



# Glade Run Lake Conservation Project Validation Report

Document Prepared by City Forest Credits

April 26, 2024

## PROJECT OVERVIEW

|   |                                     |
|---|-------------------------------------|
| <i>Project Name</i>                         | Glade Run Lake Conservation Project |
| <i>Project Registry Number</i>              | 48                                  |
| <i>Project Type</i>                         | Tree Preservation                   |
| <i>City Forest Credits Protocol Version</i> | Version 12.40, February 22, 2023    |
| <i>Project Start Date</i>                   | October 17, 2023                    |
| <i>Project Location</i>                     | Middlesex Township, PA              |
| <i>Project Operator</i>                     | Allegheny Land Trust                |

## SUMMARY

*Provide a few sentences about the overall project*

Allegheny Land Trust (ALT), in collaboration with the Pennsylvania Fish and Boat Commission (“the Commission”), has protected 43.123 acres of early succession maple and black cherry forest within a larger, 53-acre property around Glade Run Lake in Middlesex Township, PA. ALT, the Project Operator, purchased the property and transferred it to PA Fish and Boat, with a reservation of carbon rights to ALT and a deed restriction protecting the forest for 40 years both included in the transfer deed.

Protecting the Glade Run Lake forest will ensure high water quality, habitat health, and recreation access for the adjacent communities.

## 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*

The Project Operator, Allegheny Land Trust, provided documentation to City Forest Credits demonstrating that it is an organization organized and licensed under the laws of its jurisdiction, including: a 501c3 letter, organization bylaws, and a certificate of good standing from the State of Pennsylvania.

### **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*

The Project Operator submitted the Project Application on September 18, 2023, which was approved by the Registry on September 19, 2023. The Preservation Commitment recordation date is October 17, 2023, which is within six months of the application approval date, meeting protocol criteria Section 2.1 and 2.3.

**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*

The Allegheny Land Trust and City Forest Credits signed a Project Implementation Agreement on February 22, 2024 for the Glade Run Lake Conservation Project (Project Registry Number 48). The project has a 40-year duration under City Forest Credits Tree Preservation Protocol Version 12.40.

**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. 391 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, Matthew Lee.

**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 within the boundaries of the Southwestern Pennsylvania Commission, a regional metropolitan planning agency, which meets protocol criteria Section 1.3D. The Project Operator has

provided maps as supporting evidence, including geospatial location, regional-scale, and project area maps.

The 43.123-acre Project Area is contained within a single parcel:

| Municipality         | Parcel Number             | Notes   |
|----------------------|---------------------------|---|
|                      |                           | <i>Include total acres and acres included in Project Area</i> |
| <i>Middlesex Twp</i> | 230-2F77-5-0000           | <i>Total area: 52.884 Acres; Project Area: 43.123 Acres</i>   |
|                      | <b>Total Project Area</b> | 43.123  |

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 has provided an iTree Canopy report to demonstrate the percentage of canopy cover for the Project Area. The report shows canopy cover of 80.2%.

**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 Pennsylvania Fish and Boat Commission is the current landowner of the property. The Project Operator, ALT, had purchased the property in May 2022 with the intent to transfer it to the Commission and register the property as a carbon project. The deed of transfer from ALT to the Commission included a reservation of rights to ALT for the carbon credits, meeting protocol criteria Section 1.5C. The Project Operator provided a copy of the deed as supporting documentation.

**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 included in its deed of transfer to the Commission a restriction protecting the trees on the property for a term of 40 years.

The language of the restriction, from Paragraph 3 on page 4 of the deed:

“During the term of the 40-year Carbon Preservation Project, the Grantee [the Commission] shall not engage in any commercial or other timbering on the Property conveyed hereby nor shall Grantee cut down, remove or destroy any trees on the Property except as may be necessary, in Grantee’s reasonable judgement and discretion, (a) to control, prevent or mitigate hazard or threat to life or damage to or destruction of property, (b) to promote or protect forest health and habitat, (c) to remove diseased, dead, or damaged trees, or (d) to prevent or mitigate fire or conditions that may directly or proximately cause or exacerbate fire. Grantee will not cut down, remove, or destroy any trees in the Project Area as defined by the 40-year Carbon Preservation Project to develop new trails on the property; existing trails as identified in the Project Area may be maintained for the duration of the 40-year carbon project term.”

The project meets protocol criteria Section 4.1.

### **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 signed an Attestation of Additionality on March 11, 2024 stating that prior to the Preservation Commitment, the trees in the Project Area were not protected by easement, recorded encumbrance, or protected zoning status. Sections of the property that were designated floodplain were excluded from the Project Area.

The Project Area parcel is zoned Rural Residential (AG-A), which allows development of single-family and two-family residences, as well as other improved uses such as farming and schools.

The Project Area is surrounded by developed/improved uses on over 30% of the project perimeter, as demonstrated by a map submitted by the Project Operator, meeting Section 4.4A of the Protocol.

### **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. Per Section 5.2 of the Tree Preservation Protocol, the Project Operator must submit documentation showing no overlap of Project Area with any other registered urban forest carbon project. As part of Validation, the Registry shall use the appropriate tool on GIS software (such as the Intersect tool on ArcGIS) to independently investigate whether there is any overlap between the Project Area and other registered urban forest carbon projects.

#### *Issue Validated*

Project Operator has submitted a signed Attestation of No Double Counting and No Net Harm on March 11, 2024, and the Registry sees no evidence of net harm from this project. The Registry has analyzed geospatial data of the Project Area against that of all other registered urban forest carbon preservation projects to confirm that the Project Area for this project has not already received credits under the CFC standard.

### **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. The Project Operator intended to enroll the property as a carbon project early on in the process to ensure financial viability for the transfer to the Commission.

Project Operator signed the Attestation of Additionality on March 11, 2024.

### **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 table B2 Maple Beech Birch to determine accounting stock, per protocol criteria Section 11.1.A. A consulting forester was engaged to assess the forest and determine species composition and stand density. The tree canopy percentage was measured using i-Tree Canopy at 80.2%.

Historical imagery from 1938 to 1993 was provided as supporting documentation to establish the forest age. Although some sections of the Project Area could be estimated at 60 years old, the entire Project Area was conservatively aged at the age of the youngest stand, 35 years old.

Per Protocol Section 11.2.B, 90% of the Accounting Stock is at risk of tree removal. The Project Area parcel is zoned Rural Residential AG-A, which allows for 1-acre minimum lot sizes. According to the clearing estimation formula in Protocol Section 11.2.B.ii, 189% of the Project Area could be cleared, so the maximum of 90% was used as the Fraction at Risk of Tree Removal.

Project Operator quantified the avoidance of emissions from soil carbon caused by conversion of soils to impervious surfaces under Protocol Section 11.3. Applicable zoning specifies a maximum lot coverage of 20% for non-farm uses, so 20% was used to calculate the avoided impervious surface.

A deduction of 18.3% for displaced development was included in carbon quantification, per Protocol Section 11.4.

The Carbon Quantification Summary is as follows:

|  |               |
|--|---------------|
| Project Area (acres)   | <b>43.123</b> |
| Does carbon quantification use stratification (yes or no)  | <b>No</b>     |
| Percent tree canopy cover within Project Area  | <b>80.2%</b>  |
| Project stock (tCO <sub>2</sub> e)   | <b>5,415</b>  |
| Accounting Stock (tCO <sub>2</sub> e)  | <b>4,332</b>  |
| On-site avoided biomass emissions (tCO <sub>2</sub> e)   | <b>3,899</b>  |
| On-site avoided soil carbon emissions (tCO <sub>2</sub> e)   | <b>1,035</b>  |
| Deduction for displaced biomass emissions (tCO <sub>2</sub> e)   | <b>713</b>    |
| Deduction for displaced soil emissions (tCO <sub>2</sub> e)  | <b>314</b>    |
| Credits from avoided biomass emissions (tCO <sub>2</sub> e)  | <b>3,185</b>  |
| Credits from avoided soil emissions (tCO <sub>2</sub> e)   | <b>721</b>    |
| Total credits from avoided biomass and soil emissions (tCO <sub>2</sub> e)                                       | <b>3,907</b>  |
| Credits attributed to the project (tCO <sub>2</sub> e), excluding future growth                                  | <b>3,907</b>  |
| Contribution to Registry Reversal Pool Account   | <b>391</b>    |
| <b>Total credits to be issued to the Project Operator (tCO<sub>2</sub>e)</b><br><i>(excluding future growth)</i> | <b>3,516</b>  |

### Co-Benefits Quantification (Section 11.5)

#### *Criteria*

Project Operator follows co-benefit quantification for rainfall interception, air quality, and energy savings, per protocol criteria Section 11.5.

#### *Issue Validated*

Project Operator has followed the co-benefits quantification method using the templates provided by City Forest Credits. Project Operator included 80.2% percent deciduous, and 19.8% non-tree for the 43.123-acre Project Area. The following table documents the quantified ecosystem services in resource units and avoided costs.

| <b><i>Ecosystem Services</i></b>           | <b><i>Resource Units</i></b> | <b><i>Value</i></b> |
|--|------------------------------|---------------------|
| Rainfall Interception (m <sup>3</sup> /yr) | 17,688.2                     | \$37,385.87         |
| Air Quality (t/yr)                         | 1.2203                       | \$3,008.35          |

|                                 |           |                    |
|---------------------------------|-----------|--------------------|
| Cooling – Electricity (kWh/yr)  | 53,710    | \$7,524.80         |
| Heating – Natural Gas (kBtu/yr) | 2,223,327 | \$31,096.10        |
| <b>Grand Total (\$/yr)</b>      |           | <b>\$79,015.12</b> |

**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*

Project Operator has agreed to submit written reports every three years using the template provided by City Forest Credits. Project Operator staff will conduct annual reviews of the site using high-resolution imagery via NearMap, as well as interface with partners, including the Glade Run Lake Conservancy, to monitor the site.

**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 12.40.

Approved by City Forest Credits on April 26 in 2024.