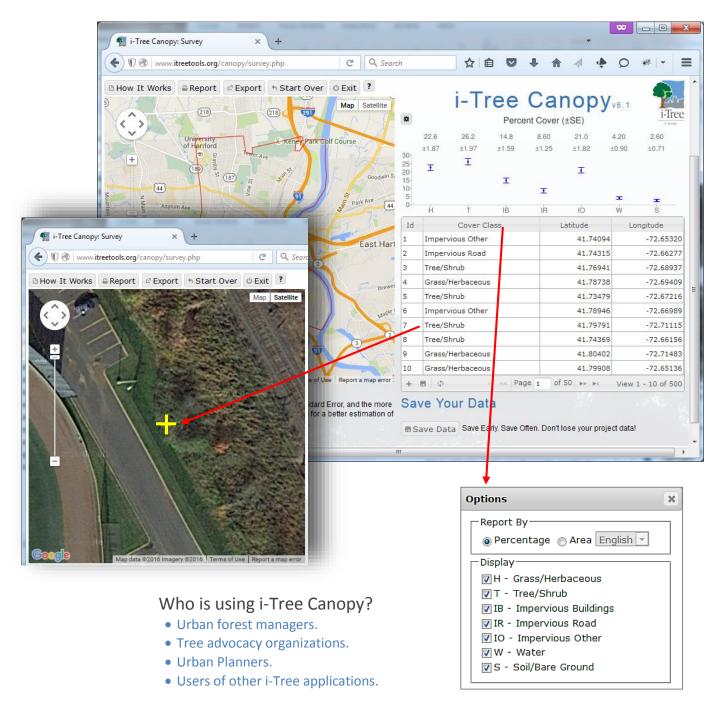


i-Tree Canopy

www.itreetools.org/canopy

#### Quickly determine tree canopy and other cover types for a study area using random plot sampling!



1) Draw the boundary of your area of interest in Canopy or import using a GIS shapefile.

- 2) Define the cover types you are interested in estimating.
- 3) i-Tree Canopy will generate random sample points...
- 4) You decide their cover type category.

5 Steps: -

5) Save your project and return to add more points, view the results, or estimate changes in cover.

# i-Tree Canopy

www.itreetools.org/canopy

### How it works:

i-Tree Canopy is a web browser application that can be used to determine the amount of an area of interest covered by tree canopy and other user-defined surfaces.

It automatically generates random plot points within your study area boundaries. You simply visit each point and assign a land cover category to it. Land cover estimations and Tree benefit estimates are then generated statistically.

🕵 i-Tree Canopy: Cover Report - 1/2... 🗙 🛛 🕂 ♦ ① ③ www.itreetools.org/canc □ ⊂ Q Search ☆ 自  $\sim$ 1 ۵ »  $\equiv$ л. 合 i-Tree Canopy<sub>v6.1</sub> Cover Assessment and Tree Benefits Report i-Tree Estimated using random sampling statistics on 1/29/16 Percent Cover (±SE) -22.6 26.2 14.8 8.60 21.0 4.20 2.60 ±1.87 ±1.97 ±1.59 ±1.25 ±1.82 ±0.90 ±0.71 30 28-26 24 22 20 18-16 14-12-10-Ŧ 8 6 Ŧ 4 Ŧ i'n ιò ŵ Ś Cover Class Description Abbr. Points % Cover Grass/Herbaceous 113 226+187 н Tree/Shrub 131 26.2 ±1.97 Impervious Buildings IB 14.8 ±1.59 74 Impervious Road IR 43 8.60 ±1.25 Impervious Other 10 105 21.0 ±1.82 Water 21 4.20 ±0.90 w Soil/Bare Ground s 13 2.60 ±0.71 Tree Benefit Estimates -Abbr. Benefit Description Value ±SE Amount ±SE 3.29 T Carbon Monoxide removed annually \$2,042.42 ±153.30 ±0.25 co NO2 \$1,955,81 ±146.80 8.15 T ±0.61 Nitrogen Dioxide removed annually 03 Ozone removed annually \$77.039.58 ±5.782.38 57.57 T ±4.32 PM2.5 Particulate Matter less than 2.5 microns removed annually \$156,116,15 ±11.717.65 2.86 T ±0.21 SO2 Sulfur Dioxide removed annually \$120.28 +9.031.54 T +0.12Particulate Matter greater than 2.5 microns and less than 10 PM10\* \$26,900.62 ±2,019.09 7.99 T ±0.60 microns removed annually CO2seq Carbon Dioxide sequestered annually in trees \$427,627.81 ±32,096.56 11,818.75 T ±887.08 CO2stor Carbon Dioxide stored in trees (Note: this benefit is not an \$13,760,886,59 ±1,032,854,03 380,277,02 T ±28,542,54 i-Tree Canopy Annual Tree Benefit Estimates based on these values in Ibs/acre/yr and \$/T/yr: CO 2 178 @ \$622.27 | NO2 5 388 @ \$240.80 | O3 38.06 @ \$1,342.88 | FM2.5 1.888 @ \$54,870.16 | SO2 1.020 @ \$78.22 | FM10\* 5.284 @ \$3,377.18 | CO2seq 7,813.198 @ \$38.31 | CO2stor is a total bioms amount of 251,353 359 @ \$35.31 ed based on standard errors of sampled and classified points



## What results does i-Tree Canopy generate?

- The relative amounts of cover types you define.
- Changes in cover type over time when used with Google Earth.
- Reported estimates as acreages or percentages.
- Statistical precision of cover type estimates.

#### What are applications of i-Tree Canopy?

- Compare tree canopy cover in different parts of a city.
- Identify amount of space available for new tree planting.
- Estimate amount of impervious surfaces contributing to storm water run-off.
- Generate local inputs for i-Tree Hydro and i-Tree Vue.

Send us an e-mail at: info@itreetools.org

with your own unique applications - or if you have questions about i-Tree Canopy.







