



Buerkle Woodlands Validation Report

Document Prepared by City Forest Credits

November 14, 2022

PROJECT OVERVIEW

<i>Project Name</i>	Buerkle Woodlands
<i>Project Registry Number</i>	023
<i>Project Type</i>	Tree Preservation
<i>City Forest Credits Protocol Version</i>	Version 11.40, February 7, 2022
<i>Project Start Date</i>	May 11, 2022
<i>Project Location</i>	Sewickley Hills and Ohio Township, Allegheny County, Pennsylvania
<i>Project Operator</i>	Allegheny Land Trust

SUMMARY

Provide a few sentences about the overall project

Allegheny Land Trust (ALT) is leading the 34-acre Buerkle Family Woodlands project in Sewickley Hills and Ohio Township, PA. These scenic woodlands are the gateway to Sewickley Hills, Sewickley Heights, and Bell Acres for area residents and visitors alike. The forested slopes and hilltop plateau are emblematic of the character of these communities, serving as a buffer from the noise and commercial development of a major interstate while providing important wildlife habitat.

ALT acquired the 64-acre property in May 2022 and recorded a preservation commitment protecting the forest in perpetuity. Zoning requirements for steep slopes and forest clearance restrict development and harvest on approximately 30 acres of the site, so the Project Area is 33.697 acres of the total 64.127-acre property.

ELIGIBILITY

Project Operator Identity (Section 1.1)

Criteria

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

Issue Validated

Allegheny Land Trust is the Project Operator and provided the following documentation to City Forest Credits to demonstrate that it is an entity organized and licensed under the laws of its jurisdiction: a copy of the IRS letter granting 501c3 status, a copy of the organizational bylaws, and a copy of the Certificate of Good Standing from the Pennsylvania State Department.

Permanence – Project Duration and Reversals

A. Project Duration (Section 1.2 and 2.2)

Criteria

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

Issue Validated

Allegheny Land Trust and City Forest Credits signed a Project Implementation Agreement on March 3, 2022 with an effective date of February 18, 2022, for Buerkle Woodlands (Project Registry Number 23). The project has a 40-year duration under City Forest Credits Tree Preservation Protocol Version 11.40.

B. Reversals (Section 9)

Criteria

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

Issue Validated

The Project Design Document and request for credits based on GHG mitigation includes a 10% deduction for the Reversal Pool of credits. 545 credits were contributed from this Project to the Registry Reversal Pool. The carbon quantification and Reversal Pool deduction were verified by the Validation and Verification Body, Ecofor LLC.

Project Location (Section 1.3 and 1.4)

Criteria

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

Issue Validated

The Project is located in Sewickley Hills and within Ohio Township. The Project Area lies within a US Census 2010 Urbanized Area, which meets protocol criteria Section 1.3A. The Project Operator has provided maps as supporting evidence, including geospatial location, regional-scale, and project area maps.

The 33.697-acre Project Area includes portions of parcel numbers as shown in Table 1 below.

Table 1. List of parcel(s) in the Project Area

Jurisdiction / Location	Parcel Number	Description / Notes
Sewickley Hills	606-G-198	54.926 acres; 24.496 acres of this parcel are included in the Project Area.
Ohio Township	607-E-202	9.201 acres; 9.201 acres of this parcel are included in the Project Area.
		Project Area 33.697 acres of 64.127 total acres

The Project Area is in a location that receives more than 20 inches of precipitation per year and has more than 80% tree canopy, meeting protocol criteria Section 1.4 C. The Project Operator provided an iTree report and leaf-on-adjusted GIS mapping files to demonstrate the percentage of canopy cover for the Project Area. The total tree canopy cover for the Project Area was determined to be 93%.

Ownership or Eligibility to Receive Potential Credits (Section 1.5)

Criteria

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

Issue Validated

The Project Operator, Allegheny Land Trust is the landowner for Buerkle Woodlands, meeting protocol criteria Section 1.5A. The Project Operator provided a deed as supporting documentation.

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

Criteria

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

Issue Validated

The Project Operator has demonstrated that prior to the start of the project, the trees in the Project Area were not protected via easement or recorded encumbrance protecting the trees.

The Project Area land use designation allows for at least one non-forest use:

- Parcel A (Sewickley Hills, 606-G-198) is zoned Residential-A (R-A)
- Parcel B (Ohio Township, 607-E-202) is zoned Residential-1 Low Density Residential District and C-2 General Commercial District

The zoning regulations include development restrictions, summarized in the list below. The most restrictive element of the zoning regulation was applied for each parcel. The development regulations for each zoning district have been provided as Attachment 5

- Parcel A: Residential A (R-A) zoning includes Environmental Zoning Standards that restrict development on steep slopes and limit forest clearance to 50%. After applying the steep slope and forest clearance restrictions, 24.496 of 54.926 acres were allowed to be developed.
- Parcel B: Residential-1 zoning limits development on steep slopes >40%, but no steep slopes of this grade were present on the parcel, so the full 9.201 acres were allowed to be developed.

For Threat of Loss, the Project meets criteria A, which is 30% or more improved use surrounding the perimeter of the property. 95% of the perimeter of the property is surrounded by a combination of roads, interstate highways, and residential development. The Project Operator provided a map (Attachment 7) outlining the improved uses along the perimeter.

Tree Preservation Commitment (Section 4.1)

Criteria

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

Issue Validated

Project Operator acquired the property in May 2022 from a private landowner. Project Operator signed a Donation Deed on May 11, 2022 that was recorded on May 13, 2022. The deed includes a restrictive covenant which satisfies the Tree Preservation Protocol criteria Section 4.1.

Project Submittal Dates (Section 2.1, 2.3)

Criteria

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

Issue Validated

Project Operator submitted the application on February 4, 2022. The Preservation Commitment effective date is May 11, 2022, which meets protocol criteria Section 2.1 and 2.3.

Carbon Quantification (Section 11)

Criteria

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

Issue Validated

Project Operator used the US Forest Service General Technical Report tables B2 Maple-Beech-Birch and B3 Oak-Hickory to determine accounting stock, dividing by stand age and primary composition per protocol criteria Section 11.1.A. The tree canopy percentage was measured using i-Tree Canopy and verified against Pennsylvania State Agency Imagery files in ArcGIS Pro.

Historical imagery was provided as supporting documentation to establish forest age and composition. A Forest Composition Report from site visits in October 2021 and July 2022 was also provided to confirm the stand age (Parcel A – 65 years old, Parcel B – 85 years old) and composition.

Per Protocol Section 11.2 B ii., the percent avoided biomass emissions in residential zones is the smaller of 90% or 2 acres per allowed dwelling unit plus 10% of the remaining project area. The Project Operator identified the number of allowed dwellings based on applicable zoning regulations and calculated the percent allowance based on that number. Since the calculated number was found to be greater than 90%, 90% of Accounting Stock is at risk of conversion. Attachment 5 provided by the Project Operator captures relevant sections of the zoning regulations applicable to Parcels A and B.

Project Operator quantified the avoidance of emissions from soil carbon caused by conversion of soils to impervious surfaces under Protocol Section 11.4. Applicable zoning in Parcel A allows 20% conversion on

73% of the project area, while Parcel B zoning allows 40% coverage along 27% of the project area. The combined allowable coverage is therefore 25.4%. Attachment 5 provided by the Project Operator captures relevant sections of the zoning regulations applicable to Parcels A and B.

A deduction of 18.3% for displaced development was included in carbon quantification, per Protocol Section 11.5.

The Carbon Quantification Summary is as follows:

Table 2. Carbon Quantification

Project Area (acres)	33.697
Does carbon quantification use stratification (yes or no)	No
Percent tree canopy cover within Project Area	93%
Project stock (tCO ₂ e)	8,054
Accounting Stock (tCO ₂ e)	6,443
On-site avoided biomass emissions (tCO ₂ e)	5,799
On-site avoided soil carbon emissions (tCO ₂ e)	1,027
Deduction for displaced biomass emissions (tCO ₂ e)	1,061
Deduction for displaced soil emissions (tCO ₂ e)	311
Credits from avoided biomass emissions (tCO ₂ e)	4,738
Credits from avoided soil emissions (tCO ₂ e)	716
Total credits from avoided biomass and soil emissions (tCO ₂ e)	5,453
Credits attributed to the project (tCO ₂ e), excluding future growth	5,453
Contribution to Registry Reversal Pool Account	545
Total credits to be issued to the Project Operator (tCO₂e) <i>(excluding future growth)</i>	4,908

Project Operator asserts that the Project results in GHG emissions mitigation of 4,908 tons CO₂e.

Co-Benefits Quantification (Section 11.6)

Criteria

Project Operator follows co-benefit quantification for rainfall interception, air quality, and energy savings, per protocol criteria Section 11.6.

Issue Validated

Project Operator has followed the co-benefits quantification method using the templates provided by City Forest Credits. Project Operator included 31.34 acres, or 93 percent deciduous, and 0.00 percent coniferous for 33.70 acre Project Area. The following table documents the quantified ecosystem services in resource units and avoided costs.

Ecosystem Services	Resource Units	Value
Rainfall Interception (m ³ /yr)	16,027.8	\$33,876.49
Air Quality (t/yr)	1.1058	\$2,725.95
Cooling – Electricity (kWh/yr)	48,668	\$6,818.45
Heating – Natural Gas (kBtu/yr)	2,014,625	\$28,177.13
Grand Total (\$/yr)		\$71,598.03

Additionality (Section 6)

Criteria

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

Projects must demonstrate the following:

- Prior to the start of the project, the trees in the project area cannot be 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 some risk of removal or conversion out of forest.

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

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

Project Operator must sign an Attestation of Additionality.

Issue Validated

Project Operator has demonstrated that prior to the start of the project the trees were not protected, the zoning allows for a non-forest use, and the trees are at risk of removal or conversion out of forest. Project Operator has followed the carbon quantification methodology to demonstrate how the number of credits to be issued. Project Operator signed the Attestation of Additionality on September 9, 2022.

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

Criteria

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

The City Forest Credits Standard describes prevention of double-counting in Section 5. Project Operator must sign an Attestation of No Double Counting of Credits.

Issue Validated

Project Operator has submitted a signed Attestation of No Double Counting and No Net Harm on September 9, 2022, and the Registry sees no evidence of net harm from this project. The Registry has

reviewed the records of prior projects to confirm that the Project Area for this project has not already received credits under the CFC standard.

Monitoring and Reporting (Section 8)

Criteria

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

Issue Validated

As an accredited land trust, Project Operator is required to meet minimum standards for all conservation projects, including a management plan, annual monitoring, and reporting. Project Operator has agreed to submit written reports every three years using the template provided by City Forest Credits. The Project Operator also has a continuity plan in place should the corporation be dissolved, for any reason.

Social Impacts (Section 12)

Criteria

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

Issue Validated

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

VERIFICATION REPORT

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

VALIDATION CONCLUSION

All the information provided in this validation report is free of material misstatement, to the best of our knowledge. The project complies with the validation criteria outlined in the City Forest Credits Standard and Tree Preservation Protocol Version 11.40.

Approved by City Forest Credits on November 14 in 2022.