



## Jones Farm Open Space Project Design Document

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# INSTRUCTIONS

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

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

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

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

- *Geospatial Location Map*
- *Regional Map*
- *Project Area Map*
- *Proof of Land Ownership or Agreement to Transfer Credits*
- *Preservation Commitment*
- *Land Use Regulations*
- *Land Use/Zoning Map*
- *Overlay Zones or Restrictions*
- *Threat of Loss Demonstration*
- *Attestation of No Double Counting and No Net Harm*
- *Attestation of Additionality*
- *Carbon Quantification Calculator*
- *iTree Canopy Report and raw data*
- *Forest Composition Report*
- *Forest Age Imagery*
- *Stand Map*
- *Co-Benefit Quantification Calculator*
- *Social Impacts*

## PROJECT OVERVIEW

**Project Name:** Jones Open Space

**Project Number:** 042

**Project Type:** Preservation Project (under the Tree Preservation Protocol – version 12.40, dated February 22, 2023)

**Credit Commencement Date:** October 3, 2023

**Project Location:** The current address for the parcel is 1708 S. 700 W., New Palestine, IN 46163. The property is in Hancock County. The parcel number for the site is 30-09-11-400-012.000-012.

**Project Operator Name:** Central Indiana Land Trust, Inc.

**Project Operator Contact Information:** Stacy Cachules, Chief Operating Officer, 317-441-0535 and [scachules@conservingindiana.org](mailto:scachules@conservingindiana.org).

### **Project Description:**

The property was donated to the Central Indiana Land Trust, Inc. (CILTI) in 2022 by the estate of Marjorie Jones. CILTI is the owner of the property and their goal for the property is to protect and steward the forest in perpetuity.

The entire property is 75.39 acres, of which roughly 20.1 acres is forested habitat. In the forested habitat 10.9 acres is very mature forest with old growth oak and hickory. There is a 9.2-acre portion made up of maple, walnut, hackberry and sycamore needing invasive species control. The property is surrounded by development on all sides of it with a new neighborhood being built at the south boundary.

## 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 current address for the parcel is 1708 S. 700 W., New Palestine, IN 46163. The property is in Hancock County. The project meets the location criteria 1.3 D (the boundary of any regional metropolitan planning agency or council established by legislative action or public charter) by being included in the Indianapolis Metropolitan Planning Organization.

A survey of the parcel conducted in March 2023 determined that the parcel acreage was 75.39 acres.

### Project Area Parcel Information

List parcel(s) in the Project Area.

Municipality	Parcel Number	Notes <i>Include total acres and acres included in Project Area</i>
New Palestine	30-09-11-400-012.000-012	Portion of parcel included – 20.1 acres out of 75.39 acres
	<b>Total Project Area</b>	20.1 acres out of 75.39 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 CILTI Jones Project Area
- Regional Map  
*Show where the Project Area is located in relation to the state and/or region*  
Attachment: 2 CILTI Jones Regional Map
- Detailed map of Project Area  
*Show the Project Area and parcel boundaries.*  
Attachment: 3 CILTI Jones 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 Jones Open Space parcel was donated to The Central Indiana Land Trust, Inc. in 2022. We received official ownership from the estate on August 29, 2022. Although online County records and the parcel legal description in the deed to CILTI state an acreage of 73.541 acres, a subsequent land survey dated March 10, 2023 and recorded March 14, 2023, determined an acreage amount of 75.390 acres.

Attachment: 4a CILTI Jones Recorded Deed, 4b CILTI Jones Recorded Land Survey



## PROJECT DURATION (Section 2.2)

*Project Operator commits to the 40 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 April 17, 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:** 40 years

**Date recorded:** October 3, 2023

**Preservation Commitment Explanation:** Declarant intends by this Declaration to preserve the trees on the Property for a period of no less than 40 years. It understands that this Declaration will bar the clearing or removing of trees for parking lots, picnic shelters, playfields, visitor centers, or any reason other than forest health, hazard, disease, fire, and small, non-motorized recreational trails. (Recitals, section D)

Attachment: 5 CILTI Jones Deed Restriction

## 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 entirety of the Project Area is zoned as Residential-Low Density (R2.5). The "R2.5", Residential: 2.5 zoning district is intended to provide areas for single-family residential land uses developed in suburban-style subdivisions.

Attachment: 6 CILTI Jones Zoning Map and Ordinance

**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.*

Jones Open Space Preservation Project does include a drainage easement which is also within the FEMA Zone AE Floodway. This area has been taken out of the total Project Area. The drainage easement was identified in the recorded parcel survey, dated March 10, 2023.

There are also sections of the Project Area that fall within the FEMA-designated floodplain (and outside of the FEMA Floodway). The Hancock County Floodplain Ordinance allows for development in areas within the floodplain with a permit from the Floodplain Administrator. The Project Operator received a signed letter from the Hancock County Floodplain Administrator stating that a permit for development in the Project Area floodplain would be approved.

Attachment: 4b CILTI Jones Recorded Land Survey, 7 CILTI Jones Floodplain Map and Letter

**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]*

The project area is in a highly developed area of Hancock Co. with new housing development and agricultural on all sides. 65% of the parcel boundary is adjacent to a residential use and 35% is adjacent to a road, accounting for 100% of the perimeter surrounded by a developed use. This meets Protocol Section 4.4 A – “is surrounded on at least 30% of its perimeter by non-forest, developed, or improved uses, including residential, commercial, agricultural, or industrial.

Attachment: 8 CILTI Jones Threat of Loss Demonstration 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 preservation 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 17, 2023.

Attachment: 9 CILTI Jones Attestation of No Double Counting\_No Net Harm, 10 CILTI Jones 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.

Project Operator has signed an Attestation of Additionality.

Attachment: 11 CILTI Jones 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)	20.1
Percent tree canopy cover within Project Area	100%
Project stock (tCO <sub>2</sub> e)	2,554
Accounting Stock (tCO <sub>2</sub> e)	2,043
On-site avoided biomass emissions (tCO <sub>2</sub> e)	1,839
On-site avoided soil carbon emissions (tCO <sub>2</sub> e)	844
Deduction for displaced biomass emissions (tCO <sub>2</sub> e)	337
Deduction for displaced soil emissions (tCO <sub>2</sub> e)	256
Credits from avoided biomass emissions (tCO <sub>2</sub> e)	1,502
Credits from avoided soil emissions (tCO <sub>2</sub> e)	588
Total credits from avoided biomass and soil emissions (tCO <sub>2</sub> e)	2,091
Credits attributed to the project (tCO <sub>2</sub> e), excluding future growth	2,091
Contribution to Registry Reversal Pool Account	209
<b>Total credits to be issued to the Project Operator (tCO<sub>2</sub>e)</b> <i>(excluding future growth)</i>	<b>1,882</b>

### GHG Assertion:

Project Operator asserts that the Project results in GHG emissions mitigation of 1,882 tons CO<sub>2</sub>e issued to the project.

### Approach to quantifying carbon

*Describe the forest conditions and general approach used to quantify carbon (e.g. 11.1.A with the US Forest Service General Technical Report NE-343 Tables). Attach the Carbon Quantification Calculator.*

CILTI conducted an on-site forest composition study (see below and Attachment 14) and then followed the 11.1.A. methodology using the afforestation table B15 Oak Hickory (stand 1 & 2) and B14 Maple Beech Birch (stand 3) from the US Forest Service General Technical Report NE-343 document. The species composition for stand 3 is different than the main species in the assigned GTR table. With consultation from one of the Registry's Forest Carbon Scientists, the forest species composition and specific gravity is equivalent to the Maple Beech Birch biomass in the GTR table. The main forest species include mulberry and silver maple.

Attachment: 12 CILTI Jones Carbon Quantification Calculator

### **Accounting Stock Measurement Method**

*Provide an overview to describe quantification methods, including which method was used to assess canopy cover (e.g. i-Tree, inventory, other), forest type, and data sources.*

Assessment of forest composition was completed by the Central Indiana Land Trust staff to confirm forest types. Staff also performed several inventory and plot studies at the property to accurately assess the forest type. Canopy cover was confirmed using the i-Tree Canopy tool. Because this estimate is from the GTR table, the standard 20% deduction was made to calculate the Accounting Stock from the GTR non-soil carbon estimates.

### **Canopy Cover**

*Describe which method was used to assess canopy cover (e.g. i-Tree Canopy, LiDAR, or other method approved by Registry). Provide the i-Tree Canopy report or other canopy cover assessment that shows estimated percentage of tree cover for the Project Area.*

Based on the i-Tree Canopy Tool, which used 60 randomly selected plot points, the total canopy cover of the Project Area is 100%. The entirety of the Project Area is under forested cover.

Attachment: 13 CILTI Jones i-Tree Canopy Report

### **Forest Composition**

The northwest forest is a high quality till plain flat wood exhibiting old growth characteristics. The remaining forested area is average quality with restoration potential.

The project area is 20.1 acres of wet-mesic deciduous forest. The overall dominate canopy groups are hickory, oak, maple, and tulip poplar. A drainage easement bisects Stand 2 and everything within that easement is excluded from this project.

Overall, the Project Area displays a relatively uniform tree density. There is some localized variability in tree density, namely in two wetter areas and where gaps in the canopy have formed from recent ash tree deaths.

Attachment: 15 CILTI Jones Project Forest Composition Report

### **Forest Age**

*Describe the forest age and how it was determined. Provide historical imagery or other materials as supporting evidence.*

As outlined in the Forest Composition report the age varies in different areas of the property. Based on historical documentation we believe the woods in the northwest corner to be prior to European settlement and never cut. It is comprised of very mature forest with old growth oak and hickory. This stand 1 was estimated at 87 years old based on historic aerial imagery. Forest age estimate was adjusted

to 95 years to conservatively account for canopy closure time. The remaining stands (stand 2 & 3) appear in 1986 and continue to fill in. They are made up of maple, walnut, hackberry, and sycamore and the estimated age is 25 years old.

Attachment: 15 CILTI Jones Project Forest Composition Report

### **Stand Maps**

*Describe the methods used to determine forest stands (e.g. GIS) and provide a map.*

Based on the site visits and the historical documentation our team was able to determine the location for three forest stands.

Attachment: 15 CILTI Jones Project Forest Composition Report, exhibit C (page 16)

### **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.*

The Jones Open Space Project Area is zoned as Residential-Low Density (R2.5). The "R2.5", Residential: 2.5 zoning district is intended to provide areas for single-family residential land uses developed in suburban-style subdivisions. The local zoning ordinance allows for 1 dwelling unit/14,000 sq/ft. The Project Area could accommodate roughly 63 dwelling units in the 20.1 acre Project Area. Section 11.2 in CFC's Tree Preservation Protocol allows for 90% of the Accounting Stock on the Project Area is the "Avoided Biomass Emissions" on residential lands.

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

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

Jones Open Space Project is zoned as R2.5, Residential and the applicable zoning and development rules do not limit impervious area. Section 11.3 in CFC's Tree Preservation Protocol allows for 50% of the Project Area in residential zoning to be eligible for conversion to impervious surface but based on local zoning ordinances, 35% of the Project Area is eligible for conversation to impervious surfaces and used in the final carbon quantification calculator.

### **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.*

All future activities involve the control of invasive species on the property and other restoration to improve the forest canopy. We do plan to add a small loop trail throughout the forest. This will in no way impact the forest canopy. There are farm fields that we own adjacent to the project area that we plan to eventually plant to forest. This future planting will buffer the project area and help the overall health of the forest.

## 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.*

<b>Ecosystem Services</b>	<b>Resource Units</b>	<b>Value</b>
Rainfall Interception (m3/yr)	4,428.5	\$7,254.04
Air Quality (t/yr)	0.1372	\$55.02
Cooling – Electricity (kWh/yr)	5,310	\$361.07
Heating – Natural Gas (kBtu/yr)	8,341	\$80.62
<b>Grand Total (\$/yr)</b>		<b>\$7,750.74</b>

Co-benefits were quantified using CFC's Co-Benefits Quantification Calculator. These ecosystem services represent values in avoided costs of \$7,750.74 annually and \$310,030 over 40 years.

Attachment: 16 CILTI Jones Lower Midwest CoBenefit Calculator

## 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.*

### Good Health and Well-Being:

The Project Area is in a fast-developing area near housing developments and schools. Having protected forested areas will add to the health and well-being of the neighbors and surrounding communities. It will buffer traffic noise and reduce flooding in the area. It will also continue to provide a habitat for wildlife. It will also provide a place for the community to find solace in nature.

### Climate Action:

By protecting over 20 acres of forest in this highly developed area of Central Indiana the project will reduce pollutants from the air and provide shaded areas for cooling temperatures. The forest also provides stormwater runoff reduction in this highly developed area. In addition, the Project Area also serves as valuable wildlife habitat for birds and other animals.

### Life on Land:

The Project Area is located adjacent to agricultural fields and housing development. Protection of this forested area will reduce stormwater runoff in the highly developed area. The forested area will be

restored and maintained to encourage wildlife habitat and reduce stormwater runoff. Future plans for the larger project include planting the neighboring fields to forests as will also act as a buffer to further protect the trees.

*Attachment: 17 CILTI Jones Social Impacts Report*

## **MONITORING AND REPORTING (Section 8)**

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

### **Monitoring Reports**

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

### **Monitoring Plans**

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

As an accredited land trust under the Land Trust Alliance Accreditation Commission, CILTI is required to meet minimum standards and practices for all conservation properties. This includes having a management plan and annual monitoring and reporting. Our team will create a baseline documentation report for the properties and a management plan and use those annually as tools for management. At this time we have no plans to claim credits for future growth.



## PROJECT OPERATOR SIGNATURE

Signed on October 4 in 2023, by Cliff Chapman and President & CEO, for Central Indiana Land Trust, Inc.

  
Signature

Cliff Chapman  
Printed Name

317-631-5263  
Phone

cchapman@conservingindiana.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, Recorded Survey
- 5 – Preservation Commitment
- 6 - Land Use Regulations, Zoning Map
- 7 – Overlay Zones or Restrictions
- 8– Threat of Loss Demonstration
- 9 – Attestation of No Double Counting and No Net Harm
- 10 – No Double Counting Map
- 11 – Attestation of Additionality
- 12 – Carbon Quantification Calculator
- 13 – iTree Report
- 14 – iTree Canopy raw data
- 15 – Forest Composition Report
- 16 – Co-Benefit Quantification Calculator
- 17 – 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<sub>2</sub>(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 acres 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 & Land Survey](#)

[Project Area Map](#)

[Regional Area Map](#)

[Preservation Commitment](#)

[Zoning Maps & Descriptions](#)

[Floodplain Map & Letter](#)

[Threat of Loss Demonstration](#)

[Attestation of No Double Counting and No Net Harm](#)

[Attestation of Additionality](#)

[Carbon Quantification Tool](#)

[Tree Inventory](#)

[iTree Canopy Report](#)

[Forest Composition Report, Site & Historical Photos](#)

[Cobenefit Calculator](#)

[Social Impacts](#)

## Deed & Land Survey





Personal Representative's Deed

The undersigned, as personal representative of the estate of **Marjorie Jones (who is one in the same as Marjorie E. Elliot Jones)**, which estate is pending in **Hancock County Superior Court** under cause numbered **30D01-2108-EU-00161**, by virtue of the power and authority granted to a personal representative under Indiana Code proceeding under the provisions of unsupervised administration, conveys to **Central Indiana Land Trust Incorporated**, whose mailing address is 1500 N Delaware St, Indianapolis, IN 46202, the following described parcel of real estate located in **Hancock County, Indiana**:

30-09-11-400-012.000-012

**See Attached "Exhibit A"**

Subject, however, to all easements, covenants, conditions, restrictions and highways of record. Subject to current taxes.

Commonly known as: **1708 S 700 W, New Palestine, IN 46163**

Send tax statements to grantee at: 1500 N Delaware St, Indianapolis, IN 46202

IN WITNESS WHEREOF, **Darla Carter**, as personal representative of the estate of **Marjorie Jones**, deceased has executed this deed, this 29 day of August, 2022

Signature Darla Carter per R.E.P.  
**Darla Carter**, as personal representative  
of the estate of **Marjorie Jones**, deceased

STATE OF INDIANA )  
COUNTY OF ) SS  
)

Before me, a Notary Public in and for said County and State, personally appeared **Darla Carter**, as personal representative of the estate of **Marjorie Jones**, deceased who acknowledged the execution of the foregoing Personal Representative's Deed, and who, having been duly sworn, stated that any representations therein contained are true.

Witness my hand and Notarial Seal this 29 day of August, 2022.

My commission expires:

12-17-22

Signature [Signature]  
Printed JOHN S. MERLAU  
Residing in Shelby County, Indiana.

I affirm under the penalties for perjury that I have taken reasonable care to redact each Social Security number in this document, unless required by law.

John S. Merlau, Attorney at Law

This instrument was prepared by John S. Merlau, Attorney at Law P.O. Box 406 New Palestine, IN 46163



## **Exhibit A**

30-09-11-400-012.000-012

The East half of the Southeast quarter of Section eleven (11), Township fifteen (15) North, Range five (5) East, containing eighty (80) acres, more or less, subject to all legal highways.

EXCEPTING THEREFROM; A part of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, described as follows:

Commencing at a point on the East line of the East half of the Southeast quarter of said section 11, a distance of 770 feet South of the Northeast corner thereof; thence South on said East line 176 feet; thence West parallel with the North line of said East half 247 feet; thence North parallel with the East line of said East half 176; thence East 247 feet to the place of beginning, containing one (1) acre, more or less.

ALSO EXCEPTING THEREFROM; A part of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, described as follows:


Commencing at the Northeast corner of the Southeast Quarter of Section 11, Township 15 North, Range 5 East and running thence South 00 degrees 13 minutes 25 seconds East a distance of 946.00 feet to the POINT OF BEGINNING of this description; thence continuing South 00 degrees 13 minutes 25 seconds East, on and along the East line of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 400.00 feet to a point; thence running South 88 degrees 12 minutes 03 seconds West, parallel with the North line of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 594.72 feet to a point; thence running North 00 degrees 13 minutes 25 seconds West, parallel with the East line of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 400.00 feet to a point; thence running North 88 degrees 12 minutes 03 seconds East, parallel with the North line of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 594.72 feet to the POINT OF BEGINNING of this description containing 5.459 acres, more or less.

Leaving, after said exceptions, in all 73.541 acres, more or less



<p><b>LEGEND</b></p> <p><b>○ SURVEY MARKER SET</b>  <b>(5/8" IRON REBAR)</b>  <b>WITH M J GIBSON CAP</b>  <b>(SEE EXAMPLE TO RIGHT)</b></p>	<p><b>● SURVEY MARKER FOUND</b>  <b>AS NOTED ON PLAT</b></p> <p><b>▲ SECTION CORNER</b></p> <p><b>(M) MEASURED</b>  <b>(C) CALCULATED</b>  <b>(D) DEED</b>  <b>(P) PLAT</b>  <b>(R) RECORD</b>  <b>SRE SURVEY REAL ESTATE</b></p>	<p><b>M J GIBSON</b>  <b>9</b>  <b>LS 29300014</b></p>
---	---	--

SCALE: 1" = 200'



A horizontal scale bar with tick marks at 0', 50', 100', and 200'. The bar is divided into four equal segments, each representing 50 feet.

1 / 1

**\$25.00  
1 PGS**

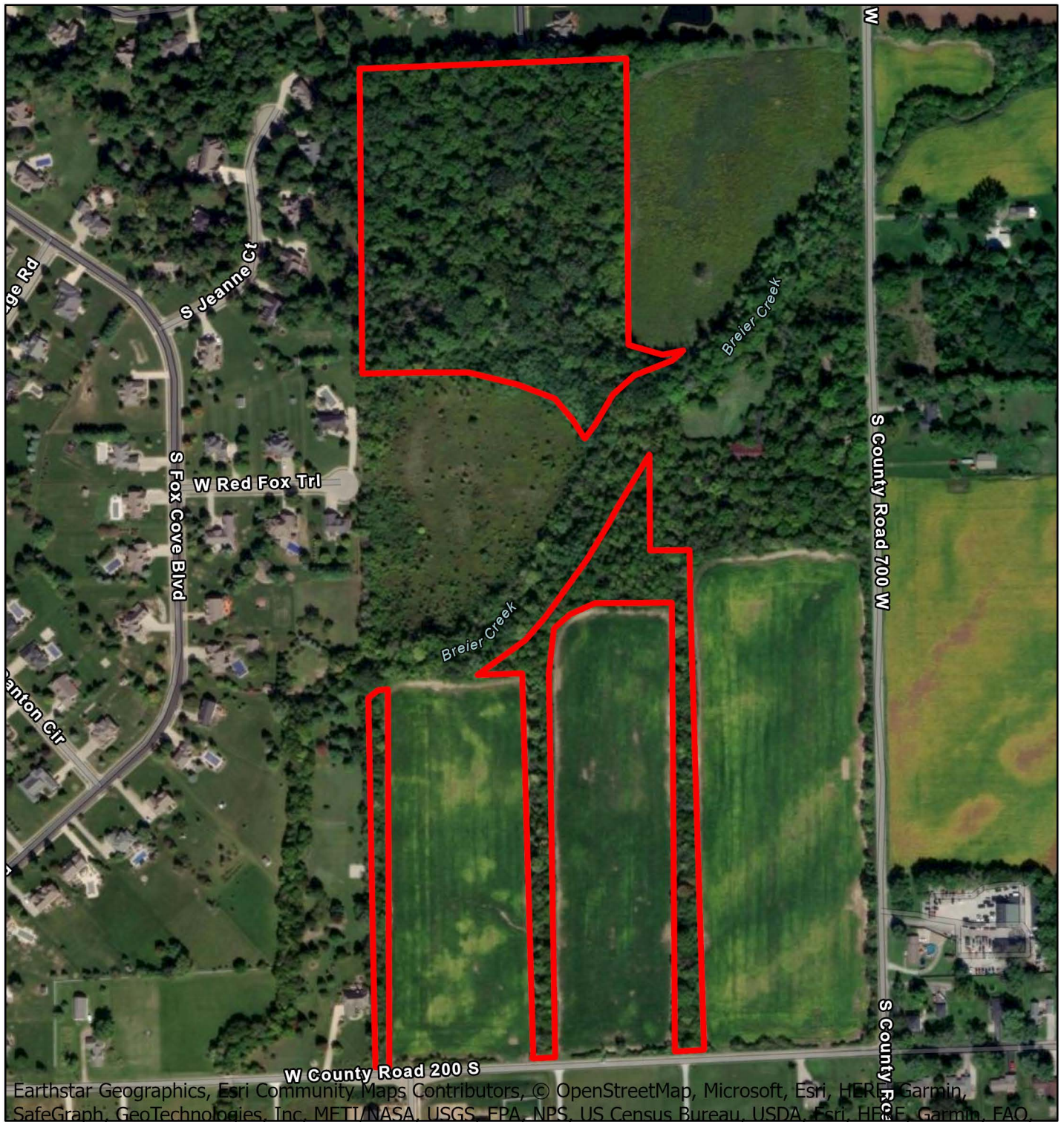
1 / 1

Drawing File: 23-060 CILT.dwg Date: Mar 13, 2023 Time: 8:34am



Project Area Map

# Project Area Map



0 0.05 0.1 0.2 Miles

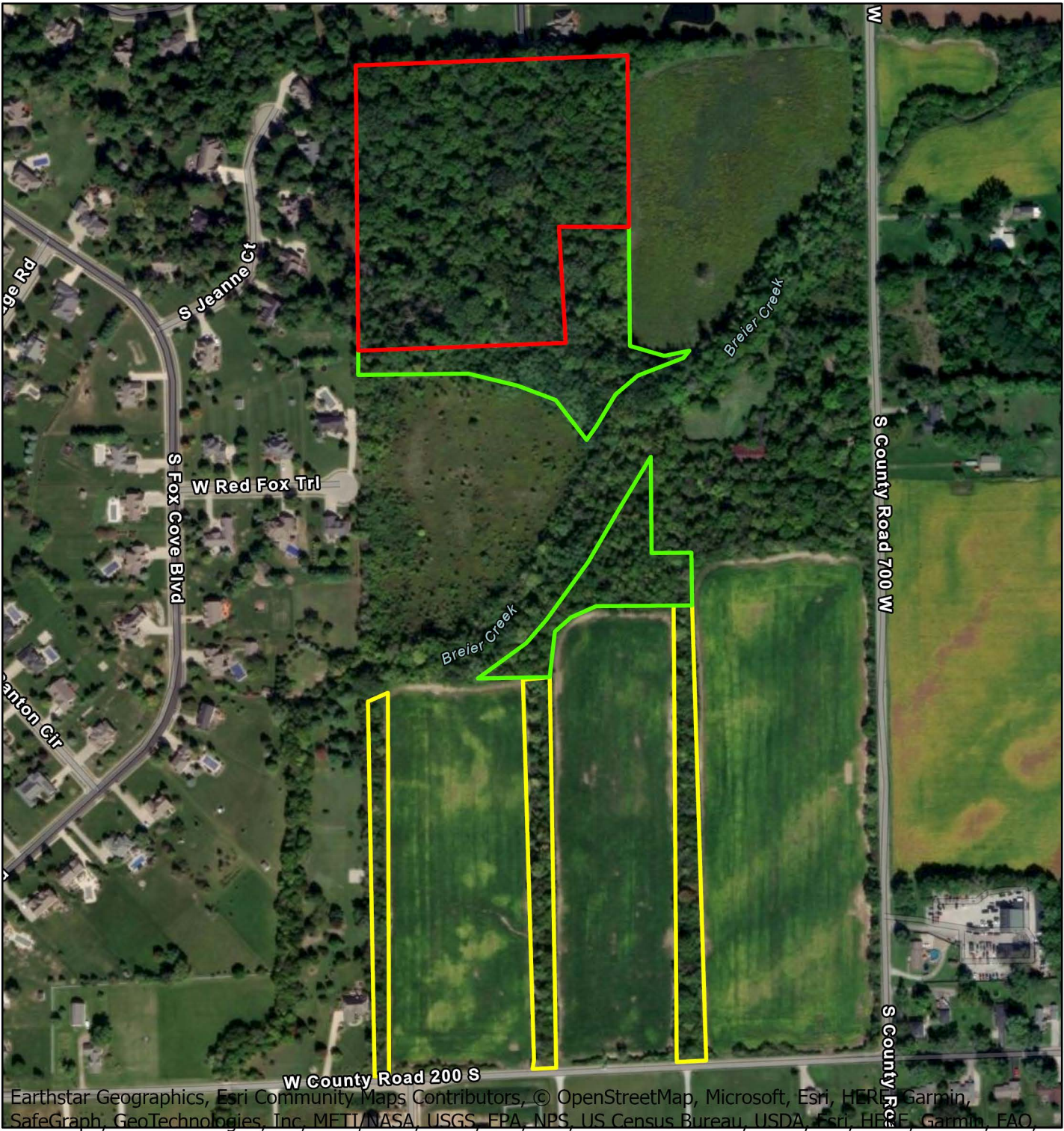


## Legend

 Project Area



# Forest Stand Map



Earthstar Geographics, Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, HERE, Garmin, FAO,

0 0.05 0.1 0.2 Miles



Legend

Forest Stand 1 (10.9acres)

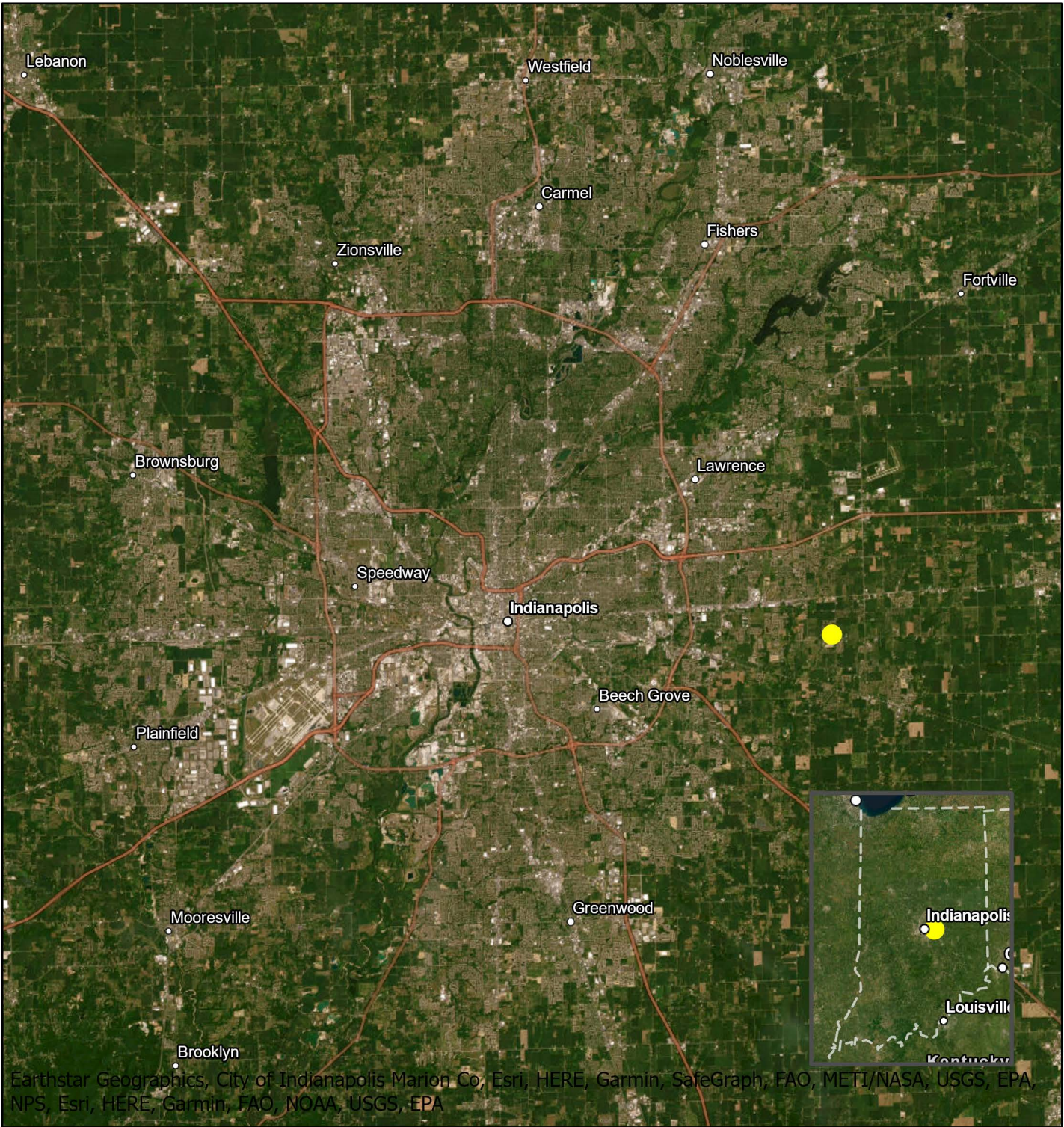
Forest Stand 2 (5.0 acres)

Forest Stand 3 (4.2 acres)

Regional Area Map



# Regional Map



0 4.25 8.5 17 Miles



**Legend**

 Project Location



## Preservation Commitment



**Cross Reference:**

**Last Deed of Record:**

**Personal Representative's Deed: Instrument number: 202211812 in Hancock County Recorder's Office.**

**DECLARATION OF DEVELOPMENT RESTRICTIONS**

Declarant: Central Indiana Land Trust Incorporated  
1500 N. Delaware Street  
Indianapolis, IN 46202

**LEGAL DESCRIPTION:**

A portion of the following as depicted on Exhibit A:

The East half of the Southeast quarter of Section eleven (11), Township fifteen (15) North, Range five (5) East, containing eighty (80) acres, more or less, subject to all legal highways.

EXCEPTING THEREFROM; A part of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, described as follows:

Commencing at a point on the East line of the East half of the Southeast quarter of said section 11, a distance of 770 feet South of the Northeast corner thereof; thence South on said East line 176 feet; thence West parallel with the North line of said East half 247 feet; thence North parallel with the East line of said East half 176; thence East 247 feet to the place of beginning, containing one (1) acre, more or less.

ALSO EXCEPTING THEREFROM; A part of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, described as follows:

Commencing at the Northeast corner of the Southeast Quarter of Section 11, Township 15 North, Range 5 East and running thence South 00 degrees 13 minutes 25 seconds East a distance of 946.00

feet to the POINT OF BEGINNING of this description; thence continuing South 00 degrees 13 minutes 25 seconds East, on and along the East line of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 400.00 feet to a point; thence running South 88 degrees 12 minutes 03 seconds West, parallel with the North line of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 594.72 feet to a point; thence running North 00 degrees 13 minutes 25 seconds West, parallel with the East line of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 400.00 feet to a point; thence running North 88 degrees 12 minutes 03 seconds East, parallel with the North line of the East half of the Southeast quarter of Section 11, Township 15 North, Range 5 East, a distance of 594.72 feet to the POINT OF BEGINNING of this description containing 5.459 acres, more or less.

THIS DECLARATION OF DEVELOPMENT RESTRICTIONS (the "DECLARATION") is made this 29 day of, September, 2023, by Central Indiana Land Trust Incorporated, and a non-profit domestic corporation, of Marion County in the State of Indiana ("Declarant"), for the purpose of clarifying the development restrictions on property at 1708 S 700 W, New Palestine, IN 46163, with the State Parcel Identification Number: 30-09-11-400-012.000-012.

### RECITALS

A. Declarant is the owner of certain property in Hancock County, State of Indiana, addressed as Forested Area of Marjorie Jones Open Space more particularly described in EXHIBIT A attached hereto and incorporated by reference ("Depicted Area"). Subject shall be referred to as the "Property" hereafter.

B. Declarant recognizes the value of the Property's mature forest as a climate asset. The trees on the Property store CO<sub>2</sub>, reduce storm water runoff, improve air quality, provide energy savings from cooling and heating effects, and improve human health by providing cleaner air and a place for recreation, exercise and the public health benefits of exposure to nature. Clearing of the trees for other uses, such as parking lots, playfields or other uses would seriously impair the climate value of the Property.

C. Declarant is enrolling in a carbon project with City Forest Credits, a non-profit organization that has developed carbon protocols and issues credits for qualifying tree-preservation and tree-planting projects in urban areas ("CFC").

D. Declarant intends by this Declaration to preserve the trees on the Property for a period of no less than 40 years. It understands that this Declaration will bar the clearing or removing of trees for parking lots, picnic shelters, playfields, visitor centers, or any reason other than forest health, hazard, disease, fire, and small, non-motorized recreational trails.

### DECLARATION

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Declarant, as owner of the Property, hereby declares, grants,

imposes, conveys, establishes, and accepts the following development restrictions and covenants which shall run with the land and be binding upon all owners of the Property:

1. Removal of Trees. Declarant shall not cut down, destroy, or remove trees located on the Property, except as necessary to control or prevent hazard, disease or fire or to improve forest health, Recreational non-motor-use trails have negligible or de minimis impacts on biomass and carbon stock and are permissible.

## GENERAL PROVISIONS

2. Run with land. The covenants and restrictions declared, granted, conveyed and established under this Declaration shall run with the land and inure to the benefit of, and be binding upon, Declarant and its heirs, beneficiaries, successors and assigns, and all future owners of the Property.

3. Term and modification. The covenants and restrictions declared, granted, conveyed and established under this Declaration shall remain in effect as long as it is needed to satisfy the requirements of any applicable carbon protocol under which carbon credits may be issued for the carbon preserved in the trees on the Property.

4. Governing law and venue. The terms and provisions of this Declaration shall be governed, construed, and enforced in accordance with the laws of the State of Indiana. Venue for any lawsuit arising out of this Declaration shall be in Hancock County, Indiana.

5. Severability. In case any one or more of the provisions contained in this Declaration shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Declaration, but this Declaration shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

6. Enforcement.

a This Declaration is being freely and voluntarily made by Declarant.

b CFC, the permitting authority in the locality where the Property is located, and members of the general public shall have the right to assign the rights described in this Section 6 to any other person or entity with an interest in preserving the trees on the Property and such party shall be deemed a Beneficiary for the purposes set forth above.

c Declarant shall be responsible for all costs associated with implementation of this Declaration.

*[Signature page follows.]*

Dated this 29 day of September, 2023.

Central Indiana Land Trust Incorporated

By: \_\_\_\_\_

A handwritten signature in black ink, appearing to read "Cliff Chapman", is written over a horizontal line.

Name: Cliff Chapman

Title: President & CEO

STATE OF INDIANA

COUNTY OF Hamilton

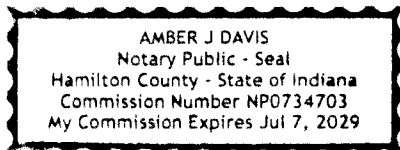
} ss.

Before me, a Notary Public in and or said County and State, personally appeared Cliff Chapman, President & CEO of Central Indiana Land Trust Incorporated, who acknowledged execution of the foregoing Declaration of Development Restrictions as a duly authorized office of the Declarant, and who, having been duly sworn, stated that the representations therein contained are true.

Dated this 29<sup>th</sup> day of September, 2023.

Amber J. Davis

Printed Name: Amber J. Davis



NOTARY PUBLIC in and for the State of Indiana,

Residing at 19140 Green Valley Dr.  
Noblesville, IN 46060

My Commission Expires 7-7-29

I affirm under the penalties of perjury, that I have taken reasonable care to redact each Social Security number in this document unless required by law, Stephanie Paine Crossin, Central Indiana Land Trust, 1500 N. Delaware Street, Indianapolis, IN 46202

This instrument was prepared by Stephanie Paine Crossin

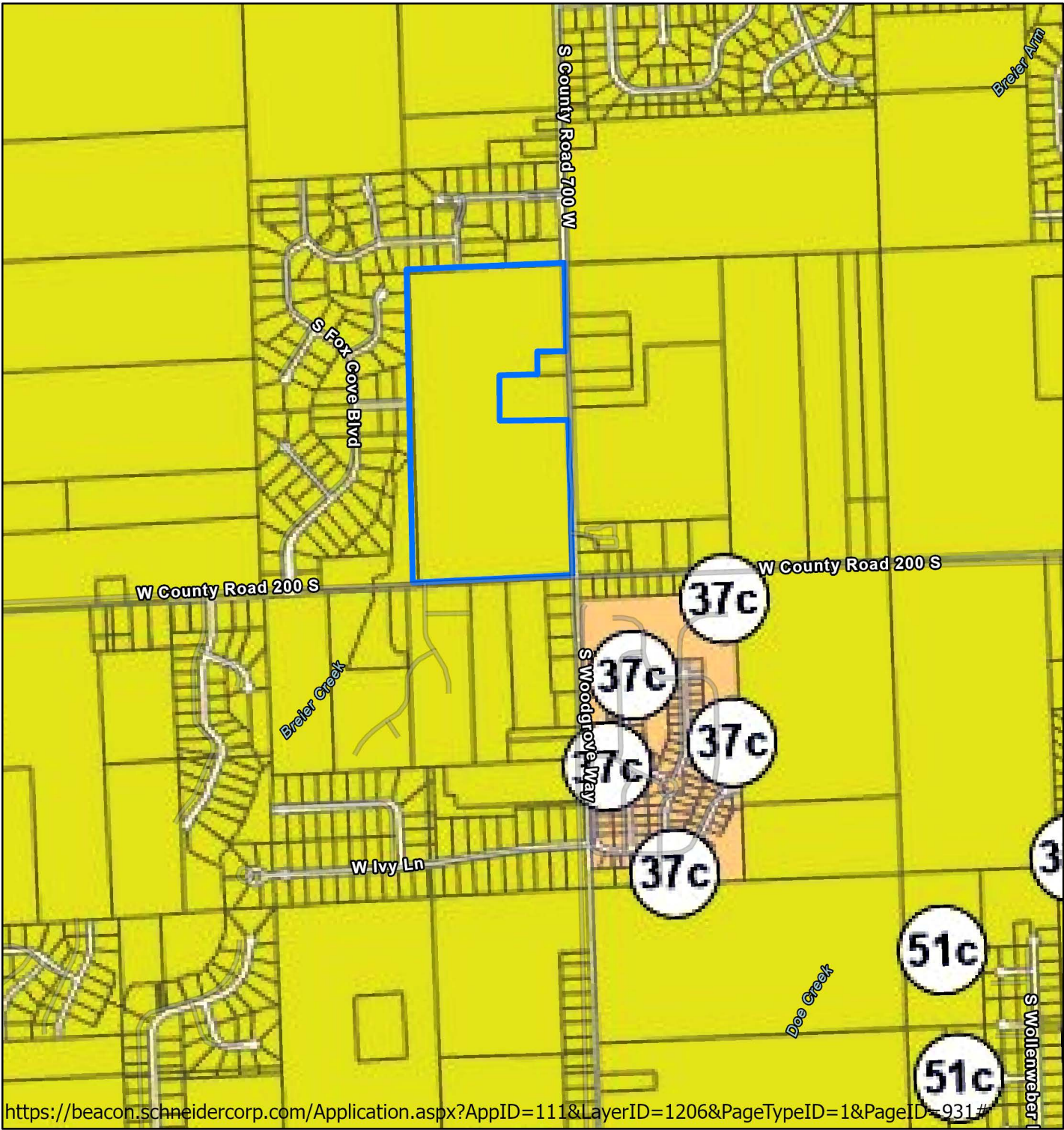
EXHIBIT A  
DEPICTED AREA



## Zoning Maps & Descriptions



# Land Use/ Zoning Map



0 0.17 0.35 0.7 Miles



**Legend**

-  CILTI Marjorie Jones Property
-  Residential: R2.5
-  Residential R3.5

## **§ 156.026 RESIDENTIAL: 2.5 (R2.5).**

(A) *District summary.* The "R2.5", Residential: 2.5 zoning district is intended to provide areas for single-family residential land uses developed in suburban-style subdivisions. These areas should be located adjacent to existing developed areas and should be connected to available infrastructure (roads and utilities). This district should be used to provide unique housing options.

(B) *Permitted primary uses.*

(1) *Land use matrix.* The land use matrix set forth in § 156.021 provides detailed use lists for all zoning districts.

(2) *Residential uses.*

- (a) Dwelling, single-family (includes manufactured homes).
- (b) Residential facility for the developmentally disabled type I.

(3) *Park uses.*

- (a) Golf course and/or country club (including driving range).
- (b) Nature preserve/center.
- (c) Park and/or playgrounds (including athletic facilities).

(4) *Institutional/public uses.*

- (a) Library.

(C) *Special exception primary uses.*

(1) *Land use matrix.* The land use matrix set forth in § 156.021 provides detailed use lists for all zoning districts.

(2) *Residential uses.*

- (a) Child care home.
- (b) Dwelling, two-family.
- (c) Group home.
- (d) Residential facility for the developmentally disabled type II.
- (e) Residential facility for the mentally ill.
- (f) Retirement facility.

(3) *Communications/utilities uses.*

- (a) Sewage treatment plant.
- (b) Telecommunications facility/tower.
- (c) Water tower.

(4) *Institutional/public uses.*

- (a) Church or other place of worship.
- (b) Community center.
- (c) Government facility (non-office).
- (d) Government office.
- (e) Police, fire, or rescue station.
- (f) School (P-12).

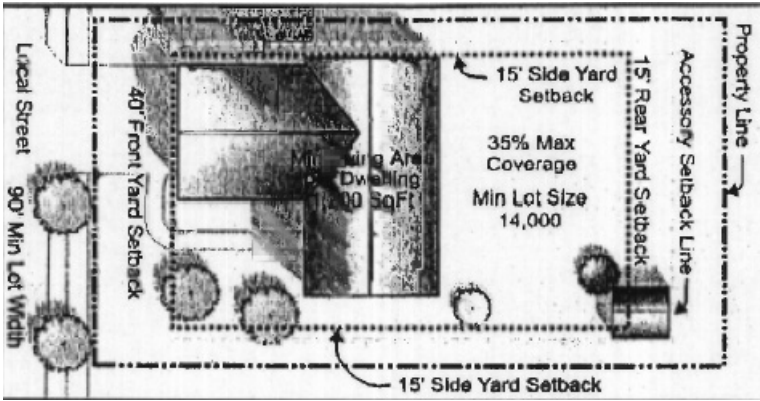
(5) *Commercial uses.*

- (a) Home occupations.
- (b) Kennel.

(D) *Lot standards.*

- (1) Minimum lot area: 14,000 square feet.
- (2) Maximum lot area: not applicable.
- (3) Minimum lot width (measured at front setback/build-to line): 90 feet.

- (4) Maximum lot coverage (including all hard surfaces): 35%.
- (5) Minimum front yard setback - (measured from street right-of-way): 40 feet.
- (6) Minimum side yard setback - (measured from adjacent property line): 15 feet.
- (7) Minimum rear yard setback - (measured from rear property line): 15 feet.
- (8) Minimum living area per dwelling: 1,200 square feet.
- (9) Minimum ground floor living area: 40%.
- (10) Maximum primary structures per lot: 1 dwelling.
- (11) Maximum height: 35 feet.



Illustrative layout (does not reflect all requirements contained within this chapter)

(Ord. 2007-1B, passed 2-5-07; Am. Ord. 2009-2A, passed 2-2-09)

**Cross-reference:**

*Development standards, see §§ 156.060 et seq.*

*Overlay districts, see §§ 156.040 et seq.*

*Sign standards, see §§ 156.085 et seq.*

## Floodplain Map & Letter

November 17, 2023

Cliff Chapman  
President & CEO  
Central Indiana Land Trust Incorporated  
1500 North Delaware Street  
Indianapolis, IN 46202

RE: 1708 S. 700 W.  
New Palestine, IN 46163  
Parcel Number:  
30-09-11-400-012.000-012

Dear Mr. Chapman:

Please let this letter serve as a response to your inquiry concerning the floodplain area of the above captioned parcel. As noted in the Declaration of Development Restrictions executed on September 29, 2023, and recorded in the Hancock County Recorder's office as Instrument number 202309548, Central Indiana Land Trust Incorporated (CILTI) is prohibited from removing trees in the Project Area shown on the attached map.

The Project Area is being enrolled in a carbon project with City Forest Credits (CFC), a non-profit organization that has developed carbon protocols and issues credits for qualifying tree-preservation and tree-planting projects in urban areas. However, if CILTI were to follow the development requirements in the Hancock County ordinance and if the above noted development restriction was not in force, then as Floodplain Administrator, I can attest that a permit for development in the FEMA Zone AE Floodplain (and not Floodway) areas shown in the Project Area could be issued. The only purpose of this letter is to assure CFC of this hypothetical floodplain development permit so as to claim carbon credits for this portion of the Project Area.

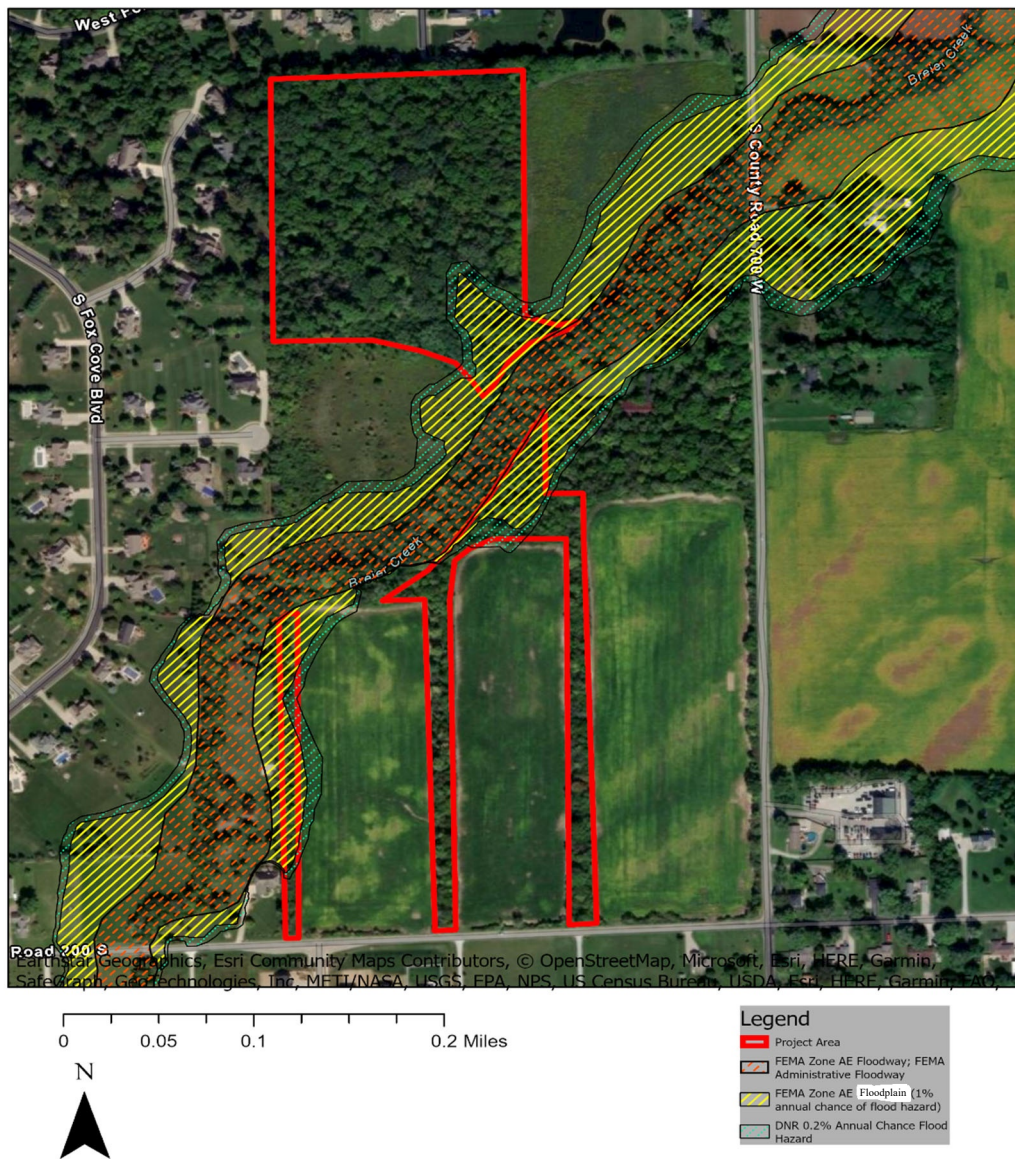
Very truly yours,



Chad Coughenour  
Hancock County  
Surveyor and Floodplain Administrator  
111S. American Legion Place, Suite 171  
Hancock County Annex  
Greenfield, IN 46140



# Floodplain Map for Project Area 30-09-11-400-012.000-012

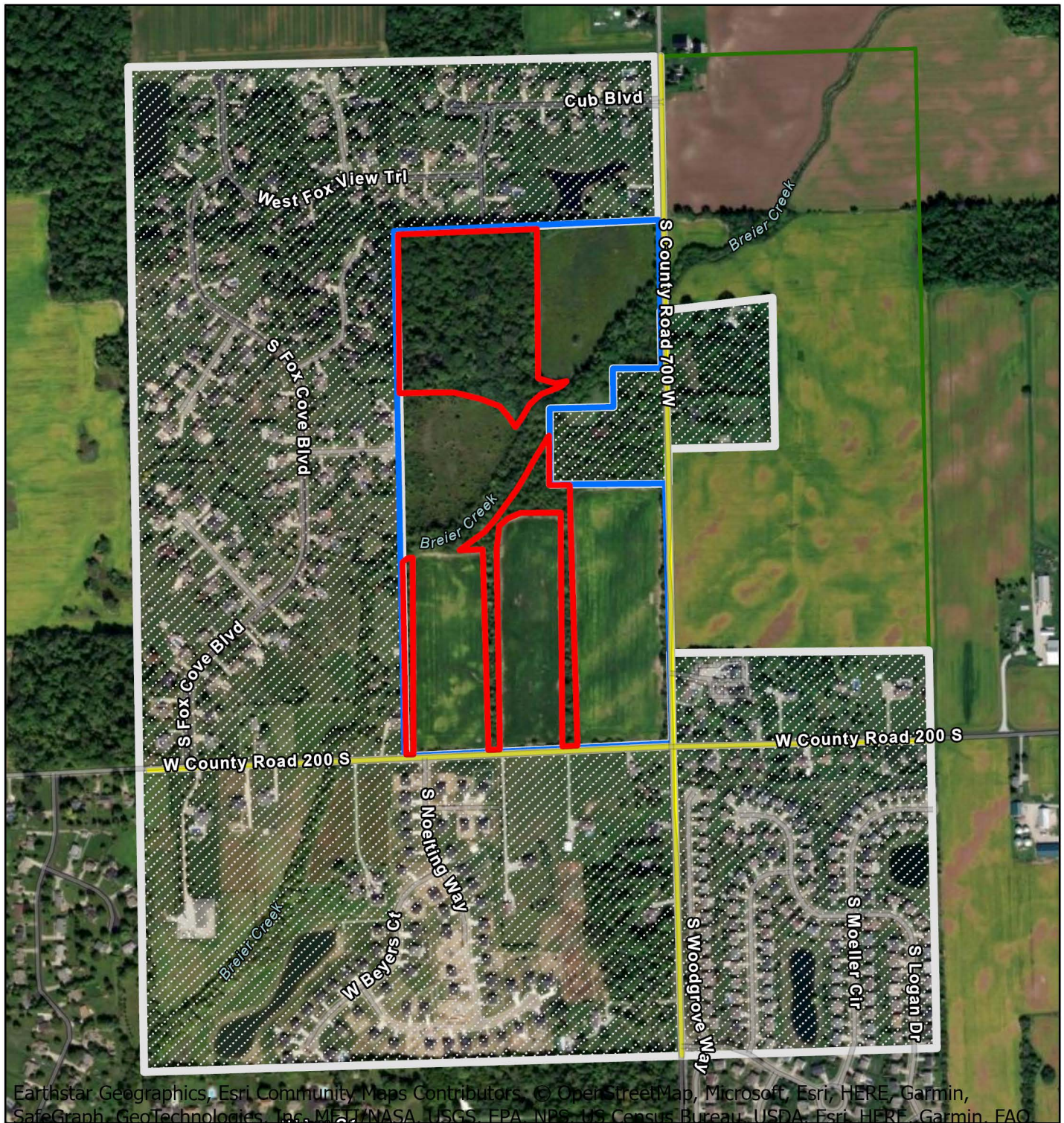


Source: IDNR Division of Water - Hancock County  
<https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/the-indiana-best-available-floodplain-mapping/>

## Threat of Loss Demonstration



# Threat of Loss Demonstration Map



0 0.1 0.2 0.4 Miles



## Legend

- Marjorie Jones Open Space
- Project Area
- Residential Border - 65%
- Road Border - 35%
- Agricultural

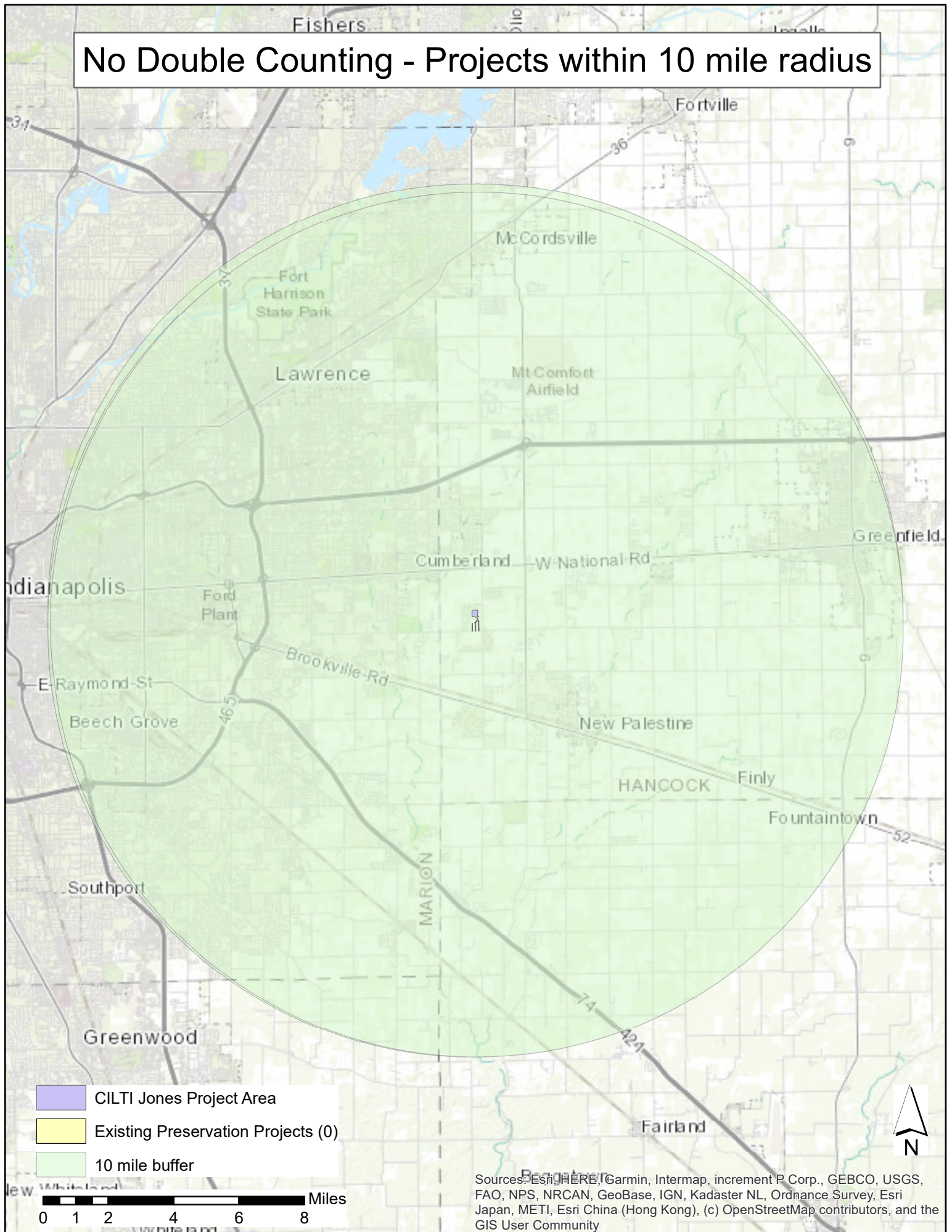
Source: IDNR Division of Water - Hancock County

<https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/the-indiana-best-available-floodplain-mapping/>



## Attestation of No Double Counting and No Net Harm

# No Double Counting - Projects within 10 mile radius





## Jones Open Space Attestation of No Double Counting of Credits & No Net Harm

I am the President & CEO of the Central Indiana Land Trust, Inc. and make this attestation regarding the no double counting of credits and no net harm from this tree preservation project, the Jones Open Space project.

### 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

Central Indiana Land Trust, Inc has not and will not seek credits for CO<sub>2</sub> for the project trees or for this project from any other organization or registry issuing credits for CO<sub>2</sub> storage.

### 3. No Double Counting by Seeking Credits for the Same Trees or Same CO<sub>2</sub> Storage

Central Indiana Land Trust, Inc. has not and will not apply for a project including the same trees as this project nor will it seek credits for CO<sub>2</sub> storage for the project trees or for this project in any other project or more than once. Central Indiana Land Trust 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.

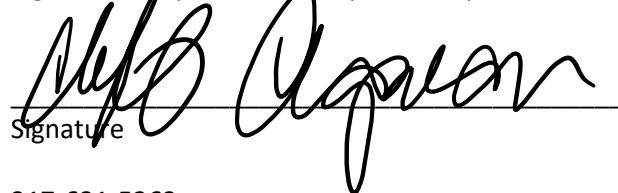
### 4. No Net Harm

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 May 15 in 2023, by Cliff Chapman, President & CEO, for the Central Indiana Land Trust, Inc.

  
Signature

317-631-5263

[cchapman@conservingindiana.org](mailto:cchapman@conservingindiana.org)

## Attestation of Additionality

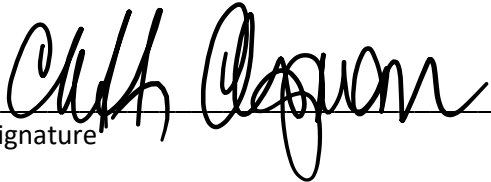


## Jones Open Space Attestation of Additionality

I am the President & CEO of the Central Indiana Land Trust, Inc. and make this attestation regarding additionality from this tree preservation project, Jones Open Space.

- 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
- Central Indiana Land Trust, Inc. 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
  - Central Indiana Land Trust signed a Project Implementation Agreement with City Forest Credits for 40 years.

Signed on May 15 in 2023, by Cliff Chapman, President & CEO, for the Central Indiana Land Trust, Inc.

  
Signature

Cliff Chapman  
Printed Name

317-631-5263  
[cchapman@conservingindiana.org](mailto:cchapman@conservingindiana.org)

# Carbon Quantification Tool

Project Name			
Project Location			
Carbon Quantification Summary		Protocol Section	Supplemental Information/Notes
20.100 Total Project Area Acres			include project area for all parcels enrolled in carbon project
B15 Oak Hickory, B15 Oak Hickory, B14 Mapl US Forest Service General Technical Report NE-343 - Table Number			11.1.A based on the GTR regions map and primary forest type
62.960199 Stand age (years)			11.1.A determine using aerial photos
34.65572139 Biomass tC/ac			11.1.A use appropriate GTR table and stand age, use bottom half of table, find years on the left and use 'total nonsoil' number
127.1 Biomass tCO2e/ac			11.1.A
100% Percent cover			11.1.A include i-Tree Canopy file containing coordinates of evaluated points
2,554 Project Stock, tCO2e			11.1.A
2,043 Accounting Stock, tCO2e			11.1.A
90% Fraction at risk of tree removal			11.2 Based on zoning - see 11.2 in preservation protocol
1,839 Avoided Biomass Emissions, tCO2e			11.2
35% Avoided impervious surface, percent			11.3 Based on zoning - see 11.4 in preservation protocol
7,035 Avoided impervious surface, acres			11.3
844 Avoided Soil Carbon Emissions, tCO2e			11.3
18.3% Displacement			11.4 Fraction of avoided development that cannot be served by development or re-development of existing non-treed properties within the urban area
337 Displaced Biomass Emissions, tCO2e			11.4
256 Displaced Soil Emissions			11.4 Assumes that redevelopment causes increase in impervious surface on reveveloped parcels
1,502 Credits from Avoided Biomass Emissions, tCO2e			
588 Credits from Avoided Soil Emissions, tCO2e			
2,091 Total Credits attributed to the project, tCO2e			
209 Registry Reversal Pool Account (10%), tCO2e			
1,882 Total credits issued to the project, tCO2e			
94 Total credits issued to the project, tCO2e/acre			

Year	Credits issued This Year	Cumulative Credits issued	Buffer Credits Issued
1	1882	1882	209
2	0	1882	0
3	0	1882	0
4	0	1882	0
5	0	1882	0

Credit Sum Check (delete before finalizing document)

1881.762183 If not equal to B29, check math!



Project Name			
Project Location			
Stand & Zoning			
Carbon Quantification Summary		Protocol Section    Supplemental Information/Notes	
B15 Oak Hickory	10,900	Total Project Area Acres	Include project area for all parcels enrolled in carbon project
		US Forest Service General Technical Report NE-343 - Table Number	11.1.A based on the GTR regions map and primary forest type
95		Stand age (years)	11.1.A determine using aerial photos
	50.8	Biomass tC/ac	11.1.A use appropriate GTR table and stand age, use bottom half of table, find years on the left and use 'total nonsoil' number
	186.3	Biomass tCO2e/ac	11.1.A
	100%	Percent cover	11.1.A include i-Tree Canopy file containing coordinates of evaluated points
	2,030	Project Stock, tCO2e	11.1.A
	1,624	Accounting Stock, tCO2e	11.1.A
	90%	Fraction at risk of tree removal	11.2 Based on zoning - see 11.2 in preservation protocol
	1,462	Avoided Biom Emissions, tCO2e	11.2
	35%	Avoided impervious surface, percent	11.3 Based on zoning - see 11.4 in preservation protocol
	3.815	Avoided impervious surface, acres	11.3
	458	Avoided Soil Carbon Emissions, tCO2e	11.3
	18.3%	Displacement	11.4 Fraction of avoided development that cannot be served by development or re-development of existing non-treed properties within the urban
	268	Displaced Biomass Emissions, tCO2e	11.4
	139	Displaced Soil Emissions	11.4 Assumes that redevelopment causes increase in impervious surface on reveveloped parcels
	1,194	Credits from Avoided Biomass Emissions, tCO2e	
	319	Credits from Avoided Soil Emissions, tCO2e	
	1,513	Total Credits attributed to the project, tCO2e	
	151	Registry Reversal Pool Account (10%), tCO2e	
	1,362	Total credits issued to the project, tCO2e	
	125	Total credits issued to the project, tCO2e/acre	



Project Name		
Project Location		
Stand & Zoning		
Carbon Quantification Summary		Protocol Section    Supplemental Information/Notes
B15 Oak Hickory	5,000 Total Project Area Acres	Include project area for all parcels enrolled in carbon project
	US Forest Service General Technical Report NE-343 - Table Number	11.1.A Based on the GTR regions map and primary forest type
25	Stand age (years)	11.1.A determine using aerial photos
	15.3 Biomass tC/ac	11.1.A use appropriate GTR table and stand age, use bottom half of table, find years on the left and use 'total nonsoil' number
	56.1 Biomass tCO2e/ac	11.1.A
	100% Percent cover	11.1.A include i-Tree Canopy file containing coordinates of evaluated points
	281 Project Stock, tCO2e	11.1.A
	224 Accounting Stock, tCO2e	11.1.A
	90% Fraction at risk of tree removal	11.2 Based on zoning - see 11.2 in preservation protocol
	202 Avoided Biomass Emissions, tCO2e	11.2
	35% Avoided impervious surface, percent	11.3 Based on zoning - see 11.4 in preservation protocol
	1.75 Avoided impervious surface, acres	11.3
	210 Avoided Soil Carbon Emissions, tCO2e	11.3
	18.3% Displacement	11.4 Fraction of avoided development that cannot be served by development or re-development of existing non-treed properties within the urban area
	37 Displaced Biomass Emissions, tCO2e	11.4
	64 Displaced Soil Emissions	11.4 Assumes that redevelopment causes increase in impervious surface on reveveloped parcels
	165 Credits from Avoided Biomass Emissions, tCO2e	
	146 Credits from Avoided Soil Emissions, tCO2e	
	311 Total Credits attributed to the project, tCO2e	
	31 Registry Reversal Pool Account (10%), tCO2e	
	280 Total credits issued to the project, tCO2e	
	56 Total credits issued to the project, tCO2e/acre	

Project Name			
Project Location			
Stand & Zoning			
Carbon Quantification Summary		Protocol Section	Supplemental Information/Notes
B14 Maple Beech Birch	4,200	Total Project Area Acres	include project area for all parcels enrolled in carbon project
		US Forest Service General Technical Report NE-343 - Table Number	11.1.A based on the GTR regions map and primary forest type
25		Stand age (years)	11.1.A determine using aerial photos
	15.8	Biomass tC/ac	11.1.A use appropriate GTR table and stand age, use bottom half of table, find years on the left and use 'total nonsoil' number
	57.9	Biomass tCO2e/ac	11.1.A
	100%	Percent cover	11.1.A include i-Tree Canopy file containing coordinates of evaluated points
	243	Project Stock, tCO2e	11.1.A
	195	Accounting Stock, tCO2e	11.1.A
	90%	Fraction at risk of tree removal	11.2 Based on zoning - see 11.2 in preservation protocol
	175	Avoided Biomass Emissions, tCO2e	11.2
	35%	Avoided impervious surface, percent	11.3 Based on zoning - see 11.4 in preservation protocol
	1.47	Avoided impervious surface, acres	11.3
	176	Avoided Soil Carbon Emissions, tCO2e	11.3
	18.3%	Displacement	11.4 Fraction of avoided development that cannot be served by development or re-development of existing non-treed properties within the urban area
	32	Displaced Biomass Emissions, tCO2e	11.4
	53	Displaced Soil Emissions	11.4 Assumes that redevelopment causes increase in impervious surface on reveveloped parcels
	143	Credits from Avoided Biomass Emissions, tCO2e	
	123	Credits from Avoided Soil Emissions, tCO2e	
	266	Total Credits attributed to the project, tCO2e	
	27	Registry Reversal Pool Account (10%), tCO2e	
	239	Total credits issued to the project, tCO2e	
	57	Total credits issued to the project, tCO2e/acre	

Fraction at Risk & Impervious Surface Worksheet - Residential Zoning

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Fraction at Risk of Tree Removal	Supplemental Information/Notes
If minimum lot size is smaller than 2.25 acres, use 90%	
OR if minimum lot size is larger than 2.25 acres:	
20.48 Project Area (acres)	Check the local zoning code
0.321 Minimum lot size (acres/unit)	
63.00 Max potential dwelling units	
126.00 Clearing estimated at 2 acres/unit	
-10.55 Clearing estimated at 10% of remaining area	
115.4 Total potentially cleared area	
563.71% Fraction at risk of tree removal	

Impervious Surface

If zoning code does not specify maximum lot coverage or yard setbacks, use 50%		*Per 11.3.B
OR If the Zoning Code specifies maximum lot coverage		
35	Avoided impervious surface (maximum lot coverage)	Check the local zoning code
OR If the Zoning Code does not specify maximum lot coverage but specifies minimum yard setbacks		
	Project Area (acres)	Check the local zoning code
	Minimum lot size (sqft/unit)	
	Minimum lot width (feet)	
#DIV/0!	Estimated lot length (feet)	
	Front yard setback (ft)	
-	Estimated front yard setback (sqft)	
	Rear yard setback (ft)	
-	Estimated side yard setback (sqft)	
	Side yard setback	
#DIV/0!	Estimated setbacks (sqft/unit)	
#DIV/0!	All setbacks per unit (sqft/unit)	
#DIV/0!	Avoided impervious surface	
CHECK: if greater than 50%, the 50% standard deduction for residential use should be used. If less than 50%, use this number instead.		

Tree Inventory

Id	Cover Class Description	Latitude	Longitude
1	Tree/Shrub	39.76186	-85.9364
2	Tree/Shrub	39.76256	-85.9362
3	Tree/Shrub	39.76233	-85.9364
4	Tree/Shrub	39.76135	-85.9377
5	Tree/Shrub	39.76215	-85.9376
6	Tree/Shrub	39.7632	-85.9361
7	Tree/Shrub	39.76287	-85.9374
8	Tree/Shrub	39.76135	-85.9363
9	Tree/Shrub	39.76151	-85.9364
10	Tree/Shrub	39.76297	-85.9379
11	Tree/Shrub	39.76322	-85.9357
12	Tree/Shrub	39.76279	-85.9361
13	Tree/Shrub	39.76253	-85.9377
14	Tree/Shrub	39.76213	-85.9357
15	Tree/Shrub	39.76217	-85.9361
16	Tree/Shrub	39.76256	-85.9369
17	Tree/Shrub	39.76288	-85.9361
18	Tree/Shrub	39.76211	-85.9374
19	Tree/Shrub	39.7627	-85.9368
20	Tree/Shrub	39.76263	-85.936

Id	Cover Class Description	Latitude	Longitude
1	Tree/Shrub	39.76147	-85.936
2	Tree/Shrub	39.76178	-85.936
3	Tree/Shrub	39.7611	-85.9353
4	Tree/Shrub	39.75932	-85.9359
5	Tree/Shrub	39.76109	-85.9369
6	Tree/Shrub	39.75954	-85.9349
7	Tree/Shrub	39.76114	-85.9369
8	Tree/Shrub	39.7612	-85.9367
9	Tree/Shrub	39.7596	-85.936
10	Tree/Shrub	39.76011	-85.9355
11	Tree/Shrub	39.76143	-85.9356
12	Tree/Shrub	39.7591	-85.9363
13	Tree/Shrub	39.76174	-85.9356
14	Tree/Shrub	39.75923	-85.9361
15	Tree/Shrub	39.75908	-85.9362
16	Tree/Shrub	39.7611	-85.9351
17	Tree/Shrub	39.76116	-85.936
18	Tree/Shrub	39.76176	-85.9357
19	Tree/Shrub	39.76118	-85.9366
20	Tree/Shrub	39.7612	-85.9362

Id	Cover Class Description	Latitude	Longitude
1	Tree/Shrub	39.75719	-85.9379
2	Tree/Shrub	39.75834	-85.9363
3	Tree/Shrub	39.75873	-85.9363
4	Tree/Shrub	39.75831	-85.9378
5	Tree/Shrub	39.75814	-85.9378
6	Tree/Shrub	39.75679	-85.9364
7	Tree/Shrub	39.75782	-85.9351
8	Tree/Shrub	39.75892	-85.9349
9	Tree/Shrub	39.75824	-85.9364
10	Tree/Shrub	39.75752	-85.9363
11	Tree/Shrub	39.75832	-85.9349
12	Tree/Shrub	39.7561	-85.9378
13	Tree/Shrub	39.75628	-85.9349
14	Tree/Shrub	39.75649	-85.9378
15	Tree/Shrub	39.75806	-85.9349
16	Tree/Shrub	39.75761	-85.9349
17	Tree/Shrub	39.75723	-85.9377
18	Tree/Shrub	39.75779	-85.9349
19	Tree/Shrub	39.75743	-85.9379
20	Tree/Shrub	39.75892	-85.9349

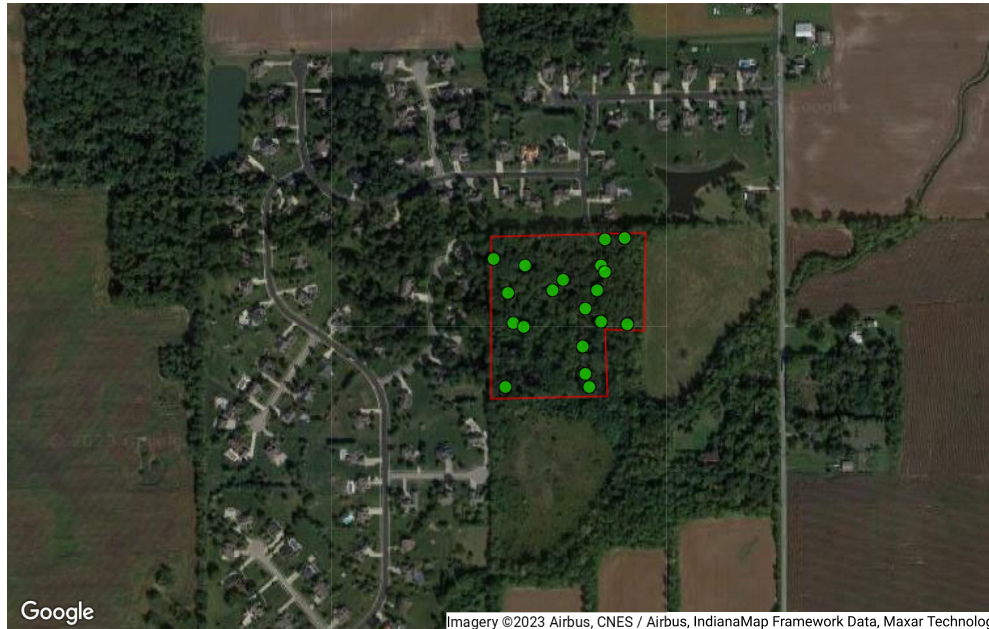
## iTree Canopy Report



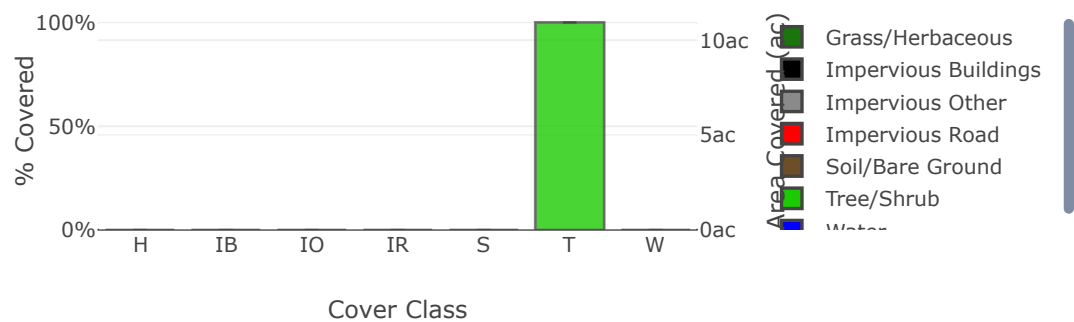
# i-Tree Canopy - Stand 1

## Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 9/25/2023



### Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
H	Grass/Herbaceous		0	0.00 ± 0.00	0.00 ± 0.00
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		19	100.00 ± 0.00	10.92 ± 0.00
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
<b>Total</b>			<b>19</b>	<b>100.00</b>	<b>10.92</b>

### Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
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Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	12.18	±0.00	44.65	±0.00	\$2,077	±0
Stored in trees (Note: this benefit is not an annual rate)	374.33	±0.00	1,372.55	±0.00	\$63,843	±0

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 1.115 T of Carbon, or 4.089 T of CO<sub>2</sub>, per ac/yr and rounded. Amount stored is based on 34.281 T of Carbon, or 125.697 T of CO<sub>2</sub>, per ac and rounded. Value (USD) is based on \$170.55/T of Carbon, or \$46.51/T of CO<sub>2</sub> 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	7.04	±0.00	\$1	±0
NO2	Nitrogen Dioxide removed annually	61.94	±0.00	\$2	±0
O3	Ozone removed annually	464.52	±0.00	\$63	±0
SO2	Sulfur Dioxide removed annually	43.28	±0.00	\$0	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	18.75	±0.00	\$132	±0
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	89.01	±0.00	\$24	±0
<b>Total</b>		<b>684.53</b>	<b>±0.00</b>	<b>\$221</b>	<b>±0</b>

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 0.644 @ \$0.09 | NO2 5.672 @ \$0.03 | O3 42.541 @ \$0.14 | SO2 3.964 @ \$0.01 | PM2.5 1.717 @ \$7.03 | PM10\* 8.151 @ \$0.27 (English units: lb = pounds, ac = acres)

### Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	15.10	±0.00	\$135	±0
E	Evaporation	644.43	±0.00	N/A	N/A
I	Interception	644.43	±0.00	N/A	N/A
T	Transpiration	1,845.95	±0.00	N/A	N/A
PE	Potential Evaporation	6,778.63	±0.00	N/A	N/A
PET	Potential Evapotranspiration	4,743.83	±0.00	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 1.383 @ \$8.94 | E 59.016 @ N/A | I 59.016 @ N/A | T 169.051 @ N/A | PE 620.783 @ N/A | PET 434.437 @ 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.

## i-Tree Canopy - Stand 2

### Cover Assessment and Tree Benefits Report

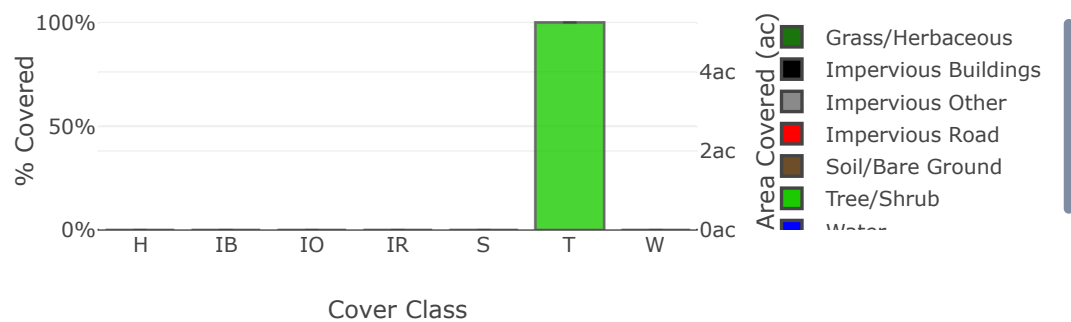
Estimated using random sampling statistics on 9/25/2023



Google

Imagery ©2023 Airbus, CNES / Airbus, IndianaMap Framework Data, Maxar Technologies, USDA/FPAC/GEO

### Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
H	Grass/Herbaceous		0	0.00 ± 0.00	0.00 ± 0.00
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		20	100.00 ± 0.00	5.25 ± 0.00
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
Total			20	100.00	5.25

### Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
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Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	5.85	±0.00	21.45	±0.00	\$998	±0
Stored in trees (Note: this benefit is not an annual rate)	179.86	±0.00	659.49	±0.00	\$30,675	±0

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 1.115 T of Carbon, or 4.089 T of CO<sub>2</sub>, per ac/yr and rounded. Amount stored is based on 34.281 T of Carbon, or 125.697 T of CO<sub>2</sub>, per ac and rounded. Value (USD) is based on \$170.55/T of Carbon, or \$46.51/T of CO<sub>2</sub> 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	3.38	±0.00	\$0	±0
NO2	Nitrogen Dioxide removed annually	29.76	±0.00	\$1	±0
O3	Ozone removed annually	223.19	±0.00	\$30	±0
SO2	Sulfur Dioxide removed annually	20.80	±0.00	\$0	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	9.01	±0.00	\$63	±0
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	42.77	±0.00	\$12	±0
<b>Total</b>		<b>328.91</b>	<b>±0.00</b>	<b>\$106</b>	<b>±0</b>

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 0.644 @ \$0.09 | NO2 5.672 @ \$0.03 | O3 42.541 @ \$0.14 | SO2 3.964 @ \$0.01 | PM2.5 1.717 @ \$7.03 | PM10\* 8.151 @ \$0.27 (English units: lb = pounds, ac = acres)

### Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	7.26	±0.00	\$65	±0
E	Evaporation	309.64	±0.00	N/A	N/A
I	Interception	309.64	±0.00	N/A	N/A
T	Transpiration	886.95	±0.00	N/A	N/A
PE	Potential Evaporation	3,257.01	±0.00	N/A	N/A
PET	Potential Evapotranspiration	2,279.32	±0.00	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 1.383 @ \$8.94 | E 59.016 @ N/A | I 59.016 @ N/A | T 169.051 @ N/A | PE 620.783 @ N/A | PET 434.437 @ 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)

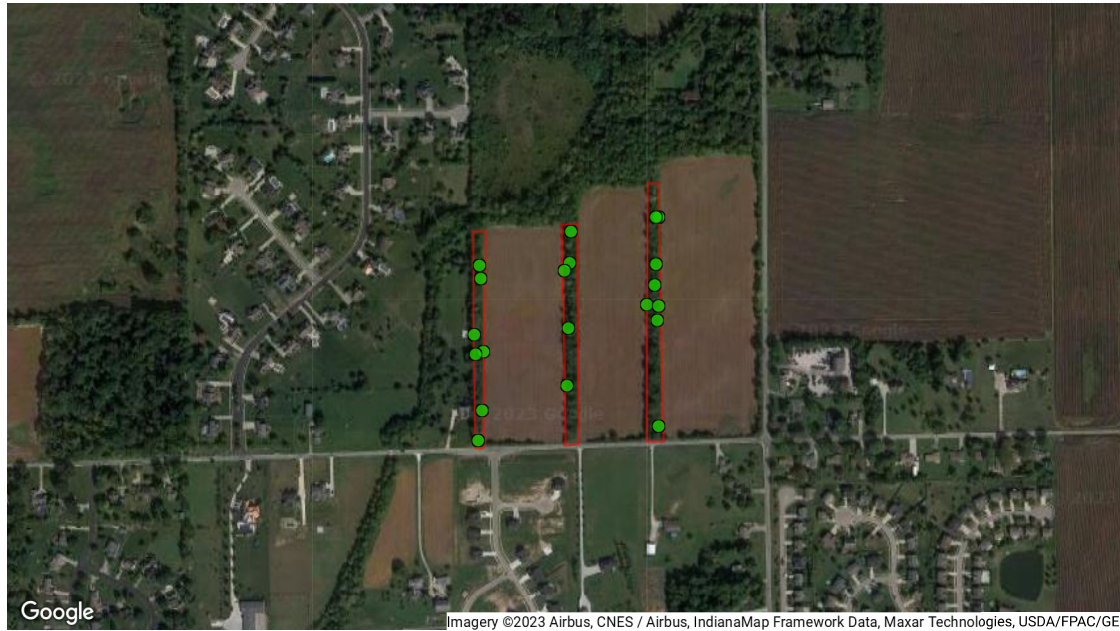
#### Limitations of i-Tree Canopy

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.

# i-Tree Canopy - Stand 3

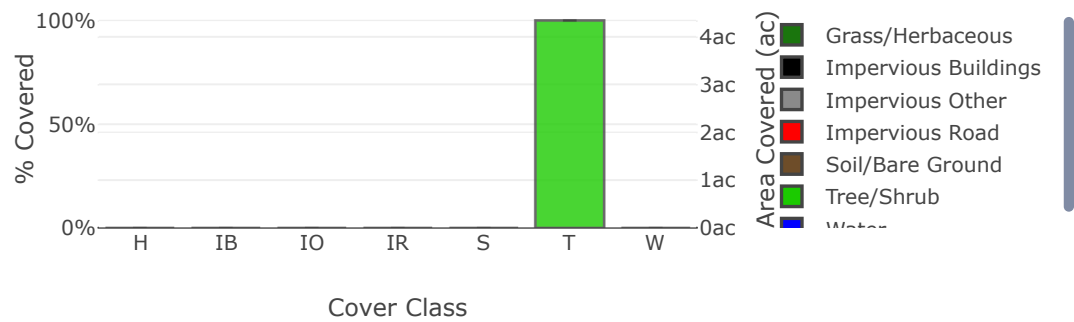
## Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 9/25/2023



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### Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
H	Grass/Herbaceous		0	0.00 ± 0.00	0.00 ± 0.00
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		20	100.00 ± 0.00	4.34 ± 0.00
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
Total			20	100.00	4.34

### Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
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Description	Carbon (T)	±SE	CO <sub>2</sub> Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	4.84	±0.00	17.73	±0.00	\$825	±0
Stored in trees (Note: this benefit is not an annual rate)	148.66	±0.00	545.08	±0.00	\$25,354	±0

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 1.115 T of Carbon, or 4.089 T of CO<sub>2</sub>, per ac/yr and rounded. Amount stored is based on 34.281 T of Carbon, or 125.697 T of CO<sub>2</sub>, per ac and rounded. Value (USD) is based on \$170.55/T of Carbon, or \$46.51/T of CO<sub>2</sub> 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	2.79	±0.00	\$0	±0
NO2	Nitrogen Dioxide removed annually	24.60	±0.00	\$1	±0
O3	Ozone removed annually	184.47	±0.00	\$25	±0
SO2	Sulfur Dioxide removed annually	17.19	±0.00	\$0	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	7.45	±0.00	\$52	±0
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	35.35	±0.00	\$10	±0
<b>Total</b>		<b>271.85</b>	<b>±0.00</b>	<b>\$88</b>	<b>±0</b>

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 0.644 @ \$0.09 | NO2 5.672 @ \$0.03 | O3 42.541 @ \$0.14 | SO2 3.964 @ \$0.01 | PM2.5 1.717 @ \$7.03 | PM10\* 8.151 @ \$0.27 (English units: lb = pounds, ac = acres)

### Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	6.00	±0.00	\$54	±0
E	Evaporation	255.92	±0.00	N/A	N/A
I	Interception	255.92	±0.00	N/A	N/A
T	Transpiration	733.08	±0.00	N/A	N/A
PE	Potential Evaporation	2,691.99	±0.00	N/A	N/A
PET	Potential Evapotranspiration	1,883.91	±0.00	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 1.383 @ \$8.94 | E 59.016 @ N/A | I 59.016 @ N/A | T 169.051 @ N/A | PE 620.783 @ N/A | PET 434.437 @ 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.



## Forest Composition Report, Site & Historical Photos

# Jones Farm Open Space

## Forest Composition Report

This Forest Composition Report for the Jones Open Space Preservation Project (Project 42) was created by Phillip Weldy, the Stewardship Specialist for Central Indiana Land Trust, on August 14, 2023. Phillip has been working with the Central Indiana Land Trust for four years in a stewardship capacity with responsibilities including habitat restoration, invasive species management, site monitoring and conservation easement baseline reporting. Cliff Chapman joined on one of the field assessments. Cliff has been on staff with Central Indiana Land Trust since 2008 and is currently President and CEO. Before joining Central Indiana Land Trust, he worked for Indiana DNR Division of Nature Preserves starting 1997 and the Nature Conservancy starting 2006.

The description below is based upon three site visits to the property on May 15, June 27, and July 14, 2023. On all visits the site was covered on foot. The first visit was just to Stand 1 and the second and third visits were to all three stands. Images and other data from the site visit(s) are included as Exhibit A in this document. See Exhibit B for the site visit route taken through the forest stands.

### **Project Area and Forest Stands**

The project area is 20.1 acres of wet-mesic deciduous forest. The overall dominate canopy groups are hickory, oak, maple, and tulip poplar. A drainage easement bisects Stand 2 and everything within that easement is excluded from this project.

Stand 1 is the oldest stand in the project, with all evidence indicating a forest that is certainly a century old and likely older. This stand appeared to be a patchwork of small pockets where oak/hickory was more prevalent and others where maple/tulip were the majority. There is a good balance of species of upper canopy trees when considered as a whole.

Stand 2 is mostly mature wet-mesic deciduous forest of similar character to Stand 1 but younger. The canopy of the interior areas appeared to be largely oak/hickory. There are a few large oaks that rival the large ones found in Stand 1, suggesting that those oaks are as old as the ones in Stand 1, however, this stand has been slowly growing and only recently appears to have had a continuous canopy. Several mid-canopy oaks were noted during the site visit, signaling a high likelihood of oaks continuing to be the dominant canopy tree in this stand for future years. While oaks were the dominate species, the edges of this stand contained higher proportions of other species prone to thrive in the edge habitat of a woods, such as green ash and black locust.

Stand 3 is all edge, but with a fairly even spread of mature trees throughout it. While mulberry dominated the canopy, there was a wide variety of tree species such as walnut, hackberry, redbud, ash, elm, and other species that do well in edge habitat. Invasives species are a high concern for this stand as the understory is largely Amur honeysuckle (*Lonicera maackii*). Mature trees first appear in the records in 1986.

Overall, the Project Area displays a relatively uniform tree density. There is some localized variability in tree density, namely in two wetter areas and where gaps in the canopy have formed from recent ash tree deaths. While Stand 3 has a very different composition, it is still uniform in its tree density.



Stand 1 is the more stable forest stand and was more thoroughly observed. Each plot was randomly chosen and stems at least 2 inches in diameter were counted within a 20.8ftx20.8ft area, or 1% of an acre. The total stems per acre was derived from averaging the stems counted in the plots multiplied by 100. The average stems per acre in Stand 1 was found to be 475.

Stand 1, Plot 1

Blue beech ( <i>Carpinus caroliniana</i> )	2
<b>Total</b>	2

Stand 1, Plot 2

Tulip ( <i>Liriodendron tulipifera</i> )	2
Elm ( <i>Ulmus</i> sp.)	2
Sugar Maple ( <i>Acer saccharum</i> )	3
<b>Total</b>	7

Stand 1, Plot 3

Slippery Elm ( <i>Ulmus Rubra</i> )	2
Black Walnut ( <i>Juglans nigra</i> )	2
Sugar Maple ( <i>Acer saccharum</i> )	1
<b>Total</b>	5

Stand 1, Plot 4

Pin Oak ( <i>Quercus palustis</i> )	1
Basswood ( <i>Tilia americana</i> )	3
Hawthorn ( <i>Crataegus</i> sp.)	1
<b>Total</b>	5

Stand 2 appears to be a younger extension of Stand 1, but with a greater variety of earlier succession trees. The method for finding stems per acre was the same as in Stand 1 above. The total stems per acre was found to be 550.

Stand 2, Plot 1

Honey locust ( <i>Gleditsia triacanthos</i> )	1
Basswood ( <i>Tilia americana</i> )	1
Blue beech ( <i>Carpinus caroliniana</i> )	2
Silver maple ( <i>Acer saccharinum</i> )	1
Slippery elm ( <i>Ulmus rubra</i> )	1
<b>Total</b>	6

Stand 2, Plot 2

Green ash ( <i>Fraxinus</i> )	1
Basswood ( <i>Tilia americana</i> )	3
Hawthorn ( <i>Crataegus</i> )	1
<b>Total</b>	5

Stand 3 is characterized as completely edge. The method for finding stems per acre was the same as in Stand 1 above. The total stems per acre was found to be 700.

#### Stand 3, Plot 1

White Mulberry ( <i>Morus alba</i> )	4
Black Cherry ( <i>Prunus serotina</i> )	2
Hackberry ( <i>Celtis occidentalis</i> )	1
<b>Total</b>	<b>7</b>

When taken as a whole, all stands seemed fairly uniform in themselves, especially with regards to quantity and sizes. There are a few sections in Stand 1 that have wetter areas that change the species composition, but they are relatively small and sprinkled throughout the Stand. Plot 4 in Stand 1 was in one of these wetter areas.

The forest in Stand 1 (10.9 acres) appears to me to be both oak-hickory, but there are numerous maples. The same applies for Stand 2 (5.0 acres). Stand 3 (4.2 acres) is most likely elm-ash-cottonwood forest type, though none of primary species in the four forest-types are dominate species in this stand.

Top tree types per stand:

#### Stand 1

Tree species	Percentage
Maple	20%
Hickory	17%
Oak	17%
Tulip	15%

#### Stand 2

Tree species	Percentage
Oak	20%
Maple	12%
Elm	10%

#### Stand 3

Tree species	Percentage
Mulberry	50%
Silver Maple	12%
Black Walnut	9%
Hackberry	9%

Based on USDA, USGS and NAPP aerial imagery, the age of the forest in Stand 1 is over 88 years old and likely much older. Aerial records from 1936 to present day show the vast majority of Stand 1 has been continuously forested. Some of the trees, both on the edge and interior, are massive. The largest trees per species that were measured include a bur oak which measured 46.75in dbh, red oak 46.5in dbh, blue beech 9in dbh, and tulip 31in dbh. No stumps were noted in Stand 1 either, so if this stand was logged in the past the trace of that logging has long since disappeared. Stand 2 on the other hand is younger, with some old oaks that seem to match the age of the oaks in Stand 1. It appears most of this

stand has filled in from being pasture/field over time, becoming fully forested presently. From having ancient, pre-1936 oaks to young trees not present in 2008, based on the canopy coverage throughout our aerial maps, I'd estimate the average age of Stand 2 to be roughly 25 years old. Stand 3 is young as well, with the first indication of Stand 2 being wooded is in the 1987 NAPP aerial photo (see Exhibit D), putting it at over 37 years old.

Stand 1 is an old and mature forest with a full canopy, a high canopy, and many old trees. Stand 2 is mature forest with a greater quantity of earlier successional tree species and actively expanding forest edges. Stand 3 is a young forest with mature trees. It contains a less dense and shorter canopy than the other two stands with few trees being older than 37 years. Overall, the forest appears to be healthy. There are a few areas where the canopy has larger gaps than ideal due to the recent death of ash trees, but they will fill in over time.

The invasive species presence is relatively sparse in Stand 1. There are a few pockets where bush honeysuckle has a concerning presence in the shrub layer along the southern section of Stand 1, but overall it is in very good shape. Stand 2, having a greater edge-to-interior ratio, has a little more invasive species pressure than Stand 1. There is a greater diversity of invasive species including Callery pear, but this stand too has relatively few of them, especially when 50ft or more inside the forest edge. Stand 3 on the other hand has an understory of almost entirely honeysuckle and much of the tree composition is white mulberry.

Stand 1 has been undeveloped forest as far back as records show. It is possible there was livestock grazing in the woods at some point in time, but we have no evidence or records of it. Stand 2 appears to have been pasture field and farm field with the forest growing up from the original pasture trees and spreading from Stand 1. Stand 3 was farm field borders before being forested.

The current use of the Project Area is undeveloped forest.

Table 1. Forest composition breakdown (include for each parcel or stand)

Stand 1		Stand 2	
<b>Stand size (acres)</b>	10.9	<b>Stand size (acres)</b>	5.0
<b>Stand age (years)</b>	95	<b>Stand age (years)</b>	25
<b>GTR table number</b>	B15 Oak Hickory	<b>GTR table number</b>	B15 Oak Hickory

Stand 3	
<b>Stand size (acres)</b>	4.2
<b>Stand age (years)</b>	25
<b>GTR table number</b>	B14 Maple Beech Birch

Signed on October 12, 2023, by Phillip Weldy, Stewardship Specialist, Central Indiana Land Trust

  
\_\_\_\_\_

Signature

317-631-5263

Phone

pweldy@conservingindiana.org

Email



## Exhibit A – Forest Photos and Data































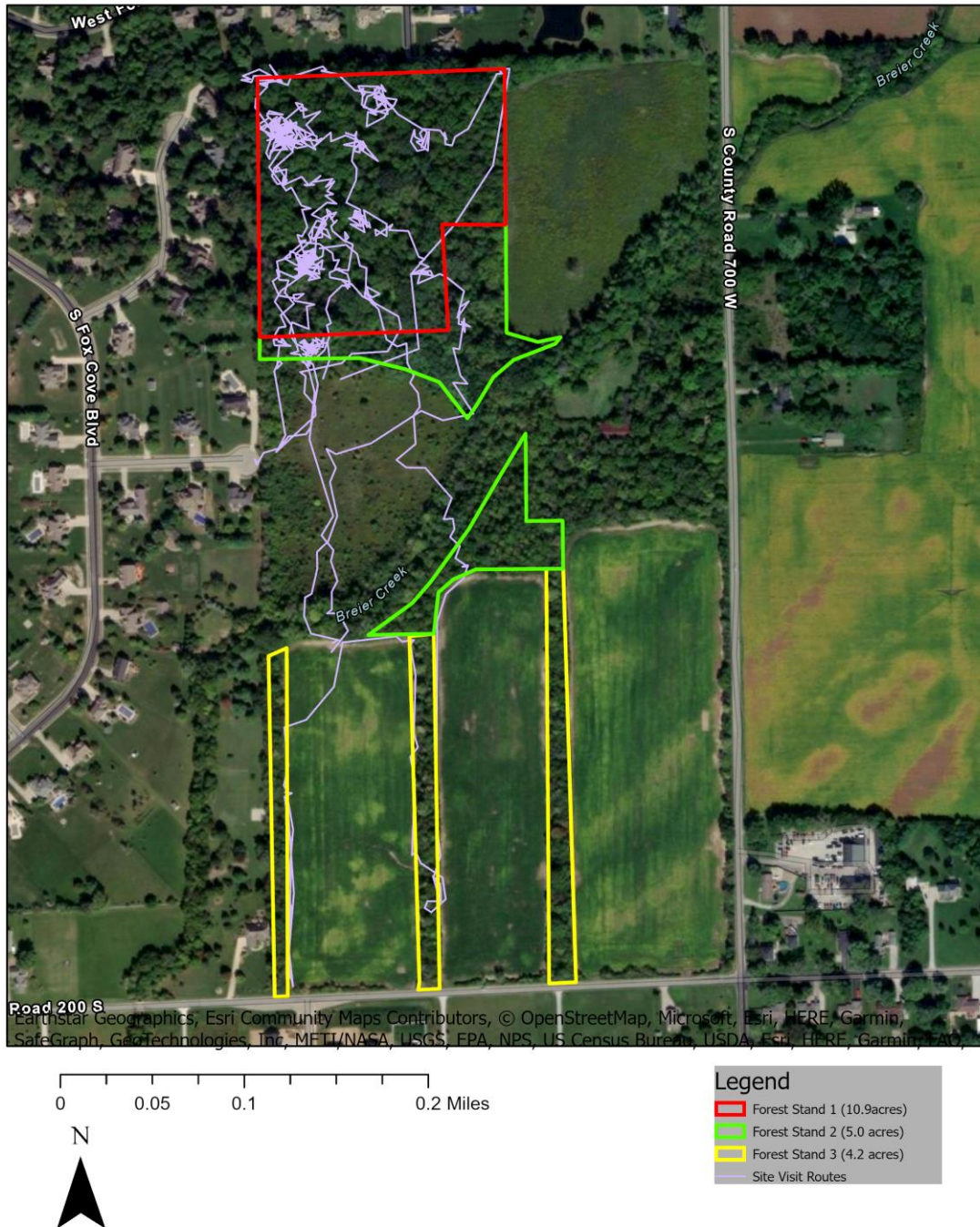






## Exhibit B – Forest Walk Route Map

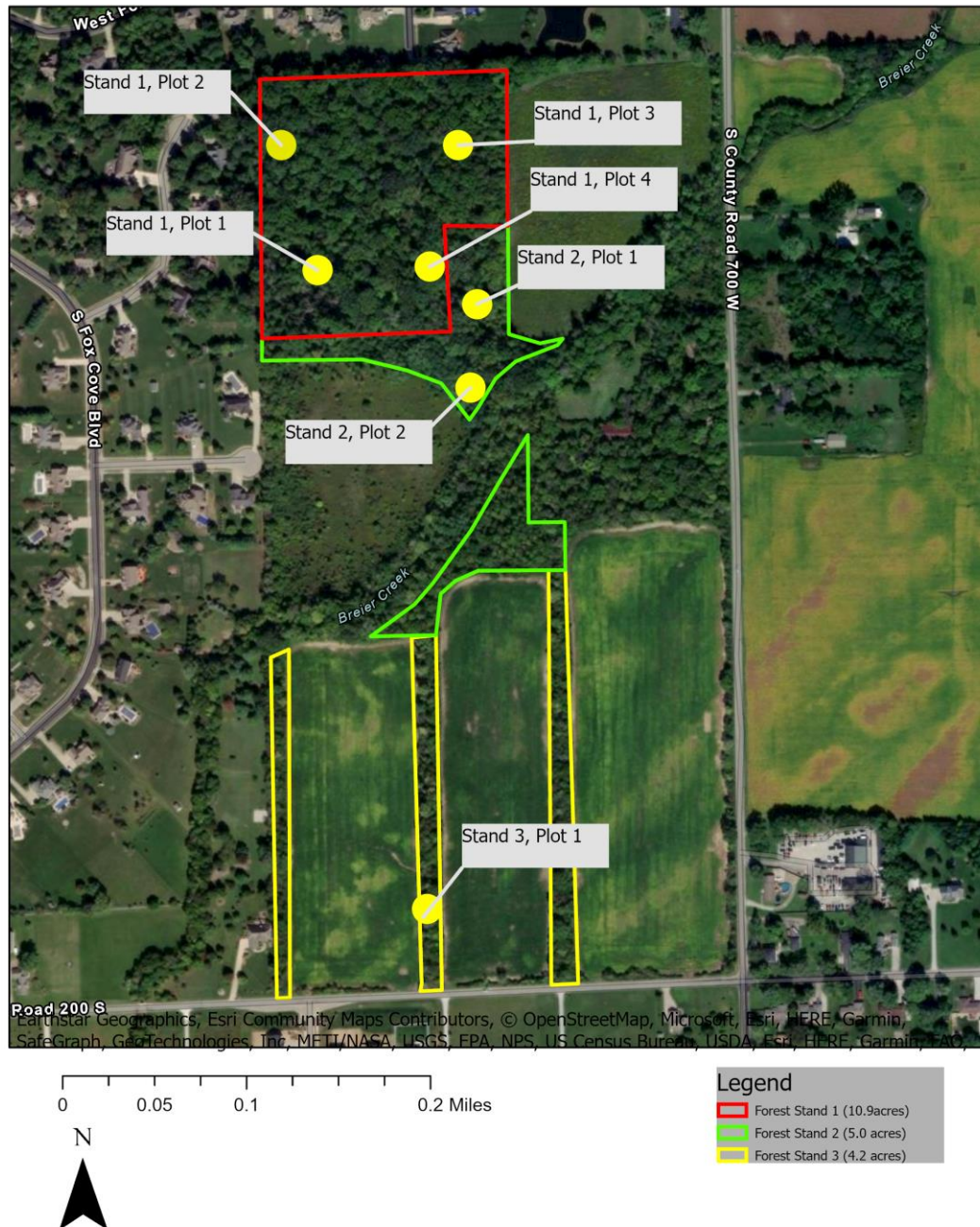
### Marjorie Jones Open Space Walk Route





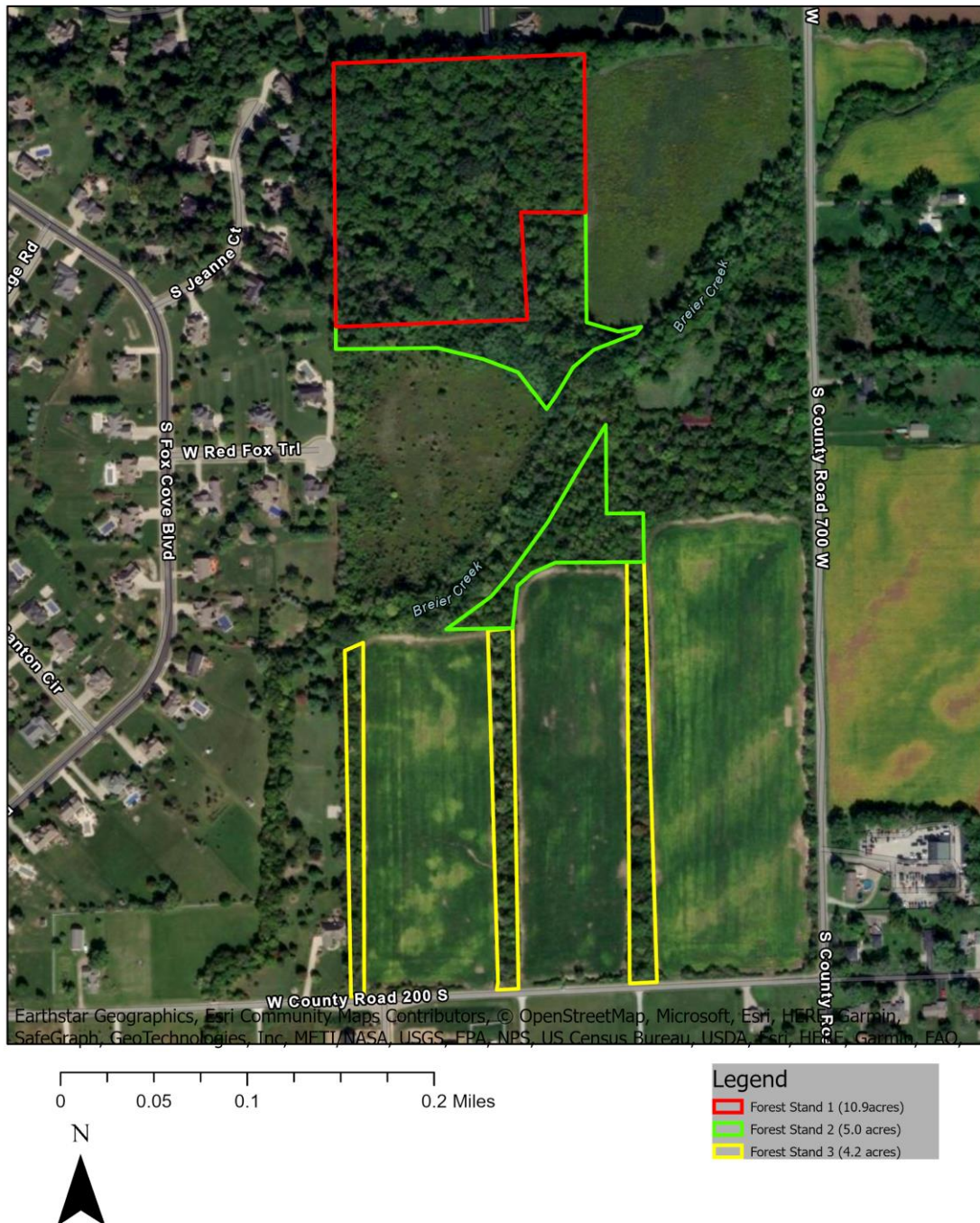
## Exhibit C – Forest Stand Map

### Forest Stand Plots



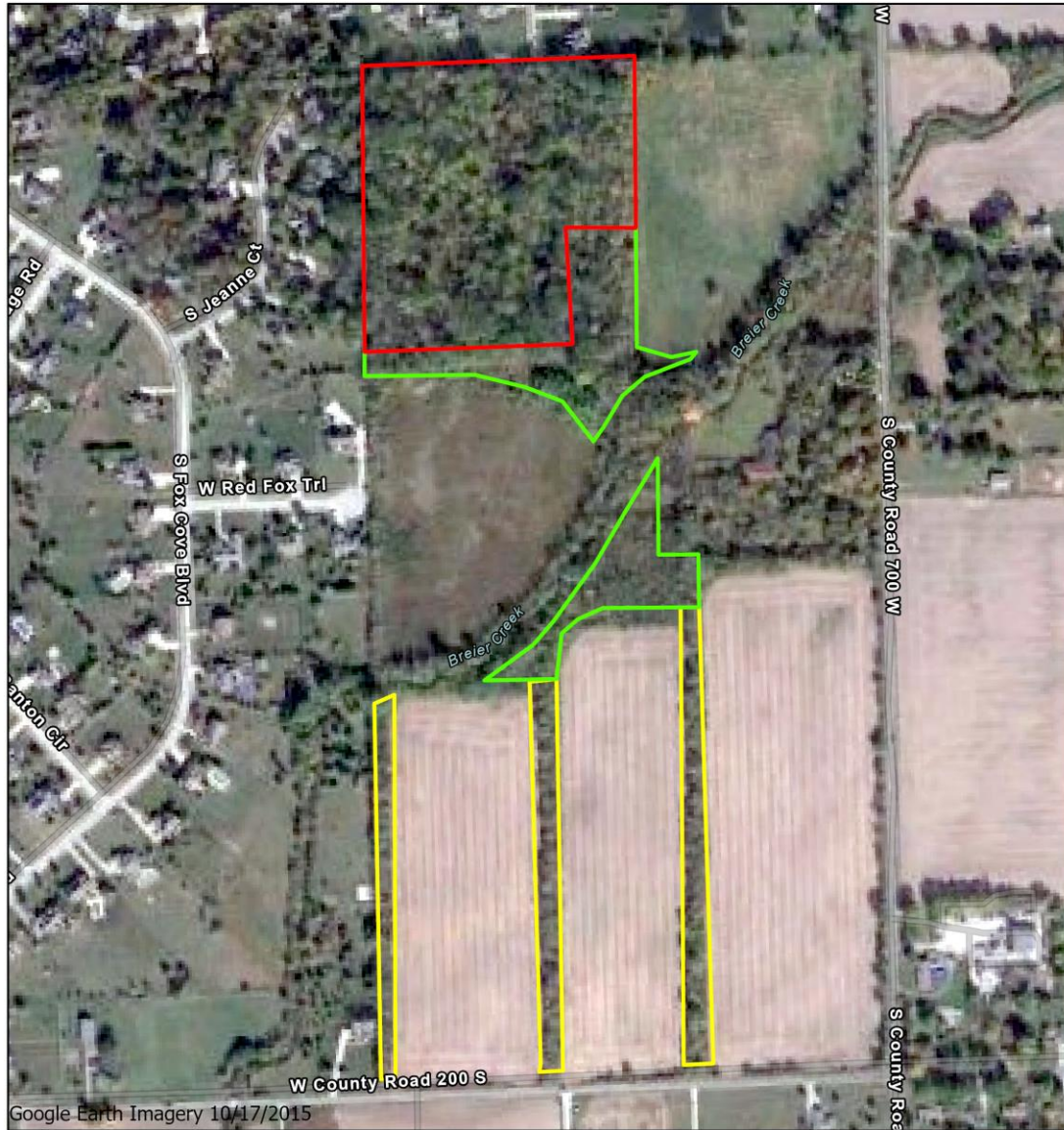
## Exhibit D – Forest Age Supporting Documentation

### Marjorie Jones Open Space 2022





# Marjorie Jones Open Space 2015



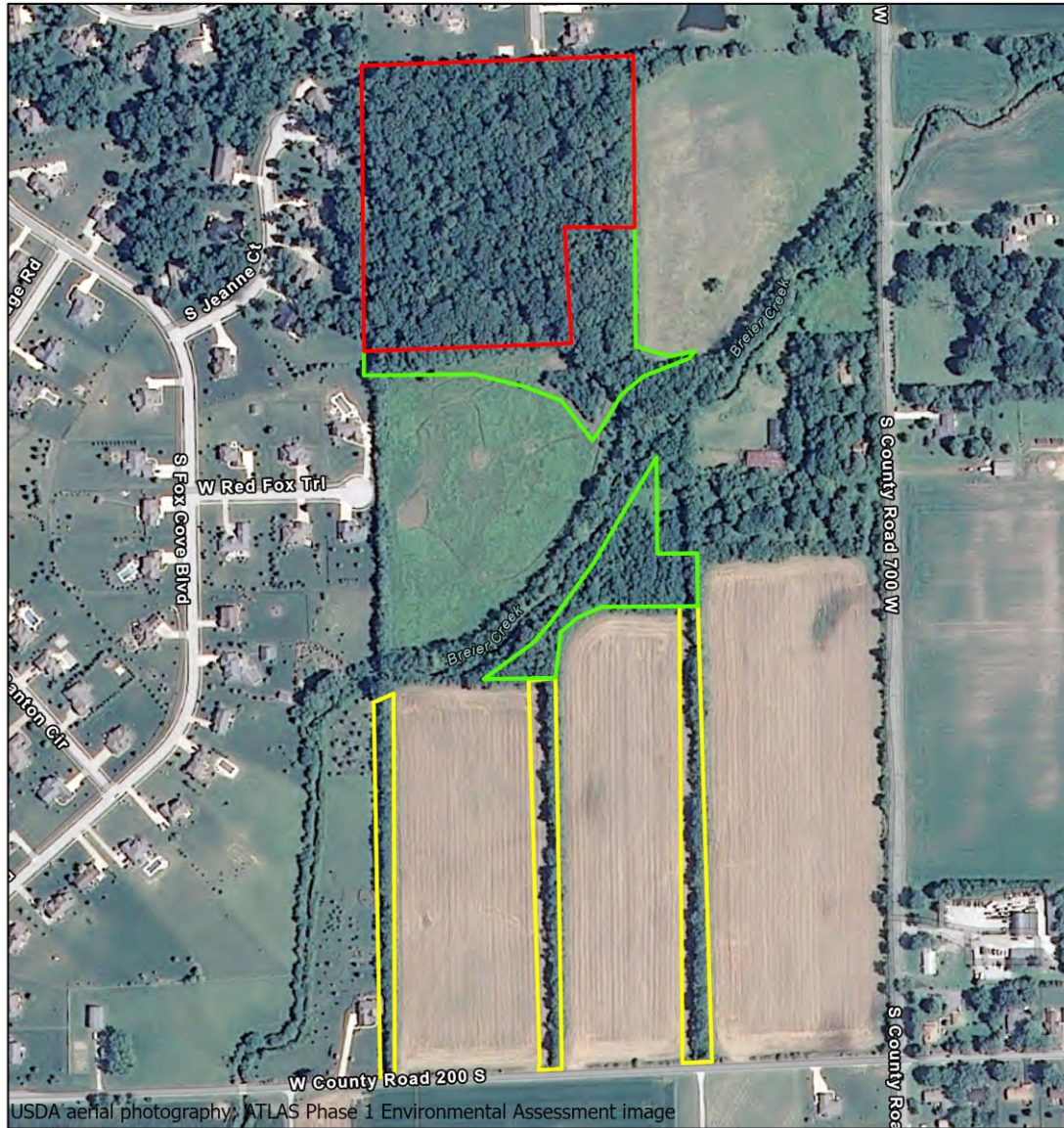
0 0.05 0.1 0.2 Miles



## Legend

- Forest Stand 1 (10.9 acres)
- Forest Stand 2 (5.0 acres)
- Forest Stand 3 (4.2 acres)

# Marjorie Jones Open Space 2008



0 0.05 0.1 0.2 Miles



## Legend

- Forest Stand 1 (10.9 acres)
- Forest Stand 2 (5.0 acres)
- Forest Stand 3 (4.2 acres)



# Marjorie Jones Open Space 1986



0 0.05 0.1 0.2 Miles

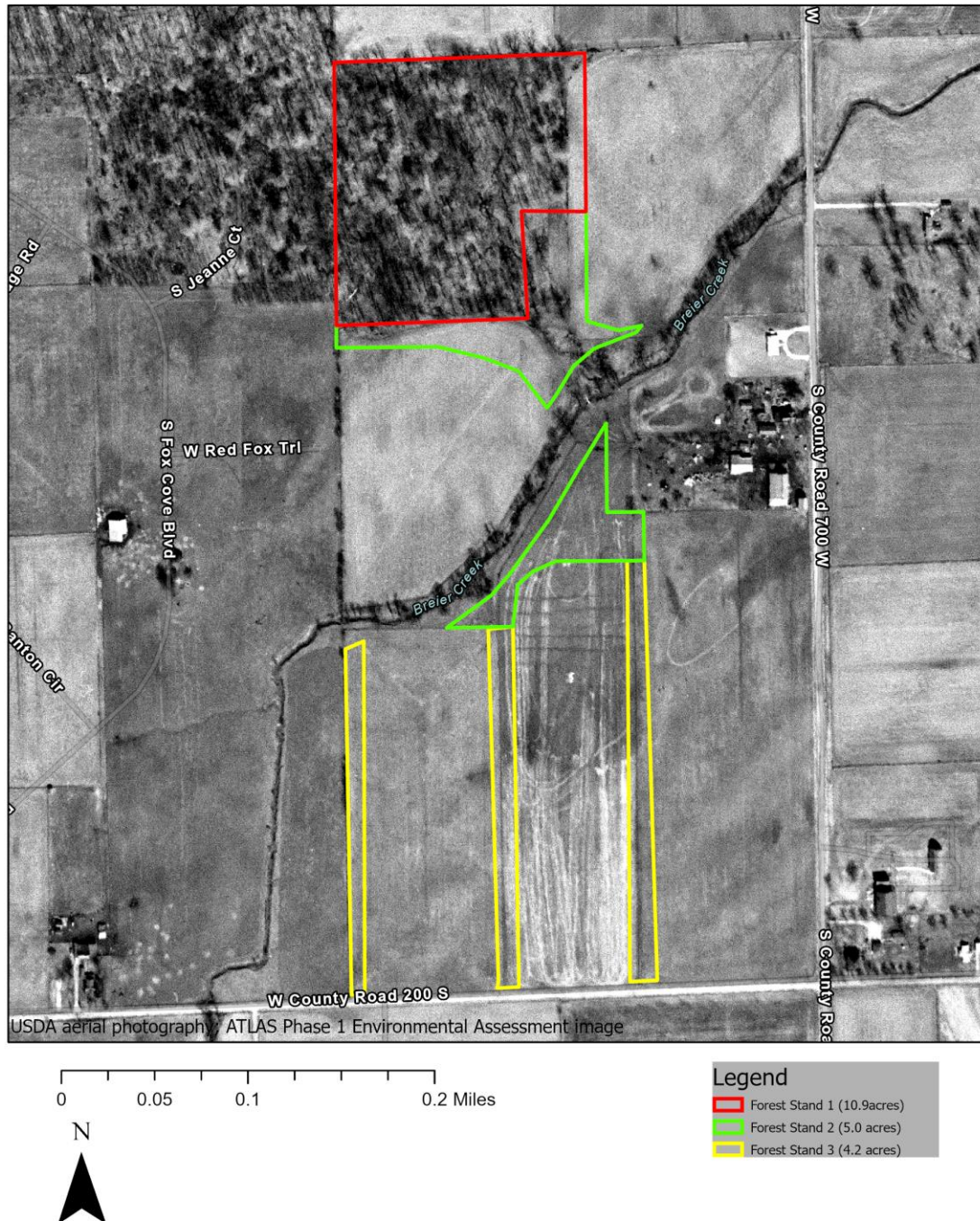


## Legend

- Forest Stand 1 (10.9 acres)
- Forest Stand 2 (5.0 acres)
- Forest Stand 3 (4.2 acres)



# Marjorie Jones Open Space 1961



# Marjorie Jones Open Space 1936



0 0.05 0.1 0.2 Miles



## Legend

- Forest Stand 1 (10.9 acres)
- Forest Stand 2 (5.0 acres)
- Forest Stand 3 (4.2 acres)

Cobenefit Calculator

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)	4,428.5	\$7,254.04
Air Quality (t/yr)		
O3	0.0882	\$32.81
NOx	0.0175	\$6.51
PM10	0.0365	\$16.37
Net VOCs	-0.0050	-\$0.68
Air Quality Total	0.1372	\$55.02
Energy (kWh/yr & kBtu/yr)		
Cooling - Elec.	5,310	\$361.07
Heating - Nat. Gas	8,341	\$80.62
Energy Total (\$/yr)		\$441.69
Grand Total (\$/yr)		\$7,750.74



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 (%)	100%	0%	100%	0%	100%
Area (sq miles)	0.031	0.000	0.031	0.000	0.03
Area (m2)	80,937	405	81,341	0	81,341
Area (acres)	20	0.10	20.10	0.00	20.10



# 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

Good Health and Well-Being:

The Project Area is in a fast-developing area near housing developments and schools. Having protected forested areas will add to the health and well-being of the neighbors and surrounding communities. It will buffer traffic noise and reduce flooding in the area. It will also continue to provide a habitat for wildlife. It will also provide a place for the community to find solace in nature.



## 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

[Enter text describing activities you checked above]

## 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

[Enter text describing activities you checked above]

## 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

[Enter text describing activities you checked above]



## 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

[Enter text describing activities you checked above]

## 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

[Enter text describing activities you checked above]

## 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

Climate Action:

By protecting over 20 acres of forest in this highly developed area of Central Indiana the project will reduce pollutants from the air and provide shaded areas for cooling temperatures. The forest also provides stormwater runoff reduction in this highly developed area. In addition, the Project Area also serves as valuable wildlife habitat for birds and other animals.



## 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

[Enter text describing activities you checked above]

## 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

### Life on Land:

The Project Area is located adjacent to agricultural fields and housing development. Protection of this forested area will reduce stormwater runoff in the highly developed area. The forested area will be restored and maintained to encourage wildlife habitat and reduce stormwater runoff. Future plans for the larger project include planting the neighboring fields to forests as will also act as a buffer to further protect the trees.

## 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

[Enter text describing activities you checked above]

## Summary of Project Social Impacts



### Good Health and Well-Being:

The Project Area is in a fast-developing area near housing developments and schools. Having protected forested areas will add to the health and well-being of the neighbors and surrounding communities. It will buffer traffic noise and reduce flooding in the area. It will also continue to provide a habitat for wildlife. It will also provide a place for the community to find solace in nature.



### Climate Action:

By protecting over 20 acres of forest in this highly developed area of Central Indiana the project will reduce pollutants from the air and provide shaded areas for cooling temperatures. The forest also provides stormwater runoff reduction in this highly developed area. In addition, the Project Area also serves as valuable wildlife habitat for birds and other animals.



### Life on Land:

The Project Area is located adjacent to agricultural fields and housing development. Protection of this forested area will reduce stormwater runoff in the highly developed area. The forested area will be restored and maintained to encourage wildlife habitat and reduce stormwater runoff. Future plans for the larger project include planting the neighboring fields to forests as will also act as a buffer to further protect the trees.

