



# i-Tree Canopy<sub>v6.1</sub>

## Cover Assessment and Tree Benefits Report

*Estimated using random sampling statistics on 6/03/15*

Percent Cover ( $\pm$ SE)



| Cover Class | Description | Abbr.      | Points | % Cover         |
|-------------|-------------|------------|--------|-----------------|
| Not a Tree  | Not a Tree  | Not a Tree | 372    | 93.2 $\pm$ 1.26 |
| Tree        | Tree        | Tree       | 27     | 6.77 $\pm$ 1.26 |

### Tree Benefit Estimates

| Abbr.   | Benefit Description   | Value        | ±SE        | Amount      | ±SE       |
|---------|---|--------------|------------|-------------|-----------|
| CO      | Carbon Monoxide removed annually  | \$49.91      | ±9.28      | 75.13 lb    | ±13.96    |
| NO2     | Nitrogen Dioxide removed annually   | \$198.63     | ±36.91     | 1,908.40 lb | ±354.63   |
| O3      | Ozone removed annually  | \$5,361.64   | ±996.32    | 6.19 T      | ±1.15     |
| PM2.5   | Particulate Matter less than 2.5 microns removed annually                             | \$-1,704.43  | ±316.72    | 179.88 lb   | ±33.43    |
| SO2     | Sulfur Dioxide removed annually   | \$40.75      | ±7.57      | 1,178.12 lb | ±218.92   |
| PM10*   | Particulate Matter greater than 2.5 microns and less than 10 microns removed annually | \$14,790.64  | ±2,748.46  | 2.37 T      | ±0.44     |
| CO2seq  | Carbon Dioxide sequestered annually in trees  | \$24,130.41  | ±4,484.02  | 1,246.19 T  | ±231.57   |
| CO2stor | Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)             | \$524,188.93 | ±97,407.18 | 27,071.21 T | ±5,030.50 |

*i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and \$/T/yr: CO 0.349 @ \$1,333.50 | NO2 8.861 @ \$208.90 | O3 57.464 @ \$869.53 | PM2.5 0.835 @ \$-19,017.50 | SO2 5.470 @ \$69.42 | PM10\* 21.989 @ \$6,268.44 | CO2seq 11,572.686 @ \$19.43 | CO2stor is a total biomass amount of 251,395.359 @ \$19.43*

*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:



[www.itreetools.org](http://www.itreetools.org)