

# Tools for assessing and managing Community Forests



**i-Tree Newsletter—December 2010**

## IPED Pest Evaluation & Detection

The Integrated Pest Evaluation and Detection module (IPED) provides a systematic protocol for long-term pest detection and monitoring. It allows users to collect pest signs and symptoms as part of their field inventory to better understand the threat invasive pests and diseases pose to their forest.

In i-Tree Streets v4, the beta IPED module will be enhanced with advance pest reporting and analysis functionality. In addition to the current pest summary and symptom reports now available, users will have the ability to dynamically query and review pest and symptom data records for more in-depth analyses of their inventory records.

The IPED protocol is designed to be compatible with any inventory system—i-Tree or not—and will be integrated into i-Tree Eco as an optional module in future versions. Numerous [online resources](#) are available to assist IPED users with all project phases and further pest and disease investigation.

If you are planning or considering an upcoming inventory project with the IPED protocol, please contact [i-Tree Support](#). The IPED Development Team is interested in identifying and assisting early adopters of the protocol. Visit the [IPED web](#) page to learn more about this tool.

## Version 4 highlight: i-Tree Eco online results processing

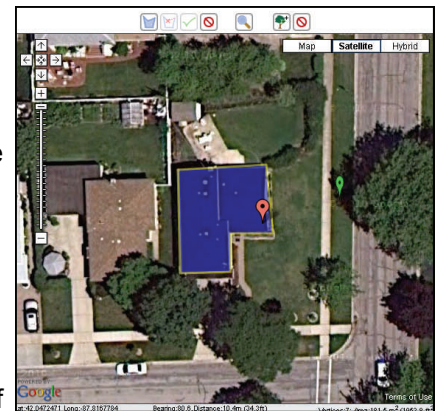
The i-Tree Development Team is implementing a new system that will allow Eco users to submit their Eco project data and receive their results

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## i-Tree version 4 preview

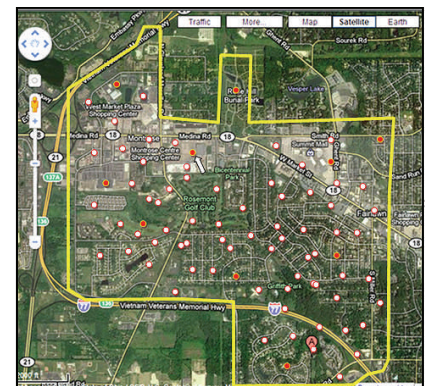
The i-Tree Team is excited to announce the addition of several new tools and upgrades to existing applications that will soon be available in the i-Tree version 4 suite. The Development Team has been working diligently to complete tasks, test the tools and develop user manuals for the upcoming release—expected in early 2011. i-Tree Hydro will be released along with two new exciting online tools: i-Tree Design (beta) and i-Tree Canopy. Below is a quick preview of what i-Tree users can expect with version 4.0.

**i-Tree Design** (beta) is a simple and accessible online tool that provides a platform for assessments of individual trees at the parcel level. This tool takes the [National Tree Benefit Calculator](#) to the next level by linking to Google maps and allowing users to see how tree selection, size and placement around their home affects energy use and savings. This tool will retain the easy access, simplicity, and functionality of the Tree Benefit Calculator, but do so under the tutelage of the i-Tree Team.



With Design, which is based on i-Tree Streets and Eco methodologies, users can assess existing trees or potential new plantings. This tool is geared toward home-owners, tree advocates, educators, school children or anyone interested in quickly learning about tree benefits. i-Tree Design is a beta tool that provides the platform for more sophisticated parcel-based analysis options to be integrated in future versions.

**i-Tree Canopy** is a new utility that will allow users to easily photo-interpret Google aerial images of their area of interest to produce statistically valid estimates of land cover types. This tool provides a simple, quick, and inexpensive means for cities and forest managers to accurately estimate tree canopy and other cover types for purposes of planning, setting canopy goals, and tracking success.



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## Eco online results processing

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within hours versus the current waiting period of weeks. Online processing will only be functional for projects completed within the U.S. International Eco users will need to continue to submit project and pollution data for manual processing.

A dedicated server will accept and process Eco data in cycles throughout the day completing the analyses steps which are currently performed by the US Forest Service. Users will be notified automatically by email when results are ready to be downloaded.

## Resources for Users: i-Tree Streets Import Guide

Importing an existing street tree inventory into i-Tree Streets is one of the quickest and easiest ways for users to take advantage of the i-Tree assessment tools.

There are several resources now grouped together on the i-Tree website [Resources—Archives](#) page which provide more detailed instruction for users interested in formatting and importing their existing street tree inventory into Streets.

The [Formatting Existing Inventories into Streets Guide](#) is designed to compliment the existing Streets Users Manual focusing on several key phases of the import process, including planning, formatting, importing and setting up a Streets ready project.

The short import guide also references additional useful resources and dataset examples which can be accessed in the [Streets Existing Inventory Import Resources](#) section.

## i-Tree version 4 preview

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i-Tree Canopy can be used anywhere in the world where high-resolution, cloud-free Google images exist. Users will first need to import an area boundary created with ESRI ArcGIS. Canopy will then allow the user to define land cover classifications and generate random points which can then be analyzed to determine coverage estimates.

**i-Tree Hydro** (beta) is a new application designed to simulate the effects of changes in tree and impervious cover within a watershed on hourly stream flow and water quality. It contains auto-calibration routines to help match model estimates with measured hourly stream flow and produces tables and graphs of changes in flow and water quality due to changes in tree and impervious cover within the watershed.

Hydro is designed for natural resource managers, planners and others interested in modeling the watershed-scale effects that vegetation has on local hydrology and water quality. This stand-alone model will require several inputs including a digital elevation model of a defined watershed, hourly stream flow data, local hourly weather and evapotranspiration data and urban forest structural data such as percent tree and shrub cover within the watershed.

Instructions will be provided to guide Hydro users who are proficient working with GIS to acquire digital elevation model data needed for analysis. Other requirements such as weather and stream flow data will be accessed through the Hydro application. Simulations and analysis are completed on the users' desktop using the Hydro interface.

**i-Tree Vue** continues its evolution providing i-Tree version 4 users with the ability to superimpose transparent national land cover data (NLCD) maps (30 m resolution) on top of Google aerial images within the application. This new feature will help users to gain orientation and evaluate differences between the 2001 NLCD data set with more recent aerial images. The new version of Vue also features a image "clipping" function to define an area boundary from within the tool.

