



STRATEGY *for a* GREEN CITY FALL 2007



The Pennsylvania Horticultural Society (PHS) is a nonprofit membership organization founded in 1827. PHS produces the Philadelphia Flower Show® and sponsors events, educational activities, and publications for novice gardeners, experienced horticulturists, and flower lovers of all ages.

PHS's urban greening program, Philadelphia Green®, works with community groups, residents, city agencies, nonprofits, and other partners to plan and implement greening projects throughout the city. Proceeds from the Flower Show, along with funding from foundations, corporations, government agencies, and individuals, help support its projects. To support the work of PHS and Philadelphia Green, please call 215-988-8800 or make a secure contribution online at www.pennsylvaniahorticulturalsociety.org.

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Text: Jane Carroll

Photography by Margaret Funderburg
Design: Baxendells' Graphic
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Department of Landscape Architecture to engage residents in crafting a stormwater management plan for East Falls, a neighborhood located along the Schuylkill River.

Community Stewardship and Engagement

In addition to government leadership, creating an open space plan requires community engagement. Recognizing that empowered residents become effective long-term stewards of green spaces, PHS has a long history of involving the community in greening efforts through Philadelphia Green. Recently, Philadelphia Green supported the citywide civic engagement process for *GreenPlan Philadelphia*, soliciting input from more than 1,600 residents to ensure a plan that meets the needs of residents.

"Too often, engaging the community becomes an afterthought in planning efforts," says Philadelphia Green senior director Joan Reilly. "The community has a particular expertise and needs to be at the table from the start. When you know residents' hopes and concerns about a space, you integrate that into the planning and design process. It builds the support and stewardship that the project will need going forward."

The Future Looks Green

Many European cities actively promote and protect green infrastructure through forward-thinking public policies including zoning, design and performance standards, and incentives. Philadelphia Green senior director Maitreyi Roy recently completed an Eisenhower Fellowship that enabled her to travel throughout Europe to visit outstanding urban green spaces and learn about innovative approaches. (Read her blog at www.green-journey.blogspot.com.) "Cities in Europe are on the cutting edge of redefining themselves as destinations for high-quality life, work, and recreation," says Roy. "Older American cities like Philadelphia are resurging to attract new investments and become economic centers once again, and at these early stages of renewal the true value of quality green spaces is yet to be realized. By promoting the green infrastructure approach, we hope to speed that realization along." 🌱

For more information, visit www.pennsylvaniahorticulturalsociety.org and click on "Philadelphia Green."

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STRATEGY *for a* GREEN CITY
a publication of
THE PENNSYLVANIA HORTICULTURAL SOCIETY

FALL 2007



PLANNING A GREENER CITY: Protecting the Green Infrastructure

Despite its historically gritty reputation, Philadelphia enjoys a wealth of green resources actively used by millions of people, including one of the nation's largest city park systems. For too long, however, there has been no overall plan to preserve and maintain these resources. The city's first-ever comprehensive open space plan, *GreenPlan Philadelphia*, will be released to the public in early 2008. The plan will address the acquisition, development, funding, and management of all green spaces in Philadelphia.¹

"Open space planning is a key part of urban revitalization and will greatly impact Philadelphia's future," says J. Blaine Bonham Jr., executive vice president of the Pennsylvania Horticultural Society (PHS). "It's imperative that the city's leaders understand this and work to protect and enhance Philadelphia's 'green infrastructure.'"

What is Green Infrastructure?

"Green Infrastructure" may seem a contradiction in terms—the word *infrastructure* conjures up images of roads, bridges, sewers, power plants, and buildings, not green landscapes. So, what is the significance of putting these two words together and how does it affect the way we plan our cities?

In their 2006 book *Green Infrastructure*, Mark Benedict and Edward McMahon define the term as "an interconnected network of natural areas and other open spaces that conserves natural ecosystem values and functions, sustains clean air and water, and provides a wide

array of benefits to people and wildlife." In short, they argue, green infrastructure constitutes "our natural life-support system."² This natural system does not stop at the urban boundary but weaves its way through cities.

The green infrastructure of the city includes:

- Neighborhood and regional parks
- The "urban forest," including street trees and parkland trees
- Public landscapes, quadrangles, and plazas
- Landscaped streetscapes, gateways, and highway verges
- Playgrounds, play areas, ball fields, and recreation centers
- Community gardens
- Riverfronts
- Recreational trails and greenways
- Green roofs
- Abandoned land that can be utilized as new green spaces
- Other private and public land used for passive or active recreation

Cities with a healthy green infrastructure not only offer their inhabitants a higher quality of life, but they also, in turn, have a less damaging impact on the surrounding

² Benedict, Mark A. and Edward T. McMahon, *Green Infrastructure: Linking Landscapes and Communities* (Washington DC: The Conservation Fund, 2006), 1.

¹ For more information visit www.greenplanphiladelphia.com.

environment. In *Green Urbanism*, Timothy Beatley outlines a vision that can help cities strike this ecological balance. Cities that meet Beatley's ideals of green urbanism live "within their ecological limits," and are "restorative and replenishing of the planet, rather than fundamentally extractive and damaging." They strive toward a higher degree of self-sufficiency; facilitate "sustainable, healthful lifestyles;" and emphasize a high quality of life and "highly livable" neighborhoods.³

Green Infrastructure in Planning

Green infrastructure-based planning integrates green spaces from the outset. Traditional planning is often too reactive: Suburban counties suddenly find that their farmland has vanished and scramble to protect what's left. City residents lose access to their riverfronts as commercial developers buy up chunks of waterfront land. Proactive, comprehensive planning saves money over time, since poor planning can result in sub-optimal use of open spaces, haphazard development, and sprawl. Avoiding sprawl development saves billions of dollars that would be required for new roads, schools, water and sewer facilities, and maintenance costs.⁴

These savings extend across entire regions, particularly when it comes to air quality and flooding. Unlike buildings, parking lots, and other impervious, "hardscaped" surfaces, green spaces help prevent flooding by absorbing rainfall and storm runoff. According to Benedict & McMahon, "Green Infrastructure helps to sustain forests, farms, and other working lands and allows natural systems to function as intended, saving communities millions of dollars in flood mitigation, water purification, and a host of other savings resulting from avoiding expensive manmade solutions."⁵

For cities, having a well-conceived plan that protects open space not only saves money, but also provides a host of benefits, including economic growth. Parks, greenways, and tree-lined streets improve local economies by attracting tourists, enhancing commercial districts, and increasing property values. A healthy urban forest improves air quality, absorbs stormwater, and reduces summer cooling costs. Greener urban landscapes improve the quality of life by offering respite from city stresses, promoting social interaction, and reducing crime. They also promote better health by providing recreational opportunities and a cleaner environment.⁶ Not surprisingly, businesses view ample green space as an asset that can reduce health-care costs and attract new employees—important factors when corporations decide where to locate.

Promoting Green Infrastructure

Green infrastructure will take priority only if government leaders and citizens understand its importance. In addition to PHS, groups like the member organizations of the Next Great City coalition, the Philadelphia Parks Alliance, the Pennsylvania Environmental Council, and PennFuture have been actively working to bring the care and management of green infrastructure to the forefront of political debate.

PHS's **Green City Strategy** promotes a thriving green infrastructure as an essential part of urban revitalization and pushes for increased investment in green spaces. John K. Ball chairs the PHS Green City Strategy committee, which includes members of the PHS Council (the PHS governing board) and local business leaders. "For Philadelphia to compete

successfully with other cities for jobs, residents, and tourists, it must offer a healthy environment and a good quality of life," he says. "Thriving green spaces are essential in making the city a great place to live, work, and play."

"Philadelphia is at a tipping point when it comes to understanding these issues," adds Alan Urek, director of strategic planning and policy for the Philadelphia City Planning Commission. "Particularly in the past 10 years, the city has come under increasing pressure for new development. At the same time, Mayor John Street's Neighborhood Transformation Initiative, with its effort to demolish abandoned buildings and clean up vacant land, revealed vast amounts of land previously unavailable. There is also a heightened interest in better use of the city's riverfronts. Having a plan offers predictability for all these competing demands and gives people a better sense of Philadelphia's future."

Creating a Greener City

Through its Philadelphia Green program, PHS has been working for three decades to create a greener city. PHS partners with organizations, government, and residents to **plan, create, and maintain green spaces**, including neighborhood parks, civic landscapes, streetscapes and gateways, community gardens, and tree-lined streets.

Philadelphia Green's **Vacant Land Stabilization Project**, funded through a partnership with the Neighborhood Transformation Initiative, has transformed millions of square feet of abandoned urban land into "clean & green" spaces available for community use or redevelopment.

PHS promotes stewardship of the **urban forest** through educational efforts such as its Tree Tenders project, which trains community residents to plant and care for street trees; by supporting community groups that add trees to neighborhood sites; and by partnering with community development corporations to plant street trees along commercial corridors. PHS is also a lead partner in TreeVitalize, a program of the Pennsylvania Department of Conservation and Natural Resources that seeks to restore southeastern Pennsylvania's depleted tree canopy.

Going forward, PHS supports efforts to better integrate the **Delaware and Schuylkill rivers** into city life, including enhancing and expanding greenways and reconnecting neighborhoods to the riverfronts. Philadelphia Green staff will design "green corridors" that link communities to the northern Delaware River waterfront, where the Delaware River City Corporation has proposed an extensive new greenway and mixed-use development, and is working on improvement plans for Penn Treaty Park on the Delaware. It is also working with the Schuylkill River Development Corporation to enhance and expand the Schuylkill Banks recreation trail.

Stormwater management is emerging as one key part of green infrastructure planning. In Philadelphia, new developments are now required to meet regulatory limits for stormwater. "Whether it is through tree trenches, bio-swales, rain gardens, porous pavement, green roofs, living walls, or infiltration beds, we are reversing the centuries-old thinking of moving water away from us as quickly as possible and returning to a decentralized view of inviting nature to be our mentor and partner," says Howard Neukrug, director of the Philadelphia Water Department's Office of Watersheds. "After all, nature has always been the premier stormwater manager."

PHS partners with the Water Department to use cleaned-up vacant lots as stormwater demonstration sites, installing berms, trenches, and vegetation to capture runoff. Philadelphia Green also teamed with the East Falls Development Corporation, the Water Department, and the Philadelphia University



Recreational trails promote healthy lifestyles.



Cleaned-up vacant lots are used as stormwater management demonstration sites.

Philadelphia: A Wealth of Green Infrastructure

Philadelphia's Fairmount Park System is a 9,200 acre citywide park system that includes extensive parklands, woodlands, public open spaces, large recreational areas, and 63 neighborhood parks. The Department of Recreation oversees an additional 80 neighborhood parks, as well as recreation centers and playgrounds. The city contains hundreds of community gardens, plazas, and green streetscapes. The John Heinz National Wildlife Refuge is a large wetland sanctuary at the city's southern border, and public gardens include historic Bartram's Garden and the Morris Arboretum of the University of Pennsylvania. The downtown Schuylkill Banks leads to recreational greenways along the Schuylkill River. The Greater Philadelphia region is renowned for its wealth of outstanding public gardens, greenways, easy access to state parks, and proximity to mountain ranges and beaches.



Street trees are part of the urban forest.



Small neighborhood parks, such as Bardascino Park in South Philadelphia, serve as community gathering spots.

"Open space planning is a key part of urban revitalization and will greatly impact Philadelphia's future."

—J. Blaine Bonham Jr.,
PHS Executive Vice President

³ Beatley, Timothy, *Green Urbanism: Learning from European Cities* (Washington DC: Island Press, 2000), 6-8

⁴ Benedict & McMahon, 10-11.

⁵ *Ibid.*, 57.

⁶ For more on the benefits of urban greening visit www.cfr.washington.edu/research.enmind/.