Attachments

High Resolution Imagery

Project Maps with Cover Class Points

Canopy Change Workbook - Year 4

Carbon Quantification - Year 4 Credit Tool

Attestation of No Double Counting and No Net Harm

Attestation of Additionality

High Resolution Imagery

Project Maps with Cover Class Points

Legend
Random Points Peck Property
CoverClass
Non-Tree
Tree
Peck Property
City Forest Credits Cover Class Map
ORGANIZATION: Pierce Conservation District
CARTOGRAPHER: RyanB
DATE: 11/5/2024
DISCLAIMER: While every precaution was taken in preparing this map, the publisher disclaims any warranty of fitness or accuracy of the data. The map is approximate in nature, based on compilation of data from multiple sources, and should not be relied upon or referenced in legal documents, including property deeds, title reports, and contract documents, nor substituted for appropriate survey and\or engineering analysis. The user of the map acknowledges its limitations, assumes all responsibility for its use, and agrees to hold the publisher harmless for any damages that may result from the use of this map. This map is subject to change without notice.
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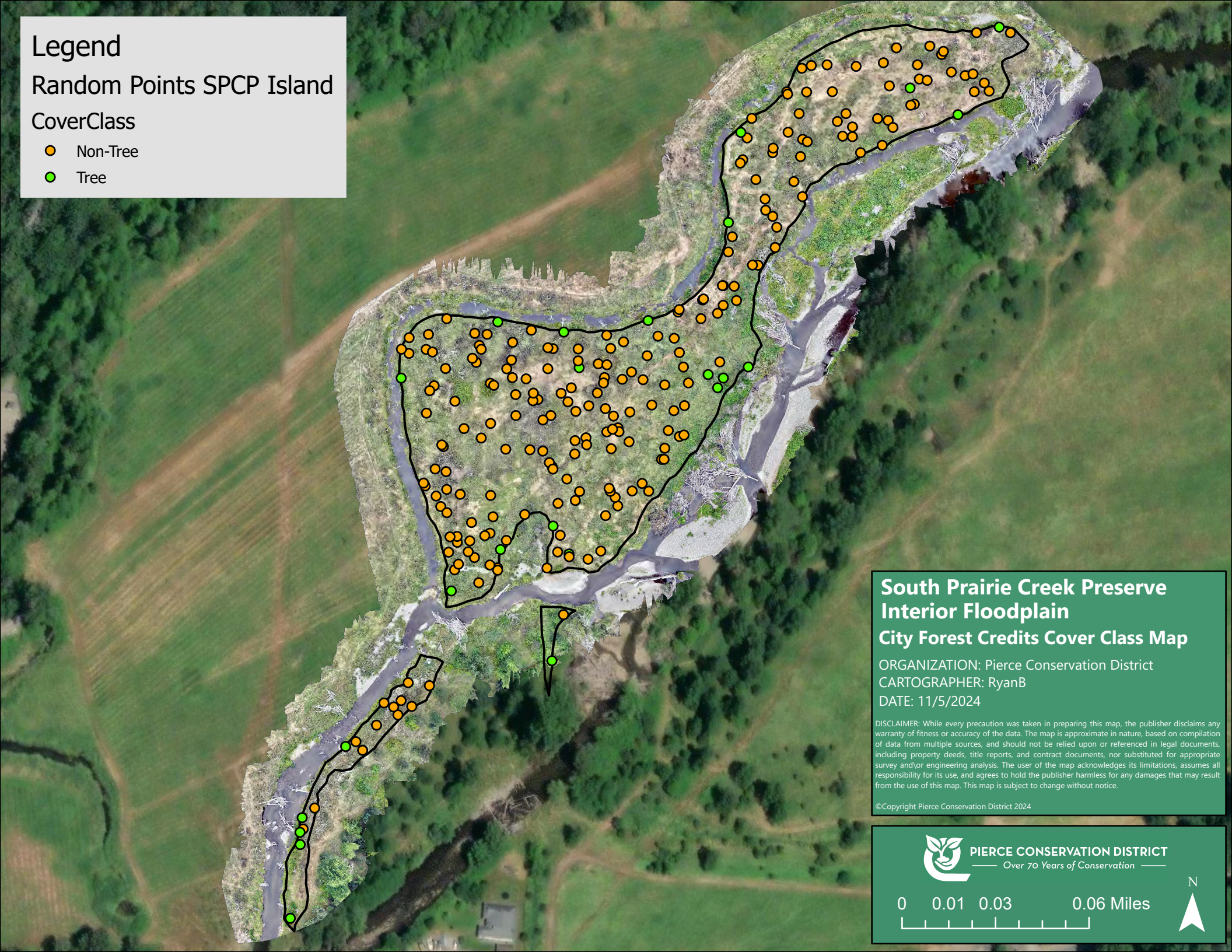
PIERCE CONSERVATION DISTRICT
Over 70 Years of Conservation
0 0 0.01 0.02 Miles
N


Legend
Random Points SPCP Island
CoverClass
Non-Tree
Tree
South Prairie Creek Preserve
Interior Floodplain
City Forest Credits Cover Class Map
ORGANIZATION: Pierce Conservation District
CARTOGRAPHER: RyanB
DATE: 11/5/2024
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PIERCE CONSERVATION DISTRICT
Over 70 Years of Conservation
0 0.01 0.03 0.06 Miles
N

Canopy Change Workbook - Year 4

		Year 4				
		Percentage			Area	
	Acres	Tree	Non-Tree	SE	Tree	Non-Tree
Site 1 (Peck)	1.37	14.67%	85.33%	2.89%	0.200933	1.169067
Site 2 (South Prairie Creek)	7.3	9.60%	90.40%	1.86%	0.7008	6.5992
Total	8.67	10.40%	89.60%	1.93%	0.901733	7.768267

Cover Class Options: "Tree" OR "Non-Tree"

ID	Cover Class	Latitude	Longitude
1	Non-Tree	47.18846	-122.324
1	Non-Tree	47.18893	-122.324
1	Tree	47.18826	-122.324
1	Non-Tree	47.18802	-122.324
1	Non-Tree	47.1889	-122.324
1	Tree	47.18844	-122.324
1	Non-Tree	47.18883	-122.324
1	Non-Tree	47.18876	-122.324
1	Non-Tree	47.18819	-122.324
1	Non-Tree	47.18797	-122.324
1	Non-Tree	47.18873	-122.324
1	Non-Tree	47.18875	-122.324
1	Non-Tree	47.18826	-122.324
1	Non-Tree	47.1887	-122.324
1	Non-Tree	47.18803	-122.324
1	Non-Tree	47.18893	-122.324
1	Non-Tree	47.18804	-122.324
1	Non-Tree	47.18874	-122.324
1	Non-Tree	47.18873	-122.324
1	Non-Tree	47.18888	-122.324
1	Non-Tree	47.18871	-122.324
1	Tree	47.18799	-122.324
1	Non-Tree	47.18865	-122.324
1	Non-Tree	47.18807	-122.324
1	Non-Tree	47.18813	-122.324
1	Tree	47.18803	-122.324
1	Non-Tree	47.18856	-122.324
1	Non-Tree	47.18812	-122.324
1	Non-Tree	47.18858	-122.324
1	Non-Tree	47.1883	-122.324
1	Non-Tree	47.18891	-122.324
1	Tree	47.1887	-122.323
1	Tree	47.18883	-122.324
1	Non-Tree	47.18867	-122.324
1	Tree	47.18843	-122.324
1	Non-Tree	47.18868	-122.323
1	Tree	47.18844	-122.323
1	Tree	47.18883	-122.324
1	Non-Tree	47.18834	-122.324
1	Non-Tree	47.18841	-122.324

1	Non-Tree	47.18822	-122.324
1	Non-Tree	47.18861	-122.324
1	Tree	47.18856	-122.323
1	Non-Tree	47.18855	-122.324
1	Non-Tree	47.18833	-122.324
1	Non-Tree	47.18867	-122.323
1	Tree	47.18794	-122.324
1	Non-Tree	47.18861	-122.324
1	Tree	47.18843	-122.324
1	Non-Tree	47.18878	-122.324
1	Non-Tree	47.18892	-122.324
1	Non-Tree	47.18876	-122.324
1	Non-Tree	47.18853	-122.324
1	Non-Tree	47.18866	-122.324
1	Non-Tree	47.18818	-122.324
1	Non-Tree	47.18852	-122.324
1	Non-Tree	47.1882	-122.324
1	Non-Tree	47.18868	-122.324
1	Non-Tree	47.18873	-122.324
1	Tree	47.18892	-122.324
1	Non-Tree	47.18807	-122.324
1	Non-Tree	47.18882	-122.324
1	Non-Tree	47.18866	-122.324
1	Non-Tree	47.18868	-122.324
1	Tree	47.18836	-122.324
1	Non-Tree	47.18879	-122.324
1	Non-Tree	47.18866	-122.324
1	Non-Tree	47.18855	-122.324
1	Non-Tree	47.18821	-122.324
1	Non-Tree	47.18879	-122.324
1	Tree	47.1883	-122.324
1	Non-Tree	47.18885	-122.324
1	Non-Tree	47.18792	-122.324
1	Non-Tree	47.18855	-122.324
1	Non-Tree	47.18846	-122.324
1	Non-Tree	47.18872	-122.324
1	Non-Tree	47.18868	-122.324
1	Non-Tree	47.18817	-122.323
1	Non-Tree	47.18845	-122.324
1	Non-Tree	47.18808	-122.324
1	Tree	47.18874	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	47.18846	-122.324
1	Non-Tree	47.18883	-122.324

1	Non-Tree	47.18843	-122.324
1	Non-Tree	47.18881	-122.324
1	Non-Tree	47.18889	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	47.18861	-122.324
1	Non-Tree	47.18815	-122.324
1	Non-Tree	47.1885	-122.324
1	Non-Tree	47.18817	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	-122.324	-122.324
1	Non-Tree	47.18809	-122.324
1	Non-Tree	47.18887	-122.324
1	Tree	47.1881	-122.324
1	Non-Tree	47.1884	-122.324
1	Non-Tree	47.18829	-122.324
1	Non-Tree	47.18838	-122.323
1	Non-Tree	47.18832	-122.324
1	Non-Tree	47.18883	-122.324
1	Non-Tree	47.18816	-122.324
1	Non-Tree	47.1889	-122.324
1	Non-Tree	47.18815	-122.324
1	Tree	47.18828	-122.323
1	Tree	47.18836	-122.324
1	Non-Tree	47.18861	-122.324
1	Non-Tree	47.18847	-122.324
1	Non-Tree	47.18823	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	47.18795	-122.324
1	Non-Tree	47.18853	-122.324
1	Non-Tree	47.18831	-122.324
1	Non-Tree	47.1886	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	47.18805	-122.324
1	Non-Tree	47.1881	-122.324
1	Non-Tree	47.18868	-122.324
1	Non-Tree	47.18791	-122.324
1	Non-Tree	47.18888	-122.324
1	Non-Tree	47.18839	-122.324
1	Non-Tree	47.18804	-122.323
1	Non-Tree	47.18856	-122.324
1	Non-Tree	47.18852	-122.324
1	Non-Tree	47.1888	-122.324
1	Non-Tree	47.18828	-122.324
1	Tree	47.18864	-122.324

1	Non-Tree	47.18837	-122.324
1	Non-Tree	47.18831	-122.324
1	Tree	47.18843	-122.324
1	Non-Tree	47.18883	-122.324
1	Tree	47.18791	-122.324
1	Non-Tree	47.18878	-122.324
1	Non-Tree	47.18878	-122.324
1	Non-Tree	47.18876	-122.324
1	Non-Tree	47.18877	-122.324
1	Non-Tree	47.18824	-122.324
1	Non-Tree	47.18865	-122.324
1	Non-Tree	47.18874	-122.324
1	Non-Tree	47.1883	-122.323
1	Non-Tree	47.18803	-122.324
1	Non-Tree	47.18799	-122.324
1	Non-Tree	47.18893	-122.324
1	Non-Tree	47.18885	-122.324
1	Non-Tree	47.18886	-122.324
1	Non-Tree	47.1889	-122.324
1	Non-Tree	47.18794	-122.324
1	Non-Tree	47.18833	-122.324
1	Non-Tree	47.18806	-122.324

Cover Class Options: "Tree" OR "Non-Tree"

ID	Cover Class	Latitude	Longitude
1	Non-Tree	47.136667	-122.119735
2	Tree	47.138811	-122.116804
3	Non-Tree	47.137501	-122.118886
4	Non-Tree	47.137186	-122.118819
5	Non-Tree	47.136986	-122.119907
6	Non-Tree	47.136753	-122.119727
7	Tree	47.137686	-122.119575
8	Non-Tree	47.138543	-122.116985
9	Non-Tree	47.136998	-122.119981
10	Non-Tree	47.135991	-122.11999
11	Non-Tree	47.137257	-122.119202
12	Non-Tree	47.137606	-122.118717
13	Non-Tree	47.137808	-122.118186
14	Tree	47.137462	-122.118137
15	Tree	47.134898	-122.120904
16	Non-Tree	47.137146	-122.119672
17	Non-Tree	47.13733	-122.119292
18	Non-Tree	47.136549	-122.119207
19	Non-Tree	47.137384	-122.12
20	Non-Tree	47.137438	-122.118842
21	Non-Tree	47.136705	-122.119599
22	Non-Tree	47.138203	-122.11772
23	Non-Tree	47.136907	-122.118996
24	Non-Tree	47.137214	-122.11961
25	Tree	47.13817	-122.11802
26	Non-Tree	47.137425	-122.119375
27	Non-Tree	47.137634	-122.118833
28	Non-Tree	47.136659	-122.11982
29	Non-Tree	47.13897	-122.116594
30	Non-Tree	47.138687	-122.117236
31	Non-Tree	47.13858	-122.117189
32	Non-Tree	47.138819	-122.116945
33	Non-Tree	47.137747	-122.118082
34	Non-Tree	47.138563	-122.117527
35	Non-Tree	47.137574	-122.118804
36	Tree	47.135241	-122.120847
37	Non-Tree	47.137306	-122.118945
38	Non-Tree	47.135919	-122.120181
39	Non-Tree	47.137294	-122.118831
40	Non-Tree	47.138462	-122.117932

41	Non-Tree	47.138854	-122.116742
42	Non-Tree	47.136613	-122.119878
43	Tree	47.139102	-122.116206
44	Non-Tree	47.137291	-122.118365
45	Non-Tree	47.136914	-122.118638
46	Non-Tree	47.137575	-122.119698
47	Non-Tree	47.137387	-122.119066
48	Tree	47.135366	-122.120837
49	Non-Tree	47.136824	-122.119938
50	Tree	47.136133	-122.119914
51	Non-Tree	47.139008	-122.116675
52	Non-Tree	47.136964	-122.119084
53	Non-Tree	47.13741	-122.118431
54	Non-Tree	47.137721	-122.118194
55	Non-Tree	47.137091	-122.119251
56	Non-Tree	47.137116	-122.118422
57	Tree	47.136185	-122.119959
58	Non-Tree	47.137172	-122.118324
59	Non-Tree	47.136915	-122.118525
60	Non-Tree	47.137279	-122.119032
61	Non-Tree	47.138498	-122.117729
62	Non-Tree	47.137256	-122.120048
63	Non-Tree	47.137102	-122.119929
64	Non-Tree	47.13651	-122.119012
65	Non-Tree	47.136872	-122.119971
66	Non-Tree	47.136545	-122.119543
67	Non-Tree	47.138564	-122.117905
68	Non-Tree	47.139075	-122.116359
69	Non-Tree	47.137281	-122.118664
70	Non-Tree	47.137361	-122.120029
71	Non-Tree	47.136557	-122.119596
72	Tree	47.137416	-122.120225
73	Non-Tree	47.137179	-122.118293
74	Non-Tree	47.138625	-122.11719
75	Non-Tree	47.138874	-122.11643
76	Non-Tree	47.138906	-122.117478
77	Non-Tree	47.135803	-122.120344
78	Non-Tree	47.137876	-122.118046
79	Tree	47.138589	-122.117948
80	Non-Tree	47.137322	-122.119087
81	Non-Tree	47.137199	-122.1184
82	Non-Tree	47.137206	-122.118743
83	Non-Tree	47.137019	-122.119186
84	Non-Tree	47.136404	-122.119061

85	Non-Tree	47.137314	-122.119856
86	Non-Tree	47.137785	-122.118045
87	Non-Tree	47.136534	-122.119542
88	Non-Tree	47.13711	-122.11994
89	Non-Tree	47.138737	-122.116772
90	Tree	47.136433	-122.119854
91	Non-Tree	47.137064	-122.118442
92	Non-Tree	47.137324	-122.119325
93	Non-Tree	47.136673	-122.119487
94	Non-Tree	47.138659	-122.116948
95	Non-Tree	47.137401	-122.119618
96	Non-Tree	47.137631	-122.119731
97	Non-Tree	47.13823	-122.117769
98	Non-Tree	47.137064	-122.118425
99	Non-Tree	47.138883	-122.116377
100	Non-Tree	47.138058	-122.117699
101	Non-Tree	47.136795	-122.119366
102	Tree	47.138692	-122.116474
103	Non-Tree	47.137038	-122.119205
104	Non-Tree	47.137366	-122.118888
105	Non-Tree	47.138282	-122.117774
106	Non-Tree	47.137413	-122.118848
107	Non-Tree	47.13889	-122.116525
108	Non-Tree	47.135314	-122.120829
109	Non-Tree	47.136603	-122.119057
110	Non-Tree	47.137567	-122.119196
111	Non-Tree	47.137532	-122.120175
112	Non-Tree	47.138581	-122.117255
113	Non-Tree	47.137544	-122.118555
114	Non-Tree	47.136918	-122.120047
115	Non-Tree	47.1388	-122.116366
116	Non-Tree	47.136687	-122.119823
117	Non-Tree	47.137495	-122.118307
118	Non-Tree	47.135889	-122.12023
119	Non-Tree	47.137628	-122.119646
120	Tree	47.137447	-122.118033
121	Non-Tree	47.136797	-122.118815
122	Non-Tree	47.137522	-122.11806
123	Non-Tree	47.137812	-122.118179
124	Non-Tree	47.137496	-122.119716
125	Non-Tree	47.137558	-122.119685
126	Tree	47.137645	-122.119125
127	Non-Tree	47.135685	-122.120435
128	Non-Tree	47.136684	-122.11987

129	Non-Tree	47.13892	-122.116756
130	Non-Tree	47.137627	-122.118373
131	Non-Tree	47.135412	-122.120754
132	Non-Tree	47.138483	-122.117539
133	Non-Tree	47.137236	-122.119255
134	Non-Tree	47.137551	-122.120227
135	Non-Tree	47.138804	-122.116265
136	Non-Tree	47.137096	-122.119504
137	Non-Tree	47.137253	-122.11944
138	Non-Tree	47.136843	-122.118734
139	Non-Tree	47.137188	-122.119791
140	Non-Tree	47.138842	-122.116299
141	Non-Tree	47.137696	-122.119923
142	Non-Tree	47.137432	-122.118721
143	Non-Tree	47.136531	-122.119835
144	Non-Tree	47.137749	-122.11835
145	Non-Tree	47.138152	-122.117691
146	Non-Tree	47.137467	-122.118659
147	Tree	47.136744	-122.119171
148	Non-Tree	47.137081	-122.119034
149	Non-Tree	47.138104	-122.117992
150	Non-Tree	47.136883	-122.118752
151	Non-Tree	47.138911	-122.117371
152	Non-Tree	47.138787	-122.117332
153	Non-Tree	47.137876	-122.118052
154	Non-Tree	47.136796	-122.119895
155	Non-Tree	47.137392	-122.119594
156	Non-Tree	47.137552	-122.120059
157	Non-Tree	47.136904	-122.1199
158	Non-Tree	47.138985	-122.116582
159	Non-Tree	47.138667	-122.11702
160	Non-Tree	47.138656	-122.117876
161	Non-Tree	47.138519	-122.117727
162	Non-Tree	47.138595	-122.117627
163	Non-Tree	47.136693	-122.119634
164	Non-Tree	47.137561	-122.118336
165	Non-Tree	47.138447	-122.117948
166	Non-Tree	47.136911	-122.118787
167	Non-Tree	47.138552	-122.117495
168	Non-Tree	47.137515	-122.119743
169	Non-Tree	47.13688	-122.1196
170	Non-Tree	47.137421	-122.118271
171	Non-Tree	47.137189	-122.118736
172	Non-Tree	47.137199	-122.11878

173	Tree	47.135298	-122.12085
174	Non-Tree	47.138682	-122.117555
175	Non-Tree	47.137157	-122.118959
176	Non-Tree	47.137622	-122.120046
177	Non-Tree	47.137511	-122.119477
178	Non-Tree	47.137315	-122.118516
179	Non-Tree	47.136925	-122.118795
180	Non-Tree	47.138782	-122.117642
181	Non-Tree	47.138366	-122.117581
182	Non-Tree	47.137974	-122.117813
183	Non-Tree	47.137359	-122.119324
184	Non-Tree	47.137975	-122.117851
185	Non-Tree	47.13685	-122.119141
186	Non-Tree	47.137108	-122.118786
187	Non-Tree	47.137351	-122.119444
188	Non-Tree	47.139077	-122.116128
189	Tree	47.137402	-122.118071
190	Non-Tree	47.13726	-122.118776
191	Non-Tree	47.137651	-122.119346
192	Non-Tree	47.137432	-122.118579
193	Non-Tree	47.137096	-122.119339
194	Tree	47.137707	-122.118553
195	Non-Tree	47.138626	-122.116915
196	Non-Tree	47.136003	-122.120135
197	Non-Tree	47.136594	-122.118929
198	Non-Tree	47.137636	-122.118484
199	Non-Tree	47.13659	-122.119702
200	Non-Tree	47.137605	-122.120176
201	Non-Tree	47.136931	-122.120058
202	Non-Tree	47.137571	-122.119231
203	Non-Tree	47.138848	-122.116688
204	Non-Tree	47.137361	-122.119135
205	Non-Tree	47.138732	-122.116796
206	Non-Tree	47.136558	-122.119809
207	Non-Tree	47.135893	-122.120107
208	Non-Tree	47.13754	-122.120016
209	Non-Tree	47.137498	-122.118827
210	Tree	47.13663	-122.119526
211	Tree	47.137501	-122.117865
212	Non-Tree	47.138996	-122.116902
213	Non-Tree	47.137469	-122.119508
214	Tree	47.136119	-122.11916
215	Non-Tree	47.136882	-122.119807
216	Non-Tree	47.135852	-122.1202

217	Non-Tree	47.135907	-122.120296
218	Non-Tree	47.136865	-122.119023
219	Non-Tree	47.137465	-122.119924
220	Non-Tree	47.136781	-122.119581
221	Non-Tree	47.138649	-122.117293
222	Non-Tree	47.137315	-122.118294
223	Non-Tree	47.137124	-122.118954
224	Non-Tree	47.137808	-122.117954
225	Non-Tree	47.137874	-122.117973
226	Non-Tree	47.138372	-122.11784
227	Non-Tree	47.138893	-122.117543
228	Non-Tree	47.137474	-122.119229
229	Non-Tree	47.137568	-122.119025
230	Tree	47.135701	-122.120551
231	Non-Tree	47.136474	-122.119669
232	Non-Tree	47.137593	-122.119471
233	Non-Tree	47.138507	-122.117131
234	Non-Tree	47.137009	-122.11918
235	Non-Tree	47.138771	-122.117636
236	Non-Tree	47.13695	-122.118571
237	Non-Tree	47.136616	-122.119745
238	Non-Tree	47.138926	-122.116989
239	Non-Tree	47.136702	-122.119121
240	Non-Tree	47.137143	-122.119034
241	Non-Tree	47.137429	-122.119469
242	Non-Tree	47.138907	-122.117174
243	Non-Tree	47.136632	-122.118843
244	Non-Tree	47.138297	-122.11752
245	Non-Tree	47.135724	-122.120482
246	Non-Tree	47.138033	-122.118017
247	Non-Tree	47.137142	-122.118666
248	Non-Tree	47.137761	-122.118343
249	Non-Tree	47.138783	-122.117507
250	Non-Tree	47.137513	-122.119024

Carbon Quantification Year 4 Credit Tool

Directions
1) In Table 3 record the acreage lost and the planting density (trees/acre)
2) In Table 4 record the canopy cover measured on i-Tree Canopy

Table 3. Acreage Loss and Mortality Calculations

Acres Lost (acres)	0.35
Planting Density (trees/acre)	401
Estimated Number of Trees Lost	140.35
Estimated Mortality (%)	3.77%
Credit Adjustment Needed	NO

YES - if C10 > 20% mortality deduction; NO - C10 < 20% mortality deduction

If Credit Adjustment is needed, update mortality deduction (Credits!E11 - E19) accordingly	

Table 4. Canopy Cover Observed (i-Tree Canopy)

Percent Tree Canopy (%)	10.4%
Year 4 Canopy Goal (%)	2.8%
Credit Adjustment Needed	NO

If Canopy Adjustment Needed:

Canopy Coverage Discrepancy	1

Directions
1) In Table 1 record the number of sites planted for each tree species.
2) If species are not listed, add them to the bottom of Table 1.

Table 1. Planting List

ScientificName	CommonName	Tree-Type Abbreviation	No. Sites Planted
Abies grandis	grand fir	CEL	
Abies lasiocarpa	subalpine fir	CEL	
Abies magnifica	California red fir	CEL	
Abies pinsapo	abeto de Espana	CEL	
Abies procera	noble fir	CEL	
Acer buergerianum	trident maple	BDS	
Acer circinatum	vine maple	BDS	220
Acer macrophyllum	bigleaf maple	BDL	550
Acer negundo	boxelder	BDL	
Acer palmatum	Japanese maple	BDS	
Acer palmatum 'Dissectum'	lace-leaf maple	BDS	
Acer platanoides	Norway maple	BDM	
Acer platanoides 'Fairview'	Norway maple 'Fairveiw'	BDM	
Acer platanoides 'Emerald Queen'	Norway maple 'Queen Elizabeth'	BDM	
Acer platanoides 'Schwedleri'	Norway maple 'Schwedler'	BDL	
Acer pseudoplatanus	sycamore maple	BDL	
Acer rubrum	red maple	BDM	
Acer rubrum 'Morgan'	red maple 'Morgan'	BDM	
Acer saccharinum	silver maple	BDL	
Acer saccharum	sugar maple	BDL	
Acer species	maple	BDL	
Aesculus hippocastanum	horsechestnut	BDL	
Ailanthus altissima	tree of heaven	BDM	
Albizia julibrissin	mimosa	BDS	
Alnus rubra	red alder	BDM	410
Betula nigra	river birch	BDM	
Betula pendula	European white birch	BDM	
Broadleaf Deciduous Large	broadleaf deciduous large	BDL	
Broadleaf Deciduous Medium	broadleaf deciduous medium	BDM	
Broadleaf Deciduous Small	broadleaf deciduous small	BDS	
Broadleaf Evergreen Large	broadleaf evergreen large	BEL	
Broadleaf Evergreen Medium	broadleaf evergreen medium	BEM	
Broadleaf Evergreen Small	broadleaf evergreen small	BES	
Calocedrus decurrens	incense cedar	CEM	
Calodendrum capense	Cape chestnut	BDM	
Carpinus betulus 'Fastigiata'	hornbeam 'fastigiata'	BDM	
Carya illinoinensis	pecan	BDL	
Catalpa speciosa	northern catalpa	BDL	
Cedrus atlantica	Atlas cedar	CEL	
Cedrus deodara	deodar cedar	CEL	
Celtis occidentalis	northern hackberry	BDL	
Celtis sinensis	Chinese hackberry	BDL	
Cercidiphyllum japonicum	katsura tree	BDM	
Chamaecyparis lawsoniana	Port Orford cedar	CEL	
Chamaecyparis nootkatensis	Alaska cedar	CEL	
Chamaecyparis obtusa	Hinoki cypress	CEL	
Chamaecyparis pisifera	Sawara false cypress	CES	
Chamaecyparis thyoides	Atlantic white cedar	CEM	
Conifer Evergreen Large	conifer evergreen large	CEL	
Conifer Evergreen Medium	conifer evergreen medium	CEM	
Conifer Evergreen Small	conifer evergreen small	CES	
Cornus florida	flowering dogwood	BDS	
Cornus nuttallii	Pacific dogwood	BDM	
Corylus maxima var. purpurea	purple giant filbert	BDS	
Crataegus douglasii	black hawthorn	BDS	150
Crataegus laevigata	smooth hawthorn	BDS	
Crataegus phaenopyrum	Washington hawthorn	BDS	
Crataegus x lavallei	Carriere hawthorn	BDS	
Cunninghamia lanceolata	blue Chinese fir	CEL	
Fagus sylvatica	European beech	BDL	
Fagus sylvatica 'Atropunicea'	purple-leaf beech	BDL	
Fraxinus americana	white ash	BDL	
Fraxinus holotricha	Moraine ash	BDM	
Fraxinus latifolia	Oregon ash	BDL	220
Fraxinus oxycarpa	Caucasian ash	BDM	
Fraxinus pennsylvanica ' Sherwood	green ash 'sherwood glen'	BDL	
Fraxinus pennsylvanica 'Marshall'	Marshall green ash	BDM	
Fraxinus velutina	velvet ash	BDL	
Ginkgo biloba	ginkgo	BDL	
Gleditsia triacanthos	honeylocust	BDL	
Ilex aquifolium	English holly	BES	
Ilex opaca	American holly	BEM	
Juglans regia	English walnut	BDL	
Juniperus chinensis	Chinese juniper	CES	
Koelreuteria paniculata	goldenrain tree	BDM	
Laburnum anagyroides	golden chain tree	BDS	
Larix decidua	European larch	BDL	
Larix decidua 'Pendula'	European larch 'pendula'	BDS	
Liquidambar orientalis	Oriental sweetgum	BDM	
Liquidambar styraciflua	sweetgum	BDM	
Liriodendron tulipifera	tulip tree	BDL	
Magnolia grandiflora	southern magnolia	BEL	
Magnolia macrophylla	bigleaf magnolia	BDM	
Magnolia x soulangiana	Chinese magnolia; saucer magnolia	BDS	
Malus angustifolia	southern crabapple	BDS	

Table 2. Summary of Planting Sites

Tree-Type	Tree-Type Abbreviation	No. Sites Planted
Brdlf Decid Large (>50 ft)	**BDL**	1510
Brdlf Decid Med (30-50 ft)	**BDM**	410
Brdlf Decid Small (<30 ft)	**BDS**	370
Brdlf Evgrn Large (>50 ft)	**BEL**	0
Brdlf Evgrn Med (30-50 ft)	**BEM**	0
Brdlf Evgrn Small (<30 ft)	**BES**	0
Conif Evgrn Large (>50 ft)	**CEL**	1430
Conif Evgrn Med (30-50 ft)	**CEM**	0
Conif Evgrn Small (<30 ft)	**CES**	0
	Total Sites Planted	3720

Malus floribunda	Japanese flowering crabapple	BDS	
Malus ioensis var. plena	Bechtel crabapple	BDS	
Malus sylvestris	common crabapple	BDS	
Malus x purpurea var eleyi	Eleyi crabapple	BDS	
Morus alba	white mulberry	BDM	
Palm Evergreen Large	palm evergreen large	PEL	
Palm Evergreen Medium	palm evergreen medium	PEM	
Palm Evergreen Small	palm evergreen small	PES	
Parrotia persica	Persian ironwood	BDM	
Paulownia tomentosa	royal paulownia	BDM	
Phoenix canariensis	Canary Island date palm	PEL	
Phoenix dactylifera	date palm	PEM	
Photinia x fraseri	Fraser photinia	BES	
Picea abies	Norway spruce	CEL	
Picea glauca	white spruce	CEL	
Picea pungens	blue spruce	CEL	
Picea sitchensis	Sitka spruce	CEL	330
Pinus aristata	bristlecone pine	CES	
Pinus contorta	lodgepole pine	CES	
Pinus contorta var. latifolia	tall lodgepole pine	CEL	
Pinus densiflora	Japanese red pine	CEM	
Pinus mugo	sweet mountain pine	CES	
Pinus pinea	Itailian stone pine	CEM	
Pinus ponderosa	ponderosa pine	CEL	
Pinus sylvestris	Scotch pine	CEM	
Pinus thunbergiana	Japanese black pine	CEL	
Platanus hybrida	London planetree	BDL	
Populus alba	white poplar	BDL	
Populus alba 'Pyramidalis'	white poplar 'pyramidalis'	BDL	
Populus balsamifera ssp. trichocarp	black cottonwood	BDL	740
Populus nigra	black poplar	BDL	
Populus tremuloides	quaking aspen	BDL	
Prunus avium	sweet cherry	BDM	
Prunus blireiana	Blierana plum	BDS	
Prunus cerasifera	cherry plum	BDS	
Prunus cerasifera 'Thundercloud'	thundercloud purple plum	BDS	
Prunus domestica	common plum	BDS	
Prunus laurocerasus	common cherry laurel	BES	
Prunus persica	peach	BDS	
Prunus serrulata	Kwanzan cherry	BDS	
Prunus serrulata 'Amanogawa'	Amanogawa cherry	BDS	
Prunus serrulata 'Shirofugen'	Shirofugen cherry	BDS	
Prunus serrulata 'Shirotae'	Shirotae cherry	BDS	
Prunus subhirtella	Higan cherry	BDS	
Prunus yedoensis	Yoshino flowering cherry	BDM	
Pseudotsuga menziesii	Douglas fir	CEL	200
Pyrus calleryana 'Cleveland'	Cleveland pear	BDM	
Pyrus communis	common pear	BDM	
Pyrus kawakamii	evergreen pear	BES	
Quercus agrifolia	coastal live oak; California live oak	BEL	
Quercus alba	white oak	BDL	
Quercus coccinea	scarlet oak	BDL	
Quercus macrocarpa	bur oak	BDL	
Quercus palustris	pin oak	BDL	
Quercus rubra	northern red oak	BDL	
Rhus glabra	smooth sumac	BDS	
Rhus hirta	staghorn sumac	BDS	
Robinia pseudoacacia	black locust	BDL	
Salix amygdaloides	peachleaf willow	BDM	
Salix matsudana	corkscrew willow	BDS	
Salix scouleriana	Scouler willow	BDL	
Salix x sepulcralis Simonkai	weeping willow	BDL	
Sambucus caerulea var neomexican	neomexican blue elderberry	BDS	
Sciadopitys verticillata	umbrella pine	CEM	
Sequoia sempervirens	coast redwood	CEL	
Sequoiadendron giganteum	giant sequoia	CEL	
Sorbus aucuparia	European mountain ash	BDM	
Syringa reticulata	Japanese tree lilac	BDS	
Syringa vulgaris	common lilac	BDS	
Taxodium distichum	bald cypress	BDL	
Taxus baccata	English yew	CEM	
Taxus brevifolia	Pacific yew	CEM	
Thuja occidentalis	northern white cedar	CEL	
Thuja plicata	western red cedar	CEL	900
Tilia americana	American basswood	BDM	
Tilia americana var. heterophylla	white basswood	BDL	
Tilia cordata	littleleaf linden	BDM	
Tsuga heterophylla	western hemlock	CEL	
Tsuga mertensiana	mountain hemlock	CEM	
Ulmus americana 'Liberty'	liberty elm	BDL	
Ulmus americana	American elm	BDL	
Ulmus procera	English elm	BDL	
Ulmus pumila	Siberian elm	BDL	
Unknown species	unknown	BDM OTHER	
Washingtonia robusta	Mexican fan palm	PES	
Wisteria sinensis	purple wisteria	BDS	
Cornus sericea	red osier dogwood		100
Corylus cornuta	beaked hazelnut		170
Amelianchier alnifolia	serviceberry		50
Oemleria cerasiformis	indian plum (osoberry)		350
Sambucus racemosa	red elderberry		250
Physocarpus capitatus	pacific ninebark		225
Rubus parviflorus	thimbleberry		375
Rubus spectabilis	salmonberry		100

Symphoricarpos alba	snowberry		300
Rosa nutkana	nootka rose		100
Rhamnus purshiana	Cascara		100

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Directions

Enter data on the anticipted mortality rate (% of planted sites without trees in 25 years) into cell D6. Using the information you provide and background data, the tool calculates the amount of Credits that could be issued at years 1 (10%), 3 (40%), and 5 (30%) after planting. A mortality deductions (% loss) is applied to account for anticipated tree losses. A 5% buffer pool deduction is applied that will go into a program-wide pool to insure against catastrophic loss of trees.

Mortality Deduction (%):	20%

Table 5. Credits are based on 10%, 40%, and 30% at Years 1, 3, and 5 after planting, respectively, of the projected CO2 stored by live trees 25-years after planting. These values account for anticipated tree losses and the 5% buffer pool deduction.

						10%	40%	30%	20%	
	No. Sites Planted	**No. Live Trees**	**Mortality Deduction (%)**	**25-yr CO_2 stored (kg/tree)**	**Tot. 25-yr CO_2 stored w/ losses and 5% deduction (t)**	**10% CO_2 (t)**	**40% CO_2 (t)**	**30% CO_2 (t)**	**20% CO_2 (t)**	
BDL	1510	1208	0.20	2,062.82	2367.3	236.73	946.92	710.19	473.46	
BDM	410	328	0.20	1,277.75	398.1	39.81	159.26	119.44	79.63	
BDS	370	296	0.20	604.21	169.9	16.99	67.96	50.97	33.98	
BEL	0	0	0.20	0.00	0.0	0.00	0.00	0.00	0.00	
BEM	0	0	0.20	0.00	0.0	0.00	0.00	0.00	0.00	
BES	0	0	0.20	0.00	0.0	0.00	0.00	0.00	0.00	
CEL	1430	1144	0.20	1,520.44	1652.4	165.24	660.97	495.72	330.48	
CEM	0	0	0.20	0.00	0.0	0.00	0.00	0.00	0.00	
CES	0	0	0.20	0.00	0.0	0.00	0.00	0.00	0.00	
	3720	2976		5,465.2	4587.8	458.78	1835.10	1376.33	917.55	
				Canopy-Adjusted Credits	4587.8	458.78	1835.10	1376.33	917.55	sumcheck
				Credits issued	4588	459	1835	1376	918	4588

In Table 6 the tool infers the amount of CO_2 stored after 25 years based on the anticipated population of live trees. Values in column H account for anticipated tree losses and the 5% buffer pool deduction.

Table 6. Grand Total CO_2 Stored after 25 years (all live trees, includes tree losses and buffer pool deduction)

Tree-Type	No. Sites Planted	Mortality Deduction (%)	Total Live Trees After Mortality	25-yr CO2 stored (kg/tree)	CO2 Tot. - No Deductions (t)	Grand Total CO2 w/ Deductions (t)
Brdlf Decid Large (>50 ft)	1510	0.20	1208	2,062.82	3,114.9	2,367.3
Brdlf Decid Med (30-50 ft)	410	0.20	328	1,277.75	523.9	398.1
Brdlf Decid Small (<30 ft)	370	0.20	296	604.21	223.6	169.9
Brdlf Evgrn Large (>50 ft)	0	0.20	0	0.00	0.0	0.0
Brdlf Evgrn Med (30-50 ft)	0	0.20	0	0.00	0.0	0.0
Brdlf Evgrn Small (<30 ft)	0	0.20	0	0.00	0.0	0.0
Conif Evgrn Large (>50 ft)	1430	0.20	1144	1,520.44	2,174.2	1,652.4
Conif Evgrn Med (30-50 ft)	0	0.20	0	0.00	0.0	0.0
Conif Evgrn Small (<30 ft)	0	0.20	0	0.00	0.0	0.0
	3720		2976	5,465.2	6,036.5	4,587.76

Using the information you provide and background data, the tool provides estimates of co-benefits after 25 years in Resource Units per year and $ per year.

Co-Benefits PER YEAR after 25 years (all live trees, includes tree losses)

Ecosystem Services	Resource Units Totals	Res Unit/site	Total $	$/site
Rain Interception (m3/yr)	19,413.73	5.22	$142,522.88	$38.313
CO2 Avoided (t, $20/t/yr)	185.19	0.05	$3,703.84	$0.996
Air Quality (t/yr)				
O3	0.5854	0.0002	$1,213.17	$0.326
NOx	0.1893	0.0001	$392.19	$0.105
PM10	0.3250	0.0001	$1,196.51	$0.322
Net VOCs	-1.8017	-0.0005	-$1,390.22	-$0.374
Air Quality Total	-0.7020	-0.0002	$1,411.65	$0.38
Energy (kWh/yr & kBtu/yr)				
Cooling - Elec.	40,447.86	10.87	$2,070.93	$0.56
Heating - Nat. Gas	125,341.13	33.69	$1,426.84	$0.38
Energy Total ($/yr)			$3,497.77	$0.94
Grand Total ($/yr)			$151,136.15	$40.63

Attestation of No Double Counting and No Net Harm

South Prairie Creek Preserve – Interior Floodplain Planting Attestation of No Double Counting of Credits and No Net Harm

I am the Habitat Restoration Manager of the Pierce Conservation District and make this attestation regarding no double counting of credits and no net harm from this tree planting project, South Prairie Creek Preserve – Interior Floodplain Planting.

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

Pierce Conservation District 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

Pierce Conservation District 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. Pierce Conservation District 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:

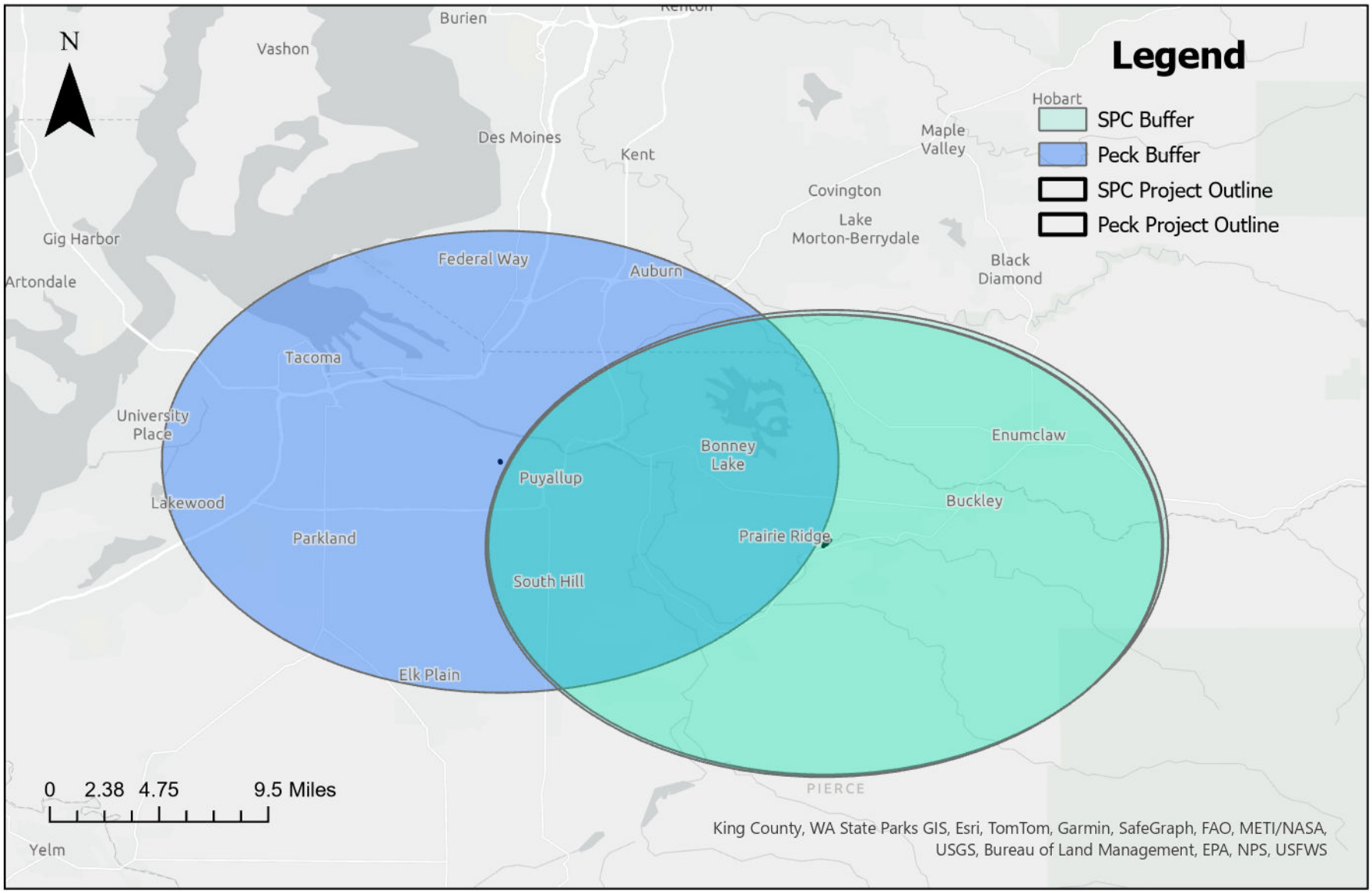
- Displace native or indigenous populations
- Deprive any communities of food sources
- Degrade a landscape or cause environmental damage

Signed on October 23rd in 2024, by Ryan Bird, Habitat Restoration Manager, for Pierce Conservation District.

Signature	Ryan Bird
Phone	2532250306
Email	ryanb@piercecd.org

Zoho Sign Document ID: 29C637D5-IIOEKMFTCLBOFDEVYEQJGJKBVD9VREFBEWSBELRV0L4

No Double Counting - Projects within 10 mile radius



Attestation of Additionality

Pierce Conservation District Reforestation Program - 2020 Planting Project
Attestation of Additionality

I am the Habitat Restoration Manager of the Pierce Conservation District and make this attestation regarding additionality from this tree planting project, Pierce Conservation District Reforestation Program - 2020.

- 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 plante in place o remove trees or speci c 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-Speci c Baseline or Performance Standard Baseline
  - Project trees are additional based on a project speci c 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
  - Pierce Conservation District 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 Pierce Conservation District makes to non-carbon project tree plantings.

- Financial Additionality
  - A successful a orestation 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 Project Operator depends on grant funding for long-term maintenance of the plantings; however, grants that allow maintenance of existing plantings alone can be difficult to find, and often maintenance projects are not as competitive as new planting projects.
  - 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. The revenue from Carbon Credit sales will be used to fund stewardship actions that cannot be funded by

grants alone. E.g., the funding may cover project maintenance/plant establishment costs (supplies, materials, staff time) during time periods with gaps in grant funding, and/or supplies/equipment needed for plant maintenance that are typically not reimbursable to grants.

- Prior Consideration: PCD became aware of carbon crediting through the City Forest Credits Registry as a potential source of revenue for stewardship of planting projects in 2020. PCD had several large-scale planting projects planned on our property at South Prairie Creek Preserve and a smaller property owned by a project partner and needed sources of revenue for future stewardship of those projects to ensure that our planting projects will be successful in meeting our organization's goals of improving habitat in the long-term. Grant un ing or stewar ship can be i cult to n an is o ten o short uration Carbon cre iting was rst intro uce into our scope for these projects in 2020.

- In addition, many of the activities undertaken as part of the carbon project are beyond the Project Operator's common practice, including:
    - Project design (species and planting selection) to maximize carbon storage
    - Acceptance of reversal obligations
    - Long-term legal commitment to the project

Signed on November 8th in 2024, by Ryan Bird, Habitat Restoration Manager, for Pierce Conservation District.

Ryan Bird

Signature

Ryan Bird

Printed Name

2532250306

Phone

ryanb@piercecd.org

Email

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