



# Philadelphia

## QUICK FACTS

### WHO

Philadelphia Parks & Recreation

### STAFF

47 staff members, including arborists, tree maintenance and inspection crew members, natural land management staff members, TreePhilly staff members and administration personnel

### CANOPY

2.1 million trees, including 135,000 street trees

### KEY FORESTRY TASKS

Responsible for all public space trees in the city, including maintenance, emergency services, permitting and regulation enforcement (very limited)

### PARTNERS

Philadelphia Streets Department, Philadelphia Water Department, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Horticultural Society





## KEY TOPICS

- Citywide Greening Initiative
- Neighborhood Improvement Projects
- Public-Private Partnership
- Public-Public Partnership
- Regional Cooperative Effort
- Stormwater and Watershed Management
- Tree Giveaways
- Tree-care Training Program

**CHANGES** are afoot in one of America's oldest cities. There's the new Commission on Parks and Recreation formed in 2009, whose goal is to sustain the legacy of William Penn's "greene countrie town."<sup>1</sup> There's also the Greenworks Philadelphia plan to turn the historic city into America's greenest city by 2105.<sup>2</sup> And there's the 25-year Green City, Clean Waters plan designed to "protect and enhance our watersheds by managing stormwater with innovative green infrastructure."<sup>3</sup> All of these changes share one goal: to improve Philadelphia for the well-being of its citizens.

## COMBINING PARKS AND RECREATION

In most cities, parks and recreation are closely linked. The city maintains parkland so that people can use it for recreation. In Philadelphia, though, parks and recreation only recently found their way to each other in the traditional sense.



### KEY POINT

Becoming more proactive in addressing the city's street trees is a key focus of Philadelphia's Urban Forestry team.

# 30%

2025 goal for tree canopy coverage in each city neighborhood

Fall foliage at Philadelphia's Morris Arboretum

The Fairmount Park Commission was formed in Philadelphia in the 1860s to acquire land for the city to help protect the area's watersheds. Fairmount, at its founding, was focused on buying property along the Schuylkill River to prevent industry from setting up on its banks. As an operating department of city — funded through the city budget, but with its own governance board — Fairmount would operate for the benefit of the city, but outside its direct control for 150 years, focusing on land management for the health of the city's residents.

The city's Recreation Department came along in the 1950s to provide a “comprehensive and coordinated program of cultural and physical recreational activities to be instituted and conducted in all city recreational facilities.”<sup>4</sup> The department focused on diverse interests from sports and athletics to the performing arts. While some of these activities may have occurred on parkland, the Recreation Department was focused on active recreation more than the land itself.

These two groups operated independently, side by side, for decades, until a movement began

in the City Council to officially pair them. After decades of being stymied in these efforts, on July 1, 2010, The Fairmount Park Commission and the Recreation Department officially joined and became Philadelphia Parks & Recreation.<sup>5</sup> All powers and fiscal responsibilities that used to reside in the separate groups are now held by Philadelphia Parks & Recreation. However, some Fairmount Park Trust Funds, which were created to hold funds for particular areas of parkland, do still exist.

Within the newly formed Philadelphia Parks & Recreation is the Urban Forestry and Ecosystem Management staff. This team is responsible for all street trees in Philadelphia and also for all of the natural spaces under the city's control. When it comes to those natural spaces, the goal is to “maintain a level of service delivery from our natural resources,” says the team's director, Joan Blaustein. “We do a tremendous amount of actual restoration in the natural areas — everything from gully repair along the stream corridors to meadow creation and maintenance, large-scale invasive control and reforestation projects. We do this work mostly through grant funds that we



raise through a variety of sources.” Fairmount Park had been doing this type of work for decades, but looking at the street trees and natural areas as one continuous urban forest is a newer philosophy.

Blaustein notes how prior to the merger, trees were dealt with on a “by-request” basis. If a citizen wanted a right-of-way tree planted, the city would go out and plant it. If a citizen wanted a tree removed, it was removed. There was “no comprehensive approach to street tree inspections, maintenance, removal and plantings,” says Blaustein.

The city and federal government actually recognized this problem in Philadelphia long before the merger. The U.S. Forest Service has been working with the city since 1994 to try to update Philadelphia’s urban forest management systems. “The city has not had sufficient resources to manage the trees they have,” says Phillip Rodbell with the U.S. Forest Service Philadelphia Field Station, “but they’ve

embarked on a campaign to plant more, so they need to prioritize effectively in order to achieve the goals they’ve set.”

This was a task put on Blaustein and her team’s shoulders — to figure out how to make the city’s urban forestry team proactive in addressing the city’s street trees. This task is made more difficult by the fact that the city has increased the capital funds going toward buying new trees, but not funds to increase staffing to handle those trees once they’re in the ground. Blaustein and her team haven’t solved the problem yet, but she feels that they are moving in the right direction.

While the kinks are being worked out in terms of canopy management, though, the city is working toward an ambitious goal of increasing tree canopy coverage to 30 percent in each individual neighborhood by 2025, as part of the mayor’s Greenworks Philadelphia plan.<sup>6</sup> With a citywide average canopy of only 20 percent now, the task is daunting.

## CREATING A GREEN CITY

Greenworks Philadelphia was a bold goal announced during Mayor Michael Nutter’s inauguration in 2008, when he declared that “[Philadelphia] should be the number one green city in America.”<sup>7</sup> The new mayor would form an Office of Sustainability, and a year after his inaugural address, the city would unveil the new plan designed to address sustainability throughout the municipality. The plan outlines 15 key targets, which fall under five categories: energy, environment, equity, economy and engagement.

These targets address diverse sustainability issues, such as energy consumption, greenhouse gas emissions, solid waste in landfills, stormwater management, availability of locally grown food, tree coverage, green jobs, community engagement and more. As mentioned in the Greenworks Philadelphia Update and 2012 Progress Report, “Trees play an integral part in achieving several Greenworks targets, including reducing energy use and greenhouse

gas emissions, improving air quality and managing stormwater.”<sup>8</sup> But there are also specific targets around the city’s urban forest, including having a public greenspace within a 10-minute walk of every resident of the city.

To help reach the target of increasing neighborhood tree canopy to 30 percent by 2025, Parks & Recreation first conducted an urban tree canopy assessment with the help of the U.S. Forest Service and the University





Wells Fargo volunteers plant new trees at the Oak Lane Library

**“A big component of our work is to build the capacity of citizens to become stewards.”**

**MAITREYI ROY**

Former senior vice president  
for programming  
Pennsylvania  
Horticultural Society

of Vermont Spatial Analysis Lab in 2011. This assessment revealed that it would be possible to reach Greenworks Philadelphia’s goal based on the land cover data, although it would mean removing impervious surfaces in targeted places. The other key finding of the assessment was that “one of the main opportunities for open space for planting of trees is in the front and backyards of row homes,” says Erica Smith Fichman, TreePhilly manager. “Realizing that you really need to work on a small scale and do outreach to individuals and on a community organizing basis is a pretty powerful thing.” Thus, Parks & Recreation realized that if they were going to reach the Greenworks goal for canopy coverage, they would need to engage private land holders, and TreePhilly was born.

TreePhilly, a Parks & Recreation program that partners with other tree-concerned groups in the city, officially launched in February 2012 with the goal of engaging Philadelphians in tree planting and maintenance efforts. “We wanted to make sure that we were hitting some of the areas that had high need, but also high opportunity for planting,” says Fichman. Through GIS analysis, TreePhilly identified eight target neighborhoods where the program felt it could really make a difference, and outreach began to make connections with residents, hold events

and coordinate with “friends” groups already in existence. “We want to get trees into people’s hands who have the knowledge and experience to plant and tend to them,” Fichman adds. “There’s a nice network of people who are engaged with greening in the city, so we’re trying to tap into those people to do more volunteer plantings.”

Much of the city’s green network can actually be traced back to the nonprofit Pennsylvania Horticultural Society (PHS). PHS has been around for a long time — since 1827 — and aims to “motivate people to improve the quality of life and create a sense of community through horticulture.”<sup>9</sup> In 1974, PHS launched Philadelphia Green, which uses partnerships to engage in and promote green activities for urban renewal.<sup>10</sup> These activities take a variety of forms:

- Community gardens that are run by PHS-trained Garden Tenders.
- Landscape management for downtown spaces like City Hall and the Philadelphia Museum of Art.
- The building of a network of friends of parks groups, which once consisted of three to five groups and now numbers more than 100. These groups join together with Philadelphia Parks & Recreation for landscape-improvement projects in parks throughout the city.
- The Philadelphia LandCare Program, which is funded by the city and is designed to reclaim abandoned lots to eliminate blight and, therefore, spur development.
- The Tree Tenders program, which is hands-on tree-care training and covers biology, identification, planting, proper maintenance and working within the community.

PHS also has a regional campaign for tree canopy coverage: its Plant One Million program, which launched in 2011 with a goal to plant a million trees throughout 13 counties in Pennsylvania, New Jersey and Delaware by 2020. Because Philadelphia sits on the border of three different states, a regional approach to tree canopy coverage seems natural, but requires extensive coordination. To help achieve its goals, PHS set up partnerships with the Delaware

Center for Horticulture and the New Jersey Tree Foundation, as well as school districts, universities, municipal shade tree commissions, civic groups and more.<sup>11</sup>

Beyond improving the city and region's urban forest, all PHS projects and programs share a major commonality: "A big component of our work is to build the capacity of citizens to become stewards," says Maitreyi Roy, former senior vice president for programming at PHS. "We feel that there's an opportunity to have a nice, robust relationship with community groups around landscape management without burdening them too much."

For example, "Tree Tenders is a really powerful network," adds Fichman. "You have these advocates in a lot of the neighborhoods in Philly, where they plant trees twice a year or have pruning clubs. It's a nice network of community-oriented work."

The only downfall to this work is that it's not always the easiest to fund. Urban Forestry Director Blaustein relates that when it comes to public trees, the group receives capital funding for tree purchase and removal, but lacks sufficient funding for maintenance. Plus, capital funds only apply to tree plantings on public lands, as city funds can't be used for work on private property.

To meet the goal of increasing tree canopy in yards across the city, TreePhilly will give away 4,000 trees this year for planting on private residences through the support of Wells Fargo. In addition, Fichman's position as the manager of TreePhilly was supported through a grant from the Fells Foundation in its first year. The program is also relying on its network of volunteers to make an impact.

"One of the programs we're doing is reaching out to communities through community development corporations and civic associations to do a survey of their street trees, specifically looking for opportunities where there are already open pits," Fichman relates. "They return a spreadsheet to us with the addresses of open pits listed so we can work with our street tree team to get trees in those locations."

Creating these partnership and networks is often one of the biggest hurdles that has to be crossed to find urban forest success. "Getting the right support behind you to implement something at a citywide level requires a level of risk taking and public-private partnership that is perhaps hard to convince everybody of," says Roy. "Getting people to buy into what you think is possible is the biggest challenge." But it's a challenge that can pay big dividends in the end.

## KEY POINT

The Pennsylvania Horticultural Society has taken a regional approach, working with groups in neighboring Delaware and New Jersey to achieve tree coverage goals.

# 4,000

the number of trees TreePhilly gave away for planting on private property in 2012

University of Pennsylvania staff, students and volunteers with TreePhilly staff at a yard-tree giveaway



## SHARING RESPONSIBILITY FOR WATER

Some of the most prominent examples of successful public-private, public-public and even federal-city partnerships center around one topic in Philadelphia: water.

### KEY POINT

The city is partnering with the EPA to achieve its green stormwater infrastructure goals, as the federal agency is committed to helping with innovative greening approaches to achieve desired water quality benefits.

“One of the more innovative things in Philadelphia is that the Water Department is partially funding the Parks Department through some staff positions in order to sustain the current natural areas and to educate the public about green infrastructure.”

**PHILLIP RODBELL**

Philadelphia Field Station acting coordinator  
U.S. Forest Service Northern Research Station

In Philadelphia, three water treatment plants treat 310 million gallons of water per day, feeding 3,300 miles of water mains, and more than 2,900 miles of sewers service the city.<sup>12</sup> These are the purview of the Philadelphia Water Department and Water Revenue Bureau, which serves “the Greater Philadelphia region by providing integrated water, wastewater and stormwater services. The utility’s primary mission is to plan for, operate and maintain both the infrastructure and the organization necessary to purvey high-quality drinking water; to provide an adequate and reliable water supply for all household, commercial and community needs; and to sustain and enhance the region’s watersheds and quality of life by managing wastewater and stormwater effectively.”<sup>13</sup> Funds from water bills play a role in helping the Water Department accomplish its mission, as every resident helps support stormwater management, wastewater treatment and collection, and drinking water management.<sup>14</sup> In addition, partnerships are a big part of the Water Department’s plans.

“One of the more innovative things in Philadelphia is that the Water Department is partially funding the Parks Department through some staff positions in order to sustain the current natural areas and to educate the public about green infrastructure,” says the Forest Service’s Rodbell. “The Watershed Division in the Water Department has achieved remarkable success in education and collaborative arrangements with other divisions within the government.”

With its founding based in watershed health, Fairmount Park has always been deeply involved with and aware of the connection between land

and water, but the relationship between the park team and the Water Department shifted gears about 15 years ago, relates Urban Forestry Director Blaustein. She says that a big impetus for the partnership was a large grant that Fairmount Park received in 1998 from the William Penn Foundation to create a master plan for the management of the natural areas in the city. “There had never been a systematic assessment of the natural areas or a plan on how to do restoration,” Blaustein says. “There was no dedicated staff to the natural areas prior to that. At the same time, the Water Department formed the Office of Watersheds, which moved its focus from infrastructure to looking at watersheds as a whole.”

Since much of the Philadelphia’s water flows through the city’s natural land, the resulting partnership was natural. The Water Department funds some of Parks’ positions that focus on watershed work, and “we’ve worked very closely to do projects together to make sure we’re in coordination about where we’re focusing,” adds Blaustein. “We’re moving slowly into stormwater management on park areas that will help the Water Department achieve their goals through their combined sewer overflow long-term control plan.”

That plan is Green City, Clean Waters, a 25-year “infrastructure management program intended to protect and enhance our region’s waterways by managing stormwater runoff to significantly reduce our reliance on construction of additional underground infrastructure.”<sup>15</sup> To accomplish its goals, the plan relies almost exclusively on green infrastructure investments, including a large-scale street tree program, conversion of vacant and abandoned lots, restored streams and more.

Philadelphia Parks & Recreation is working with the Water Department to develop cost sharing for tree planting in stormwater management pits and to develop maintenance programs for green stormwater infrastructure installations, while urban forest maintenance remains with them. By the time the plan is completed, it's estimated that more than \$3 billion will have been invested "to initiate the largest green stormwater infrastructure program ever envisioned in this country."<sup>16</sup>

Helping with this investment is the U.S. Environmental Protection Agency (EPA), which signed an agreement in April 2012 committing the federal agency to helping ensure Green City, Clean Waters reaches its goals. When the signing of the agreement was announced, EPA Administrator Lisa Jackson told E&E News, "EPA commits to work with the city to address regulatory barriers to the innovative greening approaches, and [it] will allow us to evaluate and verify the effectiveness of new green techniques. EPA will also work with Philadelphia to ensure the plan is successfully

achieving the desired water quality benefits and over time will meet the requirements of the Clean Water Act and other national standards."<sup>17</sup>

Behind the scenes, this has been an initiative years in the making. The Water Department and PHS partnered to conduct 45 demonstration projects for stormwater remediation for a variety of open spaces, relates Roy. These demonstration projects ranged from streetscapes to community gardens to green roofs. With the EPA's approval and partnership on Green City, Clean Waters, "it's now about scaling up to the level where the green infrastructure is actually addressing the stormwater problems," says Roy. "It's a very exciting time. There's a lot going on in the city around design and implementation."

And all of this activity, partnership, stewardship and innovation might very well fulfill Mayor Nutter's goal of making Philadelphia the greenest city in the country.

#### SPECIAL THANKS TO:

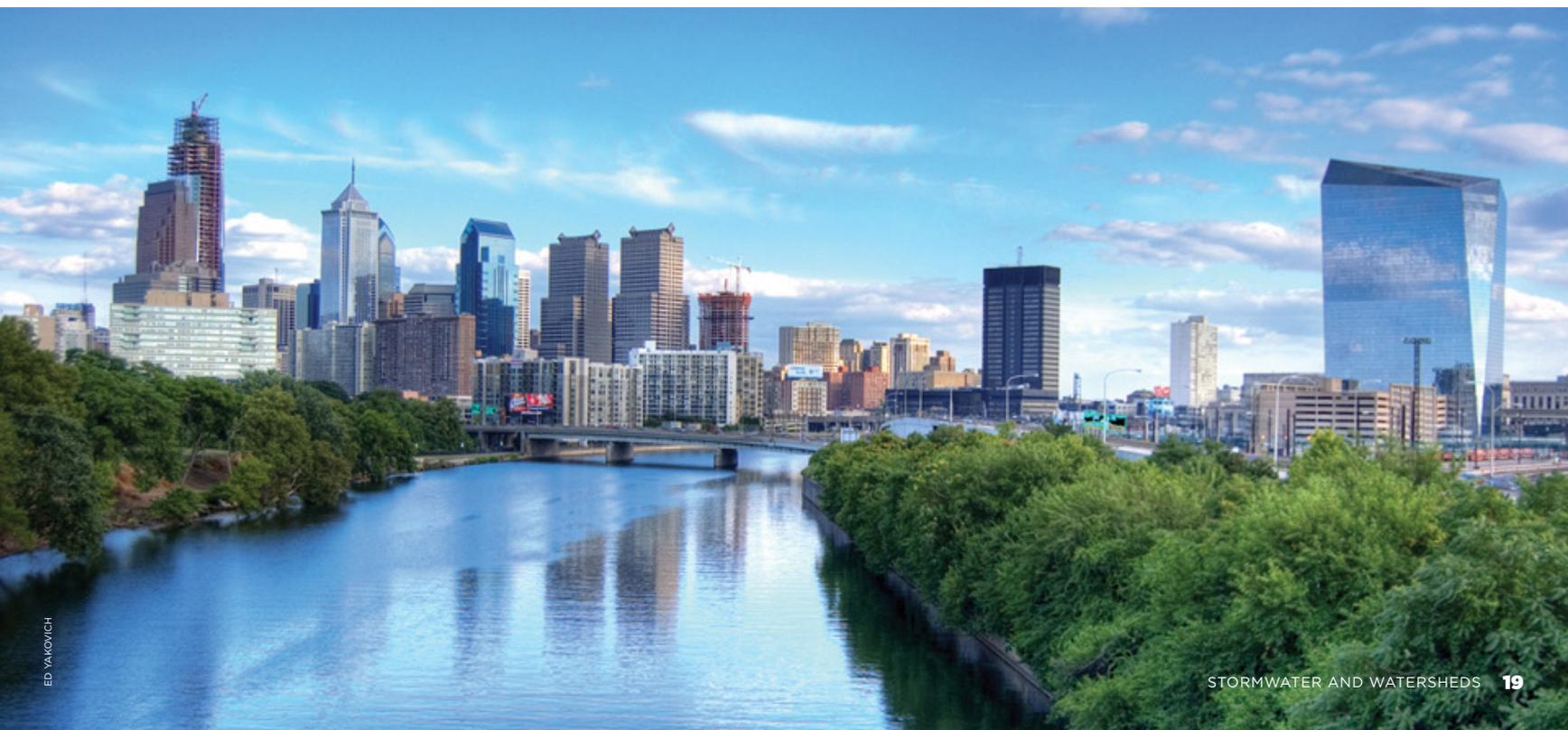
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Philadelphia skyline



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