i-Tree Canopy v7.0

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 4/30/2020



Front Park



Google

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Cover Class

i-Tree Canopy

Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (ac) ± SE
В	Building	building, infrastructure	1	0.20 ± 0.20	0.05 ± 0.05
I	Impervious	road, paved pathway, sidewalk	116	23.20 ± 1.89	5.72 ± 0.47
0	Other	other, unknown	6	1.20 ± 0.49	0.30 ± 0.12
S	Soil/Bare Ground	bare ground, unpaved pathway	21	4.20 ± 0.90	1.04 ± 0.22
Tnp	Turf - Non-plantable	golf course feature, athletic field	60	12.00 ± 1.45	2.96 ± 0.36
Тр	Turf - Plantable	no conflict	214	42.80 ± 2.21	10.56 ± 0.55
Tr	Tree	canopy cover	82	16.40 ± 1.66	4.04 ± 0.41
W	Water	pond, lake, stream	0	0.00 ± 0.00	0.00 ± 0.00
Total			500	100.00	24.66

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO ₂ Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	5.52	±0.56	20.25	±2.04	\$471	±48
Stored in trees (Note: this benefit is not an annual rate)	138.67	±14.00	508.44	±51.34	\$11,825	±1,194

Currency is in USD. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Carbon sequestered is based on 1.365 T/ac/yr. Carbon stored is based on 34.281 T/ac. Carbon is valued at \$23.26/T. (English units: T = tons (2,000 pounds), ac = acres)

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	±SE	Value (USD)	±SE
СО	Carbon Monoxide removed annually	4.38	±0.44	\$3	±0
NO2	Nitrogen Dioxide removed annually	26.98	±2.72	\$7	±1
O3	Ozone removed annually	204.24	±20.62	\$448	±45
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	29.36	±2.96	\$92	±9
PM2.5	Particulate Matter less than 2.5 microns removed annually	15.34	±1.55	\$1,353	±137
SO2	Sulfur Dioxide removed annually	15.42	±1.56	\$1	±0
Total		295.73	±29.86	\$1,904	±192

Currency is in USD. 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 Ib/ac/yr @ \$/Ib/yr:

CO 1.083 @ \$0.67 | NO2 6.670 @ \$0.25 | O3 50.493 @ \$2.19 | PM10* 7.259 @ \$3.13 | PM2.5 3.792 @ \$88.21 | SO2 3.811 @ \$0.07 (English units: lb = pounds, ac = acres)

Tree Benefit Estimates: Hydrological (English units)

Abbr.	Benefit	Amount (Kgal)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	84.69	±8.55	\$757	±76
E	Evaporation	391.30	±39.51	N/A	N/A
I	Interception	392.33	±39.61	N/A	N/A
Т	Transpiration	437.53	±44.18	N/A	N/A
PE	Potential Evaporation	2,213.64	±223.51	N/A	N/A
PET	Potential Evapotranspiration	1,631.86	±164.77	N/A	N/A

Currency is in USD. 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/ac/yr @ \$/Kgal/yr: AVRO 20.937 @ \$8.94 | E 96.738 @ N/A | I 96.993 @ N/A | T 108.167 @ N/A | PE 547.258 @ N/A | PET 403.431 @ N/A (English units: Kgal = thousands of gallons, ac = acres)

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.









Use of this tool indicates acceptance of the <u>EULA</u>.