

i-Tree Town Hall FAQs

A summary of shared questions and useful answers from the 2022 i-Tree Town Hall series.



General i-Tree

What is the best tool to start with if I am new to i-Tree?

[MyTree](#) is the simplest tool to use and a great place to start. MyTree requires basic details about a tree, including species and diameter, along with user location. It quickly summarizes the benefits a tree provides and their monetary value. MyTree provides for both the current year and projected benefits over the next 20 years. MyTree is web-based and works in all modern browsers on computers and mobile devices.

Does i-Tree account for costs, liabilities, and disservices?

Users interested in the fullest accounting of benefits and costs should use i-Tree Eco. i-Tree Eco estimates some disservices of trees (e.g., VOC release, allergenicity, and negative impacts on energy use). It can also track management related conflicts like sidewalk heave or interaction with overhead utilities. Additionally, i-Tree Eco has an input form for annual costs of planting, removal, legal, administrative, etc. These costs are used to calculate a return on community investment in the assessed trees.

It is sometimes challenging to understand how benefit estimates vary between trees. How can I better understand the calculations?

[Understanding i-Tree](#) summarizes the models underlying the structure, benefits, and monetary value estimates in all the i-Tree tools. It is the best place to start understanding the i-Tree science and provides links to many peer-reviewed publications and white papers for additional details.

Is i-Tree applicable to shrubs?

If the shrub species you are interested in is in our [species list](#) then you can provide the same basic measurements as you do for trees to get ecosystem service estimates for your shrubs. Additionally, i-Tree Eco supports shrub data collection for plot-based projects. Currently, ecosystem service estimates associated with air pollution and stormwater are estimated for shrubs assessed in this way. Those estimates are lumped with tree ecosystem services, but shrub focused reporting will be added in the future.

Can i-Tree be used for carbon accounting and crediting?

The i-Tree tools do provide estimates of carbon storage and sequestration. The [i-Tree Planting](#) tool in particular was designed to meet the needs of CalFire in accounting for the greenhouse gas related benefits of the tree planting they were funding. The i-Tree team is currently exploring how to get carbon estimates formally linked to or accepted by a carbon crediting/trading system. As an example, the Green Building Council officially recommends the i-Tree tools for quantifying tree benefits as part of their LEED building certification process.

What is the relationship between i-Tree and Urban FIA (Forest Inventory and Analysis)?

Urban FIA is an expansion of the USDA Forest Service's national forest inventory into what has traditionally been considered non-forest urban areas. For more details on the Urban FIA program visit their [homepage](#). The Urban FIA field methods differ from the i-Tree Eco field methods because the goals of that program include continuous monitoring on city and larger scales. However, all the field measurements necessary to get i-Tree Eco estimates

are incorporated in Urban FIA and completed Urban FIA inventories are run through i-Tree Eco. This means all of the same ecosystem service estimates available in i-Tree Eco are also available for Urban FIA reporting and monitoring.

Will i-Tree work on my Mac?

Many of the i-Tree tools – such as MyTree, Canopy, Design, and more – are accessible through any standard web browser, including Safari, which is the default on an Apple device. This makes it easy to utilize i-Tree on whichever device you happen to have or prefer.

The use of i-Tree Eco requires the installation of the tool ([System Requirements](#)). Although it is not currently compatible with the Apple iOS operating system, Macintosh allows for the use of an emulator (such as BootCamp, or Parallels) that makes it possible to run the Windows operating system and install i-Tree Eco normally. Alternatively, there are multiple cloud-based providers that offer Desktop as a Service (DaaS) that can be an economical way to gain access to i-Tree Eco from any device.

Questions related to i-Tree Eco

Is i-Tree Eco applicable to natural areas?

Yes, i-Tree Eco can be used to estimate ecosystem services of trees outside cities or for natural areas within cities. If users are interested in natural areas, they should design their projects to best capture those areas. Approaches may include only measuring plots in natural areas or stratifying their project in ways that focus on natural areas. For more information on pre- and post-stratification see the relevant guides [here](#).

What new science metrics and subject areas are being considered for future releases of i-Tree Eco?

In the last couple of months, we have added reports on the allergenicity of trees, potential wood products, and nutrient loss to leaf and wood waste. In the near term, we are working on expanding the wildlife habitat models to include more species across broader geographies. Longer term research has begun into modernizing the energy modeling and addressing urban heat island impacts in i-Tree Eco. There is no shortage of potential research avenues for adding new and useful science to i-Tree Eco. Collaboration, funding, and suggestions are always welcome.

What is i-Tree Forecast and how does it work?

[Forecast](#) is a module embedded in i-Tree Eco. It allows you to project changes in your tree population and the associated ecosystem services over time. It relies on a stand table projection type model with growth rates varying among three levels (fast, medium, and slow) based on species. Mortality rates are controlled by the user. It includes the ability to plant new trees, and to design mortality events like large storms or pest invasions to help model a variety of future scenarios. All these parameters are flexible and can be adjusted to best reflect local conditions.

Where do the i-Tree species codes come from?

The species codes were originally aligned with the USDA Plants database. However, that database has changed over time and keeping up with those changes would require significant software development to ensure that both past and current projects were correctly matching codes to the current [species list](#). With the development of the i-Tree Eco data importer most users should be able to import data with common or scientific names and can ignore the species codes altogether.

Can I import data into an Eco project?

Yes, tree data in a spreadsheet can be imported into a project that has been set up as a complete inventory project. At this time, only complete inventory data can be imported. Review the [import video walkthrough](#) for more details.

Can I import data for plot-based projects?

This is in the works and is slated to be available by early 2023. The plot importer should increase flexibility for i-Tree Eco users already collecting plot data. It will also support increased use in traditional forestry applications where plot-based sampling is common and there may already be many existing data sets.

Is it possible to receive separate heating and cooling energy benefits results per tree?

Yes, this is possible in i-Tree Eco. Users must collect the distance and direction from the tree to residential buildings. Qualifying trees must be within 60 feet of a space conditioned building that is three stories or less in height. These heating and cooling related results can be viewed under the Reports > Formatted Reports > Individual Level Results > Tree Benefits and Costs > Energy Effects menu option.

Questions specific to other i-Tree tools

The species I am interested in is not in i-Tree - how can I have it added?

Before submitting a request to add new species it is worth double-checking that the species or its synonyms are not already in the [i-Tree species list](#). New individual species can always be submitted through [i-Tree Database](#). If you have a large list of new species, please contact us at info@itreetools.org. We can provide you with a template for bulk submission. If you have species specific allometric equations you would like to submit for addition to the tools they can also be sent to info@itreetools.org. The current i-Tree species list includes over 8,000 species. We are no longer using cultivars in the species list as they created confusion and there was typically not adequate data to support models for individual cultivars.

What happened to i-Tree Streets?

i-Tree Streets is a legacy software that will not be updated going forward. This decision was made because it was not possible to update any of the science underlying i-Tree Streets models leading to increasingly outdated estimates. Nearly all of the functionality of i-Tree Streets was ported to i-Tree Eco which is undergoing consistent updates. The only i-Tree Streets functionality that is not currently in i-Tree Eco is the ability to conduct a street segment sample. Adding this functionality into i-Tree Eco requires additional research, and is currently being explored. If users would still like to use i-Tree Streets they can install it using the [downloaded installer](#) and selecting “Full” or “Custom” during the installation process.

If I want to use MyTree to assess a park or planting project is there a limit on the number of trees?

My Tree is limited for these types of applications because it is not possible to save the project data. However, the [Trillion Trees](#) platform does allow users to retrieve results for a given MyTree project. If you want a very simple data collection tool, MyTree is appropriate for small projects with a few dozen trees. For a more robust individual tree data collection option you may want to explore the [mobile data](#) collector in i-Tree Eco. As with all projects, we recommend testing the tools for your application to make sure they meet your needs and expectations.

Can I build a custom Prioritization Index using i-Tree Landscape?

Yes! The Planting Prioritization set up in i-Tree Landscape offers three standard scenarios (prioritizing areas of high population density, high minority areas, or high poverty neighborhoods), plus an option to add and weight other data variables as desired (for example, prioritizing locations where pollution levels are high, where urban heat impacts are more intense, or where future precipitation levels are expected to change due to climate changes). All of these options can help you assess the distribution of tree benefits across your community and visualize where efforts to increase and maintain them could be most equitable and efficient.

How often are data layers updated in i-Tree Landscape?

Landscape offers a wide assortment of data and map layers that are publicly available for the US nationwide. This includes land and canopy cover from USFS, demographic information from the Census, environmental quality data from the EPA, prevalence of risk due to future climate changes from wildfire, heat, and sea-level rise, and many others related to public health and tree health. Data is updated on a rolling basis, as they are made available and if they are compatible for analysis within the geography structure of the tool.

Can I use local urban tree canopy (UTC) data in i-Tree Landscape?

As more places in the US begin to collect high-resolution land cover data for cities, towns, and natural areas, they are becoming increasingly useful to land and forest managers and planners. Landscape has incorporated this data for several locations, and more information about availability can be found [here](#). Currently, Landscape does not support the uploading of data by individual users, but you can submit your data for permanent integration as described on that page.

Can I import my own imagery into i-Tree Canopy?

Unfortunately, it is not possible to import your own imagery into i-Tree Canopy. This limitation is necessary to maintain the simplicity of tool which does not require GIS expertise. Advanced users can replicate the i-Tree Canopy [methods](#) in a GIS. They could do this either outside of i-Tree Canopy or with the change survey methods using their own imagery in a GIS rather than using Google Earth.

I have seen several other tools, some proprietary and some free to use, that include i-Tree benefits estimates. How are those numbers generated?

In most cases those groups are using the i-Tree API which will return the same benefits numbers provided by the individual tree-based on-line tools (MyTree and i-Tree Design). These users pay a nominal per-tree fee to support the server the API relies on. For more details on the API visit this [page](#).

Putting the i-Tree tools to work

How can I learn more about using i-Tree to address different kinds of management needs and capacities?

Whether you work with a large municipal department or a small group of volunteers, i-Tree can help you understand what tree benefits you have, and how to plan for strategies that can maximize those benefits in the future. Through [videos](#), [manuals](#), and the How-To guides embedded in the tools, there are many ways to discover which tools can work best for which situations, and how to get the most out of the data. There are also [resource pages](#) available where you can explore how [other projects](#) have used i-Tree to assess their locations, and share the results through meaningful outreach.

Can i-Tree interact with other tools like a tree asset management application or mapping software?

i-Tree does not have any dynamic linkages built with other software. However, it is increasingly simple to import individual tree data in a spreadsheet into i-Tree Eco. It is also possible to export individual tree benefits estimates and other results out of i-Tree Eco. Given the coordinate capture functionality of the i-Tree Eco mobile data collector, it is possible to collect location data that can easily be exported and turned into a map using mapping or GIS software. There is lots of flexibility around what you can do through import and export. Learn more about importing into i-Tree Eco [here](#) or with this [video walkthrough](#).

How do I find out how others have used i-Tree? How can I share my own work?

We post projects that users share with us [here](#). For selected projects we have additional context on our [Project Profiles](#) page. We are happy to share user projects and know that the i-Tree community benefits from seeing a wide variety of applications of the different tools. If you have a project that you would like to share, please email us at info@itreetools.org.

Are there recommended tools to record i-Tree data in the field?

The web-based MyTree is designed to be used on a tablet or smart phone and can be used for simple field data collection. For i-Tree Eco there is built-in mobile data collection functionality through a cell phone or tablet. We recommend that users collect field data while they have a cellular data connection. Some users have had success using Eco's mobile data collector by opening the collector when they have a data connection, collecting data, then returning to a location with a data connection to submit data. If you have an alternative data collection device, as long as you are conducting a complete inventory and can export your data as a spreadsheet, you can readily import that data into i-Tree Eco. For users who prefer to collect data on paper the mobile data collector interface for i-Tree Eco can be used in any web-browser allowing for multiple people to enter data at the same time.

Science of i-Tree

I am interested in the research going on to support i-Tree. How can I learn more?

If you want to know more about the peer reviewed publications that provide the backbone of the current ecosystem service estimates review the [Understanding i-Tree](#) document and our [methods](#) webpage. If you are interested in using the latest i-Tree research or would like see what might be on the horizon check out [i-Tree Hydro+](#) and the [Research Suite](#). These tools are under active development and their use requires a high degree of computer literacy. The Research Suite acts as an incubator for testing, refining, and evaluating ideas before potential incorporation into other i-Tree tools.

Does i-Tree estimate ecosystem service values in local currency? How?

Outside the US there are currently [37 countries](#) that are fully integrated into the i-Tree tools. For these locations we have a database of local monetary values for some of the ecosystem services that were provided by local partners. Those local partners would need to be contacted for more details on the origin of those values. For all other values and locations, we use the latest US dollar to local currency exchange rates provided by this service, <https://openexchangerates.org/>.