



What City Foresters Do

**TREE CITY USA®
BULLETIN**

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***T**o some it sounds like a contradiction of terms, but many foresters do work in cities. Their work may not be as well known as that of their rural colleagues who protect and manage the nation's timber resources. But urban foresters play a vital role in the health and future of some of America's most important forests — the trees along our streets and in our parks and yards. City foresters are the unsung heroes who champion the green features of our country's finest places to live. Citizens in communities of all sizes benefit when the services of a city forester are available.*

Every citizen wants professional police protection, a high-quality fire department, and the best possible administrators the city can offer. But how many people insist that the welfare of their community's treasure of trees be entrusted to professional management?

One university study indicates that only 39 percent

A city forester instructs a volunteer group in the art and science of pruning young trees. Working with volunteers and other public groups is all in a day's work for a city forester.

of our municipalities systematically care for their publicly owned trees, and fewer than 15 percent hire foresters.

The result is that many of our urban forests are in trouble. Throughout America's cities, more shade trees are dying than are being replaced. Scarce financial resources are being wasted on plantings that are doomed from the start, and life-extending practices such as pruning and disease control are neglected.

By contrast, communities that employ a professional to manage their trees are the big winners. In this issue, we explore the role of city foresters and see why every citizen benefits from the services of these dedicated men and women.



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What is an Urban Forester?

When most people think of foresters, they have in mind forest rangers or individuals who fight fires, help campers, and manage vast areas of woodlands to produce timber and pulpwood. By contrast, the work of urban foresters is virtually unknown.

Quite simply, city foresters (or urban or community foresters, or municipal arborists — the terms are used interchangeably for positions with similar responsibilities) are in charge of managing the familiar trees in our communities. Instead of producing wood products and a harvestable crop of trees, the goal of urban foresters is to extend the life of trees, safeguard public safety, and produce a reliable source of shade, beauty, and the other non-commercial benefits that result from healthy trees in parks and along avenues.

How, then, does an urban forester or municipal arborist differ from an arborist? Unlike an arborist who usually focuses his or her professional attention on the physiology and care of individual trees, urban foresters are charged with the administration of tree-related programs and the human and material resources needed to carry out these programs. They are the administrators of tree planting and care in a community.

Importantly, foresters are educated to view trees collectively and to manage trees as an ecosystem, taking into consideration specific biological, social, and economic conditions. This broad managerial view enables the professional city forester to help taxpayers make wise decisions and get the most from their investment in trees.

WHAT A CITY FORESTER CAN DO FOR YOU

- Make sure your tax dollars are spent wisely on trees of good quality and suited for the site where they will be planted.
- Serve as a leader for tree-awareness programs and public education about trees.
- Initiate and assist volunteer groups that can work for trees.
- Provide you with valuable, localized information about tree care, reputable tree care companies, and how to comply with tree ordinances.
- Represent the best interests of trees and aesthetics at planning and zoning meetings.
- Train and supervise city crews or contractors so that the best methods of tree care are practiced in your community and the lives of your trees are extended beyond average.
- Champion tree planting and preservation of existing trees, when developers propose new projects.
- Work with engineers to protect trees during highway construction or street-widening projects.

A municipal forester is alert for the outbreak of new insect and disease pests. He or she can also prevent accidents and expensive lawsuits by regularly inspecting trees on public property and rights-of-way for potential hazards.

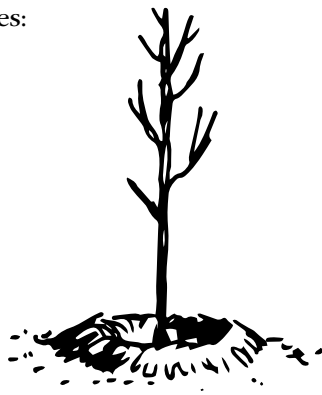


What is a Community Forestry Program?

First and foremost a city forester guides the community forestry program. He or she is responsible for planning and supervising the kind of special, intensive care that is needed to guarantee the future of trees that grow under the tough conditions of an urban environment — construction activity, pollution, poor soils, scorching heat, restricted roots, road salt, vandalism, and a host of insects and diseases.

Every community's forestry program is different, tailored to the needs and circumstances of its citizens and trees. But past experience has shown that five basic management elements are necessary to gain the maximum benefits from the planned care of a city's trees:

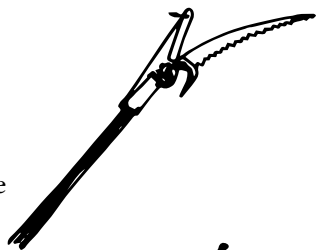
PLANTING is an annual project needed to replace trees that die or must be removed and to fill other treeless spaces. A forestry program ensures high-quality species that prevent future problems by being expertly matched to the site and growing conditions are used.



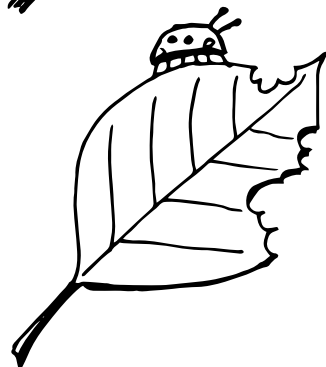
WATERING can prevent stress during droughts and help trees resist insect and disease attacks. Watering can be done with city crews or enlightened citizens.



PRUNING Proper pruning requires knowledge, skill, and good equipment. From the time of planting until late in the life of a tree, pruning pays high dividends in safety, resistance to storm damage, preventing blockage of signs, and shaping beautiful, useful trees.



PEST CONTROL Insects and diseases are always present. Through a forestry program, their presence is regularly monitored, preventive tree care is provided, and prompt, effective action is ensured if an epidemic threatens to break out.



GOALS OF THE IDEAL URBAN FORESTRY PROGRAM

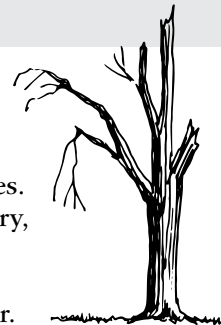
AESTHETICS AND ECOSERVICES Trees make life more pleasant, not only through their beauty and cooling shade, but through the work they do. They are so essential that they can be referred to as part of the city infrastructure. As such, trees reduce storm runoff, clean the air of dust particles and unhealthy gases, reduce energy demands, contribute to outdoor recreation, and provide numerous other public health benefits. City foresters promote tree planting and care, helping their communities gain these benefits while at the same time raising property values, attracting new businesses, and generally improving the area's economy.

SAFETY Proper selection of species, routine inspection, knowledgeable pruning and maintenance, control of insects and diseases, and the timely removal of dangerous or dead trees are some of the ways city foresters work toward providing public safety and protecting property from falling limbs or trees.

EFFICIENCY With 134 trees per mile lining the streets of an average American city, a systematic approach to tree management is the forester's goal. A well-developed inventory is usually the first step, followed by scheduled maintenance instead of crisis management, resulting in longer tree life and more time and money available for planting and maintenance because less will be needed for removals.

COMMUNITY INVOLVEMENT Public support is essential for the success of an urban forestry program. Therefore, city foresters work with tree advisory boards and other groups, as well as with the media. The result is not only a greater number of property owners doing a better job of tree care, but also the support necessary for adequate funding of a forestry program — and sometimes even a small army of volunteers to help out with special projects.

REMOVAL The “bottom line” of urban forestry — and a major difference between it and wildland forestry — is to extend the life of trees. However, when removals are necessary, communities with an urban forestry program are assured that the job will be done in a safe, responsible manner.



Two Model Programs

Throughout the United States there is a spectrum of communities ranging from those that provide little or no systematic tree care to those that have innovative, proactive programs that can serve as models everywhere. Here are two good examples from East and West that may help other communities take a new look at their own programs.

MILWAUKEE, WISCONSIN

The Forestry Division in Milwaukee has a big job to do. Now-retired Preston Cole, who was director of operations for the Milwaukee Department of Public Works, oversaw forestry operations, including the management of trees, shrubs, and flowers on 122 miles of boulevard medians and 59 green spaces totaling 476 acres, 50 tot lots, 350 downtown planter boxes, 20 municipal building grounds, a 160-acre nursery, and 200,000 street trees!

The goal of the Forestry Division is “To efficiently manage the urban landscape to provide a better quality of life for our citizens and visitors.” And they do take that goal seriously, in part from a tradition of professional care, and in part because the citizens demand nothing less — and are willing to spend some \$8 million annually to do the job.

Milwaukee is staffed with a cadre of professionals from the top of the organizational chart to the men and women who tend the flower beds and prune the trees. For example, one wise policy ensures that all trees in the parks and public rights-of-way are carefully pruned on regular cycles. For trees under 12 inches in diameter, this is every three years. “This is the period of most active growth,” explained Cole. “So it pays off to prune more frequently and keep the branches out of the way of signs, street lights, and traffic.” Trees greater than 12 inches are pruned every six years. This prevents hazards from developing and reduces the chances of

costly lawsuits resulting from injury, death, or property damage. To do the work, new employees receive training for six months, both in the classroom and in the trees under supervision. They are timed, tested, and given plenty of assistance to learn both tree care and safe work practices. They are also paid well, which helps retain workers and build morale.

Another hallmark of Milwaukee’s program is its systematic protection of trees during street construction projects. Foresters work with engineers during the planning phase to determine what might be done to prevent or reduce root damage. In some cases, streets are redesigned and actually narrowed during repaving to spare large trees. Once a job begins, inspectors from the Forestry Division monitor the work. If a contractor even nicks or breaks a branch, a fine of \$50 per incident may be assessed. After five such incidents, the amount increases to \$100. Trees that are destroyed or removed are valued at \$100 per diameter inch. The result is that trees are given the same care as fire hydrants, street lights, and other valuable parts of the city’s infrastructure.

Certainly, here is a city where trees get the respect they deserve.

Competent pruning done on regular cycles is an effective and efficient way to keep street trees healthy and safe. Milwaukee’s city foresters have implemented this as a routine part of their community forestry program.



BOISE, IDAHO

Boise's Community Forestry Unit is within the city's Parks and Recreation Department. City Forester Brian Jorgenson and his staff are responsible for 17,500 trees along 600 miles of streets, 8,500 park trees, and hazard tree abatement on 18 miles of greenbelt along the Boise River. The unit operates on a budget of approximately \$900,000.

Boise has a strong tradition of relying on neighborhood associations for the support it enjoys in "The City of Trees." It has also placed a strong emphasis on education. Former city forester Steve Churchillo says that the two biggest challenges are: (1) getting information to home and business owners about proper tree care, and (2) getting enough visibility for the unit so that citizens and their elected officials appreciate the benefits received from a systematic forestry program.

The educational efforts include a prominent Arbor Day ceremony each year, an aggressive program of media releases of news and other information, and endless participation in workshops and special events. Most recently, a partnership has been formed with the Idaho Nursery Association to provide education to growers, nursery operators, landscapers, and others in the green industry. There has also been a concerted effort to provide training workshops and testing opportunities for arborists so they can receive certification by the International Society of Arboriculture.

Through the years, good rapport has developed between Boise Community Forestry and other units of city government. Sometimes the results are immediate and dramatic. For example, when a developer proposes a new project, the city forester is one of the people who reviews the plans. This gives him the opportunity to recommend protective measures for existing trees and require planting of new ones. He can also specify species that are suited for the soil and other site conditions of Boise. Over and over the forester has spotted flaws in the recommendations of out-of-town landscape architects who are unfamiliar with the growing conditions of southern Idaho. Simply by suggesting species with better chances for survival, the city forester saves business owners money. His



Boise's city forester worked in partnership with the Central City Development Corporation, a downtown development advisory group, to convert a relatively unattractive city center into a vibrant, pleasant place to visit and shop.

advice also prevents later conflicts between trees and signs, sidewalks, and wires.

The very name, Boise, derives from trees. When French-Canadian fur trappers first viewed the site of the present-day city, they are said to have exclaimed, "Les bois, les bois! Voyez les bois!" ("The woods, the woods! See the woods!"). Today, the "woods" are along Boise's streets and in the parks. The city forester works hard to make them much more diverse and safer than they were when the site was a braided stream supporting mostly cottonwoods. And with the support of appreciative citizens and business owners, he is able to maintain Boise's title as "The City of Trees."

The Community Forestry Program

We have asked a sample of city foresters and others to share their thoughts about what mayors, city councils, tree boards, and other community leaders should know about the urban forestry program.

IN SHORT, HERE IS WHAT SOME CURRENT AND PREVIOUS CITY FORESTERS WOULD LIKE THE BOSS TO KNOW ...



LIBBIE SODEN
EVERETT, WASHINGTON

“In the current era of tight budgets, reduced staff, and close scrutiny of municipal spending, we need to focus on how important the urban forest is to the livability of our city. We need to continue the progress we’ve made in creating a beautiful, healthy, and relatively safe urban forest. I’d like to see us increase our ability to routinely maintain our existing trees. All trees need a certain level of periodic maintenance... We should continue to select the type of tree to match the available planting space. This simple step will provide tremendous savings of taxpayer dollars spent on unnecessary pruning or infrastructure repair over the life of the tree.”



JIM SKIERA
CHAMPAIGN, ILLINOIS

“I wish I could get money for maintenance as easily as I can get it for installation (planting). I am trying to add additional seasonal staff for sectional trimming (but have been) denied funds. (Instead), the policymakers voluntarily doubled my installation budget, which, by the way, was twice what I requested for seasonal staff.”



DAVID STEPHENSON
COER D'ALENE, IDAHO

“A community cannot save every tree nor should it cut every one down. However, it also cannot ignore potential risks. The cost of prevention rarely exceeds the cost of repair of damages. Developing a systematic process for tree risk assessment and mitigation will increase public safety, improve overall urban forest health, and reduce a community’s liability by demonstrating a reasonable standard of care.”



BAILEY HUDSON
SANTA MARIA, CALIFORNIA

“Policymakers must support a public education program that captures values of the urban forest in a more personal context. Climate change offers an opportunity to articulate urban vegetation in terms of public health and welfare. Historically, aesthetics and amenities have driven funding for urban forestry programs. It is now an opportune time for public well-being to drive funding and dispel the amenity service label attached to urban forestry.”



TIM BUCHANAN
FORT COLLINS, COLORADO

“Trees are the best investment a city can make. There is not any other form of public investment that costs less, does more for the overall attractiveness and benefit of the community and is so uncontroversial. Investments in urban forestry should be looked at as public advertising. Since urban forestry programs are so positive and communicate the concern, sensitivity, and management of the city, they are perfect for promoting good public relations... Spending 1-2 percent (the national average for tree care is .49 percent—Ed.) of a total city budget on good advertising makes sense. Forestry programs are an excellent way to do that.”



THE LATE **STEVE SANDFORT**
CINCINNATI, OHIO

“When funds are tight, always spend your limited budget planting the right trees in the right places. Why? It is simply the right thing to do.”



City Foresters Make It Happen



City foresters must be educators and community leaders. Sandy Clark, forestry superintendent for Mt. Prospect, Illinois, regularly speaks at Arbor Day ceremonies. She also was instrumental in helping Mt. Prospect win an Arbor Day Foundation award for use of trees in the beautification of a railroad right-of-way.



HOW SMALL COMMUNITIES CAN GET ASSISTANCE

Although small communities often cannot afford to hire a full-time forester, there are still ways to obtain some essential professional services. These ways include:

- Contact your state forester for assistance. Be sure to ask about the status of grants available through the U.S. Forest Service and other sources.
- Ask the county Cooperative Extension Service for advice on a regular basis.
- Use a competent professional in the tree care or nursery industry to serve as a consultant.
- Enlist the voluntary assistance of local government or industrial foresters, especially as part of a group such as a tree board.
- Contract with a professional forester from a nearby city to work part-time or on a consulting basis. Specify the work to be done (such as completing an inventory and management plan, supervising tree purchases, suggesting pest control and maintenance measures, and training city street or park crews) and distribute a request for proposals and bids to do the work.
- Invest in the continuing education and professional networking of staff and tree board members. One example is the annual Partners in Community Forestry Conference hosted by the Arbor Day Foundation. Another is the Municipal Forestry Institute presented annually by the Society of Municipal Arborists.

WINNING A GROWTH AWARD

Tree City USA communities are eligible to be nationally recognized with a Tree City USA Growth Award for new tree care activities. Some of the qualifying activities may include:

- Continuing education for forestry managers and tree board members.
- Creating partnerships with the green industry or utilities.
- Formalizing cooperation between engineering and forestry units of municipal government.



- Cooperative purchasing or contracting with another community.
- Hiring a full-time city forester or equivalent for the first time.

For a complete list of Growth Award activities and an application form, contact your state forester's office or the Arbor Day Foundation (arborday.org/treecity).

The City Forester of the Future

The field of urban forestry is becoming increasingly sophisticated. Today, the city forester must be part sociologist to understand the many groups and social divisions that exist within the city. The city forester must also be part political scientist in order to successfully navigate through the issues and personalities in the public arena. He or she must be skilled in financial management so that the necessary work can be done with ever-limited dollars. He or she must also be a psychologist to handle complaints and work well with residents who are often highly charged with emotions when trees are involved. And, of course, a knowledge of science and its application to urban forestry is essential.

Most of all, the urban forester of the future must be a persuasive communicator. Trees were once appreciated for their beauty and shade and were pretty much an easy “sell” based on that alone. However, as public funds become scarcer, trees must compete based on their practical values. Thanks to analytical applications, the modern city forester can quantify the contribution of trees and show that trees are, in fact, investments that pay high dividends. These tools are part of the i-Tree suite of computer programs developed by the U.S. Forest Service and Davey Resource Group, in cooperation with the Arbor Day Foundation, the Society of Municipal Arborists, and the International Society of Arboriculture. With the input of tree inventory data, the programs show — in dollars — how trees conserve energy, reduce air pollution, retain stormwater, add to real estate value, and are otherwise an important part of a city’s infrastructure. The programs can even compare the costs of planting and maintenance with the benefits to show the cost-benefit ratio of the urban forest and provide guidance for which species are most beneficial.

Finally, the forester of the future must be a visionary and look to the future rather than relying on the practices of yesterday. He or she must continually monitor research results and stay current with the exciting and ever-changing world of urban forestry.



As communities spread into wooded areas, city foresters are presented with major new challenges. Just two of the issues are how to build without damaging trees, and landscaping to keep homes safe from wildfires.

FOR MORE INFORMATION ...

Please visit arborday.org/bulletins for helpful references relative to Bulletin No. 12.

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THE TREE CITY USA PROGRAM IS SPONSORED BY THE Arbor Day Foundation in cooperation with the U.S. Forest Service and National Association of State Foresters. To achieve the national recognition of being named as a Tree City USA, a town or city must meet four standards:

- Standard 1: A tree board or department
- Standard 2: A tree care ordinance
- Standard 3: A community forestry program with an annual budget of at least \$2 per capita
- Standard 4: An Arbor Day observance and proclamation.

Each recognized community receives a Tree City USA flag, plaque, and community entrance signs. Towns and cities of every size can qualify. Tree City USA application forms are available from your state forester, the Arbor Day Foundation at arborday.org/treecity, or your state forestry agency.