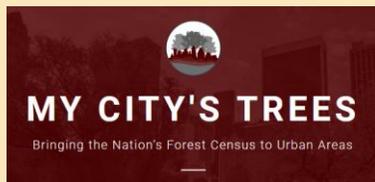


# FIA Urban Program

## My City's Trees

[My City's Trees](#) is a web-based application that allows users to explore urban forest inventory data associated with U.S. cities.



## Ecosystem Services

Along with traditional FIA values and estimates, Urban FIA also produces estimates to quantify the impacts of trees in urban areas. These estimates include:

- Savings in residential energy costs
- Reduction in surface water runoff
- Removal of pollutants and particulate matter
- Avoided health effects to urban residents

## Implementation Map

As it grows, an increasing number of cities and states are active in the Urban FIA program. Find the map of active and future inventories [here](#).



Since its inception in 1928 with the passage of the McSweeney/McNary Act, the Forest Inventory and Analysis program has continuously evolved and adapted to meet the growing needs of citizens and policy makers. After an initial focus on harvestable timberlands, the program eventually evolved to include all forestlands. As scientific knowledge grew, it became increasingly evident that research of the impacts and benefits of urban trees was needed, and the FIA program was poised for further enhancement. The 2014 Farm Bill asked FIA to explore options to expand the inventory grid into urban areas. The current Urban FIA program grew out of that request, moving the program beyond forestland to include an inventory of urban forests.



*Photo 1: A South African coral tree (Erythrina caffra) overlooks the San Diego marina. (Photo by Brian Widener, City of San Diego)*

With more than 80% of the U.S. population living in urban areas, trees in and around cities are on the front line of service to people. The benefits that urban trees provide, such as pollution removal, reduction of heating and cooling costs and decreased water runoff can be quantified and even monetized for a more complete understanding of their impacts. Our understanding of less quantifiable benefits of urban trees, such as improved mental health, reduced crime rates and stronger communities can also be improved by learning the current and changing status of urban forests across the country.

## Quantifying Urban Forests

All trees in urban areas are considered to be part of the urban forest. Whether they are individual trees planted in a maintained area along a right-of-way, a shade tree in a backyard, or part of a wooded area within a park, these trees provide important services. To measure and quantify these services, the FIA program has collaborated with i-Tree, a state-of-the-art, peer-reviewed software suite from the USDA Forest Service that provides urban forestry analysis and benefits assessment tools. This collaboration has fused the infrastructure of the FIA program and the urban inventory expertise of the i-Tree program together to form the new Urban FIA protocols which are used to produce design-based estimates of the quantity, health, composition, and benefits of urban trees and forests. The fusion of these two programs allows Urban FIA data to be used by users of traditional FIA data as well as by a broad new set of users interested in the ecosystem services information provided by i-Tree.

## Urban National Landowner Survey

To complement the research and knowledge gained from the Urban FIA program, the Urban National Landowner Survey (UNLS) was developed to examine the social dimensions of the urban forest through the surveying of private landowners who manage the urban forest and other urban green space. This survey includes information ranging from demographics to details of property size and type to owner involvement in the community.

- [Sample questionnaire](#)
- [Results from the Wisconsin Urban Landowner Survey](#)



Photo 2: Field crew collecting data in Chicago, IL (Photo by Sjana Schanning, NRS FIA)

## Urban Field Plot Selection

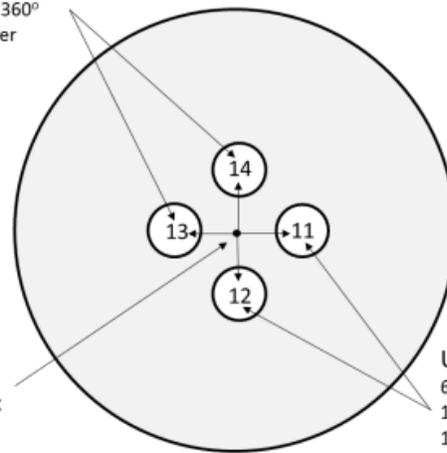
Urban FIA plots are randomly selected across all landowners, cover types and land uses. Through use of the standard FIA plot selection grid and plot intensification practices, participating cities will have approximately 200 plots located across the city and additional plots in associated urban areas. Where an entire state is participating in Urban FIA, research plots are completed wherever the standard FIA plot selection grid overlaps with urban areas.

## Urban FIA Plot Measurement

Once the research plots have been selected, private landowners are contacted to request permission to access the property to take the required measurements. Plot data collection time can take anywhere from 1-10 hours depending on the amount and condition of vegetation on the plot. Field staff try to complete the work during a single visit. Landowners need not be present during the data collection process and will NOT be asked to change any aspect of the vegetation or property in response to the data collected.

### Urban Microplots:

6.8 ft. radius  
 13 - 12.0 ft. @ 270°  
 14 - 12.0 ft. @ 360°  
 From plot center



Plot Center:  
 48.0 ft. radius

Urban Microplots:  
 6.8 ft. radius  
 11 - 12.0 ft. @ 90°  
 12 - 12.0 ft. @ 180°  
 From plot center

The Urban FIA plot is a circular plot with a fixed radius of 48ft. A variety of data is collected across the entire plot including tree species, tree heights and diameters, tree health, the presence of other vegetation and other items related to ground cover and land use. The microplots are used to create a smaller sampling area on which to collect data about saplings and seedlings present.

## Data Reporting and Availability

Results from Urban FIA data collected are made available through several avenues, ranging from the user friendly [My City's Trees](#) application to [electronic reports](#) and [downloadable data](#). Tools to further improve and enhance user interaction and access to the data are currently under development.

## Related Content:

- [Forest Inventory and Analysis Program](#)
- [i-Tree Program](#)
- [Urban and Community Forestry Program](#)
- [Forest Service Urban Research](#)

## More Information

For more information on the FIA program and its components, visit the national FIA website at:

<https://www.fia.fs.fed.us/>

For more information on the Urban FIA program in particular, please visit the Urban FIA webpage at:

<https://www.fia.fs.fed.us/program-features/urban/>

or contact Mark Majewsky at [mark.majewsky@usda.gov](mailto:mark.majewsky@usda.gov)

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