

# i-Tree Canopy v6.1

## Cover Assessment and Tree Benefits Report

*Estimated using random sampling statistics on 9/15/17*



Cover Class	Description	Abbr.	Points	% Cover
Non-Tree	All other surfaces	NT	354	88.5 $\pm$ 1.60
Tree	Tree, non-shrub	T	46	11.5 $\pm$ 1.60

**Tree Benefit Estimates**

Abbr.	Benefit Description	Value (USD)	±SE	Amount	±SE
CO	Carbon Monoxide removed annually	33.53 USD	±4.65	1,002.44 lb	±139.04
NO2	Nitrogen Dioxide removed annually	47.95 USD	±6.65	2.85 T	±0.40
O3	Ozone removed annually	1,571.33 USD	±217.95	22.48 T	±3.12
PM2.5	Particulate Matter less than 2.5 microns removed annually	1,329.03 USD	±184.34	1,589.38 lb	±220.46
SO2	Sulfur Dioxide removed annually	0.87 USD	±0.12	422.07 lb	±58.54
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	3,334.35 USD	±462.49	9.94 T	±1.38
CO2seq	Carbon Dioxide sequestered annually in trees	145,017.87 USD	±20,114.73	4,113.35 T	±570.54
CO2stor	Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)	3,150,247.04 USD	±436,955.62	89,355.08 T	±12,394.01

*i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and USD/T/yr: CO 1.410 @ 67.13 USD | NO2 8.019 @ 16.88 USD | O3 63.246 @ 70.15 USD | PM2.5 2.236 @ 1,678.31 USD | SO2 0.594 @ 4.16 USD | PM10\* 27.974 @ 336.53 USD | CO2seq 11,572.686 @ 35.38 USD | CO2stor is a total biomass amount of 251,395.359 @ 35.38 USD*

*Note: Currency is in USD*

*Note: Standard errors of removal amounts and benefits were calculated based on standard errors of sampled and classified points.*

**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.

**A Cooperative Initiative Between:**



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