 402.14 Fire Protection Ponds

A platted subdivision containing 10 or more total sublots, or a building or group of buildings on a lot containing more than 10,000 square feet of gross floor area, shall include a pond for fire protection constructed by the owner in accordance with the standards and specifications of the Montville Fire Department. The pond shall include the installation of a dry hydrant. The dry hydrant shall be installed in accordance with the standards and specifications of the Montville Fire Department and shall be so located as to permit access by firefighting and emergency vehicles. No zoning certificate shall be required for the installation of a fire protection pond or dry hydrant, however, the township zoning inspector shall not approve and sign a final plat for a subdivision until the standards and specifications of the Montville Fire Department have been met for the design and installation of the fire protection pond, the dry hydrant, and access thereto. If the subdivision or development is phased, the fire protection pond and dry hydrant shall be constructed in the initial phase.

Section 403.0 C: Commercial District

Section 403.1 Permitted Principal Buildings, Structures, and Uses

A. Any Residential (R-1) use specifically listed in section 402.1.

B. Offices limited to:

Accountant

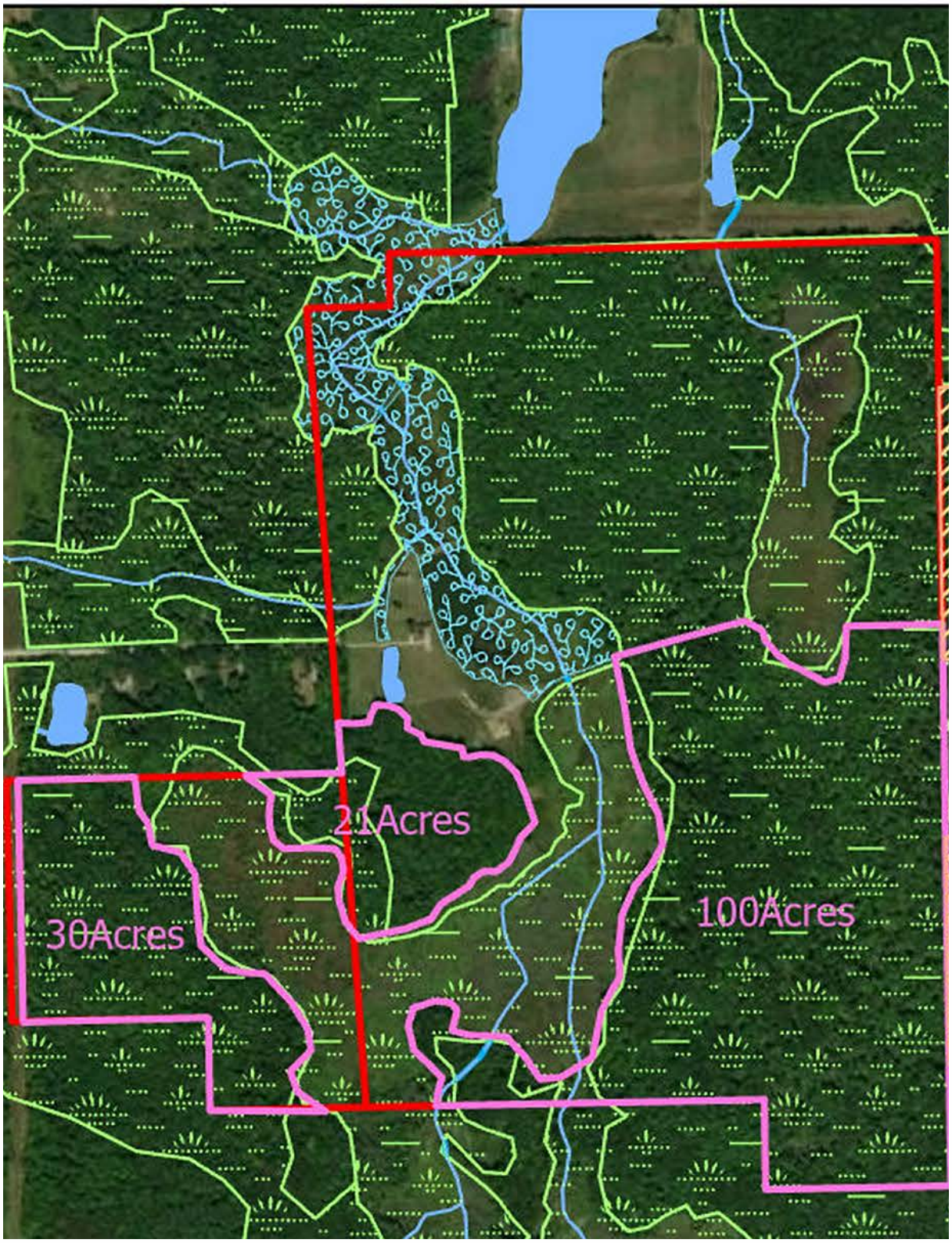
Attorney

Building contractor

Dentist

Engineer

Optometrist



N

SPRING CREEK PRESERVE WETLANDS

- SPRING CREEK PROJECT AREA
- SOUTH FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/ SHRUB WETLAND
- FRESHWATER POND
- RIVERINE
- COMMERCIAL FOREST CUTS

WEST CREEK CONSERVANCY

Spring Creek – Evidence of Timbering Threat in Wetland Areas

Exhibit A – Evidence of historic timbering within Project Area

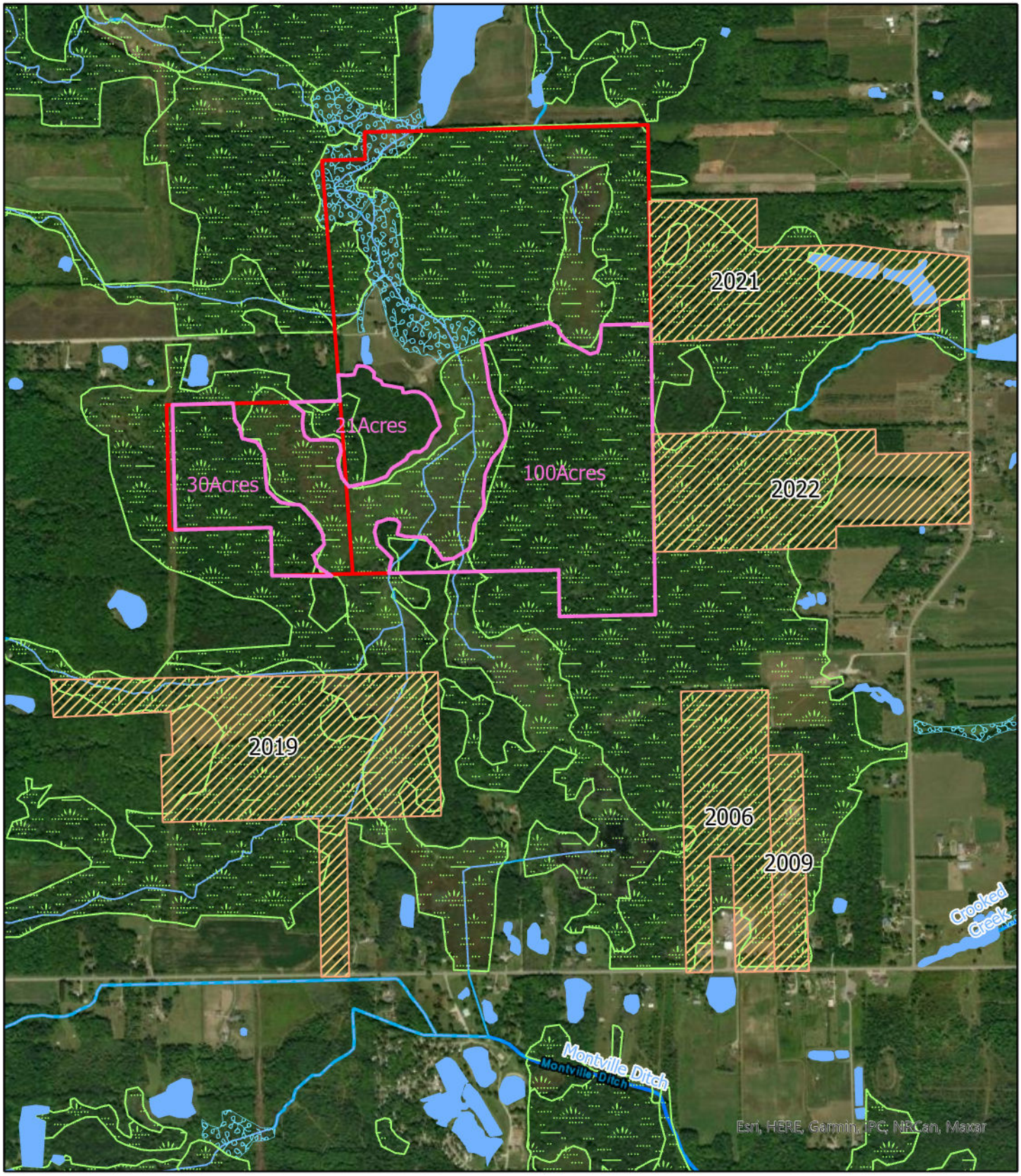
Exhibit B – Evidence of adjacent commercial timbering cuts

Exhibit C – Statement from timbering forester

Exhibit D - Statement from Manager at Ashtablua County Soil and Water

Conservation District

Spring Creek Preserve: Historic Timbering Documentation September 30, 2023



N

SPRING CREEK PRESERVE ADJACENT WETLAND TIMBERING

- SPRING CREEK FOREST UNITS SOUTH
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/ SHRUB WETLAND
- FRESHWATER POND
- RIVERINE
- COMMERCIAL FOREST CUTS

WEST CREEK CONSERVANCY

Commercial Harvest in Parcels with Wetlands Adjacent to Project Area

With wetland overlay visible:

2015 Aerial Imagery

capture date
July 16, 2015
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

2019 Aerial Imagery

capture date
October 15, 2019
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

wetlands

With wetland overlay as outline (for clearer view of harvest):

2015 Aerial Imagery

capture date
July 16, 2015
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

2019 Aerial Imagery

capture date
October 15, 2019
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

wetlands

With wetland overlay visible:

2005 Aerial Imagery

capture date
July 23, 2005
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

2009 Aerial Imagery

capture date
July 13, 2009
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

wetlands

With wetland overlay as outline (for clearer view of harvest):

2005 Aerial Imagery

capture date
July 23, 2005
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

2009 Aerial Imagery

capture date
July 13, 2009
source
Truecolor
USDA NAIP (1m)
U.S. Department of Agriculture, Farm Service Agency

wetlands

Legacy Forestry Consulting

Kathryn Downie, ACF
33539 Park Place
Avon Lake, OH 440121
216.618.6364
katie@legacyforestryconsulting.com

06 October 2023

Dear Brett,

Thank you for your recent inquiry regarding timber harvests in forested wetlands. It is my professional opinion that such operations are beneficial to a forest's overall health and longevity, when conducted appropriately. In Ohio, Appalachian hardwood species comprise the majority of the native tree species in these areas and creating opportunities for regeneration (which is often lacking) is a prudent management objective for landowners with this forest type. Harvesting also allows the residual trees to have access to additional food, sunlight and water resources, creating an opportunity for trees to grow more efficiently and more productively.

Additionally, silviculturally-sound timber harvests often bolster wildlife habitat by creating variable canopy heights and small canopy patch openings, as well as encourage food sources. The remaining coarse woody debris is often used to create wildlife brush piles for cover and protection. Wetland areas house a wide variety of wildlife species, and a proper harvest inherently improves wildlife habitat conditions.

Water resources in wetland areas are a serious consideration when conducting timber harvests. There are no regulations prohibiting timber harvests in wetlands in Ohio. As a result, it is always recommended that professional consulting foresters are utilized when carefully selecting trees for harvest, and reputable logging companies follow the "BMPs for Erosion Control for Logging Practices in Ohio" (The Ohio State University Extension Bulletin 916) when conducting any timber harvest operation.

I hope this helps answer your question. Please feel free to contact me at the information listed with any questions or concerns, or if you would like to discuss this further.

Regards,

K. E. Downie

Kathryn Downie, ACF

Ashtabula Soil & Water Conservation District

39 Wall St., Jefferson, OH 44047
(440) 576-4946

March 11, 2024

Mr. Brett Rodstrom, Director of Conservation
West Creek Conservancy
7381 Camelot Drive
Parma, Ohio 44134

Dear Brett,

This correspondence is in response to a question that you asked me. "Are permits required to harvest trees in a wetland in Ohio?"

Before I answer that question, I would like to provide the following background information about myself and the laws in Ohio that are associated with wetlands and activities in those wetlands.

I started working for the Ashtabula SWCD as a college intern in the summer of 1984. I returned to the District as a full time employee in March of 1985. At the time, a law existed known as Ohio Agricultural Pollution Abatement Law. This law dealt with agricultural waste entering Waters of the State due to the lack of best management practices. In the mid 90's, the law was expanded to silviculture operations as it related to sediment entering Waters of the State due to the lack of best management practices.

With the expansion of the law, I became very familiar with the forest industry. Ashtabula SWCD was an original member of the Northeast Ohio Loggers Chapter (started as part of the Ohio Forestry Association's Master Logger Program) organized on April 4, 1998. I have served as their Secretary/Treasurer since shortly after its inception. I am a certified trainer for the 8 hour BMP course, one of the many requirements for an individual to become a master logger in Ohio. I served on two committees over the years that updated the Best Management Practice book for timber harvests in Ohio. Over my career, I have been on hundreds of logging jobs not only in my home county of Ashtabula, but across Northeast Ohio.

When discussing wetlands, two different agencies come to mind: The United State Army Corps of Engineers and the Ohio Environmental Protection Agency. Regulations from the Army Corps of Engineers are contained in Section 404 of the Clean Water Act. EPA's authority is in Section 401 of the Clean Water Act. Both agencies authority is over the discharge of dredged or fill material into Waters of the United States.

On the federal level, section 404 (f) (1) exempts silvicultural operations. Paraphrasing: Normal farming, silviculture and ranching activities such as plowing, seeding, cultivating, minor drainage and harvesting. Includes: plowing, seeding, cultivating, minor drainage and harvesting for the production of food, fiber and forest products or upland soil and water conservation practices.

A recent United States Supreme Court ruling has further defined the authority of the Army Corps to regulate wetlands. With this ruling, the authority over isolated wetlands not directly connected to navigable waters and the activities that can and cannot occur within isolated wetlands now is the sole responsibility of the Ohio EPA.

I want to explain the hierarchy of Ohio Law and Rules. Ohio law consists of the Ohio Constitution, the Ohio Revised Code (ORC) and the Ohio Administrative Code (OAC). The Constitution is the state's highest law superseding all others. The ORC is the codified law of the state while the OAC is the compilation of administrative rules adopted by the state agencies. In other words, the OAC are the rules that support the ORC, but cannot and do not supersede the ORC. I am very familiar with this relationship between ORC and OAC when carry out the requirements of the Pollution Abatement Program in Ohio for agricultural and silvicultural operations.

The Ohio EPA 401 program evaluates projects that will result in the discharge of dredged or fill material into waters of the United States to determine whether the discharge will violate the State's water quality standards. The authority for the Ohio EPA to regulate discharge of dredged or fill material into Waters of the State is provided in ORC 6111.02 – 6111.028. The definition of fill material is found in ORC Section 6111.02 (D) Isolated wetland permit definitions

"Fill material" means any material that is used to fill an aquatic area, to replace an aquatic area with dry land, or to change the bottom elevation of a wetland for any purpose and that consists of suitable material that is free from toxic contaminants in other than trace quantities. "Fill material" **does not include** either of the following: ORC Section 6111.02 (D) (1) Material resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for the production of food, fiber and forest products. Hence, the act of harvesting trees for food, fiber and forest products is exempt from the definition of fill material in the Ohio EPA 401 Isolated Wetland Permit program.

Furthermore, ORC Section 6111.28 (B) (2) Discharge of dredged material into isolated wetlands. "Dredged material" means material that is excavated or dredged from isolated wetlands. "Dredged material" **does not include** material resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for production of food, fiber and forest products. Again, the act of harvesting trees for food, fiber and forest products is exempt from the definition of dredged material in the Ohio EPA 401 Isolated Wetland Permit program.

What does all this mean. Go back to the quick explanation of Ohio's Law and Rules. There is no Rule (OAC) that can supersede the Law (ORC). Hence, if an activity is exempted under the ORC (law uses the words "does not include"), then there is absolutely no OAC rule an agency can cite that has authority over the activity.

The glacial till soils of Northeast Ohio are somewhat poorly to poorly drained soils. The logging industry is working daily in wooded wetland areas That is one of many reasons why SWCD/Div of Forestry officials train/teach/encourage best management practices to loggers. I cannot tell you the exact number of logging operations in Northeast Ohio at any one time but based on my county and talking to my peers, hundreds of timber operations are occurring as I write this letter and will continue in the future. The efforts of West Creek Conservancy to protect wooded wetlands through conservation easement or fee simple acquisition is the only line of defense for not allowing a timber harvest in wooded wetlands in Ohio.

Back to the original question: "Are permits required to harvest trees in a wetland in Ohio? Answer: No.

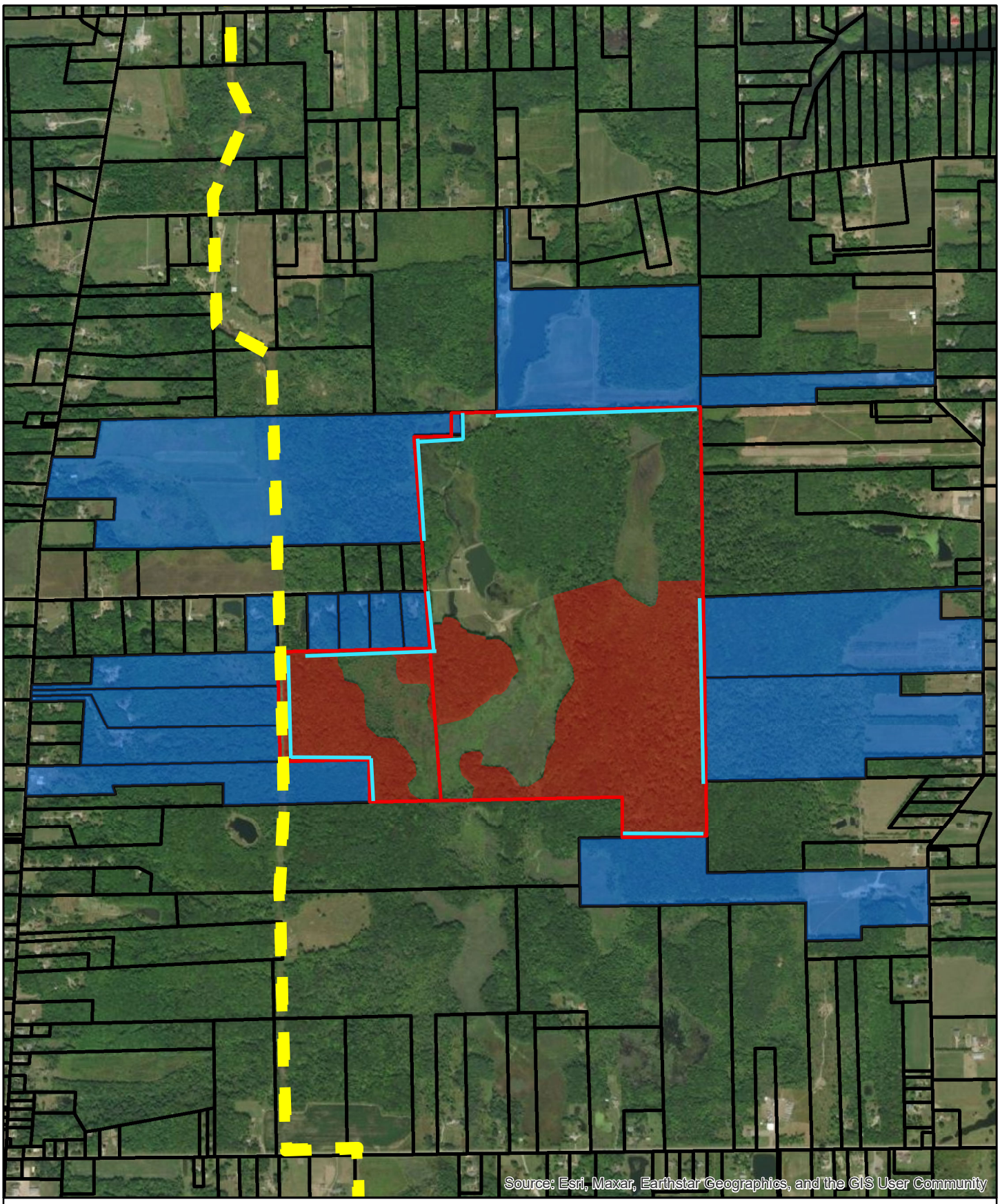
If you have any questions, please don't hesitate to contact me.

Sincerely,

Nathan Paskey

Nathan Paskey, Manager

Threat of Loss Demonstration



WEST CREEK CONSERVANCY

Spring Creek Preserve Threat of Loss (61.3%)

0 0.2 0.4 Miles

Electric_Power_Transmission_Lines_shp
Adjacent Developed Parcels
Project Area
Spring Creek Parcel
Parcels

N

Attestation of No Double Counting and No Net Harm

Spring Creek Preserve
Attestation of No Double Counting of Credits & No Net Harm

I am the Executive Director of West Creek Conservancy and make this attestation regarding the no double counting of credits and no net harm from this tree preservation project, Spring Creek Preserve.

1. Project Description

The Project that is the subject of this attestation is described more fully in both our Application and our Project Design Document (PDD), both of which are incorporated into this attestation.

2. No Double Counting by Applying for Credits from another Registry

West Creek Conservancy has not and will not seek credits for CO_2 for the project trees or for this project from any other organization or registry issuing credits for CO_2 storage.

3. No Double Counting by Seeking Credits for the Same Trees or Same CO_2 Storage

West Creek Conservancy has not and will not apply for a project including the same trees as this project nor will it seek credits for CO_2 storage for the project trees or for this project in any other project or more than once. West Creek Conservancy checked the location of the Project Area against the Registry-provided geospatial database, which contains geospatial data on the project areas of all registered urban forest carbon preservation projects to date. Project Operator has determined that there is no overlap of Project Area or Project Trees with any registered urban forest carbon preservation project.

4. No Net Harm

The trees preserved in this project will produce many benefits, as described in our Application and PDD. Like almost all urban trees, the project trees are preserved for the benefits they deliver to people, communities, and the environment in a metropolitan area.

The project trees will produce many benefits and will not cause net harm. Specifically, they will not:

- Displace native or indigenous populations
- Deprive any communities of food sources
- Degrade a landscape or cause environmental damage

Signed on April 1, in 2024, by Derek Schafer, Executive Director for West Creek Conservancy.

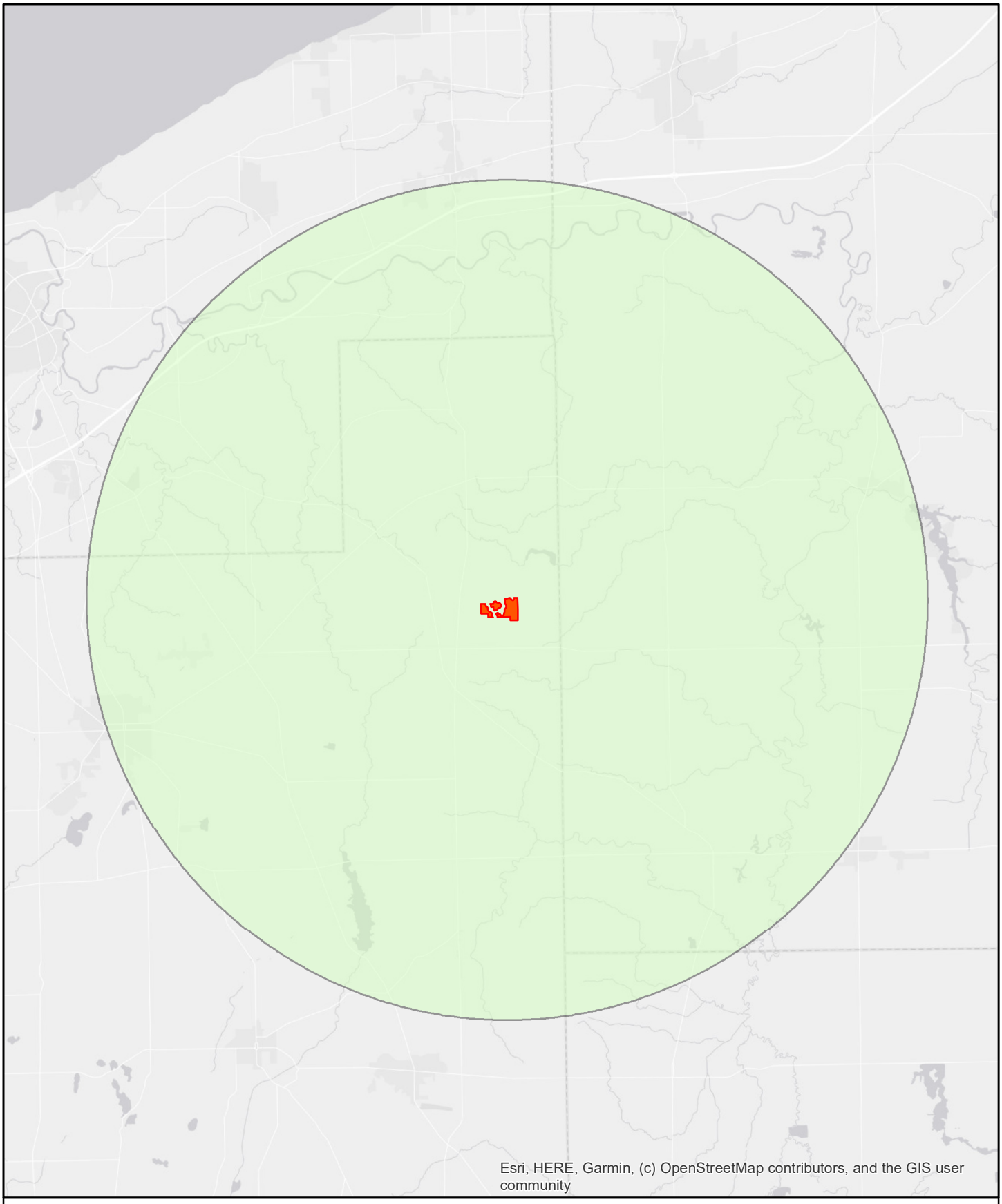
Signature

440-915-2940

Phone

dschafer@westcreek.org

Email



WEST CREEK CONSERVANCY

Spring Creek Preserve - No Double Counting

0 2.5 5 Miles

Spring Creek Project Area

10 mile buffer from Project Area

Existng Preservation Projects

N

Attestation of Additionality

Spring Creek Preserve
Attestation of Additionality

I am the Executive Director of West Creek Conservancy and make this attestation regarding additionality from this tree preservation project, Spring Creek Preserve.

- Project Description
    - The Project that is the subject of this attestation is described more fully in the Application and the Project Design Document (PDD), both of which are incorporated into this attestation.
- Prior to the start of the 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
- The zoning in the Project Area currently allows for a non-forest use
- The trees in the Project Area face a threat or risk of removal or conversion out of forest
- West Creek Conservancy recorded in the public land records an easement, covenant, or deed restriction specifically protecting the trees for the project duration of 40 years.
- Additionality is also embedded in the quantification methodology that our project followed. Projects cannot receive, and the project will not 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. The project also had to apply a discount to credited carbon for potential displaced development due to the project.
- Project Implementation Agreement for Project Duration
    - West Creek Conservancy signed a Project Implementation Agreement with City Forest Credits for 40 years.
- 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. Revenue generated from the sale of carbon credits will support West Creek Conservancy's ongoing stewardship and management of the property, including supporting invasive species and deer population management to protect and enhance the ecological quality of the forest habitat within the project area.
- West Creek Conservancy became aware of carbon crediting as a potential source of revenue for projects through the success that another conservation organization in Northeast Ohio, Western Reserve Land Conservancy, had in securing carbon credits to fund ongoing stewardship of protected forested properties in the region. West Creek Conservancy became aware of the work of City Forest Credits in the same manner. West Creek Conservancy first engaged City Forest Credits in January of 2023, and Spring Creek Preserve was identified as a potentially viable property for carbon crediting in February.

Signed on April 1, of 2024, by Derek Schafer, Executive Director for West Creek Conservancy.

Signature

Derek Schafer

Printed Name

440-915-2940

Phone

dschafer@westcreek.org

Email

Carbon Quantification Tool

City Forest Credits - Preservation Protocol Carbon Quantification Calculator

Project Operator West Creek Conservancy
Project Name Spring Creek Preserve
Project Location Montville Township, Geauga County, Ohio
Date 2/22/2024

Carbon Quantification Summary		**Protocol Section**	**Supplemental information/notes**
150.76	Total Project Area Acres		include project area for all parcels enrolled in carbon project
53.86	Biomass tC/ac	11.1.B	A complete inventory was performed on all trees within the project area that had a diameter at breast height of 5 inches or more, corresponding to method 11.1.B , include i-Tree eco results
51.80	Biomass tC/ac - accounting for natural regeneration		
189.93	Biomass tCO2e/ac	11.1.B	
28,634	Accounting Stock, tCO2e	11.1.B	
69.33%	Fraction at risk of tree removal	11.2	Based on zoning - see 11.2 in preservation protocol
19,852	Avoided Biomass Emissions, tCO2e	11.2	
3.63%	Avoided impervious surface, percent	11.3	Based on zoning - see 11.3 in preservation protocol
5.476	Avoided impervious surface, acres	11.4	
657	Avoided Soil Carbon Emissions, tCO2e	11.4	
18.3%	Displacement	11.5	Fraction of avoided development that cannot be served by development or re-development of existing non-treed properties within the urban area
3,633	Displaced Biomass Emissions, tCO2e		
199	Displaced Soil Emissions		Assumes that redevelopment causes increase in impervious surface on redeveloped parcels
16,219	Credits from Avoided Biomass Emissions, tCO2e		
458	Credits from Avoided Soil Emissions, tCO2e		
16,677	Total Credits attributed to the project, tCO2e		
1,668	Registry Reversal Pool Account (10%), tCO2e		
15,009	**Total credits issued to the project, tCO2e**		
100	**Total credits issued to the project, tCO2e/acre**		

Year	Credits Issued This Year	Credits Issued	Buffer Credits Issued
1	4,978	4,978	553
2	4,978	9,956	553
3	4,978	14,934	553
4	75	15,009	9
5	-	15,009	0

	metric ton	SE	Percent SE	Area (acres)	Biomass tC/acre
Total	**8625.44**	**505.47**	**0.05860223**	**150.76**	**53.86024144**

Fraction at Risk & Impervious Surface Worksheet - Residential Zoning

Fraction at Risk of Tree Removal

Minimum lot size is larger than 2.25 acres:

13.69	Project Area (acres)
3.000	Minimum lot size (acres/unit)
4.00	Max potential dwelling units
8.00	Clearing estimated at 2 acres/unit
0.57	Clearing estimated at 10% of remaining area
8.6	Total potentially cleared area
62.59%	Fraction at risk of tree removal

Fraction at Risk in wetland area:

137.07	Project Area (acres)
0.018	removal rate
40.00	years
70.0%	Fraction at risk of tree removal

Weighted Fraction at Risk of Tree Removal	69.33%

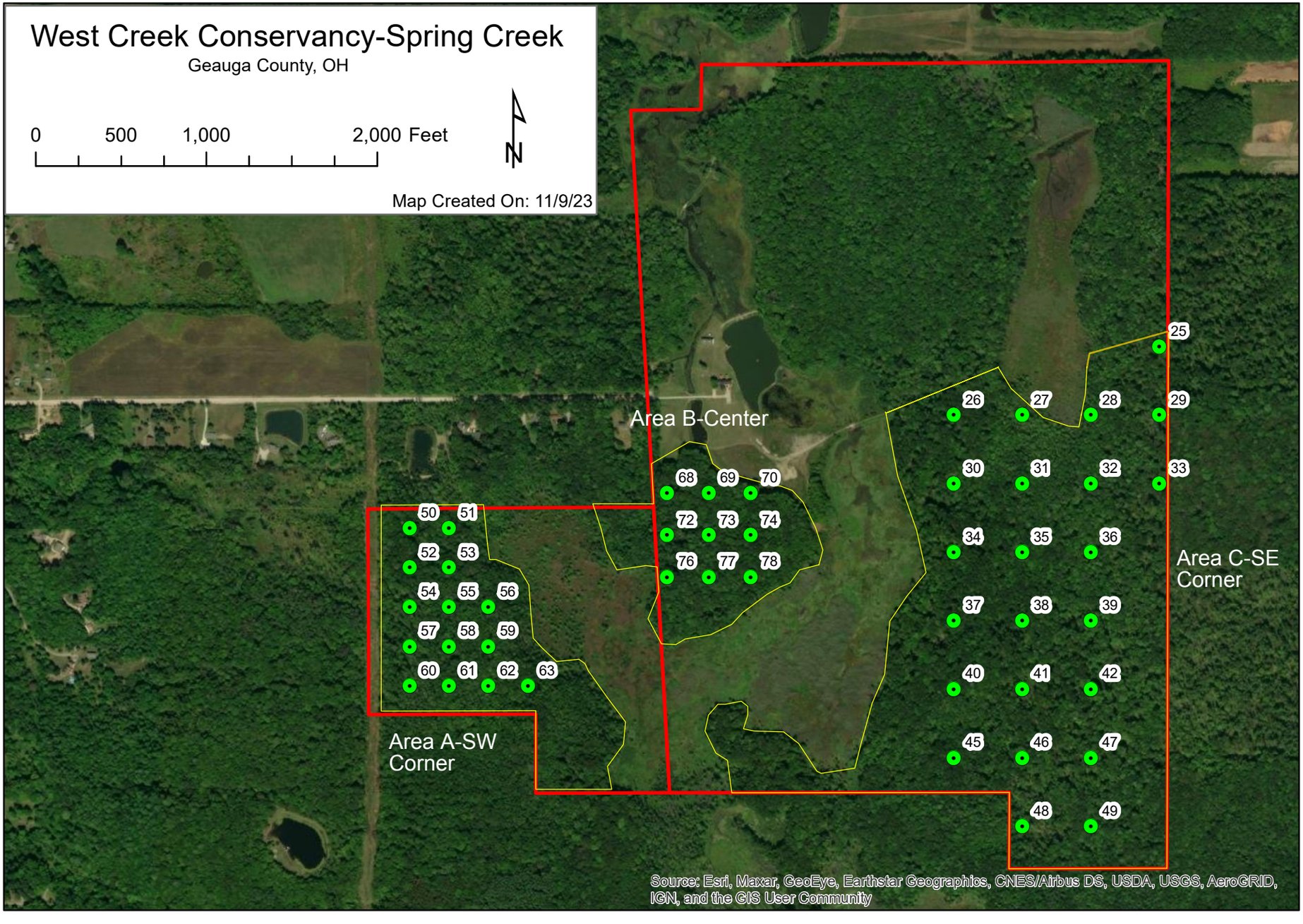
Impervious Surface

The Zoning Code specifies maximum lot coverage

40%	Avoided impervious surface (maximum lot coverage)

Type	Acreage	Avoided Impervious Surface	
Wetlands	137.07	0	0
Non-wetlands	13.69	0.4	5.476
Total	**150.76**		**0.03632**

Plot Sampling Map & Data


West Creek Conservancy-Spring Creek
Geauga County, OH
0
500
1,000
2,000 Feet
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Map Created On: 11/9/23
Area B-Center
Area C-SE Corner
Area A-SW Corner
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78
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Plot	ID	Survey Dat	Species	DBH 1 (in)	DBH 1: He	DBH 1: Me	DBH 2 (in)	DBH 2: He	DBH 2: Me	DBH 3 (in)	DBH 3: He	DBH 3: Me	DBH 4 (in)	DBH 4: He	DBH 4: Me	DBH 5 (in)	DBH 5: He	DBH 5: Me	DBH 6 (in)	DBH 6: He	DBH 6: Me	Crown: Co	Comments
25	1		American l	16		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	50% - 55%	
25	2		Sugar map	9		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	3		Sugar map	6		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	4		Northern r	12		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
25	5		Sugar map	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
25	6		Eastern co	27		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
25	7		Tulip tree (	17		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	8		Sugar map	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	9		Red maple	19		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
25	10		American l	14		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	50% - 55%	
25	11		Cucumber	15		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	12		American l	9		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	25% - 30%	
25	13		American l	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	25% - 30%	
25	14		Sugar map	11		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	50% - 55%	
25	15		Sugar map	11		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
25	16		Red maple	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
25	17		Red maple	13		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	1		Northern r	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	2		Northern r	19		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	3		American l	5		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	4		Northern r	21		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	5		Northern r	24		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	6		Northern r	13		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	7		Northern r	12		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	8		Northern r	18		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	9		Sugar map	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	10		Northern r	16		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	11		Black cher	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	12		Black cher	11		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	13		Sugar map	5		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	14		Northern r	11		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
26	15		American l	6		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	50% - 55%	
26	16		Northern r	9		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
26	17		Black cher	12		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	1		Black tupe	5		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	2		Northern r	5		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	25% - 30%	
27	3		Red maple	6		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	4		Northern r	6		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	5		Yellow birc	5		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	6		Northern r	7		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	7		Red maple	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	8		Red maple	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	9		Red maple	11		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	10		Northern r	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	11		Northern r	9		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	12		American l	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	13		Red maple	10		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
27	14		Red maple	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
28	1		Yellow birc	8		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
28	2		American l	7		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
28	3		Bigtooth as	20		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
28	4		Red maple	12		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
28	5		Red maple	9		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	
28	6		American l	18		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	90% - 95%	
28	7		American l	7		TRUE			TRUE			TRUE			TRUE			TRUE			TRUE	70% - 75%	

28	8	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	9	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
28	10	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
28	11	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	12	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	13	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	14	Bigtooth as	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
28	15	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	16	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
28	17	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	18	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	19	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	20	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	21	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	22	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	23	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	24	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	25	Yellow birc	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
28	26	Yellow birc	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	27	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	28	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	29	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	30	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	31	American l	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	32	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	33	Yellow birc	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	34	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
28	35	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
29	1	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	2	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	3	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
29	4	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	5	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	6	Northern r	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	7	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
29	8	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
29	9	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
29	10	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
30	1	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	2	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
30	3	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	4	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	5	Northern r	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	6	White ash	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
30	7	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
30	8	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	9	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	10	Red maple	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
30	11	Northern r	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
30	12	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	13	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	14	American l	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	15	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	16	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	17	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

30	18	American e	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	19	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	20	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
30	21	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	22	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	23	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	24	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	25	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
30	26	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	1	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	2	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	3	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	4	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	5	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	6	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	7	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	8	Northern r	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	9	Tulip tree (	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	10	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	11	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	12	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	13	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
31	14	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	15	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	16	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	17	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	18	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	19	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	20	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
31	21	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	22	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	23	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	24	Tulip tree (	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
31	25	Tulip tree (	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	1	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	2	Hickory sp	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	3	Red maple	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	4	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	5	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	6	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	7	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	8	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	9	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	10	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	11	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
32	12	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	13	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	14	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	15	Sugar map	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
32	16	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
32	17	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
33	1	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
33	2	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
33	3	American l	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
33	4	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
33	5	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%

33	6	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
33	7	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
33	8	American l	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
33	9	Tulip tree (	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
33	10	Tulip tree (	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
33	11	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
33	12	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
34	1	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
34	2	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	3	Black cher	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	4	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	5	Black cher	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
34	6	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	7	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	8	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	9	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	10	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	11	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	12	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	13	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
34	14	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
34	15	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	16	Northern r	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
34	17	Northern r	28	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
34	18	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
35	1	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	2	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	3	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	4	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	5	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	6	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	7	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	8	Northern r	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	9	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	10	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	11	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	12	Northern r	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
35	13	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	14	American l	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	15	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
35	16	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
35	17	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
35	18	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
35	19	Eastern co	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
35	20	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	21	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
35	22	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	23	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	24	Hickory sp	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	25	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	26	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	27	Northern r	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	28	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	29	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	30	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

35	31	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	32	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	33	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
35	34	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	1	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
36	2	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
36	3	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
36	4	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	5	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	6	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	7	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	8	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	9	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	10	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	11	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	12	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	13	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	14	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	15	Hickory sp	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	16	White ash	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
36	17	White ash	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
36	18	Red maple	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	19	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	20	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	21	American e	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
36	22	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
36	23	American h	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	24	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	25	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	26	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
36	27	American h	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
36	28	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
37	1	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	2	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	3	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	4	Northern r	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
37	5	American h	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	6	Northern r	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
37	7	American h	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
37	8	American h	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
37	9	American h	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	10	American h	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	11	Black cher	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	12	Bigtooth as	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	13	Bigtooth as	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
37	14	Yellow birc	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
37	15	Northern r	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	1	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	2	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	3	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	4	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	5	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	6	Black cher	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	7	Northern r	25	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	8	Northern r	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	9	American h	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

38	10	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	11	Northern r	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	12	Hickory sp	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	13	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	14	Black tupe	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
38	15	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	16	American l	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
38	17	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	18	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
38	19	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	1	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	2	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	3	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	4	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
39	5	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	6	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	7	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	8	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	9	American l	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	10	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	11	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	12	Sugar map	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	13	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	14	White ash	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
39	15	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	16	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	17	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	18	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	19	American l	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
39	20	Tulip tree (	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	21	Tulip tree (	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
39	22	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	1	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	2	Northern r	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	3	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	4	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	5	Northern r	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	6	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	7	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	8	Northern r	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	9	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	10	Black tupe	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	11	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	12	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	13	Black cher	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	14	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	15	Northern r	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	16	Northern r	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	17	Tulip tree (	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	18	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	19	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
40	20	Northern r	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
40	21	Northern r	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	1	Hickory sp	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	2	American l	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%

41	3	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	4	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	5	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	6	American l	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	7	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
41	8	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
41	9	American l	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
41	10	Hickory sp	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	11	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	12	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	13	American l	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	14	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	15	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
41	16	Red maple	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	17	Northern r	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
41	18	Red maple	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	1	Northern r	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	2	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	3	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	4	Black cher	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	5	Tulip tree (	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	6	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	7	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	8	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	9	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	10	Northern r	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	11	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	12	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	13	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	14	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	15	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	16	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
42	17	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	18	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	19	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	20	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
42	21	Black cher	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	1	Hickory sp	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	2	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	3	Northern r	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	4	Northern r	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	5	Red maple	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	6	Northern r	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
45	7	Red maple	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	8	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	9	Northern r	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	10	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	11	Northern r	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	12	Northern r	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	13	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	14	Northern r	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	15	Northern r	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	16	Northern r	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	17	Black cher	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	18	Black cher	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
45	19	American l	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

45	20	Northern r	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
45	21	Northern r	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	1	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
46	2	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	3	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	4	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	5	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	6	Red maple	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	7	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	8	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	9	Red maple	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	10	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	11	White ash	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
46	12	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	13	American l	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
46	14	American l	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	15	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	16	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
46	17	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	1	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	2	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
47	3	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	4	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	5	Red maple	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	6	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	7	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
47	8	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	9	Black cher	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
47	10	American l	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
48	1	Black cher	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
48	2	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
48	3	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
48	4	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
48	5	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
48	6	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
48	7	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
49	1	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
49	2	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	3	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	4	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	5	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	6	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	7	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	8	Black cher	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	9	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	10	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	11	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	12	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	13	Black cher	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	14	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	15	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	16	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	17	Black cher	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
49	18	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	19	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%

49	20	American l	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
49	21	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	22	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	23	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	24	Black cher	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
49	25	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
49	26	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
49	27	Bigtooth as	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	28	Bigtooth as	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	29	Bigtooth as	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
49	30	Bigtooth as	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	15	Eastern ho	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	16	Black cher	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	17	Black cher	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
50	18	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	19	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	20	Hickory sp	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	21	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
50	22	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
50	23	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	24	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
50	25	Hickory sp	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	26	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
50	27	Swamp wh	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
50	28	Hickory sp	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	28	Black cher	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
51	29	Black tupe	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	30	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	31	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	32	White ash	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
51	33	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	34	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	35	White ash	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
51	36	Black cher	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
51	37	Black cher	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	38	Black tupe	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	39	Black tupe	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	40	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	41	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	42	Black cher	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	43	Black tupe	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	44	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
51	45	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
51	46	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	47	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	48	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	49	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	50	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	51	Black tupe	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	52	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
51	53	Black tupe	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
51	54	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	19	Hickory sp	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
52	20	Hickory sp	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
52	21	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	22	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

52	23	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	24	American l	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	25	Hickory sp	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	26	Hickory sp	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	27	Hickory sp	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	28	Hickory sp	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	29	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
52	30	Hickory sp	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	31	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
52	32	Hickory sp	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
52	33	Hickory sp	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
52	34	Hickory sp	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	35	Hickory sp	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
52	36	Hickory sp	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	22	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	23	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	24	Black tupe	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	25	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
53	26	Silver map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	27	Hickory sp	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	28	Black tupe	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	29	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	30	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	31	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	32	Black tupe	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	33	Black tupe	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	34	Black tupe	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	35	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	36	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	37	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	38	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	39	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	40	Black tupe	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
53	41	Red maple	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
53	42	Black tupe	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
54	10	American e	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
54	11	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
54	12	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
54	13	American e	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
54	14	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
54	15	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
54	16	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
54	17	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
54	18	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	12	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
55	13	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
55	14	American e	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	15	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	16	Black tupe	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	17	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	18	Black willo	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	19	American e	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
55	20	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
55	21	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
55	22	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%

56	14	Eastern co	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
56	15	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
56	16	Eastern co	31	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
56	17	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
56	18	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
56	19	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
56	20	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
56	21	Silver map	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
56	22	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
56	23	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
56	24	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
56	25	Bigtooth as	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
56	26	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
57	8	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
57	9	American e	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
57	10	White ash	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
57	11	Swamp wh	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
57	12	Swamp wh	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
57	13	Swamp wh	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
57	14	American e	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
58	9	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
58	10	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
58	11	Swamp wh	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
58	12	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
58	13	White ash	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	5% - 10%
58	14	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
58	15	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
58	16	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	18	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
59	19	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
59	20	Swamp wh	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	21	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	22	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
59	23	Red maple	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
59	24	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
59	25	Swamp wh	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
59	26	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
59	27	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
59	28	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	29	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
59	30	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	31	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	32	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	33	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
59	34	Swamp wh	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
60	7	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
60	8	Swamp wh	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
60	9	American e	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
60	10	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
60	11	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
60	12	American e	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	13	Silver map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	14	Silver map	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
61	15	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	16	American e	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	17	Silver map	28	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%

61	18	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	19	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
61	20	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
61	21	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
61	22	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
61	23	American e	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
61	24	Silver map	24	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
62	21	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	22	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	23	Red maple	22	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
62	24	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
62	25	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
62	26	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
62	27	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
62	28	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
62	29	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
62	30	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	31	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	32	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	33	American e	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	34	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	35	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	36	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	37	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	38	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
62	39	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
62	40	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
63	20	Swamp wh	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	21	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
63	22	White ash	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
63	23	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	24	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	25	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
63	26	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	27	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	28	Swamp wh	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	29	American l	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
63	30	American e	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
63	31	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	32	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	33	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	34	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
63	35	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
63	36	Swamp wh	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
63	37	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
63	38	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	1	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
68	2	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	3	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	4	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	5	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
68	6	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	7	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	8	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
68	9	Black cher	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

68	10	Red maple	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
69	1	Yellow birc	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	2	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	3	Yellow birc	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	4	Northern r	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	5	Yellow birc	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	6	Red maple	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	7	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
69	8	Northern r	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	9	Northern r	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	10	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
69	11	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	12	Black cher	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
69	13	Sugar map	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	14	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
69	15	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
69	16	Yellow birc	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	1	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	2	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	3	Cucumber	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	4	Yellow birc	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	5	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	6	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	7	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	8	Northern r	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	9	Northern r	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	10	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	11	Hickory sp	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	12	Cucumber	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	13	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	14	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	15	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	16	Red maple	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	17	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
70	18	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
70	19	Yellow birc	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
72	1	Northern r	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
72	2	American l	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	3	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	4	Red maple	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
72	5	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
72	6	Black cher	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	7	American l	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	8	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	9	Black cher	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
72	10	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	11	Northern r	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	12	Northern r	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
72	13	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	14	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
72	15	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
72	16	Black cher	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
73	1	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	2	Tulip tree (	28	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	3	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	4	American l	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

73	5	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	6	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	7	Black cher	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	8	Cucumber	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	9	Northern r	26	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	10	American	27	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	11	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	12	Eastern ho	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	13	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	14	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	15	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
73	16	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	17	Sugar map	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
73	18	Sugar map	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	1	Black cher	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	2	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	3	Tulip tree (	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	4	Tulip tree (	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	5	Tulip tree (	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	6	Tulip tree (	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	7	American l	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	8	Tulip tree (	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	9	Red maple	12	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	10	Black cher	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	11	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	12	Sugar map	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	13	Sugar map	15	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	14	Cucumber	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	15	American l	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	16	Black cher	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	17	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	18	Black cher	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	19	Black cher	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	20	Sugar map	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	21	Sugar map	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
74	22	Cucumber	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
74	23	Cucumber	19	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
76	1	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
76	2	Hickory sp	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	3	American l	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	4	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	5	Red maple	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	6	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	7	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	8	Red maple	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	9	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	10	Hickory sp	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
76	11	American	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	12	American	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	13	White ash	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	25% - 30%
76	14	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	15	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	16	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	17	Northern r	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
76	18	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%

76	19	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	20	White ash	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
76	21	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	22	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	23	Hickory sp	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
76	24	Northern r	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
76	25	White ash	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
76	26	American e	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
76	27	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	1	Yellow birc	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	2	Red maple	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	3	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	4	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	5	Red maple	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	6	American l	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%
77	7	Red maple	20	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	8	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	9	Sugar map	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	10	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	11	Black cher	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	12	Black cher	21	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	13	Black cher	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	14	Red maple	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	15	Sugar map	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	16	Red maple	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	17	Red maple	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	18	American l	16	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
77	19	Yellow birc	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	20	Yellow birc	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
77	21	Northern r	13	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	1	Sugar map	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	2	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	3	American l	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	4	American l	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	5	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	6	Red maple	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	7	Red maple	8	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	8	Red maple	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	9	Red maple	18	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	10	Sugar map	10	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	11	Hickory sp	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	12	Sugar map	7	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	13	Sugar map	14	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	14	Sugar map	5	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	15	Northern r	11	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	16	Red maple	23	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	17	American l	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	18	Sugar map	17	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	90% - 95%
78	19	Hickory sp	6	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	70% - 75%
78	20	White ash	9	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	50% - 55%

Carbon Biomass Report

Benefits Summary of Trees by Species

Location: Montville township, Geauga, Ohio, United States of America
Project: Spring Creek, Series: Spring Creek-Carbon, Year: 2023
Generated: 1/25/2024

Species	Trees		Carbon Storage	
	Number	SE	(metric ton)	SE
Red maple	11,646	±1,533	3,671.21	±483.66
Silver maple	128	±85	111.33	±86.61
Sugar maple	3,732	±665	651.67	±139.52
Yellow birch	469	±208	56.27	±25.92
Hickory spp	784	±287	244.39	±96.21
American beech	1,759	±353	508.20	±122.34
White ash	416	±136	95.46	±38.14
Tulip tree	574	±207	359.70	±125.89
Cucumber tree	182	±87	55.40	±37.60
Black tupelo	429	±196	54.23	±28.02
Eastern hophornbeam	44	±31	1.76	±1.21
Eastern cottonwood	130	±73	197.66	±111.59
Bigtooth aspen	370	±204	138.89	±81.22
Black cherry	1,827	±467	668.39	±194.85
Swamp white oak	255	±96	98.50	±43.98
Northern red oak	2,566	±658	1,349.30	±368.07
Black willow	21	±21	11.56	±11.28
American basswood	1,611	±466	202.01	±60.97
American elm	1,058	±222	149.55	±44.46
Total	**28,000**	**±1,626**	**8,625.44**	**±505.47**

Biomass tC/acre calculation: A plot sample forest assessment adhering to the standards set in CFC Tree Preservation Protocol Section 11.1.B was conducted. The sample established 46 sample plots sized at 1/10th-acre. Within every plot, each live tree 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 was inventoried. Species, diameter, and overall tree condition were recorded for each tree. i-Tree Eco was utilized to input the sample plot data to determine the carbon storage.

Carbon quantification is based on the sample plots. The metric tons of Carbon is 8,625.44. The standard error is 505.47.

Biomass tC/acre = (metric tons of carbon - standard error)/project area acres
(8625.44-505.47/150.76 = 53.86) (cell B11 on carbon calculator)

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To: Jen Kullgren, City Forest Credits

From: Matt Russell, Arbor Custom Analytics

Date: 6 June 2024

Re: Review of Spring Creek project-natural regeneration and harvest rates

Natural regeneration rates

The Forest Inventory and Analysis database was queried to assess regeneration of trees in stand conditions similar to the Spring Creek project. All data from the state of Ohio were considered and were required to be (1) growing in the maple/beech/birch, oak/hickory, or nonstocked forest type group and (2) found in a forested wetland physiographic class. In Ohio, these physiographic classes were swamps/bogs, narrow floodplains/bottomlands, or broad floodplains/bottomlands.

Ingrowth, defined as new tally trees that grew into the plot (e.g., became greater than 5.0 inches in diameter at the subsequent FIA plot measurement), was quantified on these FIA plots. Average ingrowth every 10 years was 27 trees per acre, with a range from 7 to 60 trees per acre. This ingrowth pattern was simulated in the Forest Vegetation Simulator-Northeast variant, with 27 trees allocated between the three common species in the project area (red maple, sugar maple, and northern red oak), assuming 90% survival. The ingrowth was added every 10 years and the carbon values stored in the aboveground portion of trees was determined[1].

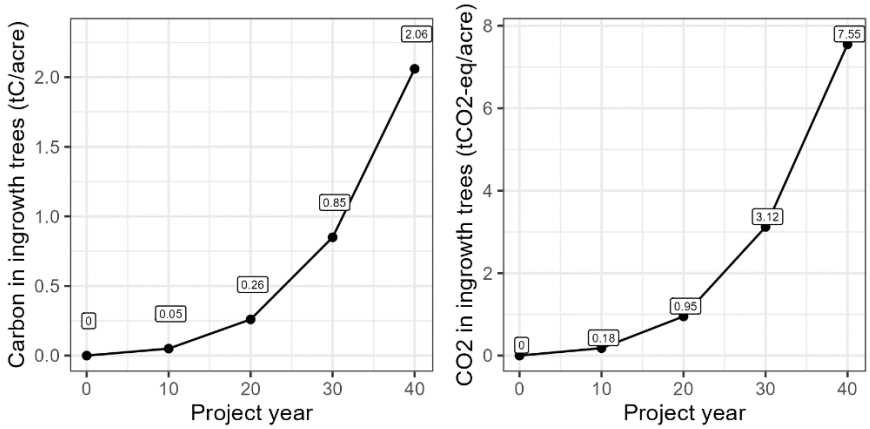

Fig. 1: Projected carbon stored in ingrowth trees at the Spring Creek project. Ingorwth trees include those with diameter at breast height ≥ 5.0-inches.

[1] Carbon calculated using Jenkins et al. (2003) equations: Jenkins, J.C., D.C. Chojnacky, L.S. Heath, and R.A. Birdsey. 2003. National-scale biomass estimators for United States tree species. *Forest Science* 49(1):12-35.

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At year 40, results show that ingrowth would average 2.06 tonnes C/acre (Fig. 1). This is approximately 3.8% of the 53.86 tC/ac provided in the project's quantification report that represents current carbon stored in overstory trees, i.e., cell B11 in the 'Carbon Credits Calculation' tab. At year 40, the amount of CO2 stored in ingrowth trees is 7.55 tCO2-eq.

Harvest rates

In work I've done with The Nature Conservancy and American Forest Foundation, we've found annual harvest rates of 1.75% in this region. This region includes eastern Ohio in addition to the states of Pennsylvania, West Virginia, and western Maryland. Assuming a 1.75% annual rate over 40 years, this would equate to a 70% chance that a forest type in this region would see a harvest at some point over the next 40 years. This aligns well with the 69.6% value for tree removal provided in the project's quantification report, i.e., cell B14 in the 'Carbon Credits Calculation' tab.

Tree Characteristics Chart(s)

I. Tree Characteristics of the Urban Forest

The urban forest of Spring Creek has an estimated 28,000 trees with a tree cover of 93.0 percent. The three most common species are Red maple (41.6 percent), Sugar maple (13.3 percent), and Northern red oak (9.2 percent).

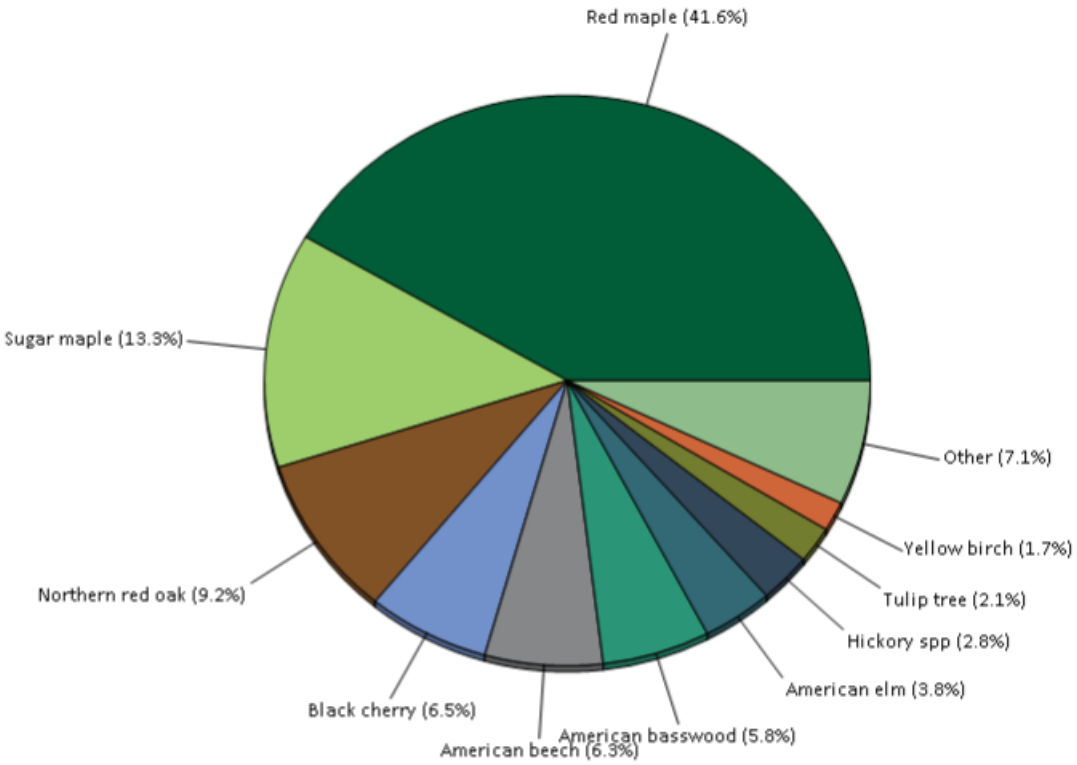


Figure 1. Tree species composition in Spring Creek

The overall tree density in Spring Creek is 459 trees/hectare (see Appendix III for comparable values from other cities). For stratified projects, the highest tree densities in Spring Creek occur in Area C-SE Corner followed by Area B-Center and Area A-SW Corner.

Id	Cover Clas	Descriptio	Latitude	Longitude
1	Tree/Shrub		41.61875	-81.023
2	Tree/Shrub		41.62056	-81.0319
3	Tree/Shrub		41.62061	-81.0364
4	Tree/Shrub		41.62122	-81.0378
5	Tree/Shrub		41.62092	-81.0266
6	Tree/Shrub		41.6224	-81.0262
7	Tree/Shrub		41.61854	-81.034
8	Tree/Shrub		41.6181	-81.0308
9	Tree/Shrub		41.62243	-81.0231
10	Tree/Shrub		41.61892	-81.0344
11	Tree/Shrub		41.62354	-81.0262
12	Tree/Shrub		41.61725	-81.0235
13	Tree/Shrub		41.62103	-81.0315
14	Tree/Shrub		41.61888	-81.0257
15	Tree/Shrub		41.62167	-81.037
16	Tree/Shrub		41.61975	-81.0229
17	Tree/Shrub		41.62084	-81.025
18	Tree/Shrub		41.62388	-81.0228
19	Tree/Shrub		41.61963	-81.0237
20	Tree/Shrub		41.62404	-81.0225
21	Tree/Shrub		41.62324	-81.0225
22	Tree/Shrub		41.62132	-81.0362
23	Tree/Shrub		41.62266	-81.031
24	Tree/Shrub		41.61946	-81.035
25	Tree/Shrub		41.62296	-81.0221
26	Tree/Shrub		41.62127	-81.0237
27	Tree/Shrub		41.61922	-81.0224
28	Tree/Shrub		41.61687	-81.0225
29	Tree/Shrub		41.62344	-81.0276
30	Tree/Shrub		41.62296	-81.024
31	Tree/Shrub		41.61998	-81.0229
32	Tree/Shrub		41.62279	-81.0245
33	Grass/Herbaceous		41.62266	-81.0266
34	Tree/Shrub		41.62193	-81.0339
35	Tree/Shrub		41.61687	-81.0244
36	Tree/Shrub		41.61846	-81.024
37	Tree/Shrub		41.61885	-81.0272
38	Tree/Shrub		41.61985	-81.0381
39	Tree/Shrub		41.619	-81.0282
40	Grass/Herbaceous		41.61994	-81.0242
41	Tree/Shrub		41.61729	-81.0249
42	Tree/Shrub		41.62033	-81.0222
43	Tree/Shrub		41.62383	-81.0261

44	Tree/Shrub	41.62235	-81.0244
45	Tree/Shrub	41.61823	-81.0301
46	Tree/Shrub	41.61954	-81.0219
47	Tree/Shrub	41.61826	-81.023
48	Tree/Shrub	41.6239	-81.0249
49	Tree/Shrub	41.62428	-81.0219
50	Tree/Shrub	41.62241	-81.0329
51	Tree/Shrub	41.61995	-81.0247
52	Tree/Shrub	41.62262	-81.0272
53	Tree/Shrub	41.61853	-81.0275
54	Tree/Shrub	41.6204	-81.025
55	Tree/Shrub	41.62138	-81.0326
56	Tree/Shrub	41.61949	-81.025
57	Tree/Shrub	41.62124	-81.0237
58	Tree/Shrub	41.62041	-81.0363
59	Tree/Shrub	41.62342	-81.0233
60	Tree/Shrub	41.62225	-81.0254
61	Tree/Shrub	41.62035	-81.0363
62	Tree/Shrub	41.61733	-81.022
63	Tree/Shrub	41.62049	-81.0386
64	Tree/Shrub	41.62002	-81.0231
65	Tree/Shrub	41.62044	-81.0224
66	Tree/Shrub	41.61731	-81.0232
67	Tree/Shrub	41.62417	-81.0263
68	Tree/Shrub	41.62154	-81.0222
69	Tree/Shrub	41.61727	-81.0242
70	Tree/Shrub	41.62228	-81.0253
71	Tree/Shrub	41.62069	-81.0311
72	Tree/Shrub	41.61887	-81.0346
73	Tree/Shrub	41.61912	-81.0244
74	Tree/Shrub	41.61988	-81.0232
75	Tree/Shrub	41.62198	-81.0227
76	Tree/Shrub	41.62005	-81.0242
77	Tree/Shrub	41.62005	-81.0242
78	Tree/Shrub	41.62192	-81.025
79	Tree/Shrub	41.62243	-81.0222
80	Tree/Shrub	41.62173	-81.0262
81	Tree/Shrub	41.61908	-81.0351
82	Tree/Shrub	41.61951	-81.0343
83	Tree/Shrub	41.62394	-81.0257
84	Tree/Shrub	41.61915	-81.0352
85	Tree/Shrub	41.62143	-81.0301
86	Tree/Shrub	41.6199	-81.0365
87	Tree/Shrub	41.62165	-81.0235

88	Tree/Shrub	41.62325	-81.0261
89	Tree/Shrub	41.61885	-81.0337
90	Tree/Shrub	41.62153	-81.0363
91	Tree/Shrub	41.6241	-81.0235
92	Tree/Shrub	41.61994	-81.027
93	Tree/Shrub	41.62076	-81.0315
94	Tree/Shrub	41.62109	-81.0262
95	Tree/Shrub	41.61951	-81.027
96	Tree/Shrub	41.6213	-81.0248
97	Tree/Shrub	41.62172	-81.0308
98	Tree/Shrub	41.62161	-81.0256
99	Tree/Shrub	41.62239	-81.0324
100	Tree/Shrub	41.62346	-81.0265
101	Tree/Shrub	41.62271	-81.0327
102	Tree/Shrub	41.62083	-81.0374
103	Tree/Shrub	41.61833	-81.0272
104	Tree/Shrub	41.618	-81.0232
105	Grass/Herbaceous	41.61984	-81.0278
106	Tree/Shrub	41.62284	-81.0322
107	Tree/Shrub	41.62216	-81.0374
108	Tree/Shrub	41.62184	-81.0299
109	Tree/Shrub	41.62005	-81.0276
110	Tree/Shrub	41.62191	-81.0309
111	Tree/Shrub	41.61799	-81.025
112	Tree/Shrub	41.62191	-81.0326
113	Tree/Shrub	41.61998	-81.0233
114	Tree/Shrub	41.61679	-81.0226
115	Tree/Shrub	41.62206	-81.0323
116	Tree/Shrub	41.62411	-81.0219
117	Tree/Shrub	41.61873	-81.0302
118	Grass/Herbaceous	41.62157	-81.0387
119	Tree/Shrub	41.62163	-81.0377
120	Tree/Shrub	41.62162	-81.0306
121	Tree/Shrub	41.62004	-81.0232
122	Tree/Shrub	41.62106	-81.032
123	Tree/Shrub	41.6206	-81.0249
124	Tree/Shrub	41.62185	-81.0257
125	Tree/Shrub	41.61773	-81.0225
126	Tree/Shrub	41.62341	-81.0249
127	Tree/Shrub	41.62069	-81.0247
128	Grass/Herbaceous	41.61891	-81.0307
129	Tree/Shrub	41.61941	-81.0352
130	Tree/Shrub	41.62096	-81.0322
131	Tree/Shrub	41.62064	-81.0261

132	Tree/Shrub	41.62338	-81.0239
133	Tree/Shrub	41.6186	-81.0313
134	Tree/Shrub	41.62006	-81.0262
135	Tree/Shrub	41.6181	-81.0232
136	Tree/Shrub	41.62266	-81.0231
137	Tree/Shrub	41.61912	-81.0316
138	Tree/Shrub	41.62032	-81.0262
139	Tree/Shrub	41.62025	-81.0254
140	Tree/Shrub	41.62366	-81.0272
141	Tree/Shrub	41.61706	-81.023
142	Grass/Herbaceous	41.62139	-81.0328
143	Tree/Shrub	41.62161	-81.0249
144	Tree/Shrub	41.61846	-81.023
145	Tree/Shrub	41.62254	-81.0221
146	Tree/Shrub	41.61937	-81.0251
147	Tree/Shrub	41.62222	-81.0272
148	Tree/Shrub	41.62082	-81.0254
149	Grass/Herbaceous	41.62164	-81.0388
150	Tree/Shrub	41.61787	-81.0252
151	Tree/Shrub	41.61843	-81.0225
152	Tree/Shrub	41.62149	-81.0264
153	Tree/Shrub	41.61867	-81.0226
154	Tree/Shrub	41.62234	-81.0265
155	Tree/Shrub	41.61911	-81.025
156	Tree/Shrub	41.62066	-81.0321
157	Tree/Shrub	41.6194	-81.0252
158	Tree/Shrub	41.62359	-81.0227
159	Tree/Shrub	41.6207	-81.0261
160	Tree/Shrub	41.62285	-81.0244
161	Tree/Shrub	41.62374	-81.0226
162	Tree/Shrub	41.62225	-81.0301
163	Tree/Shrub	41.62061	-81.0267
164	Tree/Shrub	41.61831	-81.0347
165	Tree/Shrub	41.62126	-81.0299
166	Tree/Shrub	41.62161	-81.0318
167	Tree/Shrub	41.62061	-81.0231
168	Tree/Shrub	41.61882	-81.0219
169	Tree/Shrub	41.62021	-81.0363
170	Tree/Shrub	41.62404	-81.0221
171	Tree/Shrub	41.6228	-81.0233
172	Tree/Shrub	41.61844	-81.0298
173	Tree/Shrub	41.62145	-81.0261
174	Tree/Shrub	41.61928	-81.0263
175	Tree/Shrub	41.61738	-81.0237

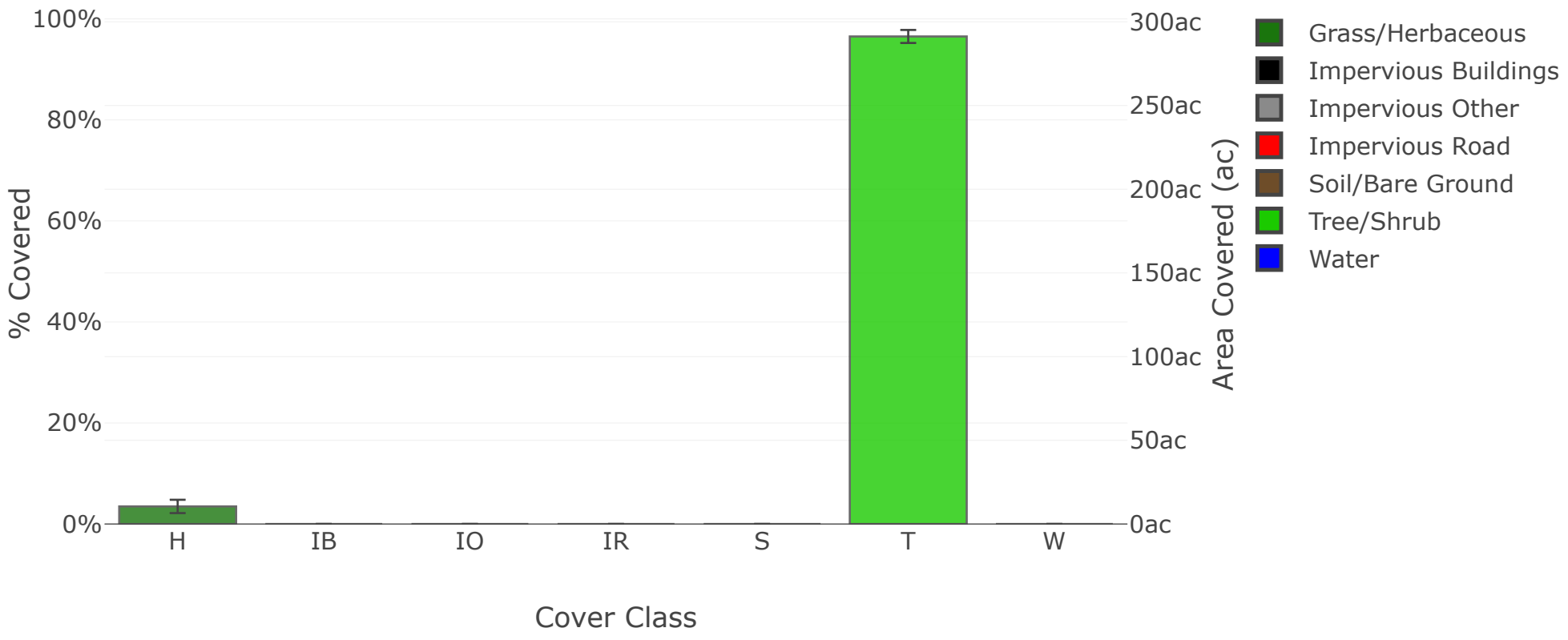
176	Tree/Shrub	41.61872	-81.0239
177	Tree/Shrub	41.62143	-81.0372
178	Tree/Shrub	41.61889	-81.031
179	Tree/Shrub	41.62023	-81.0378
180	Tree/Shrub	41.61973	-81.0221
181	Tree/Shrub	41.62076	-81.0374
182	Tree/Shrub	41.62048	-81.0258
183	Tree/Shrub	41.62255	-81.0236
184	Tree/Shrub	41.62337	-81.0219
185	Tree/Shrub	41.62194	-81.0381
186	Tree/Shrub	41.61901	-81.0345
187	Tree/Shrub	41.61929	-81.0269
188	Tree/Shrub	41.62205	-81.0376
189	Tree/Shrub	41.62014	-81.036
190	Tree/Shrub	41.61906	-81.0339
191	Tree/Shrub	41.61851	-81.0344
192	Tree/Shrub	41.62017	-81.0244
193	Tree/Shrub	41.61964	-81.0376
194	Tree/Shrub	41.62409	-81.0224
195	Tree/Shrub	41.6195	-81.0369
196	Tree/Shrub	41.62238	-81.0265
197	Tree/Shrub	41.61904	-81.0261
198	Tree/Shrub	41.62175	-81.0235
199	Tree/Shrub	41.61846	-81.0299
200	Tree/Shrub	41.6207	-81.0312
201	Tree/Shrub	41.62192	-81.025

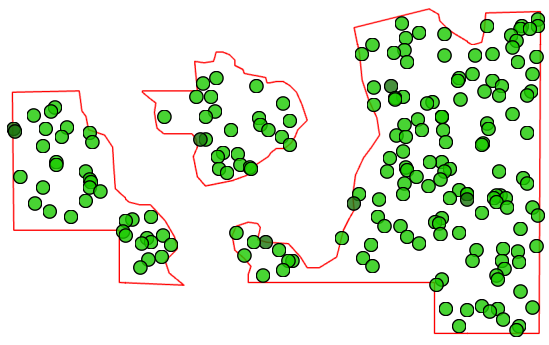
i-Tree Canopy

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 12/14/2023

Land Cover





Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
H	Grass/Herbaceous		7	3.48 ± 1.32	10.51 ± 3.97
IB	Impervious Buildings		0	0.00 ± 0.00	0.00 ± 0.00
IO	Impervious Other		0	0.00 ± 0.00	0.00 ± 0.00
IR	Impervious Road		0	0.00 ± 0.00	0.00 ± 0.00
S	Soil/Bare Ground		0	0.00 ± 0.00	0.00 ± 0.00
T	Tree/Shrub		194	96.52 ± 1.29	291.26 ± 3.90
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
Total			**201**	**100.00**	**301.77**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO_2 Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	322.22	±4.32	1,181.46	±15.83	$54,954	±736
Stored in trees (Note: this benefit is not an annual rate)	9,984.58	±133.78	36,610.12	±490.51	$1,702,877	±22,816

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 1.106 T of Carbon, or 4.056 T of CO_2, per ac/yr and rounded. Amount stored is based on 34.281 T of Carbon, or 125.697 T of CO_2, per ac and rounded. Value (USD) is based on $170.55/T of Carbon, or $46.51/T of CO_2 and rounded. (English units: T = tons (2,000 pounds), ac = acres)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	565.57	±7.58	$48	±1
NO2	Nitrogen Dioxide removed annually	2,661.66	±35.66	$62	±1
O3	Ozone removed annually	12,328.42	±165.18	$1,920	±26
SO2	Sulfur Dioxide removed annually	4,265.11	±57.15	$26	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	632.45	±8.47	$3,902	±52
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	1,821.14	±24.40	$715	±10
Total		**22,274.36**	**±298.44**	**$6,673**	**±89**

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in lb/ac/yr @ $/lb/yr and rounded:
CO 1.942 @ $0.08 | NO2 9.139 @ $0.02 | O3 42.328 @ $0.16 | SO2 14.644 @ $0.01 | PM2.5 2.171 @ $6.17 | PM10* 6.253 @ $0.39 (English units: lb = pounds, ac = acres)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	555.91	±7.45	$4,968	±67
E	Evaporation	20,039.29	±268.49	N/A	N/A
I	Interception	20,130.27	±269.71	N/A	N/A
T	Transpiration	27,965.40	±374.69	N/A	N/A
PE	Potential Evaporation	141,953.61	±1,901.94	N/A	N/A
PET	Potential Evapotranspiration	101,401.99	±1,358.62	N/A	N/A

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Hydrological Estimates are based on these values in Kgal/ac/yr @ $/Kgal/yr and rounded:
AVRO 1.909 @ $8.94 | E 68.803 @ N/A | I 69.115 @ N/A | T 96.017 @ N/A | PE 487.385 @ N/A | PET 348.154 @ N/A (English units: Kgal = thousands of gallons, ac = acres)

About i-Tree Canopy

The concept and prototype of this program were developed by David J. Nowak, Jeffery T. Walton, and Eric J. Greenfield (USDA Forest Service). The current version of this program was developed and adapted to i-Tree by David Ellingsworth, Mike Binkley, and Scott Maco (The Davey Tree Expert Company)

Limitations of i-Tree Canopy

The accuracy of the analysis depends upon the ability of the user to correctly classify each point into its correct class. As the number of points increase, the precision of the estimate will increase as the standard error of the estimate will decrease. If too few points are classified, the standard error will be too high to have any real certainty of the estimate.

Additional support provided by:

Cobenefit Calculator

City Forest Preservation Co-Benefits Quantification Tool for the Northeast Climate Zone

The analyst can uses this method to calculate the amount of co-benefits estimated to be produced by existing tree canopy. The tool uses information you provide on tree canopy cover (deciduous and coniferous), and estimates annual co-benefits in Resource Units and $ per year. Transfer functions (i.e., kWh of electricity per m^2 of tree canopy) were caclculated as the average of values for the large, medium and small trees in the deciduous and coniferous life forms. Resource units for the dbh corresponding to a 25-year old tree were used, along with the crown projection area of the representative species for each tree-type. Energy effects are reduced to 20% of values in the i-Tree Streets source data because preserved areas generally have fewer nearby buildings affected by climate and shade effects than areas with street trees. Local prices were from i-Tree Streets.

Steps

1) Use i-Tree Canopy, or another tool, to estimate the amount of area that is covered by deciduous and coniferous tree cover. In Table 1 enter the area (acres) in deciduous and coniferous tree cover in the project area. Also, enter the non-tree cover area.

2) Table 2 automatically provides estimates of co-benefits for the current canopy in Resource Units (e.g., kWh) per year and $ per year. Values are adapted from i-Tree Streets results for this climate zone and assume that the deciduous and coniferous canopy is evenly distributed among large, medium and small tree types.

Light yellow background denotes an input cell ->

Directions
1) Use i-Tree Canopy, or another tool, to estimate the amount of deciduous and coniferous tree cover area (acres) (Cell C20 and D20).
2) Use i-Tree Canopy, or another tool, to estimate the amount of non-tree cover area (acres) (Cell F20) in the project area.
3) In Cell G20 the total area of the project is calculated (acres). Prompt i-Tree Canopy to provide an estimate of the project area by clicking on the gear icon next to the upper right portion of the image and selecting ”Report By Area.”
4) Total Project Area, cell G17 should equal 100%.

Table 1. Tree Cover

	Deciduous Tree Cover	Coniferous Tree Cover	Total Tree Cover	Non-Tree	Total Project Area
Percent (%)	93%	0%	93%	7%	100%
Area (sq miles)	0.219	0.000	0.219	0.017	0.24
Area (m2)	567,365	0	567,365	42,734	610,099
Area (acres)	140.2	0.00	140.20	10.56	150.76

Using the information you provide on tree canopy cover, the tool provides estimates of co-benefits in Resource Units and $ per year.

Table 2. Co-Benefits per year with current tree canopy cover.

Ecosystem Services	Resource Units Totals	Total $
Rain Interception (m3/yr)	71,704.8	$151,555.67
Air Quality (t/yr)		
O3	2.4915	$5,187.22
NOx	1.0674	$2,222.26
PM10	1.2241	$4,613.90
Net VOCs	0.1641	$171.93
Air Quality Total	4.9470	$12,195.30
Energy (kWh/yr & kBtu/yr)		
Cooling - Elec.	217,732	$30,504.19
Heating - Nat. Gas	9,012,973	$126,058.07
Energy Total ($/yr)		$156,562.26
Grand Total ($/yr)		$320,313.23

Social Impacts

City Forest Carbon Project
Social Impacts

UN Sustainable Development Goals

The 17 United Nations Sustainable Development Goals (SDGs) are an urgent call for action and global partnership among all countries, representing key benchmarks for creating a better world and environment for everyone. Well-designed and managed urban forests make significant contributions to the environmental sustainability, economic viability and livability of cities. They help mitigate climate change and natural disasters, reduce energy costs, poverty and malnutrition, and provide ecosystem services and public benefits. See more details in the CFC Carbon Project Social Impact Reference Guide.

Instructions

This template sets out all relevant SDGs and lists various urban forest project activities that fall within each SDG. Evaluate the SDGs to determine how your carbon project provides social impacts that may contribute towards achievement of the global goals. Check the box(es) that contain one of your project activities and describe in no fewer than two sentences how your project activities align with the corresponding SDG. On page 12, select the icon for three to five of the most relevant SDGs to your project and provide any additional information.

SDG 3 - Good Health and Well Being

Goal: Ensure healthy lives and promote well-being for all at all ages.

Examples of project activities include, but are not limited to:

- ☒ Plant or protect trees to reduce or remove air pollutants
- ☐ If planting trees, select trees for reduced pollen counts and irritant production
- ☐ Plant or protect trees to create shade, provide UV exposure protection, reduce extreme heat negative effects, and/or reduce temperatures to relieve urban heat effects
- ☒ Design project to buffer sounds, optimize biodiversity, or create nature experiences
- ☐ Locate project near vulnerable populations, such as children or elderly
- ☐ Locate project near high volume roads to screen pollutants
- ☒ Locate project near people to encourage recreation, provide new parks or green space, or otherwise promote an active lifestyle
- ☐ Locate project near schools, elderly facilities, or mental health services to promote nature-based wellness, attention restoration, or other mental well-being
- ☐ Locate project in area with conditions of project-defined high inequity to trees, such as at schools, affordable or subsidized housing, formerly redlined neighborhoods, areas with high property vacancy rates, or area with high proportion of renters
- ☒ Reduce stormwater runoff or improve infiltration rates
- ☒ Design project to reduce human exposure to specific pollutants or toxins
- ☐ Other

West Creek Conservancy pursued conservation of the Spring Creek Preserve property in order to permanently protect its high-quality natural resources present, including the numerous ecosystem services provided and biodiversity housed by this ecologically significant property. The forested wetlands and upland hardwood forest found within the Spring Creek Preserve provides habitat for many wildlife species, including a number of state- and federally listed species that have been documented on or within range of the property. The property's dense upland forest also provides important buffer for the adjacent 700-acre wetland complex, Montville Swamp, and preserves downstream water quality in the Grand River watershed by slowing and filtering stormwater runoff, with an estimated 71,705 cubic meters of rainfall intercepted annually within the project area. The trees within the project area also intercept and absorb an estimated 4.9 tons of air pollutants, including ozone (O3), nitrogen oxides (NOx), particulate matter (PM10) and volatile organic compounds (VOCs), per year.

Just downstream of Spring Creek Preserve lies Montmere Lake, a residential lake community that relies on the impoundment for recreation including boating and fishing. This residential community also relies primarily on groundwater sources for drinking water supply. The preservation of water quality through protection of wetlands and forested riparian areas upstream from this community is therefore imperative for the health and wellbeing of this community, as well as to preserve the recreational opportunities that the Montmere Lake community and visitors enjoy.

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series to promote public access and appreciation for the unique natural heritage of the area. This also presents an opportunity to educate surrounding landowners on the importance of preserving the mature hardwood forests and forested wetlands in the immediate area.

SDG 6 - Clean Water and Sanitation

Goal: Ensure availability and sustainable management of water and sanitation for all

Examples of project activities include, but are not limited to:

- ☐ Research and assess environmental injustices related to water in project area
- ☐ Locate project near high-traffic roads or to otherwise improve, mitigate, or remediate toxic landscapes near water
- ☐ Protect or plant trees to improve historically or culturally important sites related to water that have been degraded and/or neglected
- ☒ Reduce stormwater by planting or protecting trees
- ☐ Plant forested buffers adjacent to streams, rivers, wetlands, or floodplains
- ☐ Prevent soil erosion by protect steep slopes
- ☐ Improve infiltration rates
- ☐ Improve, mitigate, or remediate toxic landscapes and human exposure to risk
- ☐ Drought resistance, such as selecting appropriate water-efficient trees for project climate zone
- ☐ Other

Spring Creek Preserve contains unnamed headwater streams that drain into the mainstem of Spring Creek, a tributary of Trumbull Creek which itself feeds into the Grand River, a State designated Wild and Scenic River in the state of Ohio. Trumbull Creek is designated by the EPA as a Cold Water Habitat, and Spring Creek once sustained a population of brook trout, a fish species native to Ohio that now faces extinction due to water quality degradation and loss of aquatic life use attainment. With an estimated 71,705 cubic meters of rainfall intercepted annually within the project area, preserving the upland forest buffer and forested wetlands of the Spring Creek Preserve property will protect downstream water quality within Spring Creek, Trumbull Creek, the Grand River, and ultimately Lake Erie. Additionally, the permanent protection and enhancement of Spring Creek Preserve's wetlands and forested riparian areas will protect water quality downstream in Montmere Lake, an impoundment relied on heavily for recreational boating and fishing, while also preserving the water quality of the groundwater that the Montmere Lake residential community relies on for their drinking water supply.

SDG 8 - Decent Work and Economic Growth

Goal: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Examples of project activities include, but are not limited to:

- ☐ Community participation in project implementation, including such things as providing access to financial resources for ongoing community-based care
- ☐ Emphasize local hiring and support small businesses
- ☐ Promote local economic opportunities through workforce training, career pathway development, or other employment
- ☐ Other

N/A

SDG 10 - Reduced Inequalities

Goal: Reduce inequalities within and among countries

Examples of project activities include, but are not limited to:

- ☒ Provide connections and cohesion for social health, such as create or reinforce places that promote informal interactions, engage local residents and users in tree management, include symbolic or cultural elements, or other events
- ☐ Research, understand, and design to address understand historic and current sociocultural inequities, community health conditions, environmental injustices, or prior local greening efforts in community
- ☐ Locate project near vulnerable populations, such as children or elderly, to provide air quality improvements or buffer against extreme heat effects
- ☐ Locate project in high-density residential areas or where there is a lack of trees to improve access and promote an active lifestyle
- ☐ Locate project near schools, elderly facilities, or mental health services to promote nature-based wellness, attention restoration, or other mental well-being
- ☐ Locate project in area with conditions of project-defined high inequity to trees, such as at schools, affordable or subsidized housing, formerly redlined neighborhoods, areas with high property vacancy rates, or area with high proportion of renters
- ☐ Locate project near high-traffic roads or to otherwise improve, mitigate, or remediate toxic landscapes
- ☐ Protect or plant trees to improve historically or culturally important sites that have been degraded and/or neglected
- ☐ Community engagement in project design, including such things as engaging and respecting existing relationships and social networks, community cultural traditions, and public participation methods that are empowering and inclusive
- ☐ Community participation in project implementation, including such things as addressing and removing barriers to participation, promote ongoing community-based care and access to financial resources
- ☐ Emphasize local hiring and support small businesses
- ☐ Research and consider potential for gentrification and displacements
- ☐ Promote local economic opportunities through workforce training, career pathway development, or other employment
- ☐ Other

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series, offering opportunities for social connection and increased appreciation for the unique natural heritage of the area. Conservation of the Spring Creek Preserve property is also intended to serve as an educational opportunity to catalyze additional conservation in the immediately surrounding area. The 700-acre wetland complex known as Montville Swamp that surrounds the property is a unique and significant part of the natural heritage of the region. West Creek Conservancy will work alongside its conservation partners to increase awareness among landowners about the importance of conservation and stewardship of the high-quality wetlands, densely forested wetland buffers, and riparian areas that are distinctly important features within the watershed of the state-designated Wild and Scenic Grand River.

SDG 11 - Sustainable Cities and Communities

Overall: Make cities inclusive, safe, resilient, and sustainable.

Examples of project activities include, but are not limited to:

- ☒ Plant or protect trees to reduce or remove air pollutants
- ☐ If planting trees, select trees for reduced pollen counts and irritant production
- ☐ Locate project near high volume roads to screen pollutants
- ☐ Locate project near vulnerable populations, such as children or elderly
- ☐ Plant or protect trees to create shade, provide UV exposure protection, reduce extreme heat negative effects, and/or reduce temperatures to relieve urban heat effects
- ☒ Locate project near people to encourage recreation, provide new parks or green space, or otherwise promote an active lifestyle
- ☒ Design project to improve wellness and mental health, such as planting trees to buffer sounds, optimize biodiversity, optimize views from buildings, or create nature experiences
- ☐ Locate project near schools, elderly facilities, or mental health services to promote nature-based wellness, attention restoration, or other mental well-being
- ☒ Provide connections and cohesion for social health, such as create or reinforce places that promote informal interactions, engage local residents and users in tree management, include symbolic or cultural elements, or other events
- ☐ Research, understand, and design to address understand historic and current sociocultural inequities, community health conditions, environmental injustices, or prior local greening efforts in community
- ☐ Locate project in area with conditions of project-defined high inequity to trees, such as at schools, affordable or subsidized housing, formerly redlined neighborhoods, areas with high property vacancy rates, or area with high proportion of renters
- ☐ Community engagement in project design, including such things as engaging and respecting existing relationships and social networks, community cultural traditions, and public participation methods that are empowering and inclusive
- ☐ Community participation in project implementation, including such things as addressing and removing barriers to participation, promote ongoing community-based care and access to financial resources
- ☐ Other

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series to promote public access, passive recreation and appreciation for the unique natural heritage of the area. Spring Creek Preserve's abundant biodiversity, including several state- and federally listed species, provide opportunities for engaging birdwatching and nature observation for professional and recreational naturalists alike. West Creek Conservancy's conservation and ongoing stewardship of the Spring Creek Preserve property also presents an opportunity to educate surrounding landowners on the importance of preserving the mature hardwood forests and forested wetlands in the immediate area, and on the ecological significance of these landscapes for the region.

The trees within the project area intercept and absorb an estimated 4.9 tons of air pollutants annually, including ozone (O3), nitrogen oxides (NOx), particulate matter (PM10) and volatile organic compounds (VOCs), to the benefit of surrounding residents.

SDG 12 - Responsible Production and Consumption

Goal: Ensure sustainable consumption and production patterns

Examples of project activities include, but are not limited to:

- ☐ Plant or protect trees to create shade or reduce temperatures to relieve urban heat effects
- ☐ Provide cooling benefits and energy savings by shading impervious surfaces such as streets or parking lots, or planting trees on south and west sides of buildings
- ☐ Other

N/A

SDG 13 - Climate Action

Goal: Take urgent action to combat climate change and its impacts.

Examples of project activities include, but are not limited to:

- ☒ Plant or protect trees to reduce or remove air pollutants
- ☐ Plant or protect trees to create shade or reduce temperatures to relieve urban heat effects
- ☒ Promote community capacity for social and climate resilience by engaging local residents or users in tree management, or other events to connect people to the project
- ☐ Reflect cultural traditions and inclusive engagement for climate resilience
- ☐ Design project to improve soil health
- ☐ Provide cooling benefits and energy savings by shading impervious surfaces such as streets or parking lots, or planting trees on south and west sides of buildings
- ☒ Plant or protect trees to reduce stormwater runoff
- ☐ Select water-efficient trees for climate zone and drought resistance
- ☒ Create and/or enhance wildlife habitat
- ☐ Other

As indicated previously, permanent conservation of the Spring Creek Preserve property, with its mature upland hardwood forests and forested wetlands adjacent to a regionally significant wetland complex in the Grand River watershed, will yield multiple benefits in terms of air and water quality for neighboring residents and downstream communities. West Creek Conservancy will engage the public in educational nature hikes on the property and will use Spring Creek Preserve as an opportunity to educate adjacent landowners about the importance of conservation and sustainable forest management. West Creek Conservancy's ongoing stewardship of Spring Creek Preserve, including invasive species treatment and deer population management, will enhance the ecological integrity of the forest habitat on the property, relied on by a number of state- and federally listed species of both flora and fauna identified on or within range of the property.

SDG 14 - Life Below Water

Goal: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Examples of project activities located in areas with marine ecosystems include, but are not limited to:

- ☐ Locate project near high-traffic roads or to otherwise improve, mitigate, or remediate toxic landscapes near water
- ☒ Plant or protect trees in project areas to reduce stormwater runoff
- ☐ Plant forested buffers adjacent to streams, rivers, wetlands, or floodplains
- ☐ Prevent soil erosion into by protecting steep slopes
- ☒ Improve infiltration rates
- ☐ Improve, mitigate, or remediate toxic landscapes and human exposure to risk
- ☐ Drought resistance, such as selecting appropriate water-efficient trees for project climate zone
- ☒ Enhance wildlife habitat, such as riparian habitat for fish, birds, and other animals
- ☐ Other

Spring Creek Preserve contains unnamed headwater streams that drain into the mainstem of Spring Creek, a tributary of Trumbull Creek which itself feeds into the Grand River, a State designated Wild and Scenic River in the state of Ohio. Trumbull Creek is designated by the EPA as a Cold Water Habitat, and Spring Creek once sustained a population of brook trout, a fish species native to Ohio that now faces extinction due to water quality degradation and loss of aquatic life use attainment. With an estimated 71,705 cubic meters of rainfall intercepted annually within the project area, preserving the upland forest buffer and forested wetlands of the Spring Creek Preserve property will protect downstream water quality within Spring Creek, Trumbull Creek, the Grand River, and ultimately Lake Erie.

SDG 15 - Life on Land

Goal: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Examples of project activities include, but are not limited to the following with increased functionality of green infrastructure:

- ☒ Plant or protect trees to reduce stormwater runoff
- ☐ Select water-efficient trees for climate zone and drought resistance
- ☒ Create and/or enhance wildlife habitat to improve local biodiversity
- ☐ Plant forested buffers adjacent to streams, rivers, wetlands, or floodplains
- ☐ Prevent soil erosion by protect steep slopes
- ☐ Improve infiltration rates
- ☐ Other

Conservation of the Spring Creek Preserve property permanently protects wildlife habitat for several listed species that have been documented on or within range of the property. The Ohio potentially threatened howe's sedge (*Carex atlantica spp. capillacea*), and the Ohio endangered one-cone club moss (*Lycopodium lagopus*) and swamp red currant (*Ribes triste*), were all identified on the property. The property is also likely to contain the Ohio threatened hobblebush (*Viburnum lantanoides*), which has been identified on the adjacent wetland complex. Several bird and bat species have been documented on the property, including nesting populations of sandhill crane (*Grus canadensis*), threatened in the state of Ohio, as well as red headed woodpecker (*Melanerpes erythrocephalus*), an Ohio species of concern. Five state-listed species of bat have been documented by West Creek Conservancy staff on the Spring Creek Preserve property, including the big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), and red bat (*Lasiurus borealis*) (all listed as species of concern in the state of Ohio), as well as the Ohio endangered tricolored bat (*Perimyotis subflavus*).The property was also identified as providing suitable habitat for two federally endangered bat species whose known habitat includes Geauga County: the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). Habitat surveys also revealed a likelihood that the property provides suitable breeding habitat for the four-toed salamander (*Hemidactylium scutatum*), a species of concern in Ohio, as well as the spotted turtle (*Clemmy gutatta*) and the Blanding's turtle (*Emydoidea blandingii*), both listed as threatened species in the state of Ohio. The tremendous biodiversity found on the property will be further enhanced through West Creek Conservancy's ongoing stewardship of the property, including invasive species and deer population management.

Additionally, the trees within the project area intercept an estimated 71,705 cubic meters of rainfall annually, reducing stormwater runoff into the adjacent high-quality wetland complex.

SDG 17 - Partnerships for the Goals

Overall: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Examples of project activities include, but are not limited to:

- ☒ Promote community connections and capacity for social resilience by engaging local residents or users in tree management, or other events to connect people to the project
- ☐ Community engagement in project design, including such things as engaging and respecting existing relationships and social networks, community cultural traditions, and public participation methods that are empowering and inclusive
- ☐ Community participation in project implementation, including such things as addressing and removing barriers to participation, promote ongoing community-based care and access to financial resources
- ☐ Other

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series, offering opportunities for community connection and increased appreciation for the unique natural heritage of the area. Conservation of the Spring Creek Preserve property is also intended to serve as an educational opportunity to inform adjacent landowners about best management practices and potentially catalyze additional conservation in the immediately surrounding area. The 700-acre wetland complex known as Montville Swamp that connects to the property is a unique and significant part of the natural heritage of the region. West Creek Conservancy will work alongside regional conservation partners, including the Geauga Park District, the Nature Conservancy, and the Cleveland Museum of Natural History to increase awareness among landowners about the importance of responsible stewardship - and to seize future opportunities for conservation - of the high-quality wetlands, densely forested wetland buffers, and riparian areas that are distinctly important features within the Grand River watershed.

Summary of Project Social Impacts

West Creek Conservancy pursued conservation of the Spring Creek Preserve property in order to permanently protect its high-quality natural resources present, including the numerous ecosystem services provided and biodiversity housed by this ecologically significant property. The forested wetlands and upland hardwood forest found within the Spring Creek Preserve provides habitat for many wildlife species, including a number of state- and federally listed species that have been documented on or within range of the property. The property's dense upland forest also provides important buffer for the adjacent 700-acre wetland complex, Montville Swamp, and preserves downstream water quality in the Grand River watershed by slowing and filtering stormwater runoff, with an estimated 71,705 cubic meters of rainfall intercepted annually within the project area. The trees within the project area also intercept and absorb an estimated 4.9 tons of air pollutants, including ozone (O3), nitrogen oxides (NOx), particulate matter (PM10) and volatile organic compounds (VOCs), per year.

Just downstream of Spring Creek Preserve lies Montmere Lake, a residential lake community that relies on the impoundment for recreation including boating and fishing. This residential community also relies primarily on groundwater sources for drinking water supply. The preservation of water quality through protection of wetlands and forested riparian areas upstream from this community is therefore imperative for the health and wellbeing of this community, as well as to preserve the recreational opportunities that the Montmere Lake community and visitors enjoy.

West Creek Conservancy will integrate Spring Creek Preserve into the organization's guided nature hike series to promote public access and appreciation for the unique natural heritage of the area. This also presents an opportunity to educate surrounding landowners on the importance of preserving the mature hardwood forests and forested wetlands in the immediate area.

Spring Creek Preserve contains unnamed headwater streams that drain into the mainstem of Spring Creek, a tributary of Trumbull Creek which itself feeds into the Grand River, a State designated Wild and Scenic River in the state of Ohio. Trumbull Creek is designated by the EPA as a Cold Water Habitat, and Spring Creek once sustained a population of brook trout, a fish species native to Ohio that now faces extinction due to water quality degradation and loss of aquatic life use attainment. With an estimated 71,705 cubic meters of rainfall intercepted annually within the project area, preserving the upland forest buffer and forested wetlands of the Spring Creek Preserve property will protect downstream water quality within Spring Creek, Trumbull Creek, the Grand River, and ultimately Lake Erie. Additionally, the permanent protection and enhancement of Spring Creek Preserve's wetlands and forested riparian areas will protect water quality downstream in Montmere Lake, an impoundment relied on heavily for recreational boating and fishing, while also preserving the water quality of the groundwater that the Montmere Lake residential community relies on for their drinking water supply.

Conservation of the Spring Creek Preserve property permanently protects wildlife habitat for several listed species that have been documented on or within range of the property. The Ohio potentially threatened howe's sedge (*Carex atlantica spp. capillacea*), and the Ohio endangered one-cone club moss (*Lycopodium lagopus*) and swamp red currant (*Ribes triste*), were all identified on the property. The property is also likely to contain the Ohio threatened hobblebush (*Viburnum lantanoides*), which

has been identified on the adjacent wetland complex. Several bird and bat species have been documented on the property, including nesting populations of sandhill crane (*Grus canadensis*), threatened in the state of Ohio, as well as red headed woodpecker (*Melanerpes erythrocephalus*), an Ohio species of concern. Five state-listed species of bat have been documented by West Creek Conservancy staff on the Spring Creek Preserve property, including the big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), hoary bat (*Lasiurus cinereus*), and red bat (*Lasiurus borealis*) (all listed as species of concern in the state of Ohio), as well as the Ohio endangered tricolored bat (*Perimyotis subflavus*).The property was also identified as providing suitable habitat for two federally endangered bat species whose known habitat includes Geauga County: the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). Habitat surveys also revealed a likelihood that the property provides suitable breeding habitat for the four-toed salamander (*Hemidactylium scutatum*), a species of concern in Ohio, as well as the spotted turtle (*Clemmy gutatta*) and the Blanding's turtle (*Emydoidea blandingii*), both listed as threatened species in the state of Ohio. The tremendous biodiversity found on the property will be further enhanced through West Creek Conservancy's ongoing stewardship of the property, including invasive species and deer population management.

Additionally, the trees within the project area intercept an estimated 71,705 cubic meters of rainfall annually, reducing stormwater runoff into the adjacent high-quality wetland complex.