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# i-Tree Canopy



## i-Tree

Tools for Assessing and Managing  
Community Forests

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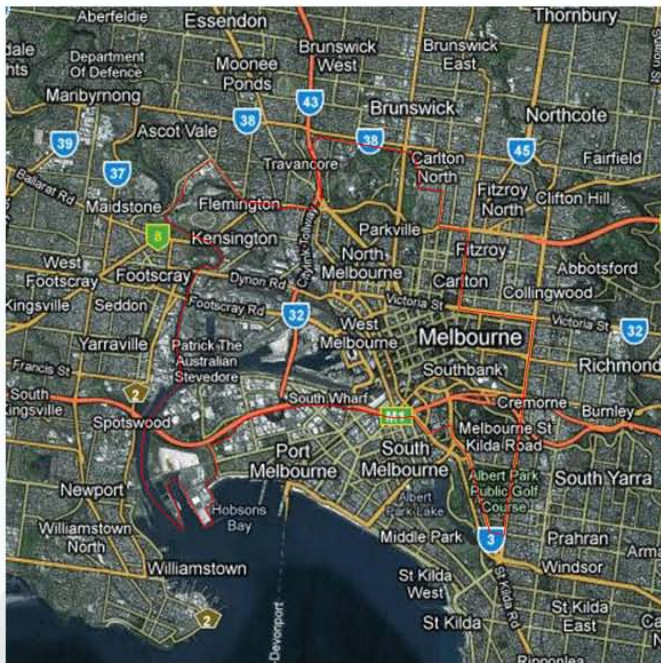
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- With i-Tree Canopy, you can load a polygon boundary in ESRI Shapefile format on the map above and conduct a cover assessment for a project area.
- Collect data on your own cover classes of interest.
- 500-1000 survey points are suggested; the more points you complete, the better your

## i-Tree Canopy



### Get started in three easy steps!

Browse to your project area boundary GIS file. The file must be in ESRI Shapefile format and in lat/long coordinates.

One

[Load ESRI Shapefile ?](#) Or [Load Sample Project >](#)

Configure the cover classes for your survey.

Two

[Configure Survey > ?](#)

Three

[Begin i-Tree Canopy Survey > ?](#)

### Been here before?

Already started an i-Tree Canopy survey?  
Load it here and resume your work.

[Load Previous i-Tree Canopy Survey ?](#)

### More Information!

[Technical Notes](#)





# You choose the cover classes

i-Tree Canopy: Configure Survey - Windows Internet Explorer provided by USDA Forest Service

http://dev.itreetools.org/canopy/config.php

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i-Tree Canopy: Configure Survey

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## i-Tree Canopy

### Configure Survey

Help

**Cover Classes**

	Cover Class	Abbreviation	Description	Show Estimation
1	Tree	T	Tree, non-shrub	<input checked="" type="checkbox"/>
2	Non-Tree	NT	All other surfaces	<input checked="" type="checkbox"/>

Page 1 of 1 View 1 - 2 of 2

**Add Record**

Cover Class

Abbreviation

Description

Show Estimation

Submit Cancel

Done



# Classify random points



**i-Tree Canopy: Survey - Windows Internet Explorer provided by USDA Forest Service**

http://dev.itreetools.org/icanopy/survey.php

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## i-Tree Canopy

Percent Cover ( $\pm$ SE)

<p>42.9 <math>\pm</math>24.7</p> <p>T</p>	<p>57.1 <math>\pm</math>28.6</p> <p>NT</p>
---	--

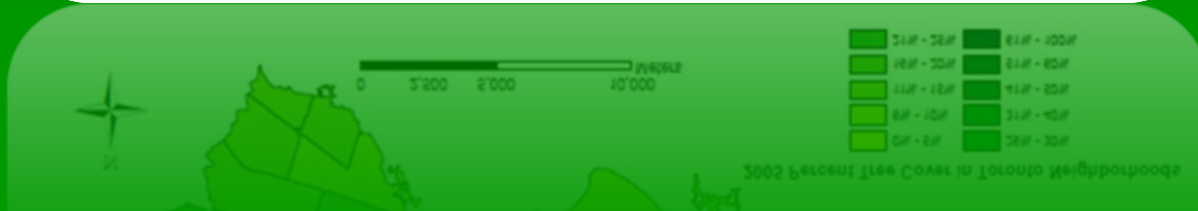
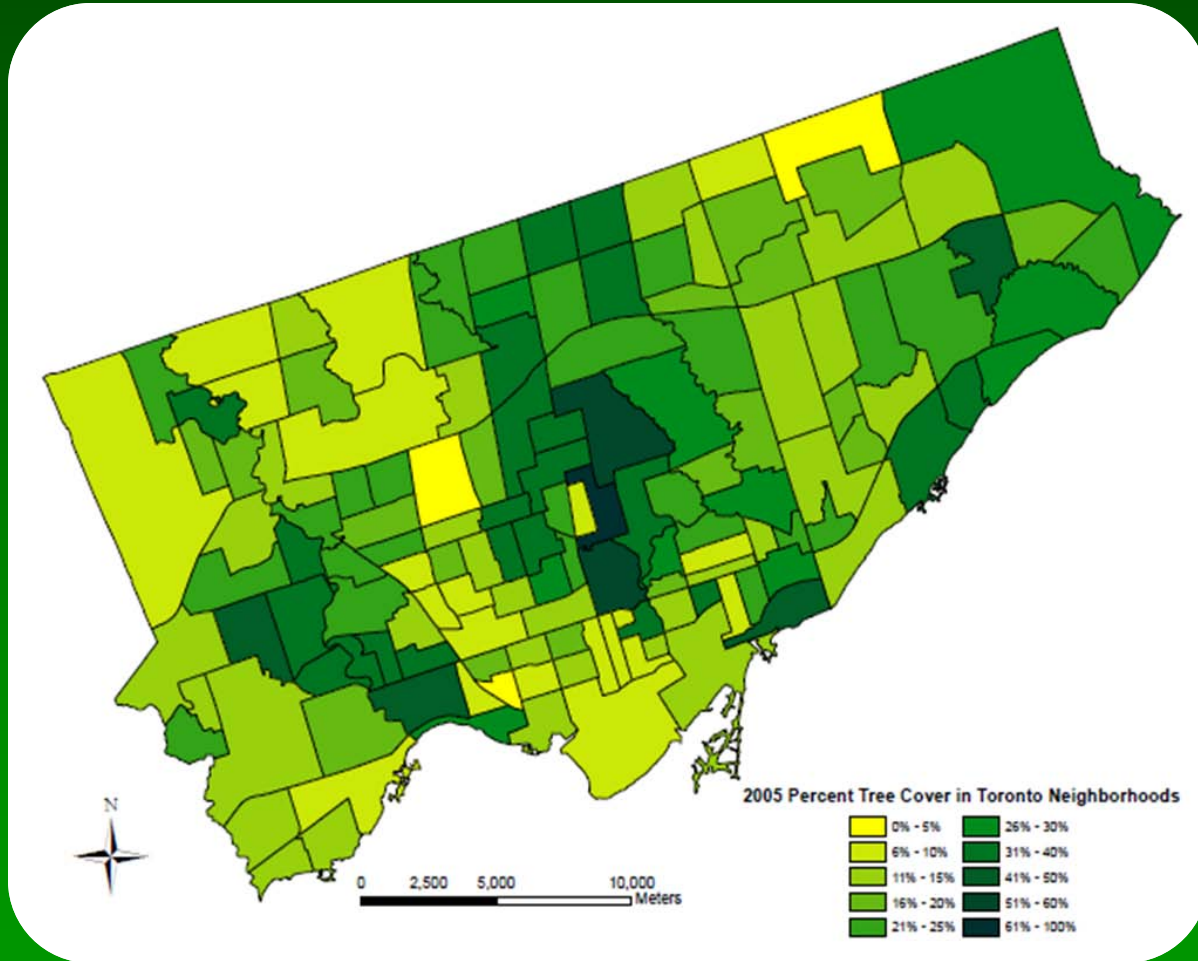
Id	Cover Class	Latitude	Longitude
1	Tree	-37.82930543236	144.91265730117
2	Tree	-37.81302356330	144.95401488007
3	Tree	-37.81913019363	144.97617933379
4	Non-Tree	-37.82964905605	144.98052520547
5	Non-Tree	-37.81840952395	144.97104739912
6	Non-Tree	-37.82188855427	144.94620800253
7	Non-Tree	-37.81882077	144.92805906653
8	Tree	-37.78606178650	144.94090887519

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Save Your Data

Remember, the more points you survey, the lower your Standard Error, and the more precise your sampling will be. More points surveyed provide for a better estimation of total canopy cover in your study area.

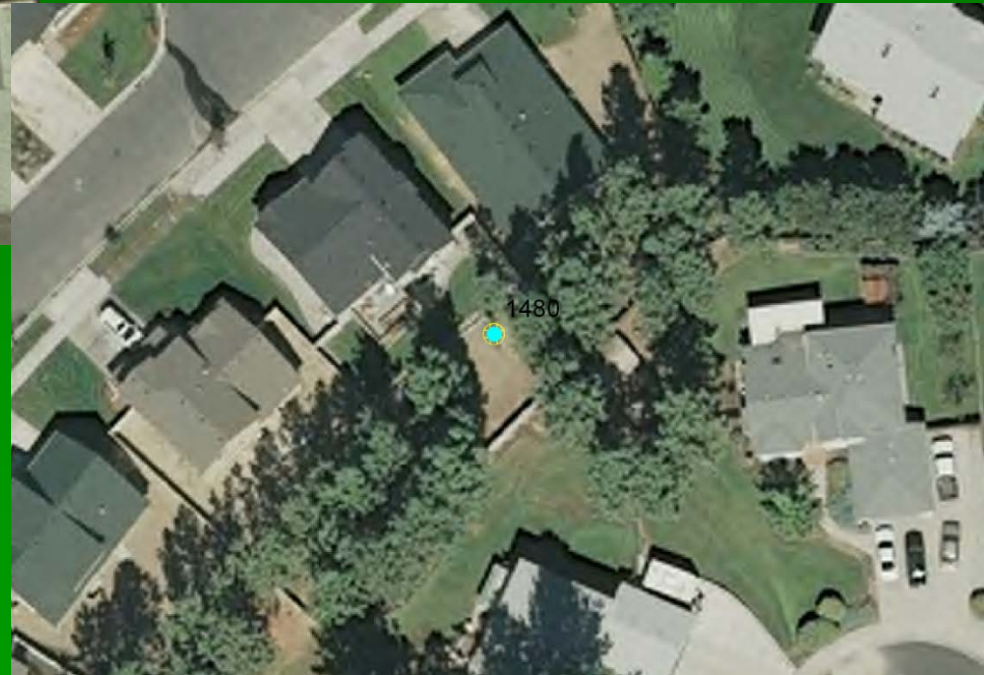
# PI Mapping



# Change Analysis



2002



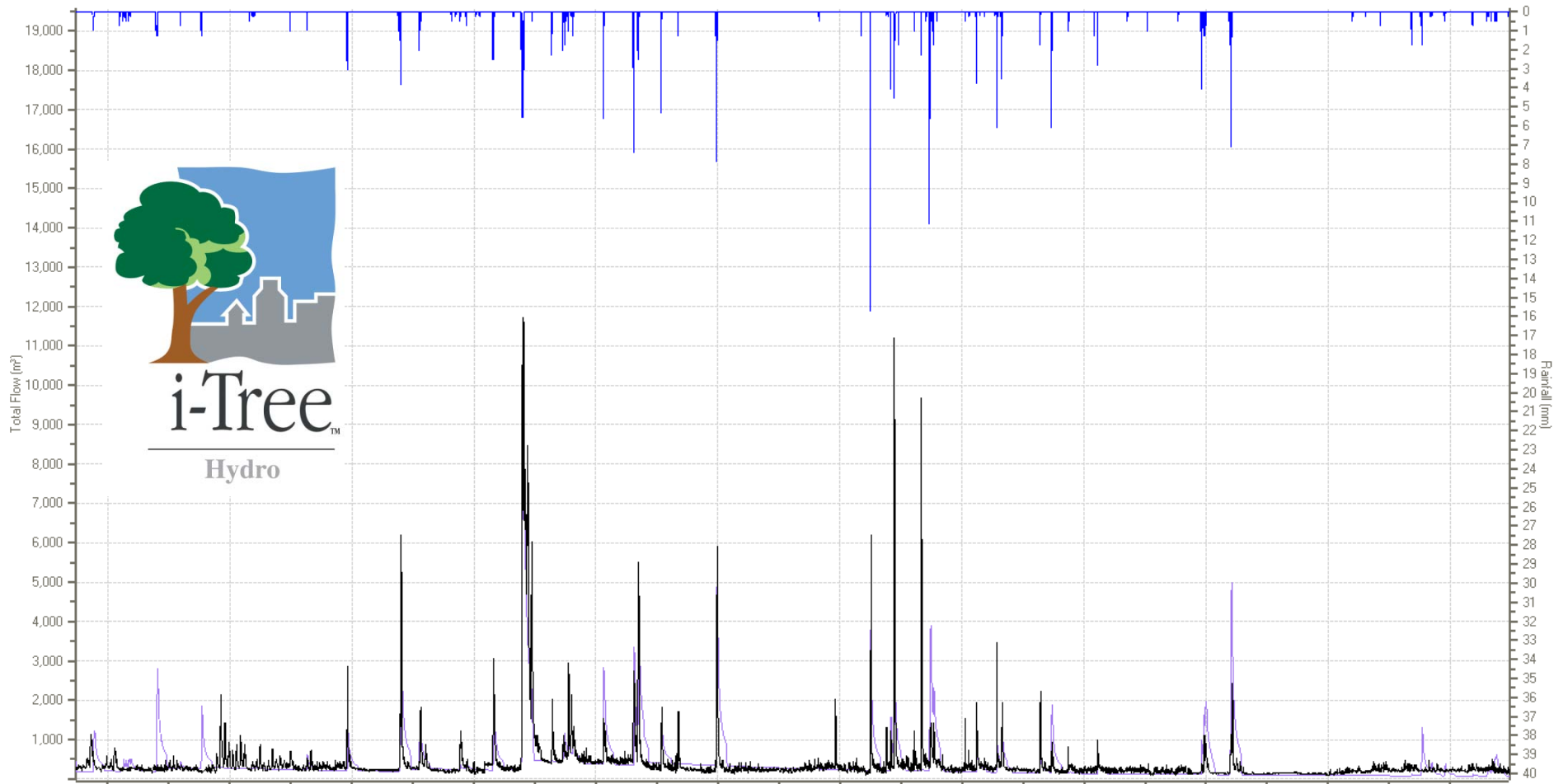
2007



# i-Tree-Hydro



- Separate GIS program
- Calibrates against stream flow data







# i-Tree Hydro

- More complicated model
- Simulates stream flow
  - Watershed based analysis
- More data requirements
- Better than just estimating interception/transpiration
  - Links to flow
  - Just because a tree intercepts water does not mean it affects stream flow
  - Hydro processes being linked to Eco and Design



# Hydro Steps

- 1) Determine your watershed
- 2) Download and process national digital elevation data
- 3) Determine cover attributes
- 4) Get started with Hydro
- 5) Calibrate the model
- 6) Model new scenarios





Questions?

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[nrs.fs.fed.us/units/urban](https://nrs.fs.fed.us/units/urban)