

TREE INVENTORIES & SURVEYS

The Key to Understanding Your Community's Urban Forest

Do you know the condition of your trees? Do a few species dominate your community's forest? Would you like to be able to put a dollar value on your street tree resources? Do you want to develop a comprehensive urban forest management strategy?

Conducting a street tree inventory or survey can help you answer these questions and give you an understanding of your urban forest resource. This is the first step to moving beyond reactive management and developing a comprehensive urban forest management program.

Why Conduct a Street Tree Inventory or Survey?

Either an inventory or survey can help you:

- Communicate the importance of a strong town / city forestry program.
- Develop management and policy recommendations.
- Understand the species distribution of your urban forest.
- Determine the overall health of your public trees.
- Determine the quantity and location of vacant tree planting sites.
- Quantify the dollar value of your community's urban forest.

What is the Difference between an Inventory and a Survey?

A street tree inventory typically requires a 100% count of all street trees within the public right-ofway. For each tree, you gather data pertaining to its species, diameter, location, health, and maintenance needs. To be most effective, an inventory should be continually updated and linked to a geographic information system (GIS). Inventories range in cost from a few thousand dollars to tens of thousands of dollars.

A street tree survey involves collecting data at random points throughout a community. A survey can tell you a great deal about your urban forest with much less effort or cost than that required for a full stem-by-stem inventory. A survey can range from cursory data collection on 6-20% of all trees to a 2,000 tree survey with detailed data, including the address and maintenance requirements of each individual tree observed. A survey will not provide individual data for every street tree in your community.

Should Our Community Conduct an Inventory or a Survey?

There are significant differences between an *inventory* and a *survey*. The method that you choose should be appropriate to your community's:

- **GOALS**: What are your community's reasons and expected outcomes for conducting a street tree inventory or survey?
- RESOURCES: What resources are available to accomplish this assessment?
- DATA MANAGEMENT: How will your community manage the data once collected?



TREE INVENTORIES & SURVEYS

An inventory is ideal for those communities that have:

- An existing street tree inventory in need of updating.
- Tree maintenance staff who want to become more efficient and develop an inventory-based management program.
- A functional in-house GIS system.
- Staff available to manage the data as trees are planted, maintained, or removed.

A complete inventory can help:

- Improve your work scheduling and cyclical maintenance program.
- Improve your ability to respond to storm damage and estimate costs for cleanup.
- Enhance your efficiency when responding to constituents' requests.
- Locate all trees of a single species, to aid in planning for, and responding to, a pest or disease outbreak.
- A survey is most appropriate for communities that:
 - Seek to build support and investment from their community government.
 - Need to develop an advocacy network for community trees.
 - Have staff / student / volunteer time to conduct the survey.
 - Are willing to develop strategies in response to survey results.

A street tree survey can help you:

- Establish a foundation for a full stem-by-stem, comprehensive inventory.
- Develop a town / city forestry management plan.
- Seek grant funds for developing a more comprehensive program.
- Determine the number of potential tree planting sites throughout your community.

Combining an inventory and a survey

If you need to get the big picture city-wide, but want to focus your tree planting effort (or revitalization plan) on the core of your city, then combining both a survey and an inventory may be appropriate for your community. This will allow you to justify a revitalization / re-greening program by being able to compare, for example, the downtown district with less dense, outer areas of your community. The data collected can help you develop a strategic plan for making a visible difference on your community's gateways, central arteries, and/or business districts.

Bureau of Forestry Urban & Community Forestry Program Massachusetts Department of Conservation and Recreation 251 Causeway Street, Suite 600, Boston, MA 02114 www.mass.gov/dcr/urban-and-community-forestry In Partnership with: USDA Forest Service and the Massachusetts Tree Wardens & Foresters Association



The Massachusetts Department of Conservation and Recreation prohibits discrimination in employment on the basis of race, color, creed, religion, national origin, ethnicity, gender, gender identity or expression, age, sexual orientation, Vietnam Era Veteran status, or disability.