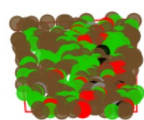


# i-Tree Canopy v7.0

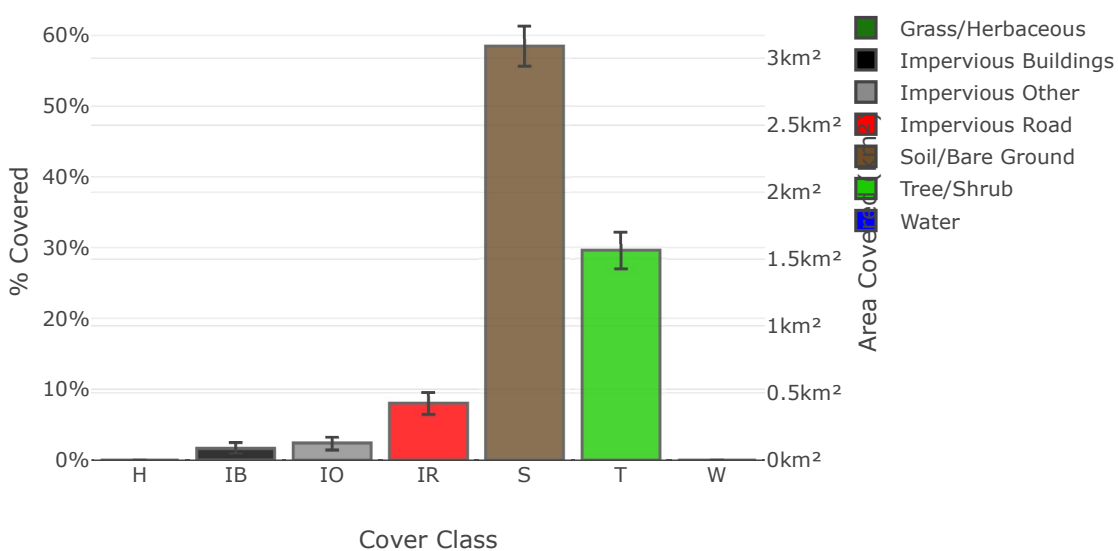
## Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 4/30/2020



Google

Land Cover



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (km²) ± SE
H	Grass/Herbaceous		0	0.00 ± 0.00	0.00 ± 0.00
IB	Impervious Buildings		5	1.66 ± 0.74	0.09 ± 0.04
IO	Impervious Other		7	2.33 ± 0.88	0.12 ± 0.05

Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (km <sup>2</sup> ) ± SE
IR	Impervious Road		24	7.97 ± 1.56	0.42 ± 0.08
S	Soil/Bare Ground		176	58.47 ± 2.84	3.09 ± 0.15
T	Tree/Shrub		89	29.57 ± 2.63	1.56 ± 0.14
W	Water		0	0.00 ± 0.00	0.00 ± 0.00
<b>Total</b>			<b>301</b>	<b>100.00</b>	<b>5.28</b>

### Tree Benefit Estimates: Carbon (Metric units)

Description	Carbon (t)	±SE	CO <sub>2</sub> Equiv. (t)	±SE	Value (USD)	±SE
Sequestered annually in trees	478.16	±42.54	1,753.27	±155.97	\$44,947	±3,998
Stored in trees (Note: this benefit is not an annual rate)	12,008.48	±1,068.26	44,031.11	±3,916.96	\$1,128,798	±100,417

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 306.000 t/km<sup>2</sup>/yr. Carbon stored is based on 7684.808 t/km<sup>2</sup>. Carbon is valued at \$25.64/t. (Metric units: t = tonnes, metric tons, km<sup>2</sup> = square kilometers)

### Tree Benefit Estimates: Air Pollution (Metric units)

Abbr.	Description	Amount (kg)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	430.70	±38.31	\$12	±1
NO2	Nitrogen Dioxide removed annually	1,652.23	±146.98	\$10	±1
O3	Ozone removed annually	7,990.90	±710.86	\$198	±18
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	5,968.70	±530.97	\$751	±67
PM2.5	Particulate Matter less than 2.5 microns removed annually	161.96	±14.41	\$154	±14
SO2	Sulfur Dioxide removed annually	185.50	±16.50	\$0	±0
<b>Total</b>		<b>16,389.99</b>	<b>±1,458.04</b>	<b>\$1,125</b>	<b>±100</b>

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 kg/km<sup>2</sup>/yr @ \$/kg/yr:

CO 275.628 @ \$0.03 | NO2 1,057.339 @ \$0.01 | O3 5,113.764 @ \$0.02 | PM10\* 3,819.656 @ \$0.13 | PM2.5 103.647 @ \$0.95 | SO2 118.709 @ \$0.00 (Metric units: kg = kilograms, km<sup>2</sup> = square kilometers)

### Tree Benefit Estimates: Hydrological (Metric units)

Abbr.	Benefit	Amount (kl)	±SE	Value (USD)	±SE
AVRO	Avoided Runoff	176.49	±15.70	\$417	±37
E	Evaporation	63,909.82	±5,685.35	N/A	N/A
I	Interception	64,307.04	±5,720.69	N/A	N/A
T	Transpiration	279,629.88	±24,875.58	N/A	N/A
PE	Potential Evaporation	1,184,266.95	±105,351.15	N/A	N/A
PET	Potential Evapotranspiration	1,057,267.34	±94,053.40	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 kl/km<sup>2</sup>/yr @ \$/kl/yr:

AVRO 112.943 @ \$2.36 | E 40,898.973 @ N/A | I 41,153.174 @ N/A | T 178,948.641 @ N/A | PE 757,869.528 @ N/A | PET 676,596.352 @ N/A (Metric units: kl = kiloliters, km<sup>2</sup> = square kilometers)

#### 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 [EULA](#).