



Urban Trees and Private Property

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The benefits of trees have been well-documented and are widely known. But to maximize these benefits, trees in residential yards and elsewhere on private property must be considered if management strategies are to achieve their optimal effectiveness for the community.

There are an estimated 5.5 billion trees in the urban forests of the United States, providing a multitude of benefits to the 81 percent of Americans who live in urbanized areas. However, only about 20 percent of those trees are on public land such as parks or on rights-of-way where planting strips are commonly used for street trees. Together, urban trees are said to provide a value of more than \$2.4 trillion in environmental services and other benefits.

Many legal and economic scholars state that the benefits of urban trees can be considered a “public good.” However, if 80–85 percent of the producers of this public good are on private property, it is easy to see a politically charged dilemma. Since the days of

Louisville Grows' Urban Forestry program includes training and work for refugees as well as expanding the city's tree canopy with both right-of-way planting and more trees on private property. The nonprofit is based in Louisville, Kentucky.

James Madison, arguments have been made for sanctity of property rights, so where does urban forestry stand in the collision of the two concepts — property rights and a public good? (You can find a link to a brilliant discussion of this written by Dr. Shannon Watkins at arborday.org/bulletins.)

Clearly, planting and management of trees on the private portions of a community have great potential for increasing the amount and diversity of the city's tree canopy and helping to ensure other healthful conditions of the urban forest as a whole. In this bulletin, we showcase several ways that cities throughout the country are working to respect private property rights while at the same time making a positive impact on what happens to the trees on privately held parcels.



Arbor Day Foundation
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The Philadelphia Story

There are many organizations working to improve the tree canopy in the City of Brotherly Love. Here are two that have successfully demonstrated what can be done when unique solutions are found to address the lack of trees on private property.

PHILADELPHIA LANDCARE — TRANSFORMING VACANT LOTS

Philadelphia, like many metropolitan areas, is plagued with vacant lots. There are 40,000 in Philadelphia's case — unused spaces that collect trash and weeds, become hangouts for the criminally inclined, and pose a drag on the economy and vibrancy of the city. Along comes LandCare, a program of the Pennsylvania Horticultural Society. According to program director Keith Green, here is how it works:

1. A lot qualifies for revitalization if it is covered with weedy vegetation at least 14 inches tall and is in violation of city code and tax obligations. This status is verified by the city's Managing Director's Office.
2. The owner of the property is served notice and has 10 days to rectify the situation. If this doesn't happen, the next move is that LandCare is given access through provisions of a nuisance abatement policy.
3. Local residents and landscape companies are hired to mow and clean the lot, add decorative fencing, plant trees, and perform landscape maintenance services. An added benefit is that ex-offenders are often hired as part of the program to provide re-entry employment and hope for a brighter future.

In the event the landowner changes his or her mind and wants to reclaim the lot, planted trees will be removed and replanted elsewhere.

The results of this program have been outstanding. Some 12,000 lots have been converted from public safety hazards to attractive, landscaped property that is a boon to neighborhood revitalization. It has brought employment and training opportunities and adds approximately 200 to 300 new trees to Philadelphia's canopy every year. It enriches lives and has increased the value of nearby homes by nearly 20 percent. Program analysis has also shown that for every tax dollar invested, \$26 of value is returned to the taxpayers and \$333 to society at large. Best of all, as the trees grow, so do the benefits.





PHILADELPHIA ORCHARD PROJECT

Another ambitious and successful program in Philadelphia is POP — the Philadelphia Orchard Project. This program also strives to convert vacant lots and other underutilized spaces and provides healthful, community-based food production as well as other social and environmental benefits. POP is a 501(c)(3) nonprofit organization with a staff of four and the help of 100 volunteers annually. Here is how this organization works:

1. POP does not directly own or maintain urban orchards but helps plant and support the management of more than 50 throughout the city, most in low-wealth neighborhoods.
2. Any community group or organization can apply to have an orchard. Some of the orchards are on vacant lots, others on the grounds of churches or schools or other private property, or in some cases public land as well.
3. Participating organizations must demonstrate that they have capacity to maintain the site; that they have long-term, legal access; and that the site has adequate sunlight, suitable soil, and available water.

4. POP provides training and support for installation and maintenance of the orchard and provides trees, shrubs, and other plant materials, priced on a sliding scale of need. Local volunteers do the planting and maintenance.
5. Planting is done in accordance with permaculture principles, including diversity and vegetation layers that basically mimic a natural ecosystem.
6. The fruit is available to those who work the orchard or to other community members who need the produce. Some orchards sell some of what they grow at farm stands to provide funds for future work.

To date, POP has helped plant and support 59 urban orchards with more than 200 fruit trees and 600 fruit-bearing bushes, shrubs, and vines. Young and old have been introduced to the planting and care of trees and other vegetation, and thousands of pounds of fresh, locally grown fruit have been provided to individuals in need.

Philadelphia Orchard Project Executive Director Phil Forsyth provides instructions to volunteers planting a new urban orchard.



Tree Distribution Strategies

Distributing trees is a widely accepted method of increasing tree populations on private property. The trees are sometimes free and referred to as “giveaways.” Others are subsidized in various ways. When accompanied by planting and care instructions, these distribution methods are an effective means of adding thousands of trees to the urban tree canopy. Here are a few examples.

TREEPHILLY — SHOWING ARBORLY LOVE

This is yet another Philadelphia program, this one under the auspices of the Philadelphia Parks & Recreation Department. The theme: making Philadelphia the City of Arborly Love. Giveaway events are scheduled each spring and fall at various locations throughout the city. Residents must register online in advance, noting the location where they will pick up the tree and their preferred species. The selection ranges from fruit and small flowering trees to large shade trees. The 2- to 10-foot tall trees come in 5-gallon cans complete with a bag of mulch from a recycling center. At each pickup event, the Pennsylvania Horticultural Society conducts planting and care demonstrations. Walk-ins are welcome at the sites, too, and can receive trees that remain if registered applicants fail to show up. Provision is also made online for individuals with limited mobility.

An interesting part of this program is that residents without a planting site (that is, all pavement) can apply to the Philadelphia Water Department’s Rain Check program for a cost-share agreement to convert concrete to porous paver material and a place for a tree.

Philadelphia’s Parks & Recreation Department, in cooperation with the Pennsylvania Horticultural Society, promotes a well-coordinated event twice each year that provides trees for planting by the city’s residents.



PROMOTING TREE PLANTING — THE MARYLAND WAY

Maryland has long been aggressively promoting tree planting on private property, in part to protect the pollution-threatened waters of the Potomac River and Chesapeake Bay. Here are two of their programs:

MARYLANDERS PLANT TREES is a program of the Department of Natural Resources (DNR) and offers residents a coupon to receive \$25 off the purchase of a native tree at participating nurseries. The balance is paid from settlement of a Clean Air Act violation and through discounts from participating nurseries.

Trees are provided to homeowners in Maryland to be planted on private land where the trees can clean and protect waterways.



BACKYARD BUFFERS is a cooperative program between the DNR and the Potomac Watershed Partnership. This is an opportunity for property owners who have a stream or other waterway on or adjacent to their property. Each year, on a first-come, first-served basis, residents can contact their county representative and request a “Buffer in a Bag.” This contains 20 to 30 native tree and shrub seedlings approximately 1–2 feet tall, a fact sheet about the plants, tree planting and care instructions, and other information.

WORCESTER, MASSACHUSETTS — FROM BEETLE KILLS TO BETTER FORESTS

Massachusetts was hard hit by the Asian longhorned beetle epidemic, but the Worcester area responded in a way that has replaced roughly the same number of trees that were reduced during beetle eradication efforts. First, the state’s Department of Conservation and Recreation took advantage of the Obama-era American Recovery and Reinvestment Act. With funding from that program, professionals in arboriculture

were hired to plant non-host trees, with 89 percent of the plantings completed on private property and on a gratis basis. Along with this emergency response, the nonprofit organization Worcester Tree Initiative, a program of the Tower Hill Botanic Garden, evolved. This remarkable organization carries on the work of planting trees on both public and private property, hosting volunteers that help the city's forestry department care for some 5,500 young street trees, providing education about tree care, and sponsoring a youth and after-school program focused on tree planting and care. The goal: to make Worcester's urban forest better than it was before the beetle.

THE ARBOR DAY FOUNDATION'S ENERGY-SAVING TREES PROGRAM

An ingenious online tool is available to customers of the Sacramento Municipal Utility District and others in an ever-expanding list of partner organizations that enables homeowners to determine the best location for a tree that will conserve energy. If your utility or other local company or organization is a partner in this unique program, you can visit arborday.org/est to see an aerial view of your home and property and "place" different trees in various locations around your house. The energy savings and other benefits gained from each location appear on the screen and can serve as a guide to the best place to plant.

After your species selection has been made, free trees can then be requested online. In some cases, pick-up locations and dates are provided. In others, bare-root saplings will be shipped by the Arbor Day Foundation at the best time for planting in your area.

COMMUNITY CANOPY is an expansion of the Energy-Saving Trees program. Community Canopy extends an invitation to any organization that would like to partner with the Arbor Day Foundation to provide trees to customers, employees, or community residents. It is a turnkey approach to the distribution process. Trees are provided by the Foundation and participants have access to the interactive website where they can determine the best species and location for their trees.

TREES TO CONSERVE ENERGY — SMUD SETS THE EXAMPLE

Everyone gains when trees add shade to a building and conserve energy. Homeowners have their bills reduced, energy companies can forestall new or expanded power plants, and everyone has cleaner air. With this in mind, a long-standing partnership between the Sacramento Municipal Utility District and the Sacramento Tree Foundation has added more than 600,000 shade trees to the streets and yards throughout Sacramento County.

Residents are eligible to receive up to 10 free trees from within a selection of 30 deciduous species suitable to local conditions. There are a variety of ways residents can request their trees, all of it completely explained online. Basically, SMUD funds and promotes this program, and Sacramento Tree Foundation personnel provide the technical assistance for tree planting. In all cases, a planting plan is developed with the property owner who also must sign an agreement to take care of any tree that is provided. Once all arrangements are in order, the Foundation delivers the tree(s) within two weeks for planting by the resident. If the recipient is physically unable to do the work, volunteers with the Foundation will handle the planting.

Trees provided to Sacramento residents come in 5-gallon containers with complete planting and care instructions. Either a virtual appointment with a Sacramento Tree Foundation forester or an onsite visit precedes the delivery of a tree to ensure that the right tree is planted in the best location to provide energy-saving shade. Follow-up stewardship is also important. Foundation staff stay in touch with the recipients through workshops, a newsletter, tree-tip emails, and a hotline to answer questions.



Regulating Privately Owned Trees

“There are no databases tracking how many states are adopting legislation to restrict trees on private property, but anecdotally, yes, we are seeing more private tree ordinances. That is because city-owned trees represent only 15 to 20 percent of a metropolitan area’s tree population, and if you want to protect trees and the tree canopy of a region, you have to look at private trees.”

— Paul Ries, instructor and director of graduate certificate in urban forestry program at Oregon State University, in *Stateline*, PEW Charitable Trusts

Urban trees can be viewed both as a public good and a potential threat to public safety. Not surprisingly, therefore, city officials have long been inclined to include trees on private property in landscape ordinances. For businesses, it usually means landscaping details, especially in off-street parking areas. Ordinances for developers are also common to protect existing trees and/or require planting new ones. Residents are less commonly affected by regulations but with some notable exceptions.

WASHINGTON, D.C.

The District of Columbia is an example that reflects some of the oldest and newest thinking regarding private trees. In 1892, an ordinance prevented “girdling, bricking, wounding, destroying, or harming trees in any manner on public or private property or to use them to tie horses.” More modern protection comes under the Urban Forest Preservation Act of 2002, as amended in 2016. This ordinance is especially of interest for three of its provisions:



- The first is in nearly every tree ordinance in the country in some form or another: prohibiting the harboring of any tree on private property deemed to be a hazard that might endanger the public at large or public facilities. Owners have 10 days after notice by the city to remove such a tree or be billed for the cost of its removal.

- “Special Trees” are protected from harm or removal except by permit. Trees with a

Concern for trees in our nation’s capital goes beyond streets and parks to protect older trees on private property if they are in healthy condition.

“Trees, whether on public or private property, contribute to the livability of the city. Protecting green infrastructure is as important as maintaining roads, bridges, and airports.”

EARL EUTSLER
District of Columbia associate director for urban forestry

circumference of 44 inches or more measured at 4.5 feet above the ground fall under the protections. Permits for removal are required and granted primarily for hazardous trees and undesirable species, and with payment of not less than \$55 per inch of circumference. Trees with a circumference of 100 inches or more are considered “Heritage Trees” and may not be removed if in healthy condition and not on the list of undesirable species.

- The ordinance also created a Tree Fund to receive payments for special tree removals and tree-related fines (including \$300 or more per inch of circumference of any Special Tree removed without a permit). The fund can also receive tax-deductible donations and the money is solely for use by the city to plant trees (including on private land), monitor survival, and administer the program. Importantly, it may also be used to provide “income contingent subsidies” to help residents with removal costs of hazardous trees.

RIGHTS-OF-WAY

Trees in a street, utility, or other right-of-way (ROW) are a kind of private and public hybrid. They are also often a source of misunderstanding and conflict.

Ordinarily, the legal holder of the ROW has control of the trees in that space. Sometimes this is spelled out in an ordinance or other document, but sometimes it is not or the property owner is unclear about what it means for his or her trees or other vegetation. Much conflict would be avoided if homeowners — especially individuals purchasing a new home — were made aware of the legal conditions involved with a ROW on their property and their responsibility, if any, for the

trees. Unfortunately, this sometimes becomes a major issue only when tree failure causes damage or injury or a utility shows up for line clearance.

Other than a utility’s rights pertaining to line clearance or maintenance of its other facilities, the most common arrangements are:

- A permit is necessary for tree removal in the ROW.
- A permit is also necessary for planting. (This is an excellent way to prevent future conflicts with overhead utilities and/or the planting of species that are inappropriate for the site or prohibited by ordinance.)
- In some cities, all pruning — including hazard evaluation and reduction — and other work is done by the municipality or its contractors.
- In smaller communities, any pruning or other work may be the responsibility of the adjacent property owner.

To avoid conflict and ensure proper care of urban trees, property owners need to be aware of right-of-way boundaries and the legal responsibility for trees within that special zone.



Action Through Education

Concern about trees on private property is driven in large part because they comprise such a large portion of any community forest. The potential benefits from these trees are immense. A goal of tree boards and others with responsibility for or interest in the community's trees should therefore include encouraging residents to plant trees and help expand the canopy, which provides individual and collective benefits in the community. Another goal should be to ensure safer, healthy trees that live long, serviceable lives. Education plays an important role in the strategies for these purposes. Some ways to help include:

- Participation in Arbor Day celebrations, including tree giveaways, newspaper publicity that includes tree care messages, school and other events, and familiarizing local officials with the benefits of a tree care program.
- Targeted communication via door hangers to inform homeowners of opportunities to obtain trees, care that may be needed on their property, and other pertinent messages.
- Working in partnership with local utilities to ensure the right trees are planted in the right places, the planting of energy-saving trees, and other projects of mutual interest.



FOR MORE INFORMATION ...

For information about the Arbor Day Foundation's Community Canopy program that helps organizations provide trees locally and to find quick links related to the content of Bulletin No. 93, please visit arborday.org/bulletins.

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