Deschutes River Floodplain Restoration Projects
Initial Project Design Document

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PROTOCOL REQUIREMENTS

Project Operator (Section 1.1)
Identify a Project Operator for the project. A Project requires one Project Operator, which can be an entity organized and licensed under the laws of its jurisdiction or a governmental body. This is the entity who takes legal responsibility for the project and its reporting.

Commit to 26-year Project Duration in the Project Implementation Agreement (Section 1.3, 2.2)
Sign the Project Implementation Agreement. This is the 26-year agreement between the Project Operator and City Forest Credits (the "Registry") for an urban forest carbon project.

Project Location (Section 1.4)
Project must be located in or along the boundary of one of the following:

A. "Urban Area" per Census Bureau maps;
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;
E. Within the boundary of land owned, designated, and used by a municipal or quasi-municipal entity for source water or watershed protection;
F. Within a transportation, power transmission, or utility right of way, provided the right of way begins, ends, or passes through some portion of above criteria.

Ownership or Eligibility to Receive Potential Credits (Section 1.7)
The Project Operator must demonstrate ownership of property and eligibility to receive potential credits by meeting at least one of the following:

A. Own the land, the trees, 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, own the Project trees and credits within that easement, 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 or other benefits delivered by Project trees on that landowner's land. If Project trees are on private property, this agreement, or notice thereof, must be recorded in the property records of the county in which the land containing Project trees is located.

Defining the Project Area (Section 1.5)
Project Operators may include more than one planting site in a project. The initial planting of trees for all properties in a project must occur within a 36-month period or less. Project Operators may include multiple properties under one project.

Additionality (Section 4)
Project Operators must demonstrate compliance with the following additionality requirements:

- A Legal Requirements Test that declares city trees planted due to an enacted law or ordinance not eligible, except for replacement trees planted in place of removed trees for specific reasons (Section 1.8);

- Either 1) a project-specific baseline or 2) the current version of the Registry's performance standard baseline developed in adherence with the WRI GHG Protocol (CFC Standard), supplemented by local canopy change data;
- Sign and comply with a Project Implementation Agreement with the Registry that requires a 26-year Project Duration.

Project Operators must also sign an Attestation of Additionality stating that its 26-year Project Duration commitment is additional to and longer than any commitment it makes to non-carbon project tree plantings, as well as provide information on financial additionality and prior consideration.

Planting Designs and Quantification for Credits (Section 1.2, 10, Appendix A)
All Projects must use one of three different methods for quantifying CO_2. The quantification method used depends on the planting design. The Registry has developed spreadsheets and methods for Project Operators. The quantification methods include:

- Single Tree Quantification Method: trees planted in a dispersed or scattered design that are planted at least 16.5 feet apart (i.e. street trees). This method requires tracking of individual trees and tree survival for sampling and quantification.

- Clustered Quantification Method: trees planted at least 16.5 feet apart but are relatively contiguous and designed to create canopy over an area (i.e. park-like settings). This method requires tracking change in canopy, not individual tree survival.

- Area Reforestation Quantification Method: tree planting areas greater than 5 acres and where many trees are planted closer than 16.5 feet. Higher tree mortality is expected and the goals are to create canopy and a forest ecosystem. Project Operators have several quantification models to choose from, all of which produce a carbon index on a per-acre basis.

Attestation of No Net Harm and No Double Counting (Section 5)
Project Operators must 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. The Project Operator must submit documentation showing no overlap of Project Trees or Project Area with any other registered urban forest carbon project.

Social Impacts (Section 11)
Project Operators 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.

Validation and Verification by Third-Party Verifiers (Sections 12 & Appendix B)
Project compliance and quantification must be verified by a third-party verifier known as a Validation and Verification Body approved by the Registry.

Issuance of Ex Ante Carbon Forward Removal Credits to Project Operator (Section 6)
The forecasted amount of CO_2 stored during the project duration is the value from which the Registry issues ex ante Carbon Forward Removal Credits™. To ensure performance of the credits, the Registry issues credits at five times during the 26-year Project Duration:

- 10% of projected credits after planting
- 30% of projected credits at Year 4
- 30% of projected credits at Year 6
- 10% of projected credits at Year 14
- Remaining credits issued based on quantification of CO_2e at Year 26

Credits for Reversal Pool Account (Section 6.2)
The Registry will issue 95% of Project credits earned and requested and will hold 5% in the Registry's Reversal Pool Account.

Understand Reversals (Section 8)
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.

Commit to Monitoring and Reporting (Section 7)
Project Operators must submit an annual monitoring report to the Registry every year for the Project Duration. The reports must be in writing, and the Project Operator must attest to the accuracy of the reports.

Tree Sampling, Measurement, and Imaging Requirements (Appendix A)
To ensure performance of the credits, Project Operators must commit to the following at Years 4, 6, 14, and 26 based on the appropriate quantification method.

1) Clustered
    a. Initial Credit: Use the carbon quantification tool and input data. In addition, Project Operators must provide maps of the site, with boundaries, as well as a map showing the site within a larger context of land area, such as within a neighborhood, city, or region. Project Operators must document the planting through photos or imaging. Select points and take geo-coded photos that when taken together capture the newly planted trees in the Project Area. If site is rectilinear, take a photo at each of the corners. If the site is large, take photos at points along the perimeter looking into the Project Area. If necessary to capture the trees, take photos facing each of the cardinal directions while standing in the middle of the Project Area. If site is nonrectilinear, identify critical points along property boundaries and take photographs at each point facing in towards the middle of the site. Next, take photographs from the middle of the Project Area facing out at each cardinal direction.
    b. Year 4: Project Operators provide images of the Project Area from any telemetry, imaging, remote sensing, i-Tree Canopy, or UAV service, such as Google Earth and estimate the area in tree canopy cover (acres). Imaging from Google Earth with leaf-on may be used. Project Operators will calculate the percent of canopy cover from the Google Earth imaging. Projects can use i-Tree Canopy and point sampling to calculate canopy cover. Using i-Tree Canopy, continue adding points until the standard error of

the estimate for both the tree and non-tree cover is less than 5%. i-Tree Canopy will supply you with the standard errors. If tree canopy cover is determined using another approach, such as image classification, a short description of the approach should be provided, as well as the QA/QC measures that were used. A tree cover classification accuracy assessment should be conducted, as with randomly placed points, and the percentage tree cover classification accuracy reported.

i. If the canopy coverage equals or exceeds 2.8% (400 trees per acre with an average canopy area of 3.14 square feet per tree (2-foot diameter of canopy) is 2.8% of an acre), then the credits projected in the Clustered Quantification Tool may be issued. If canopy coverage is below 2.8%, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 2.8%.

c. Year 6: Project Operators must follow the same process as stated above for Year 4.
   i. If the canopy coverage equals or exceeds 11.5% (400 trees per acre with an average canopy area of 12.56 square feet per tree (4-foot diameter of canopy) is 11.5% of an acre), then the credits projected in the Clustered Parks Quantification Tool may be issued. If canopy coverage is below 11.5%, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 11.5%.
d. Year 14: Project Operators must follow the same process as stated above for Years 4 and 6.
   i. If the canopy coverage equals or exceeds 46% (400 trees per acre with an average canopy area of 50 square feet per tree (8-foot diameter of canopy) is 46% of an acre), then the credits projected in the Clustered Quantification Tool may be issued. If canopy coverage is below 46%, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 46%.
e. Year 26: Project Operators must follow the same process as stated above for Years 4, 6, and 14.
   i. If the canopy coverage equals 100% of the Project Area at project outset, the credits projected in the Clustered Quantification Tool may be issued. If canopy coverage is below 100% of the Project Area, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 100%.

2) Area Reforestation
   a. Initial Credit: Project Operators must use local data or the GTR tables to demonstrate projected carbon storage by Year 26. In addition, Project Operators must provide maps of the site, with boundaries, as well as a map showing the site within a larger context of land area, such as within a neighborhood, city, or region. Project Operators must document the planting through photos or imaging. Select points and take geo-coded photos that when taken together capture the newly planted trees in the Project Area. If site is rectilinear, take a photo at each of the corners. If the site is large, take photos at points along the perimeter looking into the Project Area. If necessary to capture the trees, take photos facing each of the cardinal directions while standing in the middle of

the Project Area. If site is nonrectilinear, identify critical points along property boundaries and take photographs at each point facing in towards the middle of the site. Next, take photographs from the middle of the Project Area facing out at each cardinal direction.

b. Year 4: Project Operators must either conduct a physical tree count using plots or use imaging to determine canopy coverage at Year 4.
    i. If the canopy coverage equals or exceeds 2.8% (400 trees per acre with an average canopy area of 3.14 square feet per tree (2-foot diameter of canopy) is 2.8% of an acre), then the credits projected in the Quantification Tool may be issued. If canopy coverage is below 2.8%.
c. Year 6: Project Operators must either conduct a physical tree count using plots or use imaging to determine canopy coverage at Year 6.
    i. If the canopy coverage equals or exceeds 11.5% (400 trees per acre with an average canopy area of 12.56 square feet per tree (4-foot diameter of canopy) is 11.5% of an acre), then the credits projected in the Quantification Tool may be issued. If canopy coverage is below 11.5%, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 11.5%.
d. Year 14: Project Operators must either conduct a physical tree count using plots or use imaging to determine canopy coverage at Year 6.
    i. If the canopy coverage equals or exceeds 46% (400 trees per acre with an average canopy area of 50 square feet per tree (8-foot diameter of canopy) is 46% of an acre), then the credits projected in the Quantification Tool may be issued. If canopy coverage is below 46%, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 46%.
e. Year 26: Project Operators must either conduct a physical tree count using plots or use imaging to determine canopy coverage at Year 26.
    i. If the canopy coverage equals 100% of the Project Area at project outset, the credits projected in the Clustered Parks Quantification Tool may be issued. If canopy coverage is below 100% of the Project Area, then the number of credits issued is reduced by the same percentage as the canopy coverage falls below 100%.

INSTRUCTIONS

Project Operators must complete and submit this Initial Credit Project Design Document (PDD) to request credits after the last tree in a project has been planted. City Forest Credits 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. An amendment to the Project Design Document will need to be submitted for future verification at years 4, 6, 14, and 26.

The Protocol Requirements below are a list of eligibility requirements for informational purposes which are also found in more detail in the CFC Afforestation/Reforestation Protocol Version 12, dated February 29, 2024.

Project Operators should enter data and supporting attachments starting on page 9 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:

1. Regional Map
2. Project Area Map
3. Project Area Geospatial Data (shapefile or KML file)
4. Geocoded Photos – after planting
5. Attestation of Land Ownership or Agreement to Transfer Credits
6. Attestation of Planting
7. Attestation of Planting Affirmation
8. Attestation of Additionality
9. Local Canopy Change Data
10. If applicable: Notice of Intent
11. Attestation of No Net Harm and Attestation of No Double Counting of Credits
12. No Double Counting Evidence
13. Carbon Quantification Initial Credits Tool
14. Tree Data (as appropriate per quantification method. For Cluster, list of species planted, and quantity. For Area Reforestation, list of species planted, quantity, and documentation supporting projected carbon storage)
15. Planting Design Map (for cluster ONLY – general depiction of which species were planted where)
16. I-Tree Canopy Baseline report
17. I-Tree Canopy baseline data points
18. Co-Benefit Quantification Initial Credits Tool
19. Social Impact Report
20. Project or Performance Standard Baseline
21. Quantifying Carbon Dioxide Storage and Co-Benefits for Urban Tree Planting Projects (Appendix A)

PROJECT OVERVIEW

Project Name: Deschutes River Floodplain Restoration Projects
Project Number: 062
Project Type: Planting Project (under the Afforestation and Reforestation Protocol – version 12, dated February 29, 2024)
Project Start Date: March 29, 2024
Project Location: Thurston County, WA

Project Operator Name: South Puget Sound Salmon Enhancement Group
Project Operator Contact Information: Cole Baldino, 360-464-0004, coleb@spsseg.org
Project Description

The project goals are to reconnect and reforest 12.94 acres of floodplain habitat surrounding the Deschutes River and its tributaries. South Puget Sound Salmon Enhancement Group (SPSSEG) planted native trees adjacent to the river bank all the way to the valley wall or extent of the floodway. Both landowners, a land trust and private HOA, have agreed to transfer carbon credits rights to SPSSEG as part of this carbon project.

The Site 1 planting restores 9.42 acres of riparian vegetation along the Deschutes River. Crews planted 7,650 trees and shrubs native to the site including bigleaf maple, willows, red alder, Oregon ash, and Garry oak, plus many shrub species important for wildlife forage. Within each planting circle, trees were planted approximately 15' from one another. The landownership is currently private, being owned by a land trust who is holding the protected property in perpetuity. Trees were installed from February 12 through March 29, 2024.

The Site 2 planting restores 3.52 acres of riparian buffer along Spurgeon Creek, a tributary to the Deschutes River. Crews planted 1,660 trees and shrubs native to the site including bigleaf maple, Douglas fir, willow and Western hemlock at a density of 471 plants per acre. The site was planted to shade Spurgeon Creek, provide forage and habitat for terrestrial wildlife, and as a resource for the local community. Species were installed in accordance with site conditions in order to maximize survival and foster a functional ecosystem. The landownership is currently private, being owned by a private HOA. Trees were installed from January 24 through February 2, 2022.

LOCATION (Section 1.4)

Project Location
Describe the city, town, or jurisdiction where the Project is located. State which urban location criteria is met from Protocol Section 1.4.

Both planting sites are within the planning boundaries of the Thurston Regional Planning Council, a regional metropolitan planning organization in Thurston County, Washington.

The reference parcel numbers for this project are:

- 48820000001
- 09560005000
- 21618200200

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, and indicate where trees were planted as a defined Project Area, and a legend. Include numbered filename of attachments (Ex: 1 Regional Map).

- Project Area Map
  Location of planting sites for Single Tree, boundaries of Project Area for Cluster or Area Reforestation, provide as KML, KMZ, or shapefile format
  Attachment: 1 Deschutes River Floodplain Restoration Projects Shapefiles

- Regional Map
  Attachment: 2 Deschutes River Floodplain Restoration Projects_Regional Map

- Planting Design Map
  Attachment: 3 Deschutes River Floodplain Restoration Projects_Project Area Maps

- Geo-coded Photos of Project Site, before and after planting

  Select points and take geo-coded photos that when taken together capture the newly planted trees in the Project Area. If site is rectilinear, take a photo at each of the corners. If the site is large, take photos at points along the perimeter looking into the Project Area. If necessary to capture the trees, take photos facing each of the cardinal directions while standing in the middle of the Project Area. If site is nonrectilinear, identify critical points along property boundaries and take photographs at each point facing in towards the middle of the site. Next, take photographs from the middle of the Project Area facing out at each cardinal direction. Provide photos as individual JPG files and/or embedded in a KML file.

  Attachment: 4 Deschutes River Floodplain Restoration Projects Geotagged Photos

OWNERSHIP OR ELIGIBILITY TO RECEIVE POTENTIAL CREDITS (Section 1.7)

Project Operator must demonstrate ownership of potential credits or eligibility to receive potential credits. If the Project Operator is not the same as the landowner of the Project Area, provide agreement(s) between Project Operator and landowner authorizing Project Operator to execute this project. Include relevant documentation including numbered filename as an attachment.

Name of landowner of Project Area and explanation:

If there are multiple landowners, complete the following table. If not, delete the table:

Landowner	Parcel Number	Description/Notes

		Include Project Area acres for each parcel
Center for Natural Lands Management	21618200200	6.91 acres
Center for Natural Lands Management	09560005000	2.51 acres
Fox Hill Homeowners Association	48820000001	3.52 acres
	Total Project Area	12.94

Attachment:

5a Deschutes River Floodplain Restoration Projects_Agreement to Transfer Credits_FoxHill
5b Deschutes River Floodplain Restoration Projects_Agreement to Transfer Credits_RM21

PROJECT DURATION (Section 1.3, 2.2)

Project Operator commits to the 26-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 26-year project duration and signed a Project Implementation Agreement with City Forest Credits on September 16, 2024

ATTESTATION OF PLANTING AND PLANTING AFFIRMATION (Section 3)

Complete and attach the following attestations: 1) Attestation of Planting, including supporting documentary evidence of how trees were paid for and who planted them such as invoices and event photos, 2) Attestation of Planting Affirmation, signed by a representative of a participating organization that can attest to the tree planting. Provide any additional notes as relevant.

Project Operator has signed the Attestation of Planting and provided supporting documentary evidence of planting. A participating organization in the tree planting, the Center for Natural Lands Management, signed the Planting Affirmation on March 19, 2025 and Zaldivar's Forestry Corporation has signed the Planting Affirmation on September 9, 2024.

Attachment: 6a Deschutes River Floodplain Restoration Projects_Attestation of Planting
6b Deschutes River Floodplain Restoration Projects_Attestation of Planting Affirmation_FoxHill
6c Deschutes River Floodplain Restoration Projects_Attestation of Planting Affirmation_RM21

ADDITIONALITY (Section 4)

Additionality is demonstrated by the Project in several ways, as described in the City Forest Credits Standard Section 4.9.2 and Afforestation and Reforestation Protocol. Complete and attach 1) Attestation of Additionality and 2) Project-specific baseline or Performance Standard Baseline. If Project Operator elects to use it, the Performance Standard Baseline is provided as an Attachment to this PDD.

Additionality is demonstrated by Project Operators per the Protocol in the following ways and in the Attestation of Additionality.

- Project trees are not required by law or ordinance to be planted, except for replacement trees planted in place of removed trees for specific reasons (Protocol Section 1.8). See Attestation of Planting.
- The Project did not plant trees on sites that were forested and then cleared of trees within the prior ten years (Protocol Section 1.9)
- Project trees are additional based on a project-specific baseline or the Performance Standard Baseline attached to this PDD. If the latter case, Project Operator has provided local canopy change data to support the use of the Performance Standard Baseline.
- Project Operator has signed a Project Implementation Agreement with City Forest Credits for 26 years.
- The 26-year Project Duration commitment is additional to and longer than any commitment our organization makes to non-carbon project tree plantings.
- Project Operator has signed the Attestation of Additionality.
- The revenue from the sale of carbon credits will play a material role in the successful and durable storage of Project Trees' carbon stock by providing funding that will help ensure the establishment and long-term health of Project Trees. SPSSEG will use these funds to maintain the planting by replacing mortality, removing and controlling invasive or competing species, providing water during dry months of the year and mowing grass during the growing season.

Through conversations with staff at Bonneville Environmental Foundation (BEF), SPSSEG staff became aware of carbon crediting as a way to fund long term site maintenance, a critical gap in the floodplain restoration funding system. SPSSEG has a long history of successful restoration plantings, but has been limited in their ability to maintain plantings over the long establishment period that is considered a best management practice in this field. The long-term nature of carbon crediting, and the co-benefits considered by City Forest Credits led SPSSEG to decide to join BEF in a Regional Carbon Credit Operator Program, where they enrolled a floodplain site, and BEF provided technical support and allocations for staff time to do so through a National Estuary Program grant.

Much like other areas in the United States, the Thurston Regional Planning Council boundary is losing tree cover as development continues to push out from urban centers. According to an analysis of USA NLCD Tree Canopy Cover between 2011 and 2021, the region has experienced a 0.20% absolute urban tree canopy cover loss.

Attachment: 7a_Deschutes River Floodplain Restoration Projects_Attestation of Additionality
7b_Deschutes River Floodplain Restoration Projects Baseline Canopy Analysis

PLANTING DESIGN AND CARBON QUANTIFICATION DOCUMENTATION (1.2, 10, Appendix A)

Describe the planting design and appropriate quantification method for the project – Single Tree, Clustered, or Area Reforestation. Include the project's climate zone and data collection. Outline the estimated total number of credits to be issued to the project over 26 years as well as the amount to be

issued upon successful validation and verification in Year 1. Attach the quantification tool and provide the data you have collected for Project Trees.

Total number of trees planted	9,310
Project area (acres)	12.94
Total number of trees per acre	719
Credits attributed to the project (tCO2e)	1,692
Credits after mortality deduction (30% [N/A if Area Reforestation])	N/A
Contribution to Registry Reversal Pool Account (5%) (tCO2e)	85
Total credits to be issued to the Project Operator (tCO2e)	1,607
Total credits requested to be issued in Year 1 (10% of above)	161

GHG Assertion:
Project Operator asserts that the Project results in GHG emissions mitigation of 1,607 tons CO_2e over the 26-year Project Duration. Project Operator will provide imaging of canopy growth over the Project Area, quantify tons CO_2e, and submit documentation for validation, verification, and credit issuance at Years 4, 6, 14, and 26, per the Tree Planting Protocol and Area Reforestation Planting Design and Quantification Method.

Project Operator asserts that, per Protocol guidelines, 10% of the Project GHG emissions mitigation is issued after initial tree planting, or 161 tons CO_2e.

Explanation of Planting Design:
SPSSEG used the Area Reforestation planting design and quantification method to plant 12.94-acre area and restore it to forested habitat.

The Site 1 planting restores 9.42 acres of riparian vegetation along the Deschutes River. Crews planted 7,650 trees and shrubs native to the site including bigleaf maple, willows, red alder, Oregon ash, and Garry oak, plus many shrub species important for wildlife forage. Trees and shrubs were planted in a series of dense circular patterns in order to maximize survival and simplify site maintenance. Thicket forming shrubs will grow quickly on the perimeter of these circles, providing some natural protection from herbivores to the plants in the inner areas of the planting circles. Within each planting circle, trees were planted approximately 15' from one another and shrubs were planted 4' from one another.

The Site 2 planting restores 3.52 acres of riparian buffer along Spurgeon Creek, a tributary to the Deschutes River. In 2022, crews planted 1,660 trees and shrubs native to the site including bigleaf maple, Douglas fir, willow and Western hemlock at a density of 471 plants per acre. The site was planted to shade Spurgeon Creek, provide forage and habitat for terrestrial wildlife, and as a resource for the local community. Species were installed in accordance with site conditions to maximize survival and foster a functional ecosystem.

Attachment: 8a Deschutes River Floodplain Restoration Projects_Initial Crediting Quantification
8b Deschutes River Floodplain Restoration Projects_Tree Planting Data
9a_Deschutes River Floodplain Restoration Projects_i-Tree Canopy Report_RM21
9b_Deschutes River Floodplain Restoration Projects_i-Tree Canopy Report_Fox Hill
9c_Deschutes River Floodplain Restoration Projects_Raw data_RM21
9d_Deschutes River Floodplain Restoration Projects_Raw data_Fox Hill

CO-BENEFITS QUANTIFICATION DOCUMENTATION (Section 10 and Appendix A)

Summarize co-benefit quantification per year and provide supporting documentation. The Cluster Initial Credit tool includes a Co-Benefits Quantification calculator for quantifying rainfall interception, reduction of certain air compounds, and energy savings. For Area Reforestation, the Co-benefits Quantification calculator will be provided as a separate document.

Ecosystem Services	***Resource Units***	***Value***
Rainfall Interception (m3/yr)	2,618.7	$19,227
Air Quality (t/yr)	-0.2994	$15
Cooling – Electricity (kWh/yr)	7,238	$371
Heating – Natural Gas (kBtu/yr)	26,673	$304
Grand Total ($/yr)		**$19,916**

Co-benefits were quantified using CFC's Co-Benefits Quantification Calculator. These ecosystem services represent values in avoided costs of $19,916 annually when the trees reach 25 years of age.

Attachment: 11 Deschutes River Floodplain Restoration Projects CoBenefit Calculator

ATTESTATION OF NO DOUBLE COUNTING OF CREDITS AND NO NET HARM (Section 5)

Complete and attach the following attestation: 1) Attestation of No Double Counting of Credits and Attestation of No Net Harm. Provide a map that includes both the Project Area and the closest registered urban forest afforestation or reforestation project based on the registered urban forest planting project database KML/Shapefile provided by CFC to demonstrate that the Project does not overlap with any existing urban forest carbon projects.

Project Operator has mapped the Project Trees against the registered urban forest planting project database and determined that there is no overlap of Project Area or Project Trees with any registered urban forest afforestation or reforestation carbon project.

Project Operator has signed the Attestation of No Double Counting of Credits and No Net Harm on September 16, 2024.

Attachment: 10a_Deschutes River Floodplain Restoration Projects_No Double Counting Map
10b_Deschutes River Floodplain Restoration Projects_Attestation of No Double Counting

SOCIAL IMPACTS (Section 11)

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.

SDG 14 - Life Below Water: This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the

volume of Stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. These trees will provide shade, runoff filtration and future habitat recruitment of aquatic, terrestrial and avian species. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.

SDG 13 - Climate Action: This planting first and foremost creates, as well as enhances, wildlife habitat for both aquatic and terrestrial species. The shade provided to the river will help reduce water temperatures and in turn improve water quality. This buffer will also treat pollutants in stormwater runoff before they enter the river, again improving aquatic habitat and water quality. The trees will provide future wood recruitment for aquatic habitat, as well as provide terrestrial habitat and forage food for upland and avian species.

This project takes place on the culturally significant lands of the Squaxin Island Tribe who continue to steward the landscape and thrive today. The Deschutes River is a place for harvest and sustenance for the tribal community. By improving riparian buffers, floodplain and water quality, this will have a direct benefit on the culture and health of the tribal community. The project design took into consideration planting culturally significant and first food species to support sustenance harvesting.

SDG 15 - Life on Land: This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the volume of stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.

Attachment: 12 Deschutes River Floodplain Restoration Projects_ Social Impact Report

MONITORING AND REPORTING (Section 7)

Throughout the Project Duration, the Project Operator must report on tree conditions across the Project Area through annual reports and with more detailed data at Years 4, 6, 14, and 26.

Monitoring Reports

Project Operator is required to submit an annual monitoring report on the anniversary of the date of the first Verification Report. For example, if the verification report is dated January 31, 2024, the first monitoring report will be due by January 31, 2025 and each January 31st thereafter for the duration of the project. CFC will provide the due dates for future monitoring reports to Project Operators 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.

Future Project Design Documents and Reporting

Project Operator is required to submit an updated Project Design Document at Years 4, 6, 14, and 26, as well as sampling, measurement of trees or canopy coverage, and/or quantification of CO_2e. Project

Operators will submit the updated documentation for request of credit issuance in lieu of a monitoring report that year.

Monitoring Plans

Confirm and describe your plans for annual monitoring of this project and specifics on how sampling, measurement, and imaging (see Protocol Requirements and Appendix A) will be conducted based on your project's quantification method.

Areas with existing native shrubs will be measured for growth and canopy establishment using 1/10-acre plot method at future growth monitoring timepoints (Years 4, 6, etc.). Plots will be selected randomly throughout the planting area. Trees will be counted within each 37.2-foot radius circle (1/10 acre) to determine number of trees per plot; then, multiplied by the number of trees counted by 10 to estimate trees per acre. Once trees have grown sufficiently to be visualized on aerial imagery, aerial imagery-based methods of canopy assessment may be used.

PROJECT OPERATOR SIGNATURE

Signed on May 27 in 2025, by Executive Director, Lance Winecka, for South Puget Sound Salmon Enhancement Group.

Signature

Lance Winecka

Printed Name

360 951 2129

Phone

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ATTACHMENTS

Update the attachments list as appropriate for your project.

1 Deschutes River Floodplain Restoration Projects Shapefiles
2 Deschutes River Floodplain Restoration Projects_Regional Map
3 Deschutes River Floodplain Restoration Projects_Project Area Map
4 Deschutes River Floodplain Restoration Projects Geotagged Photos
5a Deschutes River Floodplain Restoration Projects_Agreement to Transfer Credits_FoxHill
5b Deschutes River Floodplain Restoration Projects_Agreement to Transfer Credits_RM21
6a Deschutes River Floodplain Restoration Projects_Attestation of Planting
6b Deschutes River Floodplain Restoration Projects_Attestation of Planting Affirmation_FoxHill
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7a_Deschutes River Floodplain Restoration Projects_Attestation of Additionality
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9a_Deschutes River Floodplain Restoration Projects_i-Tree Canopy Report_RM21
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11 Deschutes River Floodplain Restoration Projects CoBenefit Calculator
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13 Project or Performance Standard Baseline
14 Quantifying Carbon Dioxide Storage and Co-Benefits for Urban Tree Planting Projects (Appendix A)

Attachment

PERFORMANCE STANDARD BASELINE METHODOLOGY (Standard, Section 4)

There is a second additionality methodology set out in the WRI GHG Protocol guidelines – the Performance Standard methodology. This Performance Standard essentially allows the project developer, or in our case, the developers of the protocol, to create a performance standard baseline using the data from similar activities over geographic and temporal ranges.

The common perception, particularly in the United States, is that projects must meet a project specific test. Project-specific additionality is easy to grasp conceptually. The 2014 Climate Action Reserve urban forest protocol essentially uses project-specific requirements and methods.

However, the WRI GHG Protocol clearly states that either a project-specific test or a performance standard baseline is acceptable.[1] One key reason for this is that regional or national data can give a more accurate picture of existing activity than a narrow focus on one project or organization.

Narrowing the lens of additionality to one project or one tree-planting entity can give excellent data on that project or entity, which data can also be compared to other projects or entities (common practice). But plucking one project or entity out of its regional or national context ignores all comparable regional or national data. And that regional or national data may give a more accurate standard than data from one project or entity.

By analogy: one pixel on a screen may be dark. If all you look at is the dark pixel, you see darkness. But the rest of screen may consist of white pixels and be white. Similarly, one active tree-planting organization does not mean its trees are additional on a regional basis. If the region is losing trees, the baseline of activity may be negative regardless of what one active project or entity is doing. Here is the methodology described in the WRI GHG Protocol to determine a Performance Standard baseline, together with the application of each factor to urban forestry:

Table 2.1 Performance Standard Factors

WRI Performance Standard Factor	As Applied to Urban Forestry
Describe the project activity	Increase in urban trees
Identify the types of candidates	Cities and towns, quasi-governmental entities like utilities, watersheds, and educational institutions, and private property owners
Set the geographic scope (a national scope is explicitly approved as the starting point)	Could use national data for urban forestry, or regional data
Set the temporal scope (start with 5-7 years and justify longer or shorter)	Use 4-7 years for urban forestry
Identify a list of multiple baseline candidates	Many urban areas, which could be blended mathematically to produce a performance standard baseline

[1] WRI GHG Protocol, Chapter 2.14 at 16 and Chapter 3.2 at 19.

The Performance Standard methodology approves of the use of data from many different baseline candidates. In the case of urban forestry, those baseline candidates are other urban areas.[2]

As stated above, the project activity defined is obtaining an increase in urban trees. The best data to show the increase in urban trees via urban forest project activities is national or regional data on tree canopy in urban areas. National or regional data will give a more comprehensive picture of the relevant activity (increase in urban trees) than data from one city, in the same way that a satellite photo of a city shows a more accurate picture of tree canopy in a city than an aerial photo of one neighborhood. Tree canopy data measures the tree cover in urban areas, so it includes multiple baseline candidates such as city governments and private property owners. Tree canopy data, over time, would show the increase or decrease in tree cover.

Data on Tree Canopy Change over Time in Urban Areas

The CFC quantitative team determined that there were data on urban tree canopy cover with a temporal range of four to six years available from four geographic regions. The data are set forth below:

Table 2.2 Changes in Urban Tree Canopy (UTC) by Region (from Nowak and Greenfield, 2012, see footnote 7)

City	Abs Change UTC (%)	Relative Change UTC (%)	Ann. Rate (ha UTC/yr)	Ann. Rate (m2 UTC/cap/yr)	Data Years
EAST					
Baltimore, MD	-1.9	-6.3	-100	-1.5	(2001–2005)
Boston, MA	-0.9	-3.2	-20	-0.3	(2003–2008)
New York, NY	-1.2	-5.5	-180	-0.2	(2004–2009)
Pittsburgh, PA	-0.3	-0.8	-10	-0.3	(2004–2008)
Syracuse, NY	1.0	4.0	10	0.7	(2003–2009)
Mean changes	-0.7	-2.4	-60.0	-0.3	
Std Error	0.5	1.9	35.4	0.3	
SOUTH					
Atlanta, GA	-1.8	-3.4	-150	-3.1	(2005–2009)
Houston, TX	-3.0	-9.8	−890	-4.3	(2004–2009)
Miami, FL	-1.7	-7.1	-30	-0.8	(2003–2009)
Nashville, TN	-1.2	-2.4	-300	-5.3	(2003–2008)
New Orleans, LA	-9.6	-29.2	−1120	-24.6	(2005-2009)
Mean changes	-3.5	-10.4	-160.0	-7.6	
Std Error	1.6	4.9	60.5	4.3	
MIDWEST					
Chicago, IL	-0.5	-2.7	-70	-0.2	(2005–2009)

[2] See Nowak, et al. *"Tree and Impervious Cover Change in U.S. Cities,"* Urban Forestry and Urban Greening, 11 (2012), 21-30

City	Abs Change UTC (%)	Relative Change UTC (%)	Ann. Rate (ha UTC/yr)	Ann. Rate (m2 UTC/cap/yr)	Data Years
Detroit, MI	-0.7	-3.0	-60	-0.7	(2005–2009)
Kansas City, MO	-1.2	-4.2	-160	-3.5	(2003–2009)
Minneapolis, MN	-1.1	-3.1	-30	-0.8	(2003–2008)
Mean changes	-0.9	-3.3	-80.0	-1.3	
Std Error	0.2	0.3	28.0	0.7	
WEST					
Albuquerque, NM	-2.7	-6.6	-420	-8.3	(2006–2009)
Denver, CO	-0.3	-3.1	-30	-0.5	(2005–2009)
Los Angeles, CA	-0.9	-4.2	-270	-0.7	(2005–2009)
Portland, OR	-0.6	-1.9	-50	-0.9	(2005–2009)
Spokane, WA	-0.6	-2.5	-20	-1.0	(2002–2007)
Tacoma, WA	-1.4	-5.8	-50	-2.6	(2001–2005)
Mean changes	-1.1	-4.0	-140.0	-2.3	
Std Error	0.4	0.8	67.8	1.2	

These data have been updated by Nowak and Greenfield.[3] The 2012 data show that urban tree canopy is experiencing negative growth in all four regions. The 2018 data document continued loss of urban tree cover.

Table 3 of the 2018 article shows data for all states, with a national loss of urban and community tree cover of 175,000 acres per year during the study years of 2009-2014.

To put this loss in perspective, the total land area of urban and community tree cover loss during the study years totals 1,367 square miles – equal to the combined land area of New York City, Atlanta, Philadelphia, Miami, Boston, Cleveland, Pittsburgh, St. Louis, Portland, OR, San Francisco, Seattle, and Boise.

Even though there may be individual tree planting activities that increase the number of urban trees within small geographic locations, the performance of activities to increase tree cover shows a negative baseline. The Drafting Group did not use negative baselines for the Tree Planting Protocol, but determined to use baselines of zero.

Deployment of the Performance Standard baseline methodology for a City Forest Planting Protocol is supported by conclusions that make sense and are anchored in the real world:

- With the data showing that tree loss exceeds gains from planting, new plantings are justified as additional to that decreasing canopy baseline. In fact, the negative baseline would justify as additional any trees that are protected from removal.
- Because almost no urban trees are planted now with carbon as a decisive factor, urban tree planting done to sequester carbon is additional;
- Almost no urban trees are currently planted with a contractual commitment for monitoring. Maintenance of trees is universally an intention, one that is frequently reached when budgets

[3] Nowak et al. 2018. "Declining Urban and Community Tree Cover in the United States," *Urban Forestry and Urban Greening,* 32, 32-55

are cut, as in the Covid-19 era. The 25-year commitment required by this Protocol is entirely additional to any practice in place in the U.S. and will result in substantial additional trees surviving to maturity;

- Because the urban forest is a public resource, and because public funding falls far short of maintaining tree cover and stocking, carbon revenues will result in additional trees planted or in maintenance that will result in additional trees surviving to maturity;
- Because virtually all new large-scale urban tree planting is conducted by governmental entities or non-profits, or by private property developers complying with governmental regulations (which would not be eligible for carbon credits under our protocol), and because any carbon revenues will defray only a portion of the costs of tree planting, there is little danger of unjust enrichment to developers of city forest carbon projects.

Last, The WRI GHG Protocol recognizes explicitly that the principles underlying carbon protocols need to be adapted to different types of projects. The WRI Protocol further approves of balancing the stringency of requirements with the need to encourage participation in desirable carbon projects:

Setting the stringency of additionality rules involves a balancing act. Additionality criteria that are too lenient and grant recognition for "non-additional" GHG reductions will undermine the GHG program's effectiveness. On the other hand, making the criteria for additionality too stringent could unnecessarily limit the number of recognized GHG reductions, in some cases excluding project activities that are truly additional and highly desirable. In practice, no approach to additionality can completely avoid these kinds of errors. Generally, reducing one type of error will result in an increase of the other. Ultimately, there is no technically correct level of stringency for additionality rules. GHG programs may decide based on their policy objectives that it is better to avoid one type of error than the other.[4]

The policy considerations weigh heavily in favor of "highly desirable" planting projects to reverse tree loss for the public resource of city forests.

[4] WRI GHG Protocol, Chapter 3.1 at 19.

Attachment 12

QUANTIFYING CARBON DIOXIDE STORAGE AND CO-BENEFITS FOR URBAN TREE PLANTING PROJECTS (Appendix A)

Introduction

Ecoservices provided by trees to human beneficiaries are classified according to their spatial scale as global and local (Costanza 2008) (citations for Part Two are listed in References). Removal of carbon dioxide (CO_2) from the atmosphere by urban forests is global because the atmosphere is so well-mixed it does not matter where the trees are located. The effects of urban forests on building energy use is a local-scale service because it depends on the proximity of trees to buildings.

To quantify these and other ecoservices City Forest Credits (CFC) has relied on peer-reviewed research that has combined measurements and modeling of urban tree biomass, and effects of trees on building energy use, rainfall interception, and air quality. CFC has used the most current science available on urban tree growth in its estimates of CO_2 storage (McPherson et al., 2016a). CFC's quantification tools provide estimates of co-benefits after 25 years in Resource Units (i.e., kWh of electricity saved) and dollars per year. Values for co-benefits are first-order approximations extracted from the i-Tree Streets (i-Tree Eco) datasets for each of the 16 U.S. reference cities/climate zones (https://www.itreetools.org/tools/i-tree-eco) (Maco and McPherson, 2003). Modeling approaches and error estimates associated with quantification of CO_2 storage and co-benefits have been documented in numerous publications (see References below) and are summarized here.

Carbon Dioxide Storage

Project Operators must use one of three different methods for quantifying carbon dioxide (CO2) storage in urban forest carbon projects. Selection of the quantification method depends on the planting project design:

- Single Tree Method - trees planted in a dispersed or scattered design and that are planted at least 10 feet apart (i.e. street trees). This method requires tracking of individual trees and tree survival for sampling and quantification.
- Clustered Method - to trees planted at least 10 feet apart but are relatively contiguous and designed to create canopy over an area (i.e park-like settings). This method requires tracking change in canopy, not individual tree survival
- Area Reforestation Method – tree planting areas greater than 5 acres and where many trees are planted closer than 10 feet. Higher tree mortality is expected and the goals are to create canopy and a forest ecosystem. Project Operators have several quantification models to choose from, all of which produce a carbon index on a per-acre basis.

In all cases, the estimated amount of CO2 stored 26-years after planting is calculated. The forecasted amount of CO2 stored during this time is the value from which the Registry issues ex ante Carbon Forward Removal Credits.TM

To ensure performance of the credits, the Registry issues Carbon Forward Removal Credits at five times during the 26-year Project Duration:

- 10% after planting
- 30% in Year 4, after sampling and mortality check or imaging and calculating canopy
- 30% in Year 6, after sampling and mortality check or imaging and calculating canopy

- 10% in Year 14, after measuring sampled trees or imaging and calculating canopy and
- "True-up" credits at the end of the initial Project Duration in Year 26, when CO2e is quantified from tree measurement and final credits are issued for CO2e stored minus credits already issued.

The mortality checks at Years 4 and 6 correspond to nationality mortality data that shows increased survival rates after three years and six years.

The Registry will issue 95% of Project Credits earned and will hold 5% of total credits in the Registry's Reversal Pool Account. This 5% Reversal Pool Account deduction is applied in all three quantification methods before calculation of any crediting, with these funds going into a program-wide pool to insure against unavoidable reversals due to catastrophic loss of trees.

All ex-ante Carbon Forward Removal Credits convert to ex post City Forest Carbon+ Credits at Year 26 and are marked in the registry of credits.

Scientific Basis for Carbon Dioxide Quantification

Estimates of stored (amount accumulated over many years) and sequestered CO_2 (i.e., net amount stored by tree growth over one year) are based on the U.S. Forest Service's recently published technical manual and the extensive Urban Tree Database (UTD), which catalogs urban trees with their projected growth tailored to specific geographic regions (McPherson et al. 2016a, b). The products are a culmination of 14 years of work, analyzing more than 14,000 trees across the United States. Whereas prior growth models typically featured only a few species specific to a given city or region, the newly released database features 171 distinct species across 16 U.S. climate zones. The trees studied also spanned a range of ages with data collected from a consistent set of measurements. Advances in statistical modeling have given the projected growth dimensions a level of accuracy never before seen. Moving beyond just calculating a tree's diameter or age to determine expected growth, the research incorporates 365 sets of tree growth equations to project growth.

Users select their climate zone from the 16 U.S. climate zones (Fig. 1). Calculations of CO_2 stored are for a representative species for each tree-type that was one of the predominant street tree species per reference city (Peper et al., 2001). The "Reference city" refers to the city selected for intensive study within each climate zone (McPherson, 2010). About 20 of the most abundant species were selected for sampling in each reference city. The sample was stratified into nine diameter at breast height (DBH) classes (0 to 7.6, 7.6 to 15.2, 15.2 to 30.5, 30.5 to 45.7, 45.7 to 61.0, 61.0 to 76.2, 76.2 to 91.4, 91.4 to 106.7, and >106.7 cm). Typically 10 to 15 trees per DBH class were randomly chosen. Data were collected for 16 to 74 trees in total from each species. Measurements included: species name, age, DBH [to the nearest 0.1 cm (0.39 in)], tree height [to the nearest 0.5 m (1.64 ft.)], crown height [to the nearest 0.5 m (1.64 ft.)], and crown diameter in two directions [parallel and perpendicular to nearest street to the nearest 0.5 m (1.64 ft.)]. Tree age was determined from local residents, the city's urban forester, street and home construction dates, historical planting records, and aerial and historical photos.

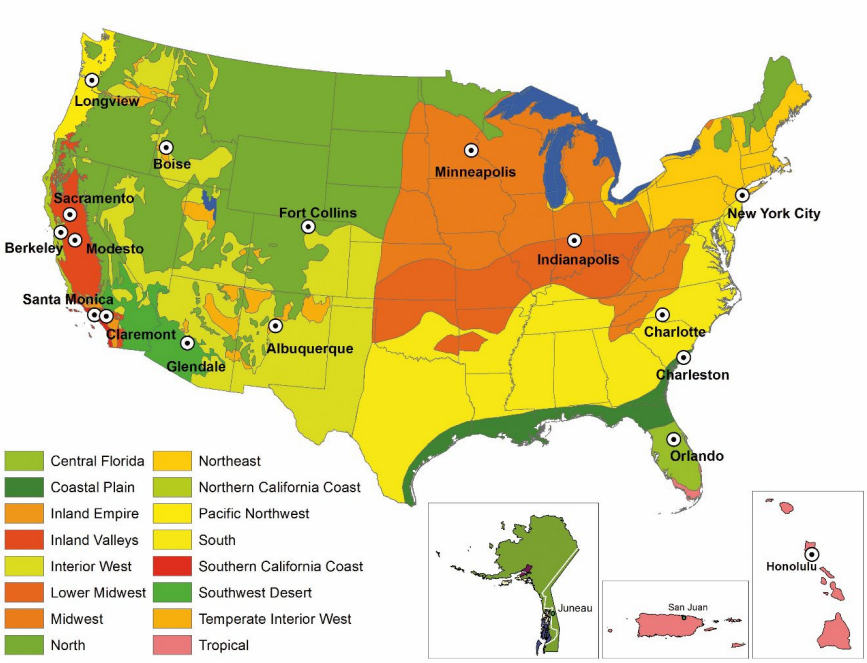

Figure 1. Climate zones of the United States and Puerto Rico were aggregated from 45 Sunset climate zones into 16 zones. Each zone has a reference city where tree data were collected. Sacramento, California was added as a second reference city (with Modesto) to the Inland Valleys zone. Zones for Alaska, Puerto Rico and Hawaii are shown in the insets (map courtesy of Pacific Southwest Research Station).

Species Assignment by Tree-Type

Representative species for each tree-type in the South climate zone (reference city is Charlotte, NC) are shown in Table 1. They were chosen because extensive measurements were taken on them to generate growth equations, and their mature size and form was deemed typical of other trees in that tree-type. Representative species were not available for some tree-types because none were measured. In that case, a species of similar mature size and form from the same climate zone was selected, or one from another climate zone was selected. For example, no Broadleaf Evergreen Large (BEL) species was measured in the South reference city. Because of its large mature size, *Quercus nigra* was selected to represent the BEL tree-type, although it is deciduous for a short time. *Pinus contorta*, which was measured in the PNW climate zone, was selected for the CES tree-type, because no CES species was measured in the South.

Table 1. Nine tree-types and abbreviations. Representative species assigned to each tree-type in the South climate zone are listed. The biomass equations (species, urban general broadleaf [UGB], urban general conifer [UGC]) and dry weight density (kg/m^3) used to calculate biomass are listed for each tree-type.

Tree-Type	Tree-Type Abbreviation	Species Assigned	DW Density	Biomass Equations
Brdlf Decid Large (>50 ft)	BDL	*Quercus phellos*	600	*Quercus macrocarpa* [1.]
Brdlf Decid Med (30-50 ft)	BDM	*Pyrus calleryana*	600	UGB [2.]
Brdlf Decid Small (<30 ft)	BDS	*Cornus florida*	545	UGB [2.]
Brdlf Evgrn Large (>50 ft)	BEL	*Quercus nigra*	797	UGB [2.]

Brdlf Evgrn Med (30-50 ft)	BEM	*Magnolia grandiflora*	523	UGB [2]
Brdlf Evgrn Small (<30 ft)	BES	*Ilex opaca*	580	UGB [2]
Conif Evgrn Large (>50 ft)	CEL	*Pinus taeda*	389	UGC [2]
Conif Evgrn Med (30-50 ft)	CEM	*Juniperus virginiana*	393	UGC [2]
Conif Evgrn Small (<30 ft)	CES	*Pinus contorta*	397	UGC [2]

[1] from Lefsky, M., & McHale, M.,2008.
[2] from Aguaron, E., & McPherson, E. G., 2012

Calculating Biomass and Carbon Dioxide Stored

To estimate CO_2 stored, the biomass for each tree-type was calculated using urban-based allometric equations because open-growing city trees partition carbon differently than forest trees (McPherson et al., 2017a). Input variables included climate zone, species, and DBH. To project tree size at 25-years after planting, we used DBH obtained from UTD growth curves for each representative species.

Biomass equations were compiled for 26 open-grown urban trees species from literature sources (Aguaron and McPherson, 2012). General equations (Urban Gen Broadleaf and Urban Gen Conifer) were developed from the 26 urban-based equations that were species specific (McPherson et al., 2016a). These equations were used if the species of interest could not be matched taxonomically or through wood form to one of the urban species with a biomass equation. Hence, urban general equations were an alternative to applying species-specific equations because many species did not have an equation.

These allometric equations yielded aboveground wood volume. Species-specific dry weight (DW) density factors (Table 1) were used to convert green volume into dry weight (7a). The urban general equations required looking up a dry weight density factor (in Jenkins et al. 2004 first, but if not available then the Global Wood Density Database). The amount of belowground biomass in roots of urban trees is not well researched. This work assumed that root biomass was 28% of total tree biomass (Cairns et al., 1997; Husch et al., 2003; Wenger, 1984). Wood volume (dry weight) was converted to C by multiplying by the constant 0.50 (Leith, 1975), and C was converted to CO_2 by multiplying by 3.667.

Error Estimates and Limitations

The lack of biometric data from the field remains a serious limitation to our ability to calibrate biomass equations and assign error estimates for urban trees. Differences between modeled and actual tree growth adds uncertainty to CO_2 sequestration estimates. Species assignment errors result from matching species planted with the tree-type used for biomass and growth calculations. The magnitude of this error depends on the goodness of fit in terms of matching size and growth rate. In previous urban studies the prediction bias for estimates of CO_2 storage ranged from -9% to +15%, with inaccuracies as much as 51% RMSE (Timilsina et al., 2014). Hence, a conservative estimate of error of ± 20% can be applied to estimates of total CO_2 stored as an indicator of precision.

Co-Benefit: Energy Savings

Trees and forests can offer energy savings in two important ways. In warmer climates or hotter months, trees can reduce air conditioning bills by keeping buildings cooler through reducing regional air temperatures and offering shade. In colder climates or cooler months, trees can confer savings on the fuel needed to heat buildings by reducing the amount of cold winds that can strip away heat.

Energy conservation by trees is important because building energy use is a major contributor to greenhouse gas emissions. Oil or gas furnaces and most forms of electricity generation produce CO_2 and other pollutants as by-products. Reducing the amount of energy consumed by buildings in urban areas is one of the most effective methods of combatting climate change. Energy consumption is also a costly burden on many low-income families, especially during mid-summer or mid-winter. Furthermore, electricity consumption during mid-summer can sometimes over-extend local power grids leading to rolling brownouts and other problems.

Energy savings are calculated through numerical models and simulations built from observational data on proximity of trees to buildings, tree shapes, tree sizes, building age classes, and meteorological data from McPherson et al. (2017) and McPherson and Simpson (2003). The main parameters affecting the overall amount of energy savings are crown shape, building proximity, azimuth, local climate, and season. Shading effects are based on the distribution of street trees with respect to buildings recorded from aerial photographs for each reference city (McPherson and Simpson, 2003). If a sampled tree was located within 18 m of a conditioned building, information on its distance and compass bearing relative to a building, building age class (which influences energy use) and types of heating and cooling equipment were collected and used as inputs to calculate effects of shade on annual heating and cooling energy effects. Because these distributions were unique to each city, energy values are considered first-order approximations.

In addition to localized shade effects, which were assumed to accrue only to trees within 18 m of a building, lowered air temperatures and windspeeds from increased neighborhood tree cover (referred to as climate effects) can produce a net decrease in demand for winter heating and summer cooling (reduced wind speeds by themselves may increase or decrease cooling demand, depending on the circumstances). Climate effects on energy use, air temperature, and wind speed, as a function of neighborhood canopy cover, were estimated from published values for each reference city. The percentages of canopy cover increase were calculated for 20-year-old large, medium, and small trees, based on their crown projection areas and effective lot size (actual lot size plus a portion of adjacent street and other rights-of-way) of 10,000 ft^2 (929 m^2), and one tree on average was assumed per lot. Climate effects were estimated by simulating effects of wind and air-temperature reductions on building energy use.

In the case of urban Tree Preservation Projects, trees may not be close enough to buildings to provide shading effects, but they may influence neighborhood climate. Because these effects are highly site-specific, we conservatively apply an 80% reduction to the energy effects of trees for Preservation Projects.

Energy savings are calculated as a real-dollar amount. This is calculated by applying overall reductions in oil and gas usage or electricity usage to the regional cost of oil and gas or electricity for residential customers. Colder regions tend to see larger savings in heating and warmer regions tend to see larger savings in cooling.

Error Estimates and Limitations

Formulaic errors occur in modeling of energy effects. For example, relations between different levels of tree canopy cover and summertime air temperatures are not well-researched. Another source of error stems from differences between the airport climate data (i.e., Los Angeles International Airport) used to model energy effects and the actual climate of the study area (i.e., Los Angeles urban area). Because of

the uncertainty associated with modeling effects of trees on building energy use, energy estimates may be accurate within ± 25 percent (Hildebrandt & Sarkovich, 1998).

Co-Benefit: Rainfall Interception

Forest canopies normally intercept 10-40% of rainfall before it hits the ground, thereby reducing stormwater runoff. The large amount of water that a tree crown can capture during a rainfall event makes tree planting a best management practice for urban stormwater control.

City Forest Credits uses a numerical interception model to calculate the amount of annual rainfall intercepted by trees, as well as throughfall and stem flow (Xiao et al., 2000). This model uses species-specific leaf surface areas and other parameters from the Urban Tree Database. For example, deciduous trees in climate zones with longer "in-leaf" seasons will tend to intercept more rainfall than similar species in colder areas shorter foliation periods. Model results were compared to observed patterns of rainfall interception and found to be accurate. This method quantifies only the amount of rainfall intercepted by the tree crown, and does not incorporate surface and subsurface effects on overland flow.

The rainfall interception benefit was priced by estimating costs of controlling stormwater runoff. Water quality and/or flood control costs were calculated per unit volume of runoff controlled and this price was multiplied by the amount of rainfall intercepted annually.

Error Estimates and Limitations

Estimates of rainfall interception are sensitive to uncertainties regarding rainfall patterns, tree leaf area and surface storage capacities. Rainfall amount, intensity and duration can vary considerably within a climate zone, a factor not considered by the model. Although tree leaf area estimates were derived from extensive measurements on over 14,000 street trees across the U.S. (McPherson et al., 2016a), actual leaf area may differ because of differences in tree health and management. Leaf surface storage capacity, the depth of water that foliage can capture, was recently found to vary threefold among 20 tree species (Xiao & McPherson, 2016). A shortcoming is that this model used the same value (1 mm) for all species. Given these limitations, interception estimates may have uncertainty as great as ± 20 percent.

Co-Benefit: Air Quality

The uptake of air pollutants by urban forests can lower concentrations and affect human health (Derkzen et al., 2015; Nowak et al., 2014). However, pollutant concentrations can be increased if the tree canopy restricts polluted air from mixing with the surrounding atmosphere (Vos et al., 2013). Urban forests are capable of improving air quality by lowering pollutant concentrations enough to significantly affect human health. Generally, trees are able to reduce ozone, nitric oxides, and particulate matter. Some trees can reduce net volatile organic compounds (VOCs), but others can increase them through natural processes. Regardless of the net VOC production, urban forests usually confer a net positive benefit to air quality. Urban forests reduce pollutants through dry deposition on surfaces and uptake of pollutants into leaf stomata.

A numerical model calculated hourly pollutant dry deposition per tree at the regional scale using deposition velocities, hourly meteorological data and pollutant concentrations from local monitoring stations (Scott et al., 1998). The monetary value of tree effects on air quality reflects the value that society places on clean air, as indicated by willingness to pay for pollutant reductions. The monetary value of air quality effects were derived from models that calculated the marginal damage control costs

of different pollutants to meet air quality standards (Wang and Santini 1995). Higher costs were associated with higher pollutant concentrations and larger populations exposed to these contaminants.

Error Estimates and Limitations

Pollutant deposition estimates are sensitive to uncertainties associated with canopy resistance, resuspension rates and the spatial distribution of air pollutants and trees. For example, deposition to urban forests during warm periods may be underestimated if the stomata of well-watered trees remain open. In the model, hourly meteorological data from a single station for each climate zone may not be spatially representative of conditions in local atmospheric surface layers. Estimates of air pollutant uptake may be accurate within ± 25 percent.

Conclusions

Our estimates of carbon dioxide storage and co-benefits reflect an incomplete understanding of the processes by which ecoservices are generated and valued (Schulp et al., 2014). Our choice of co-benefits to quantify was limited to those for which numerical models were available. There are many important benefits produced by trees that are not quantified and monetized. These include effects of urban forests on local economies, wildlife, biodiversity and human health and well-being. For instance, effects of urban trees on increased property values have proven to be substantial (Anderson & Cordell, 1988). Previous analyses modeled these "other" benefits of trees by applying the contribution to residential sales prices of a large front yard tree (0.88%) (McPherson et al., 2005). We have not incorporated this benefit because property values are highly variable. It is likely that co-benefits reported here are conservative estimates of the actual ecoservices resulting from local tree planting projects.

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Attachments

Agreement to Collaborate

Attestation of Land Ownership

Project Area Map

Regional Area Map

Attestation of Planting

Attestation of Planting Affirmation

Attestation of No Double Counting and No Net Harm

Attestation of Additionality

Carbon Quantification Initial Credit Tool

Tree Planting Data

Social Impacts

Agreement to Collaborate

Project Implementation Agreement

This Project Implementation Agreement ("Agreement") is entered into as of 16 of September, 2024 (the "Effective Date"), by and between the Urban Forest Carbon Registry, doing business as City Forest Credits, a Washington nonprofit corporation ("Registry") and South Puget Sound Salmon Enhancement Group, a 501(c)(3) non-profit organization (the "Parties").

South Puget Sound Salmon Enhancement Group is the "Project Operator" of the Deschutes River Floodplain Restoration Projects (Registry project number "062") ("Project"). The Project may consist of several sites, one of which is located in and along the boundary of Olympia, WA. The owner of the Property for the site submitted is the Center for Natural Lands Management, a 501(c)3 ("Property Owner").

Definitions

Greenhouse Gas (GHG): Greenhouse gases are gases in the earth's atmosphere that trap heat.

Project Operator (PO): Entity who undertakes a Project, registers it with the registry of City Forest Credits, and is ultimately responsible for key aspects of the Project and its reporting.

Carbon Stock: Carbon is used as a shortened form of carbon dioxide equivalent or $CO_2(e)$.

CFC Carbon Protocol or Protocol: The comprehensive set of rules and requirements developed by City Forest Credits, including quantification methodologies, monitoring, and reporting for Projects.

Registry or City Forest Credits: National nonprofit carbon registry that establishes standards for quantifying and verifying GHG emission reduction and removal in urban forest projects, and issues and tracks the transfer and retirement of credits in a secure online database.

Project Duration or Project Crediting Period: Defines the time period for which a project's GHG reductions or removals are valid and eligible to be verified for credits.

Credit Tracking System: City Forest Credits issues and tracks credits through transfer, retirement, or cancellation in a Registry Database of credits ("Registry Database").

City Forest Carbon Forward Removal Credits™: A unit representing one metric ton of CO2e.

Credit Registry: A registry with publicly available information to uniquely identify offset projects. The registry is a system to transparently track ownership of offsets which makes it possible to trace each credit back to the project from which it originated. Serial numbers for each offset credit are generated by each project.

Third Party Validation or Verification Body: An organization or individual that has been approved by City Forest Credits to perform validation or verification activities for specific Protocols.

Verification Report: a report verifying the level of assurance, the objectives, scope, and criteria, the data and information supporting the GHG assertion, and the conclusion including any qualifications or limitations.

Reversal Buffer Pool of Credits or Reversal Pool Account: A pool of credits maintained by the Registry to compensate for Unavoidable Reversals.

Recitals

A. The Registry is a nonprofit organization that establishes standards in protocols for the:
(i) development and implementation of projects that seek to sequester greenhouse gas ("GHG") emissions and provide other benefits, such as storm water reductions, air quality benefits, and energy savings ("co-benefits") from tree planting and tree preservation on land in metropolitan areas ("City Forest Carbon Projects"),
(ii) calculation of GHG emission sequestration and co-benefits by City Forest Carbon Projects and
(iii) verification of GHG emission sequestration and co-benefits produced by City Forest Carbon Projects. The Registry also issues carbon credits known as Carbon Removal Forward Credits ("Credits" or "Credit"), per the Registry's protocols. In addition, the Registry tracks the issuance, transfer, and retirement of Carbon+ Credits over time in a secure database.

B. The Registry has developed an Afforestation and Reforestation Protocol. This Afforestation and Reforestation Protocol Version 12, dated February 29, 2024, (the "Protocol") is incorporated herein, and all terms used in the Protocol have the same meaning here.

C. Project Operator is a 501(c)3 organization established through legislature in 1991 with the addition of the Chinook salmon to the Endangered Species List. SPSSEG receives base funding through license and excess egg and carcass sales. The organization is dedicated to protecting and restoring salmon populations and aquatic habitat with an emphasis on ecosystem function through scientifically informed projects, community education, and volunteer involvement.

D. Project Operator has applied to the Registry to conduct a tree planting project under the Registry's Afforestation and Reforestation Protocol.

E. This Agreement sets forth certain rights, obligations, and restrictions relating to the Project, Project Operator, and the Registry to ensure that Project Operator remains in compliance with the Protocol and this Agreement for the Project Duration, as defined in the Protocol, and any extensions thereof.

Agreement

NOW, THEREFORE, in consideration of the mutual covenants, terms, conditions, and restrictions contained herein, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. **Obligations.** Project Operator shall fulfill all Project Operator obligations for the Project and comply with all responsibilities and requirements in this Agreement and the Protocol. The Registry shall fulfill all of its obligations and comply with all responsibilities and requirements in both this Agreement and the Protocol.

2. **Issuance of City Forest Carbon+ Credits.** The Registry shall issue City Forest Carbon Forward Removal Credits™ ("Credits" or "Credit") to Project Operator per the process set forth in the Protocol, and subject to the provisions of this Agreement. When it issues Credits to Project Operator, the Registry's Credit Tracking System will mark those Credits as "Issued and Held." This will denote that the Credits have been issued to and in the name of Project Operator but not released to Project Operator. When Project Operator has paid fees due under Section 8, the Registry's Credit Tracking System will release these Issued and Held Credits to Project Operator and mark them as "Issued and Released" in its Credit Registry.

Project Operator shall have the right to control, transfer, or retire Credits only after those Credits are marked by the Registry as "Issued and Released" to Project Operator. "To retire" a Credit or "retiring" a Credit means to transfer that Credit to a designated status for retirement in the Registry's Credit Tracking System via written request to the Registry. Retirement status signifies that the Owner and Transferor of the Credit has counted or used that Credit for its greenhouse gas accounting and holds no more rights, ownership or otherwise, to that Credit.

Project Operator shall report any transfer or retirement of Credits to the Registry so that the Registry's Credit Tracking System reflects the current ownership and status of the Credits.

3. **Obligations of Project Operator on a Reversal in this Planting Project.** Without limiting the applicability or generality of anything else in the Agreement, Project Operator understands and agrees to its obligations under Section 8 of the Protocol on reversals.

4. **Verification.** The Registry shall obtain within four (4) months of receipt of a completed Request for Third Party Verification and Credits ("Request for Credits"), a Verification Report from a Third-Party Verifier regarding the Project Operator's Request for Credits.

5. **Project Operator's Right to Transfer or Assign Rights and Obligations.** This Agreement shall be binding upon the Parties' transferees and assigns. Project Operator may transfer, assign, delegate, or contract out ("Transfer") rights or obligations under this Agreement and the Protocol, provided Project Operator and Transferee agree to comply with each of the following (a) through (d):

(a) The Transferee receiving or assuming rights or obligations agrees to assume and be bound by this Agreement and the Protocol without modification or amendment, unless the Registry, in its sole discretion, agrees in writing to a modification or amendment.

(b) Any Transfer of Rights or Obligations of this Agreement in violation of this Section 5 shall be void.

(c) Project Operator, Transferee, and Registry shall all execute a written agreement setting forth the terms of the Transfer ("Transfer Agreement").

(d) Any future transfers by a Transferee shall comply with this Section 5.

The sale, transfer, or retirement of Credits after such credits have been Issued and Released to Project Operator shall not be construed as a Transfer under this Section 5.

6. **Data, Monitoring, and Access Rights of the Registry.** The Registry shall have the right to request any and all data and documentation related to the Project. If physical access to the Property is requested by the Registry, Project Operator shall grant such access during its next regular visit to the Property, or its next allowable visit under any terms of Project Operator's agreement with the Property Owner, provided that those visits are at least fifteen (15) days from the Registry's request for access.

7. **Project Operator Holds No Rights to, Ownership of or Control over the Reversal Pool Account of Credits.** The Registry holds all rights to, ownership of and control over the Reversal Pool Account of Credits (sometimes referred to verbally as the Insurance Pool or Back-Up Pool). Notwithstanding any other terms in this Agreement or the Protocol, nothing in this Agreement or the Protocol shall give Project Operator any right to, ownership of or control over the Registry's Reversal Pool Account of Credits.

8. **Registry Fees.**
The Registry is a non-profit organization and is committed to making its services available affordably. The Registry charges fees to ensure that it can continue to advance its mission and provide carbon opportunities to Project Operator and other urban forest organizations.

(a) Application Fee. All Parties acknowledge that Project Operator has paid or agrees to pay to the Registry an "Application Fee" of $1,500.00 for the Project.

(b) Validation and Third-Party Verification Fees. All Parties acknowledge that Project Operator has paid or agrees to pay to the Registry a "Validation and Verification Fee" based on the quantification method used in the Project. See Exhibit A for the Fee Schedule.

(c) Registry Ledger Account Fee. All Parties acknowledge that Project Operator agrees to pay to the Registry a "Registry Ledger Account Fee" of $1,000.00 for access to the Registry's online credit ledger database. This is a one-time fee allowing continual ledger access for this and all projects the Project Operator may generate.

(d) Fees for Issuance of Credits or Project Funding. Project Operator also agrees to pay an "Issuance Fee" to the Registry of **the greater of** 1) $4.00 for every Credit from this Project sold by Project Operator or 2) 10% of the gross sales price of any Credits from this Project sold by the Project Operator. "Gross sales price" means the total amount the credits are sold for including commissions or fees paid by the Project Operator. This fee shall be due and payable within twenty-one (21) business days of the Project Operator receipt of any payment for the sale, transfer, or retirement of Credits or receipt of any funding for the project. The Project Operator shall notify the Registry within seven (7) business days of the Project Operator's receipt of any payment for the sale, transfer, or retirement of Credits or receipt

of any funding for the project. The Registry will, pursuant to Section 2, mark Credits as "Issued and Held" until it receives payment of fees under this section. Within twenty-one (21) business days of receipt of payment under this section, the Registry will mark the Credits as "Issued and Released."

(e) Fee if Credits are Pre-Sold. If Project Operator pre-sells the Credits before the Credits are issued, and if Project Operator receives any proceeds from the pre-sale of the Credits, the Registry's fee under Section 8(b) above is due and payable by Project Operator within thirty (30) business days of its receipt of any proceeds from the pre-sale of Credits or of the signing of this Project Implementation Agreement, whichever is later. When this subsection 8(e) applies and the Registry has received payment of the fee, then the Registry will mark credits as "Issued and Released" within fourteen (14) business days of receiving the Verification Report for those credits.

(f) The Registry may withhold Credits until any amounts due are paid. The Registry may also stop work on the Project if Project Operator does not pay any fees due.

9. **Representations and Warranties of Project Operator.** As of the Effective Date, and continuing for the Term of this Agreement, including any extensions thereof, Project Operator represents and warrants that:

(a) All reports, statements, certificates, and other data provided by Project Operator to the Registry in connection with the Protocol, this Agreement, the Property and the Project are true, correct, and complete;

(b) Project Operator owns in fee, holds easement rights to the properties in this Project, or has or will secure before receiving any credits a written agreement with the property owner that Project Operator has the rights to develop, receive, and sell or transfer any Credits issued for preservation of trees and forest soils on these properties;

(c) The signatories of this Agreement have the authority to execute this Agreement on behalf of Project Operator, and this Agreement and the Protocol are binding on and enforceable against Project Operator;

(d) Project Operator has authority and regulatory and other consents, approvals and authorizations necessary for it to legally: (i) enter into and perform the obligations, duties and responsibilities of this Agreement and (ii) engage in all activity, including, without limitation, the creation and transfer of Credits, relating to this Agreement and the Protocol.

10. **Representations and Warranties of Registry.** As of the Effective Date, and continuing for the Term of this Agreement, including any extensions thereof, Registry represents and warrants that:

(a) Registry will obtain a Third-Party Verification report as set forth in Section 4 of this Agreement.

(b) Registry shall maintain a project registry at its website. That project registry shall display Project Operator's Project and the status of its credits for public viewing.

(c) Registry shall maintain the Afforestation Protocol referenced in sub-section B of the Recitals as the Protocol applicable to the Project. Registry shall consider in good faith any revisions to that Protocol after signing this Agreement, if Project Operator proposes revisions.

11. **Term of this Agreement.** The Agreement shall be effective as of the date hereof (the "Effective Date") and shall continue in full force and effect through the Project Duration as defined in the Protocol and applied to this Project. The Parties may extend this Agreement per the Protocol beyond this initial Project Duration.

Some or all provisions of this Agreement may be terminated under Section 12.

12. **Termination of Certain Provisions of this Agreement.** The parties may terminate Sections 1 through 10 of the Agreement if any one of the "Termination Events" in sub-sections (a) through (b) of this Section 12 occur. Termination of Sections 1 through 10 under this section shall be referred to as "Termination." Termination Events are:

(a) The Registry determines in its reasonable discretion that Project Operator has failed to comply with Protocol requirements. If the Registry so determines, it will provide written notice to Project Operator, upon delivery of which Project Operator shall have sixty (60) days to satisfy the Registry that Project Operator has cured any non-compliance and is in compliance with all Protocol requirements. If Project Operator does satisfy the Registry that it is in compliance with the Protocol, Termination will not occur.

(b) Project Operator provides the Registry with sixty (60) days' notice of Project Operator's intent to terminate under this Section 12 ("Termination Notice") and retires the same number of Credits that have been "Issued and Released" to Project Operator for this Project.

Termination under this Section 12 does not cure, obviate, or eliminate any breach, nor does it constitute any acceptance, acquiescence, or waiver of any breach. Remedies survive termination, subject to dispute resolution under Section 14.

13. **Dispute Resolution.** Any dispute regarding any aspect of this Agreement or the Project, including any remedy, shall be submitted to mediation in Seattle, WA by an agreed upon mediator. If mediation is unsuccessful, then any dispute shall be submitted to arbitration in Seattle, WA before an experienced arbitrator selected by mutual agreement. The decision of the arbitrator shall be the exclusive remedy for any dispute, conclusive and binding upon the Parties. Should any Party to this Agreement pursue any dispute by any method other than said arbitration, the responding Party shall be entitled to recover from the initiating Party all damages, costs, expenses and attorney fees incurred as a result of such action or proceeding.

14. **Indemnification and Hold Harmless.** To the fullest extent permitted by law, the Parties shall indemnify, defend, and hold harmless each other, their Boards of Directors, elected officials, agents and employees, as well as the State of Washington, its officials, agents and employees from and against all claims for injuries or death, losses or suits including attorney fees arising out of or resulting from the indemnifying party's performance of this agreement.

15. **Notices.** All notices, instructions, requests, or other communications required or permitted under this Agreement or the Protocol ("Notice") shall be in writing and sent by (i) certified or registered

mail, return receipt requested, postage prepaid, (ii) overnight delivery service or (iii) personal delivery to the parties identified below.

16. **Entire Agreement.** This Agreement, including any exhibits attached hereto, and the Protocol, represent the entire agreement of the Parties with respect to the Protocol, this Agreement, the Property and the Project. This Agreement and the Protocol supersede any conflicting terms in any prior or contemporaneous oral or written agreements and all other communications.

17. **Force Majeure.** "Force Majeure" means an event or circumstance which prevents or substantively hinders a Party (the "Claiming Party") from performing its obligations under this Agreement; *provided, that*, such event or circumstance is not within the reasonable control of, or the result of negligence or willful misconduct by, the Claiming Party. Force Majeure shall include, without limitation, the following events or circumstances: acts of God; fire; flood; earthquake; war; extreme weather; explosions; pandemics or epidemics; acts of terrorism; governmental regulation; market conditions beyond the control of either Party that render credits economically unviable or unsaleable. Notwithstanding the foregoing, Force Majeure shall not include Unavoidable Reversals, which are provided for in Section 8 of the Protocol. Reversals are also referenced in Section 3 of this Agreement.

If a Claiming Party is rendered unable, wholly or in part, by Force Majeure to carry out its obligations with respect to this Agreement, then the obligations of the Claiming Party will, to the extent, and only to the extent, they are affected by such Force Majeure event, be suspended during the period of time that the Force Majeure event renders the Claiming Party unable, wholly or in part, to carry out its obligations. The Claiming Party must promptly give written notice and full particulars of such Force Majeure event to the other Party as soon as practical after the occurrence of such Force Majeure event.

18. Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of Washington without reference to any conflict of laws principles that would require the application of the laws of any other jurisdiction.

19. **Counterparts.** This Agreement may be executed in one or more counterparts, and all of the counterparts shall constitute but one and the same agreement.

20. **Modification and Amendment.** This Agreement may not be amended, supplemented, or modified unless such amendment, supplement, or modification is in writing and signed by both the Registry and the Project Operator.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first written above.

[insert Project Operator name]		Urban Forest Carbon Registry, DBA City Forest Credits	
Name:	Lance Winecka	Name:	Mark McPherson
Title:	SPSSEG E.D.	Title:	Executive Director
Address:	6700 Martin Way E 112 Olympia WA 98516	Address:	PO Box 20396 Seattle, WA 98102
Phone:	360 951 2124	Phone:	(206) 909-1415
Email:	lancew@spsseg.org	Email:	mark@cityforestcredits.org
Signature:		Signature:	Mark McPherson
Date:	9-16-24	Date:	9/18/24

Exhibit A
Fee Schedule

Type of Fee	Amount	Due
Application Fee	$1,500	Invoiced by CFC after CFC Application Approval Letter and executed Project Implementation Agreement
Validation and Verification Fee: • Single Tree Quantification Method, less than 5,000 trees	• $750 after planting • $750 at Year 4 • $750 at Year 6 • $2,000 at Year 14 • $6,000 at Year 26. Total for all credit issuances is $10,250 over 26 years	Invoiced by CFC after verification and before each credit issuance
Validation and Verification Fee: • Single Tree Quantification Method, between 5,000 and 10,000 trees • Cluster Method or Area Reforestation Method, planting less than 50 acres or a single location	• $1,000 after planting • $1,000 at Year 4 • $1,000 at Year 6 • $3,000 at Year 14 • $6,000 at Year 26 Total for all credit issuances is $12,000 over 26 years	Invoiced by CFC after verification and before each credit issuance
Validation and Verification Fee: • Single Tree Quantification Method, more than 10,000 trees • Cluster Method or Area Reforestation Quantification Method, more than 50 acres or many locations	• $1,000 after planting • $1,500 at Year 4 • $1,500 at Year 6 • $5,000 at Year 14 • $7,500 at Year 26 Total for all credit issuances is $16,500 over 26 years	Invoiced by CFC after verification and before each credit issuance
Project Operator Registry Ledger Account Fee	$1,000	Invoiced by CFC after first credit sale, applicable only for first time opening a Project Operator Account
Credit Issuance Fee	Greater of $4 per credit or 10% of the gross sales price of credits	Net 21 after Project Operator receives proceeds from any sale

Attestation of Land Ownership

Return Address:
South Puget Sound Salmon Enhancement Group
Attn: Cole Baldino
6700 Martin Way E # 112
Olympia, WA 98516

Thurston County Treasurer

Real Estate Excise Tax Paid None

By _____ Deputy

Deschutes River Floodplain Restoration Projects
Agreement to Transfer Potential Credits

Grantors: City Forest Credits
Grantees: South Puget Sound Salmon Enhancement Group
Abbreviated Legal Description: Tract "B" Plat Fox Hill TRA See Exhibit
Assessor's Property Tax Parcel Number(s): 48820000001

This Agreement to Transfer Potential Credits ("Agreement") is entered into this fifth day of September, 2024 (the "Effective Date") by the Fox Hill Home Owners Association (the "Landowner") and the South Puget South Salmon Enhancement Group a 501(c)3 (the "Project Operator") whose mission is to protect and restore salmon populations and aquatic habitat with an emphasis on ecosystem function and who has undertaken an afforestation or reforestation project ("Tree Project") on the Property of Landowner (the "Property").

1. Purpose and Intent

Project Operator and Landowner desire to help Project Operator fund this Tree Project by allowing Project Operator to develop potential carbon and environmental credits that it can attempt to sell to defray project costs or to plant additional trees. The Landowner will receive the benefits of the trees planted in this project at little to no cost to the Landowner.

These potential carbon or environmental credits or offsets include amounts of carbon dioxide stored, stormwater runoff reductions, energy savings, and air quality benefits arising from the planting and growth of trees in the Tree Project ("City Forest Carbon Forward Removal Credits" or "Credits"). The Credits will be developed using the protocols and registry of City Forest Credits, a non-profit organization ("CFC").

2. Rights Granted

Landowner grants Project Operator the title and rights to any and all Credits developed from the Tree Project during the term of this agreement, including rights to register with CFC, and develop and sell the Credits.

3. Subject Lands

The Property specified in Exhibit A.

9-5-2024

5030731 Pages: 6
09/26/2024 10:56 AM Agreement
Thurston County Washington
SO PUGET SOUND SALMON ENHANCEMENT GROUP

4. Obligations of Landowner

Landowner shall not cut, harvest, or damage trees in the Tree Project except in cases of emergency involving fire or flooding or to mitigate hazard if trees are identified as a hazard by a certified arborist.

5. Obligations of Project Operator

Project Operator will pay all costs and assume all responsibilities for development and sale of Credits from the Tree Project.

6. Landowner Representations

Landowner represents that it has authority to enter this agreement, and that the Property is free from any liens, claims, encumbrances, tenancies, restrictions, or easements that would prevent or interfere with the rights to Credits granted under this Agreement.

7. Project Operator Representations

Project Operator represents that it has the capacities necessary to execute its obligations under this agreement.

8. Default

If either party is in default of this agreement, the other party may notify the defaulting party of the specific nature of the default. The defaulting Party has 30 days from the date of notice to correct the default. If the default is not corrected in 30 days, the non-defaulting party may cancel this agreement. Notice of cancellation shall be delivered in writing to the current contact address of the defaulting party.

9. Term of Agreement and Option to Renew

This Agreement shall remain in force for 26 years after the Effective Date of the Agreement. Project Operator may renew this Agreement for a second 26 years if it delivers written notice of renewal to Landowner at least 90 days prior to expiration of this Agreement.

10. Governing Law

This agreement shall be construed and enforced in accordance with the laws of the State of Washington

11. Parties

Project Operator	
Name:	Cole Baldino
Title:	Salmon Habitat Restoration Manager
Address:	6700 Martin Way E, Ste 112 Olympia, WA 98516
Phone:	360-464-0004
Email:	coleb@spsseg.org
Signature:	

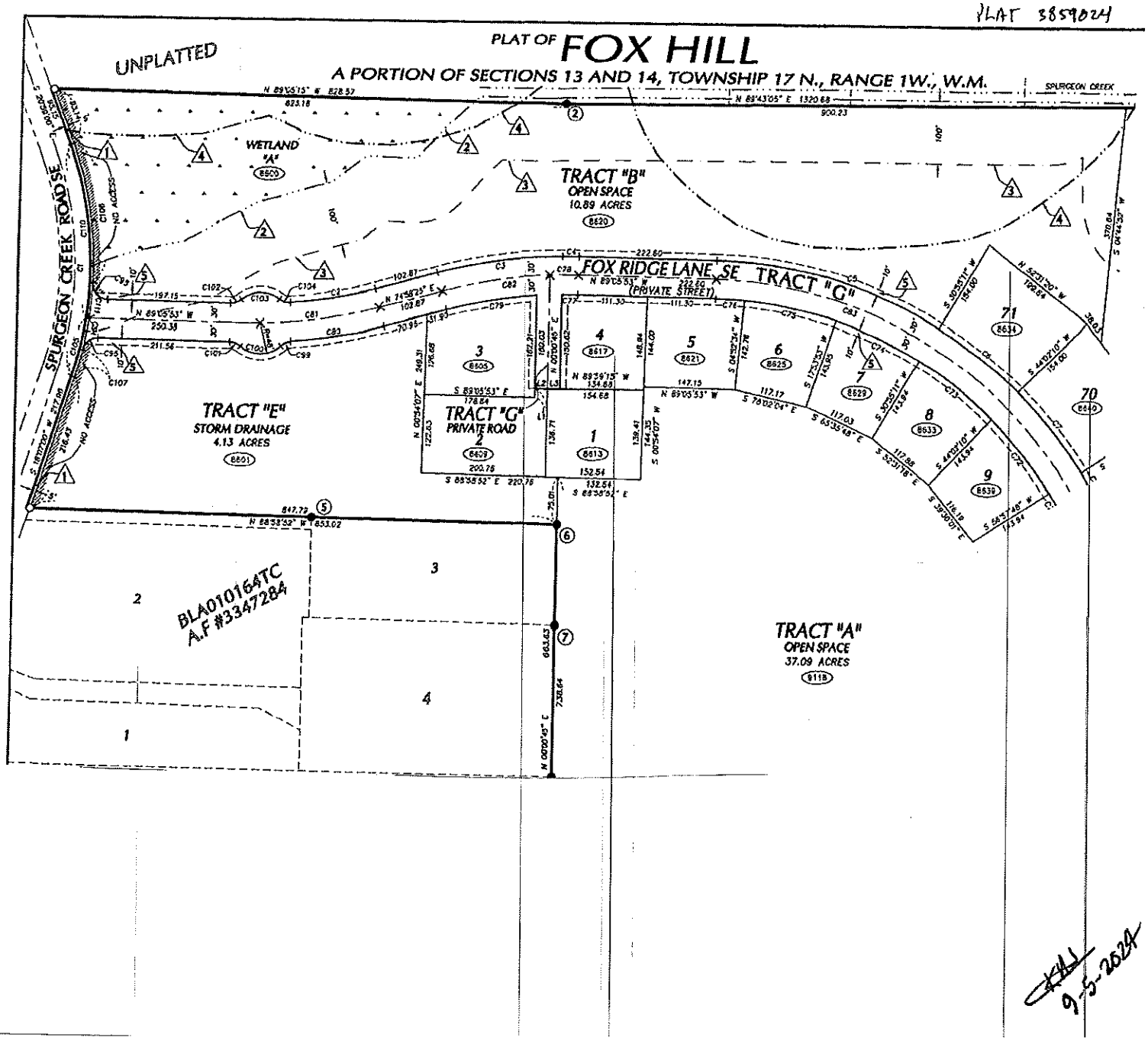
Landowner	
Name:	Kenneth A Hoedeman
Title:	President, Fox Hill HOA
Address:	8922 Fox Ridge Lane SE, Olympia, WA 98513
Phone:	678-677-5792
Email:	KAHoedeman@hotmail.com
Signature:	Kenneth A. Hoedeman

9-5-2024

Exhibit A

Legal Description of Property

A portion of Sections 13 and 14, Township 17 N., Range1W., W.M. Fox Hill Development Tract "B" Open Space of approximately 10 acres. See sheet 3 of 8 of plat 3859024, as shown below.



Project Area Map

Return Address:
South Puget Sound Salmon Enhancement Group
Attn: Cole Baldino
6700 Martin Way E # 112
Olympia, WA 98516

Deschutes River Floodplain Restoration Projects
Agreement to Transfer Potential Credits

Abbreviated Legal Description:
18-16-IE E2 NW & GOV LS 1&2 LY NLY RR R/W EX PTN DAF: BEG CL SEC & N LN RR R/W, N 208.25F; SWLY PARALLEL TO RR R/W TO RIVER, S ALG CL RIVER TO N LN RR R/W; NELY ALG
And
LINKLITER DC PTN NKA TR B AMEND BLA-0635 EX PTN SLY RIVER 7/159

Assessor's Property Tax Parcel Number(s): 21618200200 and 09560005000

This Agreement to Transfer Potential Credits ("Agreement") is entered into this ___th day of April, 2025 (the "Effective Date") by the Center for Natural Lands Management, a California 501(c)(3) nonprofit corporation authorized to conduct business in Washington State (the "Landowner") and the South Puget Sound Salmon Enhancement Group, a Washington State 501(c)3 nonprofit corporation (the "Project Operator"), whose mission is to protect and restore salmon populations and aquatic habitat with an emphasis on ecosystem function and has undertaken an afforestation or reforestation project ("Tree Project") on the property of Landowner known as the Deschutes Prairie Preserve and designated as Assessor's Property Tax Parcel Number(s) 21618200200 and 09560005000 (the "Property"), described in Exhibit A and depicted in Exhibit B.

1. Purpose and Intent

Project Operator and Landowner desire to fund the Tree Project and other maintenance and restoration efforts on the Property by allowing Project Operator to develop potential carbon and environmental credits that it can attempt to sell to fund planting of additional trees and other maintenance and restoration efforts on the Property.

These potential carbon or environmental credits or offsets include amounts of carbon dioxide stored, stormwater runoff reductions, energy savings, and air quality benefits arising from the planting and growth of trees in the Tree Project ("City Forest Carbon Forward Removal Credits" or "Credits"). The Credits will be developed using the protocols and registry of City Forest Credits, a non-profit organization ("CFC").

2. Rights Granted

Landowner grants Project Operator the title and rights to any and all Credits developed from the Tree Project during the term of this agreement, including rights to register with CFC, and develop and sell the Credits.

3. Obligations of Landowner

Landowner shall not cut, harvest, or damage trees in the Tree Project except in cases of emergency involving fire or flooding or to mitigate hazard if trees are identified as a hazard by a certified arborist. Landowner shall use any funds received from Project Operator from the sale of Credits for the Tree Project to plant additional trees or perform other maintenance or restoration work on the Property.

4. Obligations of Project Operator

Project Operator will pay all costs and assume all responsibilities for development and sale of Credits from the Tree Project. When Project Operator sells Credits from the Tree Project, Project Operator shall transfer funds received from the sale of such credits to Landowner.

5. Landowner Representations

Landowner represents that it has authority to enter this agreement, and that the Property is free from any liens, claims, encumbrances, tenancies, restrictions, or easements that would prevent or interfere with the rights to Credits granted under this Agreement.

6. Project Operator Representations

Project Operator represents that it has the capacities necessary to execute its obligations under this agreement.

7. Default

If either party is in default of this agreement, the other party may notify the defaulting party of the specific nature of the default. The defaulting Party has 30 days from the date of notice to correct the default. If the default is not corrected in 30 days, the non-defaulting party may cancel this agreement. Notice of cancellation shall be delivered in writing to the current contact address of the defaulting party.

8. Term of Agreement and Option to Renew

This Agreement shall remain in force for 26 years after the Effective Date of the Agreement. Project Operator may renew this Agreement for a second 26 years if it delivers written notice of renewal to Landowner at least 90 days prior to expiration of this Agreement and if Landowner consents to renewal.

9. Governing Law

This agreement shall be construed and enforced in accordance with the laws of the State of Washington

10. Parties

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized representatives.

Landowner **CENTER FOR NATURAL LANDS MANAGEMENT**	
Name:	Deborah L. Rogers
Title:	Co-Executive Director
Address:	27258 Via Industria, Ste. B Temecula, CA 92590
Phone:	760-731-7790
Email:	drogers@cnlm.org
Signature:	
Date:	April 25, 2025

Project Operator **SOUTH PUGET SOUND SALMON ENHANCEMENT GROUP**	
Name:	Cole Baldino
Title:	Salmon Habitat Restoration Manager
Address:	6700 Martin Way E, Ste 112 Olympia, WA 98516
Phone:	360-464-0004
Email:	coleb@spsseg.org
Signature:	
Date:	May • 7 • 2025

Exhibit A

Legal Description of Property

PARCEL 1:

PARCEL B OF BOUNDARY LINE ADJUSTMENT NO. BLA-08102972TC, AS RECORDED MAY 19, 2008 UNDER AUDITOR FILE NO. 4011186.
(Tax Parcel 21618200200)

PARCEL 2:

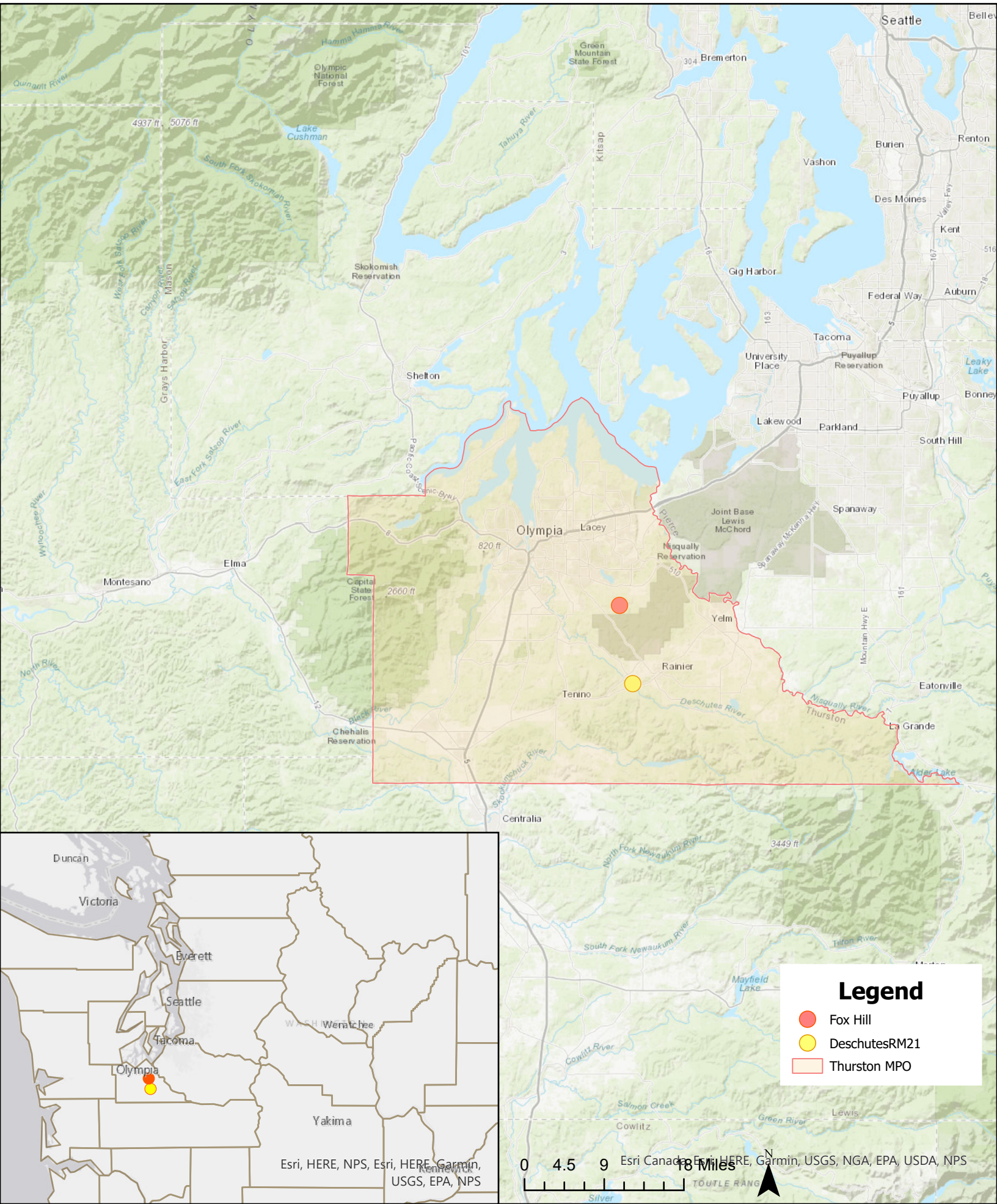
PARCEL B OF BOUNDARY LINE ADJUSTMENT NO. BLA-0635 AS RECORDED AUGUST 22, 1988 UNDER FILE NO. 8808220010 AND AS AMENDED SEPTEMBER 2, 1988, UNDER FILE NO. 8809020017; EXCEPT THAT PORTION LYING SOUTHERLY OF THE CENTERLINE OF THE DESCHUTES RIVER; ALSO EXCEPTING A TRACT OF APPOXIMATELY 5 ACRES BEING PORTION OF LINKLITER DONATION CLAIM NO. 40, TOWNSHIP 16 NORTH, RANGE 1 WEST W.M., DESCRIBED AS COMMENCING AT A POINT LOCATED ON THE SOUTHWESTERLY LINE OF PARCEL A OF BLA-0635 AS IT INTERSECTS WITH THE EXISTING CENTERLINE OF THE DESCHUTES RIVER; THENCE CONTINUING IN A EASTERLY DIRECTION ALONG THE CENTERLINE OF THE RIVER 200 FEET; THENCE IN A NORTHWESTERLY DIRECTION 1090 FEET IN A LINE PARALLEL WITH THE AFOREMENTIONED SOUTHWESTERLY BOUNDARY OF PARCEL A OF BLA-0635; THENCE IN A SOUTHWESTERLY DIRECTION PARALLEL TO THE NORTHWEST BOUNDARY OF SAID PARCEL TO SAID SOUTHWESTERLY LINE; THENCE SOUTHEASTERLY TO THE POINT OF BEGINNING.
(Tax Parcel 09560005000)

Exhibit B

Map of Property

Regional Area Map

Regional Map: Deschutes River Floodplain Restoration Projects



Attestation of Planting

CITY FOREST CREDITS

Deschutes River Floodplain Restoration Projects
Project Operator Attestation of Planting

I, the undersigned Project Operator for the Planting Project named Deschutes River Floodplain Restoration Projects, located at parcels: 48820000001, 09560005000, and 21618200200 and submitted to City Forest Credits by application dated June 12th, 2024, attest to the following in order to confirm the planting of trees under this Project:

- Trees planted were not required by any law or ordinance to be planted;
- Trees were planted under this project on the following date (s): January 24-February 2, 2022 and February 12-March 29, 2024;
- The organizations or groups that participated in the planting event(s) are listed in the attached documents;
    - Zaldivar's Forestry Co
    - The Center of Natural Lands Management
- Planting events are shown in photos attached, which can include photos of tree stock and planting activities;
- The number of trees planted by species are, to a reasonable certainty, 9,310 trees planted across 12.94-acres.

These planting numbers are confirmed by one or more of the following supporting and attached documents:

1. Invoices for trees planted, or
2. Invoices or a statement from the party who funded the tree purchase or supplied the trees attesting to the number of trees purchased, or
3. Any reporting to the owner or public body regarding the planting, invoices, costs, or other data regarding the planting, or
4. Any other reliable estimate of trees planted that is approved by the Registry

Signed on September 16th in 2024, by Lance Winecka, Executive Director for The South Puget Sound Salmon Enhancement Group.

Signature

Lance Winecka

Printed Name

360 951 2129

Phone

Lancew@spsseg.org

Email

Attachment A – Photos

Exhibit B – Invoices

The following documents represent the majority of invoices for trees planted as part of this project. All invoices are on file with the South Puget Sound Salmon Enhancement Group.

5652 Sand Road
Bellingham, WA 98226
Phone: 360-592-2250
sales@fourthcornernurseries.com
www.fourthcornernurseries.com

Fourth Corner
Nurseries

ACKNOWLEDGEMENT

Order No.	20230
Reference No.	

Tax Exempt No.: No RP

BILL TO:

South Puget Sound Salmon En Grp
6700 Martin Way E - #112
Olympia, WA 98516

Tel: 360-412-0808
Contact: Harold Schimdt (A/P)

SHIP TO:

South Puget Sound Salmon En Grp
10048 WA-507
Rainier, WA 98576

Tel: 360-412-0808
Contact: Cole Baldino

Ordered	Ship Date	Carrier	P.O. Number	Salesperson	Terms
09/01/23	01/07/24	Oak Harbor	Deschutes River Projects		Net 30

Quantity		Description	Unit Price	Extended Price
ORDER	ACKN			
400	400	Acer macrophyllum 18-36" PugetLowland	$1.69	$676.00
200	200	Alnus rubra miniplug+1 12-18" 4.05	$1.69	$338.00
150	150	Alnus rubra P-1 4.05	$1.80	$270.00
350	350	Amelanchier alnifolia 3-6" PugetLowland	$1.26	$441.00
100	100	Amelanchier alnifolia 1 gallon PugetLowland	$5.50	$550.00
500	500	Corylus cornuta spp. californica 18-36" PugetLowland	$2.05	$1,025.00
200	200	Corylus cornuta spp. californica 1 gallon PugetLowland	$8.00	$1,600.00
300	300	Cornus sericea 12-18" PugetLowland	$1.42	$426.00
450	450	Fraxinus latifolia 12-18" PugetLowland	$1.01	$454.50
250	250	Fraxinus latifolia 18-36" transplant PugetLowland	$1.80	$450.00
600	600	Holodiscus discolor 1 gallon PugetLowland	$5.50	$3,300.00
350	350	Mahonia aquifolium 18-36" PugetLowland	$1.80	$630.00
0	600	Oemleria cerasiformis 12-18" PugetLowland sub for 18-36"	$1.01	$606.00
600	0	Oemleria cerasiformis 18-36" PugetLowland	$1.07	$0.00
200	200	Frangula purshiana 6-12" PugetLowland	$1.42	$284.00
400	400	Rosa nutkana 18-36" transplant PugetLowland	$1.70	$680.00
300	300	Symphoricarpos albus 18-36" PugetLowland	$1.69	$507.00

-

Washington Association of Conservation Districts
Plant Materials Center
16564 Bradley Road
Bow, WA 98232

Phone: 360-757-1094
Sales: pmcsales@gmx.com
Accounting: wacd@ncia.com

SALES ORDER

Sales Order Number: 24-141
Sales Order Date: September 18, 2023
Ship Date: January 9, 2024
Page: 1

Please do not pay from the sales order. An invoice will be sent.

Sold To:	Ship To:
South Puget Sound Salmon Enhancement 6700 Martin Way East, Suite 112 Olympia, WA 98513	South Puget Sound Salmon Enhancement 10048 WA-507 Rainier, WA 98576

ID	Customer	PO Number	Distribution Method	Phone	Sales Manger
SO192	Cole Baldino	SPSSEG Deschutes Riv	UPS	360-464-0004	Jacquie Gauthier

Quantity	Description	Price	Amount
100	Big Leaf Maple (Acer macrophyllum) WW, 1-0, 18"+ (10)	1.50	150.00
300	Black Cottonwood (Populus balsamifera ssp. trichocarpa) WW, 1-0, 12"+ (10)	1.30	390.00
200	Cascara (Rhamnus purshiana) WW, 1-0, 12"+ (25)	1.40	280.00
100	Oregon Ash (Fraxinus latifolia) OR, 1-0, 12"+ (25)	1.40	140.00
150	Oregon White Oak (Quercus garryana) WW, 2-0, 12"+ (10) - Lewis County	1.60	240.00
400	Pacific Ninebark (Physocarpus capitatus) WW, 1-0, 12"+ (25) - Lewis County	1.40	560.00
150	Red Alder (Alnus rubra) WW, 1-0, 12"+ (25)	1.40	210.00
300	Red Osier Dogwood (Cornus sericea) WW, 1-0, 12"+ (25)	1.40	420.00
150	Salmonberry (Rubus spectabilis) WW, 1-0, 12"+ (25)	1.40	210.00
150	Serviceberry (Amelanchier alnifolia) WW, 1-0, 12"+ (25) - Lewis County	1.40	210.00
300	Black Cottonwood (Populus balsamifera ssp. trichocarpa) Thurston WW, 3' cutting	1.20	360.00
200	Hooker Willow (Salix hookeriana) WW, 3' cutting	1.20	240.00
300	Pacific Willow (Salix lucida ssp. lasiandra) WW, 3' cutting	1.20	360.00
300	Sitka Willow (Salix sitchensis) WW, 3' cutting	1.20	360.00

Comments

Orders cancelled after December 1st are subject to 25% restocking fee. A storage fee maybe be charged for any orders delayed five days or more from the requested pickup/shipping date. Multiple pick-ups or shipments will be charged a packaging fee. See Terms and Conditions for additional information.

Subtotal	4,130.00
Sales Tax	334.53
TOTAL ORDER AMOUNT	**4,464.53**

Updated -9/18/23 1:42 PM

Fourth Corner Nurseries

Nursery: 5652 Sand Road
Bellingham, WA 98226
Phone: (360) 592-2250
Fax: (888) 506-1236
Email: sales@fourthcornernurseries.com
Web: www.fourthcornernurseries.com

Remit Payment: 5757 Sand Road, Bellingham, WA 98226

CONFIRMATION

#	SI-17587
Date:	3/8/2022
Page	1

SOLD TO

South Puget Sound Salmon En. Grp
c/o: Brian Combs
6700 Martin Way E, Suite 112
Olympia, WA 98516
Ph. (360) 951-4661

SHIP TO

South Puget Sound Salmon En. Grp
c/o: Brian Combs
Zaldivars Forestry Corp.
Centralia, WA 98531
Ph. (360) 951-4661

Ordered	Ship Date	Customer PO#	Salesperson	Terms	Ship Via	Job Name
9/9/2021	not confirmed	Spurgeon	siona	COD	UPS	

Qty. Ordered	Available	Description	Origin	Size	Unit Price	Extended Price
100	100	Acer macrophyllum - Big Leaf Maple	02-PugetL	12-18"	$1.35	$135.00

Fourth Corner Nurseries
5652 Sand Rd
Bellingham, WA 98226
360-592-2250
275200089140-02

09/24/2021 16:01

Sale

Trans #: 8 Batch #: 839

MASTERCARD Manual
**********5318 ******

AMOUNT: $37.00

Resp: CAPTURE
Code: 06179C
Ref #: 00111548
CVC Rsp: M-CVC2 Matches
AVS Rsp: Y-ADDRESS AND POSTAL CODE MATCH

9-24-21
Brian od
dep $37.00
credit card
- cm

Plant Total:	$135.00
Packaging:	$0.00
Shipping:	$0.00
Subtotal:	$135.00
9.2 % Sales Tax:	$12.42
Total:	$147.42
Amount Paid:	$37.00
Total Due:	$110.42

Signature _____ **Date** _____

PLEASE NOTE: Total does not include cost of shipping. Plants will only be held beyond April 1st with full payment. Storage and maintenance fees shall apply. Availability and size are subject to growing conditions beyond our control.
We cannot unconditionally guarantee your order and will refund your deposit in the event of a crop failure.

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

DEMO

Webster Forest Nursery
Mail Stop (MS) 47017
Olympia WA 98504-7017
360 902-1234 | 877 890-2626 | FAX 360 664-0963

TREE SEEDLING ORDER CONFIRMATION / INVOICE

Sold To: **South Puget Sound Salmon Enhancement Group** **Brian Combs** **6700 Martin Way E** **Ste 112** **Olympia, WA 98516** Phone:	Ship To: **Same as Sold To Address**

Order Number:	Order Date:	To Be Shipped:	Paid:
14757	**9/9/2021**	**P/U at Nursery**	

Nursery Code	Species	Stock Type	Cntn Type	Zone	Elev	Quantity	# Bags	Price / Tree	Tax	Total Cost
PU20-003	Douglas Fir	1+1		Kitsap	1000-2000	600	5	0.53	✓	$315.00
PU20-027	W Redcedar	P+1	2A	Twin Harbors	0-2000	150	1	0.62	✓	$92.70
					Total Quantity:	750	6			$407.70

Date	Check #	Payee	Amount
10/14/2021	105953	South Puget Sound Salmon Enhancement Group	2,144.36

Comments:

Spurgeon Creek

Seedlings:	$407.70
Special Charges:	$0.00
Parcel Post if Applicable:	$0.00
Sales Tax:	$32.62
Order Total:	**$440.32**
Payments:	$2,144.36
Current Balance:	($1,704.04)
Amount Due:	**($1,704.04)**

Terms: Payment due 30 days after order or at time of pick up, whichever comes first.

Orders subject to cancellation without notice if not paid in full.

9/9/2021: Original order #14757 of 2,450 seedlings + Shipping = $2,144.36

10/14/2021: Payment received for order #14757: $2,144.36

1/21/2022:
Quantities: 750 seedlings for Spurgeon Creek. Total cost: $440.32 Final Total #91 Spurgeon (RBC 3-17-2022)

2/11/2022: Pickup scheduled on 2/15/2022 in lieu of shipping. Quantities: 1700 seedlings for Ohop Creek.
Total cost: $1,085.61
Final Total Lower Ohop Maintenance
110 Nisqually Land Trust
(RBC 3-17-2022)

Revised cost: $1,525.93: Refund in process for $618.43

AL - NO REFUNDS

98504-7017

Attestation of Planting Affirmation

CITY FOREST CREDITS

Deschutes River Floodplain Restoration Projects
Attestation of Planting Affirmation

I, the undersigned working on behalf of Zaldivar's Forestry attest and confirm that tree planting(s) occurred on the following dates under the project named in the City Forest Credits Registry Deschutes River Floodplain Restoration Projects: Fox Hill HOA Planting by the Project Operator, the South Puget Sound Salmon Enhancement Group.

Trees were planted under this project on the following date(s): February 2022 – March 2022

The approximate number of trees planted is: 1,660

Signed on September 9th in 2024, by Sabrina Hoffman, for Zaldivar's Forestry Corp.

Signature

Sabrina Hoffman

Printed Name

360 489 8950

Phone

office@zaldivars.com

Email

Deschutes River Floodplain Restoration Projects
Attestation of Planting Affirmation

I, the undersigned working on behalf of the Center of Natural Lands Management attest and confirm that tree planting(s) occurred on the following dates under the project named in the City Forest Credits Registry Deschutes River Floodplain Restoration Projects: Deschutes Prairie (River Mile 21) Restoration Project by the Project Operator, the South Puget Sound Salmon Enhancement Group.

Trees were planted under this project on the following date(s): February 2024 – March 2024

The approximate number of trees planted is: 7,650

Signed on March 19 in 2025, by Sanders Freed the pacific Northwest Preserve/Restoration Manger, for the Center of Natural Lands Management.

Signature

Sanders Freed

Printed Name

360-451-6696

Phone

sfreed@cnlm.org

Email

Attestation of No Double Counting and No Net Harm

CITY FOREST CREDITS

Deschutes River Floodplain Restoration Projects
Attestation of No Double Counting of Credits and No Net Harm

I am the Executive Director of the South Puget Sound Salmon Enhancement Group and make this attestation regarding no double counting of credits and no net harm from this tree planting project, Deschutes River Floodplain Restoration Projects.

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

The South Puget Sound Salmon Enhancement Group has not and will not seek credits for CO_2 for the project trees or for this project from any other organization or registry issuing credits for CO_2 storage.

3. No Double Counting by Seeking Credits for the Same Trees or Same CO_2 Storage

The South Puget Sound Salmon Enhancement Group has not and will not apply for a project including the same trees as this project nor will it seek credits for CO_2 storage for the project trees or for this project in any other project or more than once. The South Puget Sound Salmon Enhancement Group has checked the location of the Project Area against registered urban forest carbon afforestation and reforestation projects. Project Operator has determined that there is no overlap of Project Area or Project Trees with any registered urban forest carbon afforestation and reforestation project.

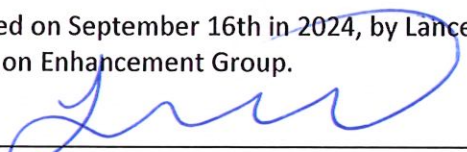
4. No Net Harm

The trees planted in this project will produce many benefits, as described in our Application and PDD. Like almost all urban trees, the project trees are planted not for harvest but for the benefits they deliver to people, communities, and the environment as living trees 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 September 16th in 2024, by Lance Winecka, Executive Director for The South Puget Sound Salmon Enhancement Group.



Signature

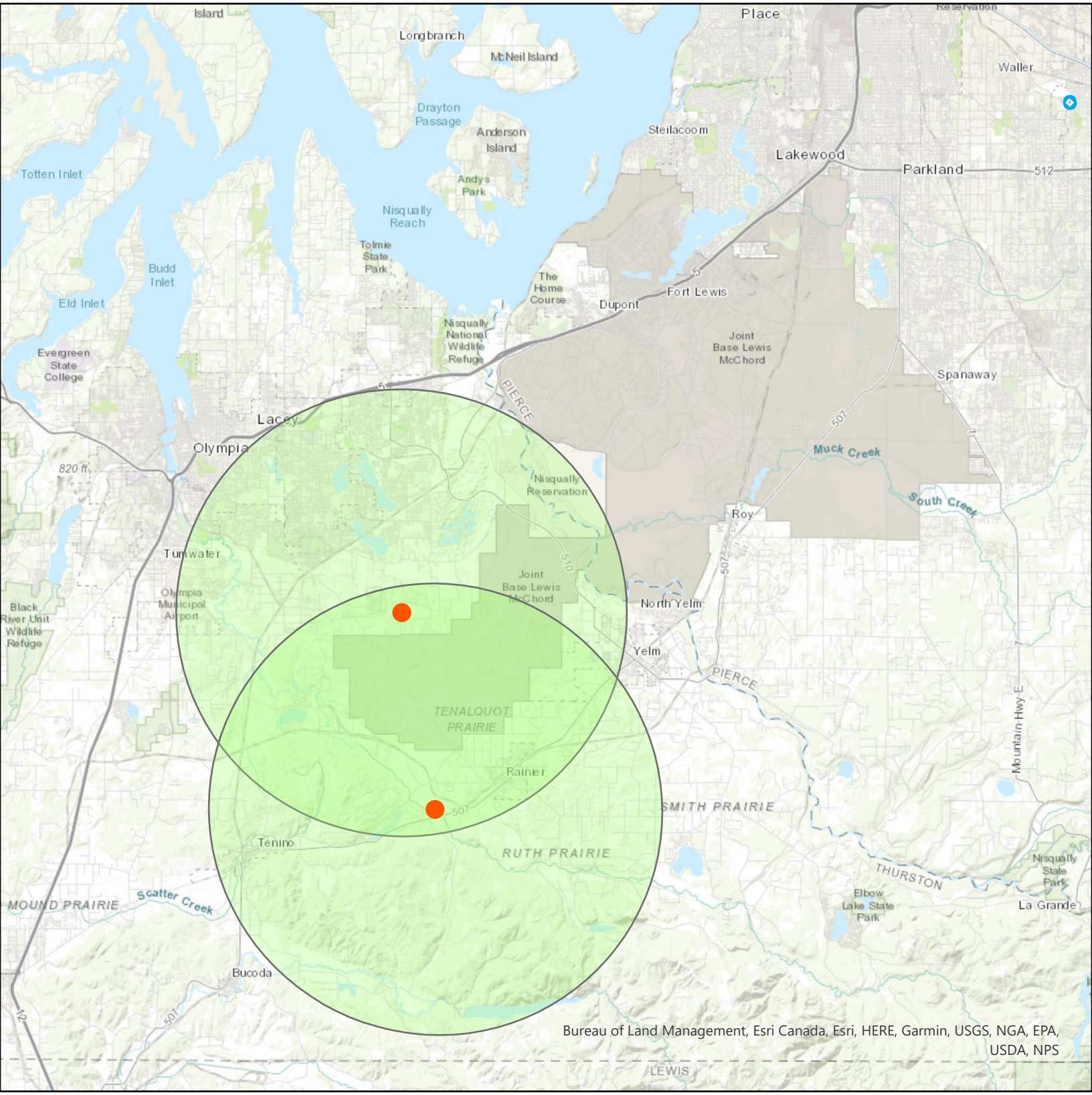
360 951 2129

Phone

lancew@spseg.org

Email

No Double Counting - Projects within 10 mile radius



Legend

- Fox Hill
- DeschutesRM21
- DeschutesRM21P_10Mil
- FoxHill_10MileBuffer
- Washington planting projects

0 2.25 4.5 9 Miles

N

Attestation of Additionality

CITY FOREST CREDITS

Deschutes River Floodplain Restoration Projects
Attestation of Additionality

I am the Executive Director of the South Puget Sound Salmon Enhancement Group and make this attestation regarding additionality from this tree planting project, Deschutes River Floodplain Restoration Projects.

- 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.
- Legal Requirements Test (Protocol Section 1.8)
  - Project trees are not required by law or ordinance to be planted (except for replacement trees planted in place of removed trees for specific reasons).
- The Project did not plant trees on sites that were converted out of a forest use or that were cleared of healthy, non-invasive trees and then planted with project trees (Protocol Section 1.9)
- Project-Specific Baseline or Performance Standard Baseline
  - Project trees are additional based on a project specific baseline. See PDD; or
  - Project trees are additional based on the Performance Standard baseline; see attached baseline to the PDD. Project Operator has provided local canopy change data to support the use of the Performance Standard Baseline.
- Project Implementation Agreement for Project Duration
  - The South Puget Sound Salmon Enhancement Group has signed a Project Implementation Agreement with City Forest Credits for 26 years.
- The 26-year Project Duration commitment is additional to and longer than any commitment the South Puget Sound Salmon Enhancement Group (SPSSEG) makes to non-carbon project tree plantings.
- Financial Additionality
  - A successful afforestation carbon project goes beyond tree planting to ensure survival of the trees to a healthy maturity at 26 years after the Project start date. These Project Trees are at risk during all stages of this project. The Project Operator has no guaranteed source of long-term maintenance funding outside of the carbon revenues. The existing funding sources for tree planting do not cover maintenance at all past the date of implementation.
  - The revenue from the sale of carbon credits will play a material role in the successful and durable storage of Project Trees' carbon stock by providing funding that will help ensure the establishment and long-term health of Project Trees. SPSSEG will use these funds to maintain the planting by replacing mortality, removing and controlling invasive or competing species, provide water during dry months of the year and mow grasses during the growing season.

- Prior Consideration: SPSSEG gained awareness of carbon crediting as a potential source of stewardship and maintenance funds from the local WRIA 10/12 Lead Entity. This information came from project partner Allen Warren during conversations about a pilot grant program through NEP. Intent was made around the time of June 2023.
- In addition, many of the activities undertaken as part of the carbon project are beyond the Project Operator's common practice, including:
    - care through establishment phase (up to/through Year 3)
    - Long-term maintenance
    - Long-term monitoring and growth assessment
    - Long-term legal commitment to the project

Signed on September 16th in 2024, by Lance Winecka, Executive Director for the South Puget Sound Salmon Enhancement Group

Signature

Lance Winecka

Printed Name

360 951 2129

Phone

lancew@spsseg.org

Email

Table 1. Canopy Data

Geography	Year	Sum (Canopy Area, m2)	Area (m2)	Percent Canopy
Thurston MPO	2011	1996901298	4297021200	46.472%
Thurston MPO	2021	1988225415	4296898800	46.271%

Table 2. Canopy Change 2011 to 2021

Absolute % Change	-0.2006%
Relative % Change (2011 base)	-0.4316%
Year Difference	10.00
Estimated Absolute % Annual Change	-0.0201%

Table 3. Predicted Baseline Change

Project Duration (Years)	26
Estimated Baseline Canopy Change	-0.5215%

Carbon Quantification Initial Credit Tool

Light yellow background denotes an input cell ->

Directions
1) On Table 1, fill out the Site/Stand Name, Forest Type(dropdown options), and Acreage
2) Indicate the number of acres eligible to claim soil carbon (have been tilled for 3 of the
3) Indicate the amount of baseline canopy cover on the planting sites (default for estimate

Table 1. Planting Plan

Site/Stand Name	Forest Type	Acreage	tC/acre
Deschutes RM 21	Alder Maple	4.78	51.7
Deschutes RM 21	Ash/Cottonwood/Willow mix	4.64	24
Fox Hill	Ash/Cottonwood/Willow mix	1.6	24
Fox Hill	Douglas Fir	1.92	59.6
	N/A or blank		0
		12.94	

Table 2. Soil Carbon (acres tilled for 3 of the last 10 years)

Acreage
0

Table 3. Baseline canopy cover

Percent existing canopy
0.05

Table 1. GHG Emissions

	Acres	Tonnes Carbon/Acre	Uncertainty Deduction
Total GHG Reductions	12.94	39.5	5%
Acres eligible for soil carbon	0		

Do not forward to third parties without CFC permission.

columns.
past 10 years) in Table 2.
e is 0.05%).

9.42 acres

3.52 acres

CO2 index (tCO2e/acre)	GHG Emissions (tCO2e)	Baseline Canopy Cover	GHG Emissions, Adjusted for Canopy Baseline	Soil carbon (23.3 tCO2e /acre)	GHG Emissions (trees + soil carbon)
137.6422746	1,781	0.0500	1,692.04	-	1,692.04

		10%	30%	30%	10%	20%	
5% Buffer Pool Deduction	**Grand Total CO2 w/ Deductions (t)**	**Year 0 10% CO_2 (t)**	**Year 4 30% CO_2 (t)**	**Year 6 30% CO_2 (t)**	**Year 14 10% CO_2 (t)**	**Year 26 20% CO_2 (t)**	sumcheck
85	1,607.00	160.70	482.10	482.10	160.70	321.40	1,607
Carbon Credits	1607	161	482	482	161	321	1607
	84.58	8.46	25.37	25.37	8.46	16.92	85
Buffer Credits	85	8	25	25	8	19	85

Forest Type	tC/acre
Alder Maple	51.7
Douglas Fir	59.6
Fir Spruce Mountain Hemlock	29.6
Hemlock Sitka Spruce	45.3
Ash/Cottonwood/Willow mix	24
N/A or blank	0

City Forest Preservation Co-Benefits Quantification Tool for the Pacific Northwest Climate Zone

The analyst can uses this method to calculate the amount of co-benefits estimated to be produced by existing tree canopy. The tool uses information you provide on tree canopy cover (deciduous and coniferous), and estimates annual co-benefits in Resource Units and $ per year. Transfer functions (i.e., kWh of electricity per m^2 of tree canopy) were calculated as the average of values for the large, medium and small trees in the deciduous and coniferous life forms. Resource units for the dbh corresponding to a 25-year old tree were used, along with the crown projection area of the representative species for each tree-type. Energy effects are reduced to 20% of values in the i-Tree Streets source data because preserved areas generally have fewer nearby buildings affected by climate and shade effects than areas with street trees. Local prices were from i-Tree Streets.

Steps

1) Use i-Tree Canopy, or another tool, to estimate the amount of area that is covered by deciduous and coniferous tree cover. In Table 1 enter the area (acres) in deciduous and coniferous tree cover in the project area. Also, enter the non-tree cover area.

2) Table 2 automatically provides estimates of co-benefits for the current canopy in Resource Units (e.g., kWh) per year and $ per year. Values are adapted from i-Tree Streets results for this climate zone and assume that the deciduous and coniferous canopy is evenly distributed among large, medium and small tree types.

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 (%)	85%	15%	100%	0%	100%
Area (sq miles)	0.017	0.003	0.020	0.000	0.02
Area (m2)	44,596	7,770	52,366	0	52,366
Area (acres)	11.02	1.92	12.94	0.00	12.94

Using the information you provide on tree canopy cover, the tool provides estimates of co-benefits in Resource Units and $ per year.

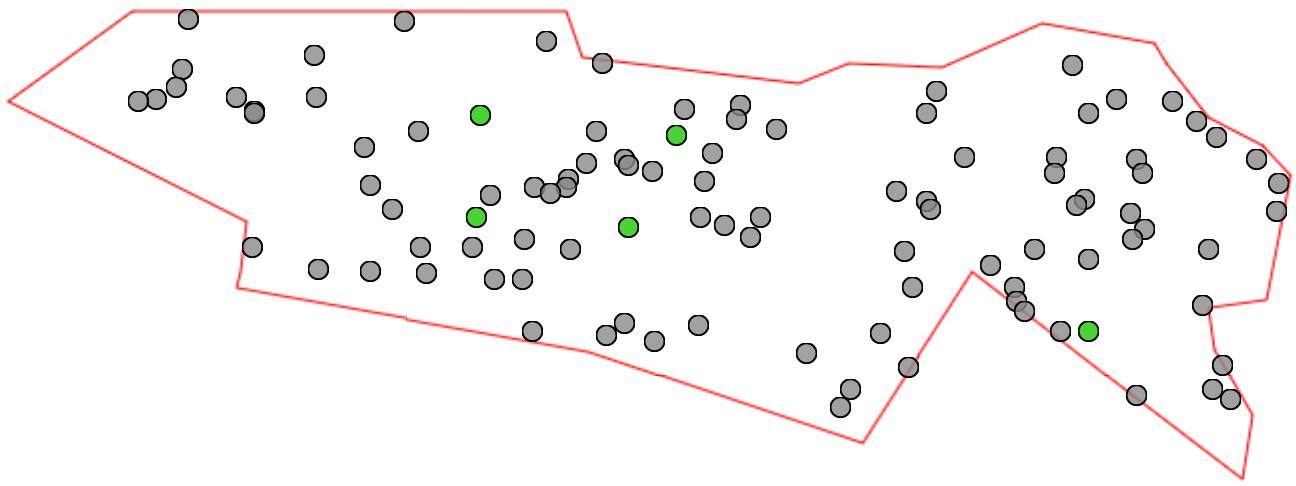
Table 2. Co-Benefits per year with current tree canopy cover.

Ecosystem Services	Resource Units Totals	Total $
Rain Interception (m3/yr)	2,618.7	$19,227
Air Quality (t/yr)		
O3	0.0973	$41
NOx	0.0318	$14
PM10	0.0476	$36
Net VOCs	-0.4760	-$76
Air Quality Total	-0.2994	$15
Energy (kWh/yr & kBtu/yr)		
Cooling - Elec.	7,238	$371
Heating - Nat. Gas	26,673	$304
Energy Total ($/yr)		$674
Grand Total ($/yr)		$19,916

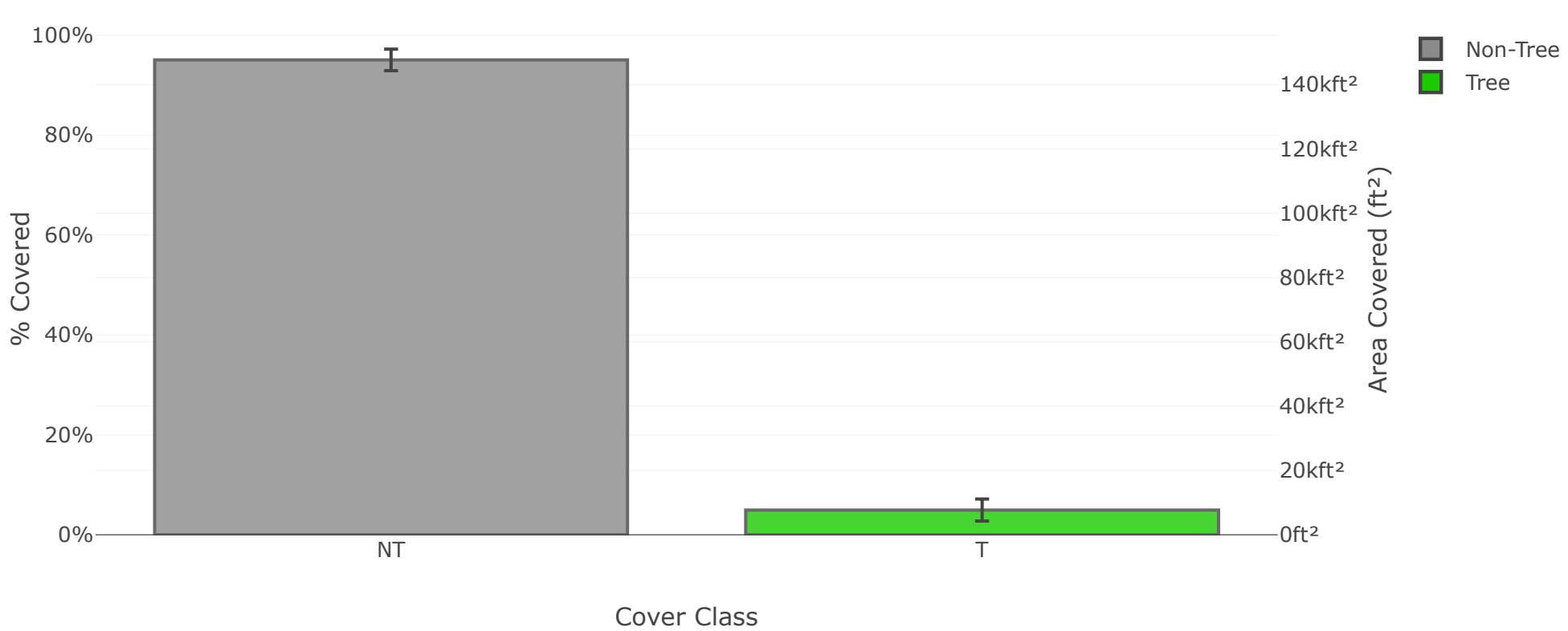
i-Tree Canopy

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 7/29/2024



Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ft²) ± SE
NT	Non-Tree	All other surfaces	96	95.05 ± 2.16	147666.08 ± 3353.28
T	Tree	Tree, non-shrub	5	4.95 ± 2.21	7690.94 ± 3439.49
Total			**101**	**100.00**	**155357.02**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (lb)	±SE	CO_2 Equiv. (lb)	±SE	Value (USD)	±SE
Sequestered annually in trees	482.02	±215.57	1,767.41	±790.41	$41	±18
Stored in trees (Note: this benefit is not an annual rate)	12,105.33	±5,413.67	44,386.22	±19,850.12	$1,032	±462

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 0.063 lb of Carbon, or 0.230 lb of CO_2, per ft²/yr and rounded. Amount stored is based on 1.574 lb of Carbon, or 5.771 lb of CO_2, per ft² and rounded. Value (USD) is based on $0.09/lb of Carbon, or $0.02/lb of CO_2 and rounded. (English units: lb = pounds, ft² = square feet)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (oz)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	2.70	±1.21	$0	±0
NO2	Nitrogen Dioxide removed annually	10.69	±4.78	$0	±0
O3	Ozone removed annually	128.85	±57.62	$2	±1
SO2	Sulfur Dioxide removed annually	23.07	±10.32	$0	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	6.73	±3.01	$5	±2
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	51.67	±23.11	$11	±5
Total		**223.71**	**±100.04**	**$18**	**±8**

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 oz/ft²/yr @ $/oz/yr and rounded:
CO 0.000 @ $0.04 | NO2 0.001 @ $0.00 | O3 0.017 @ $0.02 | SO2 0.003 @ $0.00 | PM2.5 0.001 @ $0.73 | PM10* 0.007 @ $0.21 (English units: oz = ounces, ft² = square feet)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (gal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	624.92	±279.47	$6	±2
E	Evaporation	11,010.49	±4,924.04	N/A	N/A
I	Interception	11,083.95	±4,956.89	N/A	N/A
T	Transpiration	13,040.86	±5,832.05	N/A	N/A
PE	Potential Evaporation	67,988.41	±30,405.34	N/A	N/A
PET	Potential Evapotranspiration	67,988.41	±30,405.34	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 gal/ft²/yr @ $/gal/yr and rounded:
AVRO 0.081 @ $0.01 | E 1.432 @ N/A | I 1.441 @ N/A | T 1.696 @ N/A | PE 8.840 @ N/A | PET 8.840 @ N/A (English units: gal = gallons, ft² = square feet)

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.

Id	Cover Clas	Descriptio	Latitude	Longitude
1	Non-Tree	All other su	46.96264	-122.759
2	Non-Tree	All other su	46.96284	-122.758
3	Non-Tree	All other su	46.96293	-122.757
4	Non-Tree	All other su	46.96283	-122.758
5	Non-Tree	All other su	46.96253	-122.757
6	Non-Tree	All other su	46.96287	-122.759
7	Non-Tree	All other su	46.96277	-122.757
8	Non-Tree	All other su	46.96249	-122.757
9	Non-Tree	All other su	46.96263	-122.758
10	Non-Tree	All other su	46.96258	-122.757
11	Non-Tree	All other su	46.9628	-122.756
12	Non-Tree	All other su	46.9631	-122.759
13	Non-Tree	All other su	46.96288	-122.756
14	Non-Tree	All other su	46.96261	-122.757
15	Non-Tree	All other su	46.96279	-122.758
16	Non-Tree	All other su	46.96257	-122.757
17	Non-Tree	All other su	46.96254	-122.758
18	Non-Tree	All other su	46.96277	-122.757
19	Non-Tree	All other su	46.9624	-122.756
20	Non-Tree	All other su	46.96266	-122.757
21	Non-Tree	All other su	46.96246	-122.756
22	Non-Tree	All other su	46.96268	-122.759
23	Non-Tree	All other su	46.96241	-122.757
24	Non-Tree	All other su	46.96285	-122.757
25	Non-Tree	All other su	46.96283	-122.758
26	Non-Tree	All other su	46.96268	-122.757
27	Non-Tree	All other su	46.96281	-122.758
28	Non-Tree	All other su	46.96278	-122.757
29	Non-Tree	All other su	46.9627	-122.757
30	Non-Tree	All other su	46.96278	-122.758
31	Non-Tree	All other su	46.96282	-122.758
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39	Non-Tree	All other su	46.96254	-122.758
40	Non-Tree	All other su	46.96253	-122.758
41	Non-Tree	All other su	46.96274	-122.758
42	Non-Tree	All other su	46.96268	-122.758
43	Non-Tree	All other su	46.96284	-122.756

44	Non-Tree	All other su	46.96275	-122.756
45	Non-Tree	All other su	46.96292	-122.758
46	Non-Tree	All other su	46.96293	-122.759
47	Non-Tree	All other su	46.96301	-122.759
48	Non-Tree	All other su	46.96242	-122.756
49	Non-Tree	All other su	46.96296	-122.759
50	Non-Tree	All other su	46.96293	-122.757
51	Non-Tree	All other su	46.96246	-122.757
52	Non-Tree	All other su	46.96294	-122.758
53	Non-Tree	All other su	46.96284	-122.757
54	Non-Tree	All other su	46.9627	-122.758
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62	Non-Tree	All other su	46.96268	-122.758
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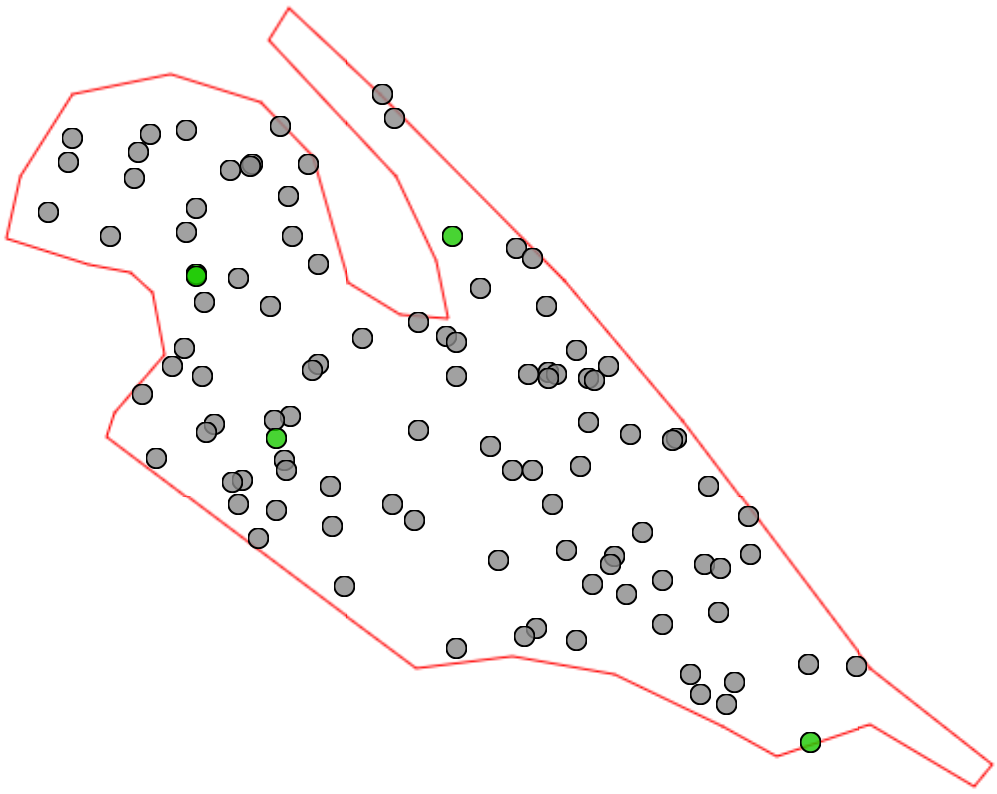
76	Non-Tree	All other su	46.96268	-122.757
77	Non-Tree	All other su	46.96271	-122.757
78	Tree	Tree, non-s	46.96289	-122.758
79	Non-Tree	All other su	46.96242	-122.757
80	Non-Tree	All other su	46.96282	-122.757
81	Non-Tree	All other su	46.96306	-122.758
82	Tree	Tree, non-s	46.96253	-122.757
83	Non-Tree	All other su	46.96291	-122.756
84	Non-Tree	All other su	46.96295	-122.759
85	Non-Tree	All other su	46.96278	-122.758
86	Non-Tree	All other su	46.96265	-122.757
87	Non-Tree	All other su	46.96285	-122.757

88	Non-Tree	All other su	46.96262	-122.758
89	Non-Tree	All other su	46.96274	-122.757
90	Non-Tree	All other su	46.96302	-122.758
91	Non-Tree	All other su	46.96297	-122.757
92	Non-Tree	All other su	46.96295	-122.756
93	Non-Tree	All other su	46.96274	-122.758
94	Tree	Tree, non-s	46.96274	-122.758
95	Non-Tree	All other su	46.96282	-122.757
96	Non-Tree	All other su	46.9631	-122.758
97	Non-Tree	All other su	46.9629	-122.757
98	Non-Tree	All other su	46.96252	-122.758
99	Non-Tree	All other su	46.96296	-122.759
100	Non-Tree	All other su	46.96251	-122.758
101	Non-Tree	All other su	46.96268	-122.756

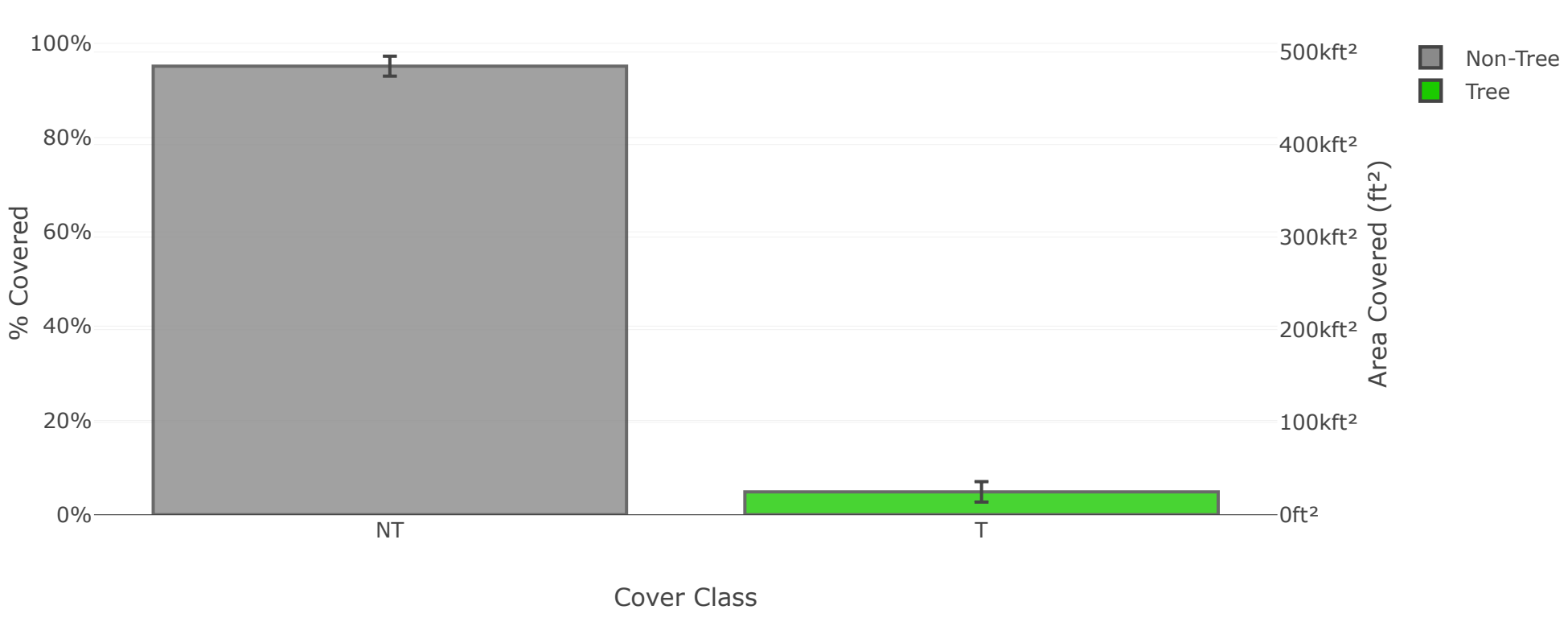
i-Tree Canopy

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 7/12/2024



Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ft²) ± SE
NT	Non-Tree	All other surfaces	98	95.15 ± 2.12	484759.23 ± 10788.96
T	Tree	Tree, non-shrub	5	4.85 ± 2.17	24732.61 ± 11060.76
Total			**103**	**100.00**	**509491.84**

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (lb)	±SE	CO_2 Equiv. (lb)	±SE	Value (USD)	±SE
Sequestered annually in trees	1,550.09	±693.22	5,683.65	±2,541.80	$132	±59
Stored in trees (Note: this benefit is not an annual rate)	38,928.46	±17,409.34	142,737.69	±63,834.24	$3,320	±1,485

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 0.063 lb of Carbon, or 0.230 lb of CO_2, per ft²/yr and rounded. Amount stored is based on 1.574 lb of Carbon, or 5.771 lb of CO_2, per ft² and rounded. Value (USD) is based on $0.09/lb of Carbon, or $0.02/lb of CO_2 and rounded. (English units: lb = pounds, ft² = square feet)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (oz)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	8.70	±3.89	$0	±0
NO2	Nitrogen Dioxide removed annually	34.38	±15.37	$0	±0
O3	Ozone removed annually	414.36	±185.31	$8	±3
SO2	Sulfur Dioxide removed annually	74.17	±33.17	$0	±0
PM2.5	Particulate Matter less than 2.5 microns removed annually	21.63	±9.67	$16	±7
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	166.15	±74.31	$35	±16
Total		**719.40**	**±321.72**	**$59**	**±26**

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 oz/ft²/yr @ $/oz/yr and rounded:
CO 0.000 @ $0.04 | NO2 0.001 @ $0.00 | O3 0.017 @ $0.02 | SO2 0.003 @ $0.00 | PM2.5 0.001 @ $0.73 | PM10* 0.007 @ $0.21 (English units: oz = ounces, ft² = square feet)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	2.01	±0.90	$18	±8
E	Evaporation	35.41	±15.83	N/A	N/A
I	Interception	35.64	±15.94	N/A	N/A
T	Transpiration	41.94	±18.75	N/A	N/A
PE	Potential Evaporation	218.64	±97.78	N/A	N/A
PET	Potential Evapotranspiration	218.64	±97.78	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/ft²/yr @ $/Kgal/yr and rounded:
AVRO 0.000 @ $8.94 | E 0.001 @ N/A | I 0.001 @ N/A | T 0.002 @ N/A | PE 0.009 @ N/A | PET 0.009 @ N/A (English units: Kgal = thousands of gallons, ft² = square feet)

About i-Tree Canopy

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Id	Cover Clas	Descriptio	Latitude	Longitude
1	Non-Tree	All other su	46.87565	-122.736
2	Non-Tree	All other su	46.8755	-122.737
3	Non-Tree	All other su	46.8766	-122.736
4	Tree	Tree, non-s	46.87602	-122.737
5	Non-Tree	All other su	46.8758	-122.736
6	Non-Tree	All other su	46.87608	-122.736
7	Non-Tree	All other su	46.87657	-122.737
8	Non-Tree	All other su	46.87501	-122.735
9	Non-Tree	All other su	46.87545	-122.737
10	Non-Tree	All other su	46.875	-122.735
11	Non-Tree	All other su	46.87534	-122.737
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85	Non-Tree	All other su	46.87668	-122.736
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87	Non-Tree	All other su	46.87641	-122.737

88	Non-Tree	All other su	46.87519	-122.737
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92	Non-Tree	All other su	46.875	-122.734
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96	Non-Tree	All other su	46.87488	-122.737
97	Non-Tree	All other su	46.87543	-122.735
98	Tree	Tree, non-s	46.87431	-122.734
99	Non-Tree	All other su	46.87626	-122.738
100	Non-Tree	All other su	46.87527	-122.737
101	Non-Tree	All other su	46.87496	-122.735
102	Non-Tree	All other su	46.87638	-122.738
103	Non-Tree	All other su	46.87564	-122.735

Tree Planting Data

Species	Quantity	Forest Type
Acer macrophyllum	500	alder/maple
Alnus rubra	500	alder/maple
Amelanchier alnifolia	600	alder/maple
Corylus cornuta spp. Californica	300	ash/cottonwood/willow
Cornus sericea	600	ash/cottonwood/willow
Frangula purshiana	200	alder/maple
Fraxinus latifolia	800	ash/cottonwood/willow
Holodiscus discolor	600	alder/maple
Quercus garryana	150	alder/maple
Mahonia aquifolium	350	alder/maple
Oemleria cerasiformis	600	alder/maple
Physocarpus capitatus	400	ash/cottonwood/willow
Populus balsamifera ssp. Trichocarpa	300	ash/cottonwood/willow
Rhamnus purshiana	200	alder/maple
Rosa nutkana	400	alder/maple
Rubus spectabilis	150	alder/maple
Salix hookeriana	200	ash/cottonwood/willow
Salix lucida ssp. lasiandra	250	ash/cottonwood/willow
Salix sitchensis	250	ash/cottonwood/willow
Symphoricarpos albus	300	alder/maple
Total	**7,650**	

Species	Quantity	Forest Type
Acer macrophyllum	50	ash/cottonwood/willow
Corylus cornuta spp. Californica	100	ash/cottonwood/willow
Holodiscus discolor	100	ash/cottonwood/willow
Pseudotsuga menziesii	200	douglas fir
Salix lucida ssp. lasiandra	550	ash/cottonwood/willow
Salix sitchensis	550	ash/cottonwood/willow
Tsuga heterophylla	110	douglas fir
Total	1,660	

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

Trees have been planted with a goal of treating Stormwater runoff and other pollutants, as well as providing shade and future wood recruitment. These benefits will be felt mainly by aquatic wildlife, as well as terrestrial wildlife. These improvements will help drive ecosystem process to help reclaim the floodplain towards natural processes and improved water quality. Water quality will improve by reducing temperatures through shading and reducing pollutants through an expanded riparian buffer.

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

This project takes place on the culturally significant lands of the Squaxin Island Tribe who continue to steward the landscape and thrive today. The Deschutes river is a place for harvest and sustenance for the tribal community. By improving riparian buffers, floodplain and water quality, this will have a direct benefit of the culture and health of the tribal community. These plants were also planted to reclaim a historic floodplain to natural processes that will improve the river and associated floodplain and wetlands. The site also consisted of a steep, eroding agricultural bank which will gain needed stability through the planting.

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

This project was implemented using volunteer planting events. These events were run by the landowner/contractor and were advertised to the greater Olympia area. The turnout to the events ranged from 5-15 volunteers. These volunteers were educated on the importance of riparian habitat and planting, as well as how to successfully install native trees.

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

This project takes place on the culturally significant lands of the Squaxin Island Tribe who continue to steward the landscape and thrive today. The Deschutes river is a place for harvest and sustenance for the tribal community. By improving riparian buffers, floodplain and water quality, this will have a direct benefit of the culture and health of the tribal community. Also, community planting events were part of the project implementation for the local Olympia area. There was a series of 4 planting events that ranged in volunteer participation. These volunteers were educated on the importance of riparian buffers to watersheds, and how to install native plants.

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

Trees have been planted with a goal of treating Stormwater runoff and other pollutants, as well as providing shade and future wood recruitment. These benefits will be felt mainly by aquatic wildlife, as well as terrestrial wildlife. These improvements will help drive ecosystem process to help reclaim the floodplain towards natural processes and improved water quality. Water quality will improve by reducing temperatures through shading and reducing pollutants through an expanded riparian buffer. Also, community planting events were part of the project implementation for the local Olympia area. There was a series of 4 planting events that ranged in volunteer participation. These volunteers were educated on the importance of riparian buffers to watersheds, and how to install native plants.

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

By adding shade to the river through expanded riparian buffers, water temperatures will have a direct benefit and reduction during summer months. This can impact downstream, urban communities such as Tumwater and Olympia, especially during months of high heat.

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

This planting first foremost creates, as well as enhances wildlife habitat for both aquatic and terrestrial species. The shade provided to the river will help reduce water temperatures and in turn improve water quality. This buffer will also treat pollutants in Stormwater runoff before they enter the river, again improving aquatic habitat and water quality. The trees will provide future wood recruitment for aquatic habitat, as well as provide terrestrial habitat a d forage food for upland and avian species.

This project takes place on the culturally significant lands of the Squaxin Island Tribe who continue to steward the landscape and thrive today. The Deschutes river is a place for harvest and sustenance for the tribal community. By improving riparian buffers, floodplain and water quality, this will have a direct benefit of the culture and health of the tribal community. The project design took into consideration planting cultural significant and first food species to support sustenance harvesting.

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

This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the volume of Stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. These trees will provide shade, runoff filtration and future habitat recruitment of aquatic, terrestrial and avian species. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.

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

This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the volume of Stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.

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

Community planting events were part of the project implementation for the local Olympia area. There was a series of 4 planting events that ranged in volunteer participation. These volunteers were educated on the importance of riparian buffers to watersheds, and how to install native plants.

Summary of Project Social Impacts

This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the volume of Stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. These trees will provide shade, runoff filtration and future habitat recruitment of aquatic, terrestrial and avian species. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.

This planting first and foremost creates, as well as enhances, wildlife habitat for both aquatic and terrestrial species. The shade provided to the river will help reduce water temperatures and in turn improve water quality. This buffer will also treat pollutants in stormwater runoff before they enter the river, again improving aquatic habitat and water quality. The trees will provide future wood recruitment for aquatic habitat, as well as provide terrestrial habitat and forage food for upland and avian species.

This project takes place on the culturally significant lands of the Squaxin Island Tribe who continue to steward the landscape and thrive today. The Deschutes River is a place for harvest and sustenance for the tribal community. By improving riparian buffers, floodplain and water quality, this will have a direct benefit on the culture and health of the tribal community. The project design took into consideration planting culturally significant and first food species to support sustenance harvesting.

This project's main goal is to improve habitat for aquatic and other species, as well as promote healthy, natural watershed processes. The plantings will reduce pollutants and the volume of stormwater runoff to the river. The planting takes place within the riparian area and floodplain, which will promote floodplain reconnection, natural sediment processes, and improve habitat. A heavy concentration of plantings focused on the steep and eroding bank and will reduce erosion and fine sediment input to the river.