



**Growing Futures, Growing Trees-Des Moines (2019)
Validation Report
Year 4**

Document Prepared by City Forest Credits

November 8, 2023

PROJECT OVERVIEW

<i>Project Name</i>	Growing Futures, Growing Trees - Des Moines (2019)
<i>Project Registry Number</i>	5
<i>Project Type</i>	Tree Planting
<i>City Forest Credits Protocol Version</i>	Version 6, August 2018
<i>Project Start Date</i>	December 4, 2019
<i>Project Location</i>	Des Moines, Iowa
<i>Project Operator</i>	Trees Forever

SUMMARY

State what stage of crediting this Validation Report applies to (i.e. after planting, Year 4, 6, or 26). Provide a few sentences about the overall project. Include the Planting Design and Quantification Method.

This validation report applies to Year 4 crediting for the Des Moines 2019 tree planting project, using the single tree quantification method. Tree planting occurred throughout the City of Des Moines. Tree planting locations were a mix of street tree and park plantings, but with the major focus on street tree plantings. Tree planting totals for the 2019 season were 734 trees.

ELIGIBILITY

Additionality (Section 4)

Criteria

The City Forest Credits Standard and Tree Planting Protocol 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.

Issue Validated

Project Operator has signed an Attestation of Additionality on August 28, 2023 that confirms that the trees were not planted due to an enacted ordinance or law, as well as stating that Project Operator used the Registry’s performance standard baseline in adherence with the WRI GHG Protocol, that the Project Operator signed a Project Implementation Agreement with the Registry for a 26-year Project Duration, that the 26-year Project Duration is in addition to and longer than any commitment the Project Operator makes to non-carbon project tree plantings, and that trees were not planted on sites that were forested and then cleared of trees within the prior 10 years.

No Double Counting and No Net Harm (Section 5)

Criteria

The City Forest Credits Standard describes prevention of double-counting in Section 5.1 and safeguards and the “No Net Harm” Principle in Section 5.2. Project activities shall not cause net harm to the environment or urban communities. Project Operator must sign an Attestation of No Double Counting of Credits and No Net Harm.

Issue Validated

Project Operator has submitted a signed Attestation of No Double Counting of Credits and No Net Harm on August 28, 2023. The Registry has analyzed geospatial data of the Project Area against that of all other registered urban forest carbon afforestation and reforestation projects to confirm that the Project Area for this project has not already received credits under the CFC Standard.

DATA COLLECTION AND CARBON QUANTIFICATION

Carbon Quantification (Section 10 and Appendix A)

Criteria

Project Operator must follow the data collection and quantification methods outlined in Appendix A of the Protocol.

Issue Validated

Project Operator used the single tree method, per Protocol criteria in Appendix A. City Forest Credits used the sample size calculator within the quantification workbook to determine the sample size requirement, 142 trees. The Project Operator is responsible for visiting each tree, documenting current tree status, and taking a geotagged photo. The total tree population is the same as during the initial crediting period, 734 trees.

However, the initial single tree quantification tool used a 10% mortality deduction. For year 4 calculations, the anticipated mortality deduction was increased to 20% to provide consistency across projects and allow for future tree mortality. The credit total was adjusted to consider this change.

The observed mortality rate for the sample was 10%. Per Registry guidance, if the observed mortality rate at Year 4 exceeds the 20% anticipated mortality deduction, the observed mortality is used to recalculate carbon storage at Year 4; otherwise, the anticipated mortality deduction is used to be more conservative. Because the 10% observed mortality is less than the anticipated mortality deduction, the 20% anticipated mortality deduction was used in the carbon quantification tool.

The Carbon Quantification Summary is as follows:

Total number of trees planted	734
Project area (acres), if applicable	NA
Total number of trees per acre, if applicable	NA
Credits attributed to the project (tCO ₂ e)	1,842
Credits after mortality deduction (20% or insert observed mortality, if greater)	1,474

Contribution to Registry Reversal Pool Account (5%) (tCO ₂ e)	73
Total credits to be issued to the Project Operator (tCO₂e)	1,400
Total credits requested to be issued in Year 4 (30% of above)	560

GHG Assertion: Project Operator asserts that the Project results in GHG emissions mitigation of 1,400 tons CO₂e over the 26-year Project Duration. Project Operator asserts that the Project results in GHG emissions mitigation of 560 tons CO₂e at Year 4.

Co-Benefits Quantification (Section 12 and Appendix A)

Criteria

Project Operator must follow the co-benefit quantification methods for rainfall interception, air quality, and energy savings.

Issue Validated

Project Operator has followed the co-benefits quantification method using the templates provided by City Forest Credits. The following table documents the quantified ecosystem services in resource units and avoided costs per year when Project Trees reach 25 years old.

<i>Ecosystem Services</i>	<i>Resource Units</i>	<i>Value</i>
Rainfall Interception (m ³ /yr)	3,847.85	\$27,547.03
Air Quality (t/yr)	0.1230	\$569.97
Energy: Cooling – Electricity (kWh/yr)	122,691.15	\$9,312.26
Energy: Heating – Natural Gas (kBtu/yr)	1,796,196.33	\$17,485.49
Grand Total (\$/yr)		\$54,914.74

VERIFICATION REPORT

CFC reviewed the Verification Report on November 7, 2023 by Matthew Lee to ensure it accurately reflects the documentation contained in the Year 4 Project Design Document Amendment and supporting documents.

VALIDATION CONCLUSION

I attest that all the information provided in this validation report is free of material misstatement, to the best of my knowledge. The project complies with the validation criteria outlined in the City Forest Credits Standard and Tree Planting Protocol Version 6.

Approved by City Forest Credits on November 8, 2023.