



Whittlesey Beach Ridge Forest Validation Report

Document Prepared by City Forest Credits

January 12, 2023

PROJECT OVERVIEW

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| <i>Project Name</i> | Whittlesey Beach Ridge Forest |
| <i>Project Registry Number</i> | 024 |
| <i>Project Type</i> | Tree Preservation |
| <i>City Forest Credits Protocol Version</i> | Version 11.40, February 7, 2022 |
| <i>Project Start Date</i> | October 25, 2022 |
| <i>Project Location</i> | City of Mentor, and Village of Kirtland Hills, Lake County, OH |
| <i>Project Operator</i> | Western Reserve Land Conservancy |

SUMMARY

Provide a few sentences about the overall project

Western Reserve Land Conservancy (WRLC) is preserving 91-acres of old-growth forest in Mentor, OH, an area with increasing development pressure. WRLC's goal is to protect the Project Area in perpetuity, eventually operating it as a Signature Park with public access to over 1.5 miles of walking trails. With the location of the Project within and along the City of Mentor, the Project will increase recreational opportunities and provide health benefits to the surrounding high-density urban community. Davey Resource Group completed an on-site plot-sample inventory to quantify carbon storage for the Project Area.

This is the third project in Western Reserve Land Conservancy's Carbon Program.

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

Western Reserve Land Conservancy is the Project Operator. To document that it is an entity organized and licensed under the laws of its jurisdiction, Western Reserve Land Conservancy provided documentation including a copy of the organization's IRS Tax Exempt Status letter to City Forest Credits.

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

Western Reserve Land Conservancy and City Forest Credits signed a Project Implementation Agreement on April 29, 2022 for the Whittlesey Beach Ridge Forest (Project Registry Number 024). 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. 976 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, Todd Douglass.

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 the City of Mentor, OH, and the Village of Kirtland Hills, OH. Two of the Project’s four parcels are within the limits of the City of Mentor and are adjacent to and contiguous with the remaining two parcels, which meets protocol criteria Section 1.3B. The Project Operator has provided maps as supporting evidence, including geospatial location, regional-scale, and project area maps.

The 91-acre Project Area comprises four contiguous parcels, described as follows:

| Parcel | Jurisdiction / Location | Parcel Number | Description / Notes | Owner |
|---------------|--------------------------------|----------------------|--|--------------|
| 1 | City of Mentor, OH | 16-A-011-0-00-018-0 | Entire parcel (55.64 acres) included in Project Area | WRLC |

| | | | | |
|---|-------------------------------|----------------------|--|------------------|
| 2 | City of Mentor, OH | 16-A-013-0-00-025-0 | Entire parcel (0.36 acres) included in Project Area | MAS Landholdings |
| 3 | Village of Kirtland Hills, OH | 22-A-005-0-00-020-0 | Entire parcel (5.39 acres) included in Project Area | MAS Landholdings |
| 4 | Village of Kirtland Hills, OH | 22-A-005-0-00-019-0 | Entire parcel (29.61 acres) included in Project Area | WRLC |
| | | Total acreage | 91 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 has provided an iTree Canopy report to demonstrate the percentage of canopy cover for the Project Area, which was determined to be 94%.

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

Western Reserve Land Conservancy is the landowner for 85.25 acres of the Project Area, meeting protocol criteria Section 1.5A. MAS Landholdings, LLC, an Ohio limited liability company owned by Western Reserve Land Conservancy, is the landowner for the remaining 5.7 acres. MAS Landholdings has given permission for the Project Operator, Western Reserve Land Conservancy, to receive potential credits, meeting protocol criteria Section 1.5C. The Project Operator provided a deed (Attachment F & G) and an Agreement to Transfer Potential Credits (Attachment H), signed on and effective as of December 6, 2022, 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 signed an Attestation of Additionality on November 7, 2022 stating that prior to the start of the Project, the trees in the Project Area were not protected by easement, recorded encumbrance, or protected zoning status.

The Project parcels are zoned for at least one non-forest use:

- Parcel 16-A-011-0-00-018-0: City of Mentor zoning R-4 Single Family Residential and C-1 Conservation (which allows for single family residences and agricultural and horticultural uses)
- Parcel 16-A-013-0-00-025-0: City of Mentor zoning R-4 Single Family Residential
- Parcels 22-A-005-0-00-019-0 and 22-A-005-0-00-020-0: Village of Kirtland Hills zoning – Farm and Residence District

The Project Operator provided zoning maps and copies of the relevant zoning regulations as supporting documentation.

The Project meets Tree Preservation Protocol Criteria 4.4A, as over 70% of the perimeter is surrounded by non-forest, developed, or improved uses, including residential lots and an interstate. The Project Operator provided a map showing the developed uses around the Project Area perimeter 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

For the 85.25 acres of the Project Area owned by Western Reserve Land Conservancy, the Project Operator signed a conservation easement on October 25, 2022 with Natural Areas Land Conservancy, a supporting non-profit wholly managed by the Western Reserve Land Conservancy that is experienced in holding conservation easements, to preserve the forest in perpetuity.

Under Section 6, Prohibited Uses, I. Vegetation Controls: “Except for those actions that are necessary for environmental preservation, management or restoration purposes, for the protection of human health and safety, or for the maintenance of a diversity of naturally occurring habitat types and control of exotic species of plants, there shall be no removal, destruction, cutting, trimming, or mowing of any trees or other vegetation.”

For the 5.7 acres of the Project Area owned by MAS Landholdings LLC, MAS Landholdings LLC signed a deed restriction on October 25, 2022 protecting the trees in perpetuity from removal.

“Subject to the restriction that the Premises shall at all times be used by the owner hereof as incidental to and in furtherance of the conservation purposes pursuant to which the immediately adjacent parcel along the western boundary of the Premises...is being used and, without limitation, the owner thereof will not disturb the wooded character thereof nor (except in the furtherance of customary forestry purposes) remove any mature trees from said Premises.”

The two Preservation Commitments will ensure uniform and effective protection for the Project Area in perpetuity, which satisfies 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 Project Application on March 22, 2022 and the Registry approved the Application on March 22, 2022. The Preservation Commitment effective date is October 25, 2022 and it was recorded on October 31, 2022, which was a little over 6 months after Application Approval. The Registry retains sole discretion over approval of Applications and registration of projects.

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 engaged an independent consultant, Davey Resource Group (DRG), to perform an on-site assessment of the carbon stock, per protocol criteria Section 11.1.B. DRG conducted a plot-sample forest assessment adhering to the standards set in CFC Tree Preservation Protocol Section 11.1.B. DRG established 24 sample plots sized at 1/10th-acre. Within every plot, each live tree was inventoried that was at least 5" in diameter at 4.5' above ground, where the height above ground is measured on the uphill side of the tree. The plot data were used as input for iTree Eco to quantify the carbon biomass across the entire Project Area. The tree canopy percentage was measured using i-Tree Canopy.

Forest composition from the plot-sample inventory was provided as supporting documentation, but forest age was not necessary for carbon quantification for this project.

The Accounting Stock at risk of conversion was calculated per Protocol Section 11.2.B.ii, with the number of acres that could be cleared determined by the relevant zoning regulations for residential areas. The total potentially cleared acres across the Project Area is 49.3 acres, or 54.2% of the Project Area, encompassing 16.17 acres for zoning Mentor C-1 (45.3% of 35.7 acres), 18.9 acres for zoning Mentor R-4 (90% of 21 acres), and 14.23 acres for zoning Kirtland Residential & Farm (41.5% of 34.3 acres).

Project Operator quantified the avoidance of emissions from soil carbon caused by conversion of soils to impervious surfaces under Protocol Section 11.4, which allows for 50% of the Project Area in a residential zone to be eligible for conversion. Applicable zoning did not specify a maximum fraction of parcel area that may be in impervious surface, so 50% was used for most of the Project Area. There is less than one acre of existing impervious surface in the section zoned Kirtland Hills Residential and Farm, which has 47% avoided conversion to impervious surface. Therefore, the overall weighted average of the entire Project Area is 49% avoided conversion to impervious surface.

Relevant sections of the zoning regulations and maps were provided by the Project Operator as supporting documentation.

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:

| | |
|--|---------------|
| Project Area (acres) | 91 |
| Does carbon quantification use stratification (yes or no) | No |
| Accounting Stock (tCO ₂ e) | 13,626 |
| On-site avoided biomass emissions (tCO ₂ e) | 7,382 |
| On-site avoided soil carbon emissions (tCO ₂ e) | 5,351 |
| Deduction for displaced biomass emissions (tCO ₂ e) | 1,351 |
| Deduction for displaced soil emissions (tCO ₂ e) | 1,621 |
| Credits from avoided biomass emissions (tCO ₂ e) | 6,031 |
| Credits from avoided soil emissions (tCO ₂ e) | 3,730 |
| Total credits from avoided biomass and soil emissions (tCO ₂ e) | 9,760 |
| Credits attributed to the project (tCO ₂ e), excluding future growth | 9,760 |
| Contribution to Registry Reversal Pool Account | 976 |
| Total credits to be issued to the Project Operator (tCO₂e) <i>(excluding future growth)</i> | 8,784 |

Project Operator asserts that the Project results in GHG emissions mitigation of 8,784 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 94 percent deciduous, and 0 percent coniferous for 91-acre Project Area. The following table documents the quantified ecosystem services in resource units and avoided costs.

| <i>Ecosystem Services</i> | <i>Resource Units</i> | <i>Value</i> |
|--|------------------------------|---------------------|
| Rainfall Interception (m ³ /yr) | 43,820.7 | \$92,619.76 |
| Air Quality (t/yr) | 3.0232 | \$7,452.88 |
| Cooling – Electricity (kWh/yr) | 133,062 | \$18,641.94 |
| Heating – Natural Gas (kBtu/yr) | 5,508,071 | \$77,037.48 |
| Grand Total (\$/yr) | | \$195,752.05 |

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 November 7, 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 November 7, 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 has a professional team dedicated to stewardship of its easements and 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.

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 January 12 in 2023.