

# University Green: How Urban Forestry Partnerships Plant More Than Trees

Patricia James, Mindy Maslin, Susan M. Pringle,  
and Barbara Van Clief

## **Abstract**

*The University Green program of the Pennsylvania Horticultural Society (PHS) is an urban forestry partnership between four universities and their surrounding communities. The program offers excellent strategies for fostering improved college-community relations and stewardship by students and residents alike. University Green aims to improve the quality of life in neighborhoods and enhance sustainable local urban forestry projects. The program also demonstrates the challenges and benefits inherent in creating lasting partnerships committed to urban greening.*

This article summarizes the Pennsylvania Horticultural Society's direct experience in designing and implementing its University Green program. It is presented in a journalistic style and includes direct interviews with participants in the program.

In the past, urban colleges and universities often were both physically and institutionally separate from their surrounding communities, especially those in locations challenged by poverty and urban decay. Whether the walls were physical or virtual, some campuses held themselves apart, especially from communities with significant perceived differences between the academic community and local residents. But, times are changing. From a social perspective, universities want to be good neighbors and to acknowledge and respond to community concerns about the impact of new development, resident student populations, parking, and traffic. From a business perspective, colleges and universities with a high quality of life in their surrounding communities have a better chance of attracting top students, staff, and faculty.

While most colleges and universities emphasize civic engagement that addresses community-identified needs, a growing number also aspire to serve as transformative anchor institutions that enhance the quality of life in their neighborhoods, spur economic development, and accelerate community revitalization. The University Green program of the Pennsylvania Horticultural Society (PHS) is an urban forestry partnership between four universities and their surrounding communities. It is a component of PHS's Tree Tenders® program (<http://www.pennsylvaniahorticulturalsociety.org/phlgreen/tree-training.html>), which trains citizens to plan and care for community trees. The program offers excellent strategies for fostering improved college-community relations.

University Green is modeled on UC Green (University City Green; <http://www.ucgreen.org>), a successful nonprofit partnership between the University of Pennsylvania (Penn) and its surrounding neighborhoods, and is rooted in PHS's mission *to motivate people to improve the quality of life and create a sense of community through horticulture*. University Green aims to improve the quality of life in neighborhoods and enhance sustainable local urban forestry programs.

Urban forestry partnerships like University Green connect universities and communities in positive and powerful ways. In addition to providing aesthetic and environmental benefits to communities, these partnerships support other goals such as natural resource stewardship, civic engagement by students and faculty, and increased opportunities for applied and community-based research. The program demonstrates the benefits, as well as the challenges, inherent in creating lasting partnerships committed to urban greening.

## **Why Trees?**

PHS's thirty-five-year experience operating its acclaimed greening program, Philadelphia Green, which works in partnership with community residents, government, business, and other nonprofit organizations to create greener communities, demonstrates that tree care and community greening are compelling issues around which to organize urban neighborhoods. Through its work with urban communities in tree planting and care, PHS has developed strategies to counter negative misconceptions among urban residents about street trees and to promote the benefits of trees.

While many urban campuses offer bucolic settings for their students, often their surrounding neighborhoods lack trees or have street trees that suffer from neglect, contributing to the tendency for students to feel uncomfortable traveling within the neighborhood. Because a University of Illinois study determined that greener residential districts have lower crime rates (Kuo and Sullivan 2001), it follows that green neighborhoods surrounding campuses will create a sense of safety among students and increase positive interaction between students and residents.

Trees offer measurable benefits to communities. They improve air quality, improve energy efficiency of nearby structures, and increase property values. A large tree in a front yard can add one percent to the house sale price and ten percent to the property value (USDA Forest Service 2005). A study by the Wharton School of the University of Pennsylvania demonstrated that planting a tree within 50 feet of a house increased its property value by nine percent (Wachter 2004). Research by the University of Washington has shown that shoppers in tree-lined business districts report more frequent shopping and longer shopping trips, as well as a willingness to spend more for parking and up to 12 percent more for goods (Wolf 2005). Trees reduce atmospheric CO<sub>2</sub>, thus reducing ground-level ozone, a major cause of respiratory distress in urban areas often leading to emergency room visits. The US Forest Service

estimates that 100 trees remove 1.2 tons of CO<sub>2</sub> per year and 130 pounds of other pollutants. Trees also reduce flooding and pollution caused by stormwater runoff. The US Forest Service calculates that 100 mature trees capture about 77,000 gallons of rainwater annually, reducing stormwater runoff and protecting rivers and streams from non-point source pollution.

Trees also provide social benefits. A study by Andrea Faber Taylor demonstrated that children's level of play in treeless areas was half that of those in places with trees and grass. Areas with trees and grass have also been shown to stimulate creative play (1998). A study by Kuo and Sullivan states that "the urban forests help build stronger communities and in doing so, they contribute to lower levels of domestic violence" (1996).

Finally, engaging in community tree planting offers a sense of accomplishment for volunteers. This can be especially rewarding for students new to civic engagement who want to see the immediate positive results of their hard work. On the day that a concrete-lined street becomes a tree-lined street—even with trees that are just eight feet tall—the psychological benefits are instantaneous. Hard edges become softened. Neighbors come out of their houses to thank and work with the students. The local newspaper publishes an article, complete with photographs, about the wonderful service to the community that the students have performed.

Of course, the instantaneous change isn't really instantaneous. Months of planning, organizing, and recruiting have preceded the tree-planting event. Plans for implementing and sustaining tree projects follow. And, to the extent that students become involved in this follow-up, it reinforces the lesson that substantive change is a long-term process requiring long-term commitment. Students also observe the transformative power of partnerships among universities, citizens, nonprofit organizations, and local government.

## **PHS Tree Tenders Take Root**

The University Green program evolved in several stages. PHS adapted its tried-and-true civic engagement process to the planting and care of trees through the Tree Tenders program. Subsequently, UC Green took the Tree Tenders model and applied it to University Green.

The Tree Tenders program took root in direct response to challenging conditions during the early 1990s. Budget constraints in Philadelphia meant that regular tree maintenance—removal of dead or dying trees, pruning, and tree replacement—was being deferred. In 1993 PHS launched Tree Tenders to help address the concerns of residents about the urban forest.

The PHS Tree Tenders program teaches community groups basic tree-care skills, focusing on tree biology and identification, planting, and pruning. Each group completes nine hours of training. PHS Tree Tenders also helps volunteer groups build

organizational skills such as volunteer recruitment, meeting planning, and fundraising. The goal of Tree Tenders training is to make each community group as self-sufficient as possible.

Today, 3,000 individual Tree Tenders representing more than 200 community groups operate in the Greater Philadelphia metropolitan area. PHS Tree Tenders has played a key role in lifting up the importance of trees in the city and in the surrounding counties. In response to heightened citizen awareness, candidates in the most recent Philadelphia mayoral race made competing claims for planting the most trees if elected. PHS Tree Tenders groups have implemented tree inventories; organized Arbor Day events at neighborhood schools; conducted tree-care days; and most importantly, planted tens of thousands of trees. A motivated PHS Tree Tenders group creates a powerful momentum. A bond of shared interest unites them across all borders, enabling them to volunteer in the next neighborhood or two counties away.

Many PHS Tree Tenders say the program has changed their communities. In addition to advocating for the environmental benefits of trees and helping to make the city an overall healthier place, the program sparks a new sense of community. “The act of caring for trees has helped bring our community together,” says volunteer Susan Petrone of a South Philadelphia Tree Tenders group. “What I’ve learned most of all through volunteering is that showing you care—and the trust it engenders—builds the relationships that sustain and nourish a neighborhood” (personal interview with Jane Carroll, 2009).

In the Passyunk Square neighborhood in South Philadelphia, new trees brought a big change in the neighborhood’s appearance and community cohesiveness. Geoff DiMasi, vice president of the Passyunk Square Civic Association, says his group’s involvement has been “transforming.” The group has planted hundreds of trees and has strengthened the community in the process. “All of our tree plantings are volunteer projects,” DiMasi says. “We make it a party. We have people lined up to plant the trees—at one planting we had 200. The neighbors get to know each other at the plantings. Then the people who get trees in front of their houses end up spending more time outside, so they talk to their neighbors more” (personal interview with Jane Carroll, 2009).

The Civic Association’s first project was to plant forty-three trees around a local playground, a project that brought about better communication between park employees and residents. The group then forged closer ties with the police district by dedicating a group of trees to local officers. “We’re using the trees to connect all kinds of issues in our neighborhood,” says DiMasi. “It’s a fantastic way of bringing people together.”

Prior to the establishment of the UC Green program, an incident of violent crime in the neighborhood surrounding Penn had led to students reporting a fear of walking in the streets. UC Green involved both students and residents in its activities, thus strengthening its capacity to reach its community revitalization goals via beautification projects, including extensive tree planting. Through persistent and sustained efforts UC

Green was successful in improving the sense of security and began to forge long-term relationships between community residents and the university.

## **The Model for University Green: University City Green, Inc.**

UC Green began in 1998 as part of Penn's innovative Neighborhood Initiatives program ([http://www.universitycity.org/ucd\\_programs/neighborhood\\_initiatives](http://www.universitycity.org/ucd_programs/neighborhood_initiatives)), a community revitalization plan created to combat crime, trash, and blight in University City, a collection of neighborhoods surrounding Penn. At that time, many local residents saw Penn as a walled-in institution with little interaction with or concern for the community. UC Green formed to "unite community organizations, city agencies and university students and residents in local greening efforts" (Rodin 2007).

UC Green recruited a team from the community, including Penn staff and students, to attend PHS Tree Tenders training. This group then launched a series of tree and landscape plantings. A William Penn Foundation grant advanced the organization's vision of creating a garden village in University City, as well as its goals of establishing a UC Green Advisory Board, developing a mini-grant process to fund at least ten greening projects with community partners, and formulating a business plan.

UC Green continued organizing community tree plantings, using volunteers as the primary workforce, and developed collaborations with public schools, Penn student organizations, and other local partners to conduct ambitious urban tree plantings. In 2001, UC Green increased the scope of its activities by getting involved with the 2001 Arbor Day Celebration. With more than fifty institutional, business, governmental, and community partners, and with funding from the US Forest Service, UC Green recruited 1,200 students from three nearby colleges, along with community volunteers who planted the 110 trees in 100 minutes. The change was transformational. Overnight, this community collaboration resulted in five newly planted blocks of the "University City Greenbelt," creating pedestrian-friendly streets linking neighborhood landmarks and destinations.

In 2004, UC Green established its own 501(c)3 nonprofit status and embarked on a journey that has since resulted in many thousands of trees, bulbs, and perennials planted; \$280,000 worth of volunteer labor hours; an area-wide street tree inventory; a summer youth employment program and much more.

## **Launching PHS University Green**

The success of UC Green demonstrated the ability of such a partnership to galvanize universities, students, and residents to work together to revitalize the urban forest canopy. The PHS University Green Program began in 2008 with grants from the National Urban and Community Forestry Advisory Council (<http://www.treelink.org/nucfac/>), administered through the US Forest Service

(<http://www.fs.fed.us/>), and from PECO (<http://www.peco.com>), Pennsylvania's largest utility company. Other program partners include the Pennsylvania State University School of Forest Resources (<http://www.sfr.cas.psu.edu/>), the Philadelphia Higher Education Network for Neighborhood Development (PHENND; <http://www.phennd.org>) and the University of Pennsylvania Netter Center for Community Partnerships (<http://www.upenn.edu/ccp/index.php>).

PHS and UC Green recruited institutional members through PHENND, a regional consortium of colleges and universities involved in civic engagement. Cabrini College, Wayne, PA; Esperanza College, Philadelphia, PA; Philadelphia University, Philadelphia, PA, and Widener University, Chester, PA, became the charter members of PHS University Green. These institutions were selected on the basis of existing relationships with local communities, strong commitment to civic engagement, and the need for greening in their respective communities. They represent a wide spectrum of demographic profiles, with varying degrees of emphasis on service learning.

With PHS support, each of the universities has worked to plan a tree planting and care project within their community or neighborhood. The University Green program provides funding to cover project supplies and technical services. Each university has committed to an in-kind contribution of staff and student volunteer time as a match for project support.

PHS University Green provides training and support to each campus and its community partners. Training includes the benefits of trees, project planning, tree planting and care, and community outreach skills. The program helps organize meetings between students, faculty, and other university staff and the local communities to identify shared goals, develop work plans, and implement greening projects. Each institution has managed its role in the PHS University Green program a little differently.

## **Cabrini College**

Cabrini College (<http://www.cabrini.edu/>), located in the tree-rich western suburbs of Philadelphia, conducts most of its civic engagement programs in the nearby small industrial city of Norristown, PA, which has experienced significant economic decline over the past three decades. The University Green program resides in Cabrini's Science Department and its Environmental Awareness Responsibility Themed Hall (EARTH) Living and Learning Community (LLC). Stephen Eberle, coordinator of community partnerships at Cabrini College, explains:

As a part of the EARTH LLC, students deepen their appreciation of environmental issues through first-hand exposure to vivid and immediate examples of these issues, including both social and scientific aspects. Students also develop practical on-the-job skills, such as research, writing, and presentation competence. These sixty students take a number of courses which tie into the mission of University Green and take responsibility for the long-

term care of the trees planted in Norristown. Courses such as Biological Sciences I, Biological Perspectives on Environmental Issues, Watershed Ecology, and Biology Senior Seminar incorporate the University Green Project into their syllabi.

An active Tree Tenders group at Cabrini includes diverse representatives of the campus, including a biology professor, the coordinator of service learning, and the head of grounds on campus. Recently the head of grounds invited a biology class to watch and assist with health checks on some of its campus trees. This kind of on-campus collaboration would never have happened if the Tree Tenders group did not exist.

By connecting University Green with a diverse interdisciplinary academic program, students come to the tree planting from different angles. Some students focus on the community organizing efforts connected to such a large undertaking. Other students study improved waste-water filtration that results from a tree-filled community. Students studying business subjects focus on the economic impact that trees have on communities. Students who are just interested in getting outside, getting their hands dirty and making a difference focus on the fun surrounding such a day.

This program also strengthens Cabrini's partnership with Norristown by creating an opportunity to do something with Norristown residents and not just for Norristown. Tree planting allows participants to be co-laborers in the community and helps build trust. This approach breaks down any community fear that Cabrini might come into Norristown to tell it what to do.

The University Green program benefits Norristown because it is directed by Norristown residents. University Green allows Cabrini to work with Norristown to plant trees, but gives the city the power to decide how and when those trees will be planted. The buy-in from Norristown residents means that Cabrini can assist with the efforts, but does not direct or mandate the efforts. (personal interview with Barbara Van Clief, 2009)

Civic engagement is embedded in Cabrini's institutional philosophy. The school had been working within Norristown for some time, mainly focusing on human services projects. With the addition of urban forestry projects, students with interest in environmental studies and biology are able to apply knowledge directly in their respective fields of study. Tree planting is a long-term investment. Cabrini students have already participated in tree planting projects. Subsequently, Cabrini students will commit to tending the trees they planted, providing a level of care that greatly assists the municipal public works department, which must provide many other services to the city. The University Green concept is a perfect fit for Cabrini. Citizens and administration alike have expressed their appreciation.

## **Esperanza College**

Esperanza College (<http://esperanza.eastern.edu/>) is a branch campus of Eastern University and part of Esperanza, Inc., a community development corporation. The college confers associate degrees in liberal arts with three concentrations available: early childhood education, community and human services, and business administration. Esperanza is the only designated Hispanic Serving Institution in the State of Pennsylvania and is located in North Philadelphia's Hunting Park neighborhood.

“Unfortunately, we have experienced some obstacles that mostly have to do with human resources and priority-setting,” says Tara Carr-Lempe, community and human services specialist at Esperanza. “A crucial lesson: the importance of getting institutional buy-in and the support of key decision-makers. In the long-term, there is potential to collaborate among the three current branches of the institution: college, high school, and the Esperanza community development corporation. There is a vision of creating a green campus, which all three branches share. What is created at Esperanza has the potential to flow out into the surrounding community of residents, business, and other institutions. In a high-density neighborhood with limited safe green spaces, a green Esperanza could serve as a local community treasure” (personal interview with Mindy Maslin, 2009).

Working with a school like Esperanza College, which is comprised of mainly non-traditional students, has its challenges. Some of the students are parents with full-time jobs and are not available for volunteering during non-classroom hours. The college is very new itself, and while it is committed to civic engagement, it is still working out best practices and policies. One avenue that seems most promising for University Green is the Esperanza community development corporation's interest in planting trees within the commercial corridor on which the college is located.

## **Philadelphia University**

A strong PHS Tree Tenders group in the East Falls neighborhood of Philadelphia was a natural partner for Philadelphia University (<http://www.philau.edu>), which is located in the same neighborhood. “Speakers from East Falls Tree Tenders and PHS came into classrooms and lectured on trees, how they grow and how to plant them,” explains Cynthia Kishinchand of East Fall Tree Tenders. “These students then went out to the community to use their new knowledge. Even before the University Green program officially began, groundwork was done that readied the community and school for collaboration. Since many of the residents in East Falls are elderly and not inclined to do the heavy work of tree planting, Philadelphia University students have made large plantings in the neighborhood possible” (personal interview with Mindy Maslin, 2009).

The PHS University Green program is working very well in the neighborhood surrounding Philadelphia University. With each tree planting and tree-care event, more students have participated, and university staff and faculty are becoming more involved. Many students beyond those in the sciences are involved in the tree planting and tree-care workdays. PHS attributes its success here to Philadelphia University's

long history of community service and to the East Falls Tree Tenders group's aggressive advocacy for trees within the community and its own solicitation of the school's involvement. Moreover, Philadelphia University students go beyond the limits of their own East Falls neighborhood to volunteer in other areas of the city, demonstrating that they are truly dedicated to the health of trees in Philadelphia.

## **Widener University**

Widener University (<http://www.widener.edu>) is located in Chester, PA, designated as one of the most distressed cities in the United States. Widener's Presidential Service Corps (PSC) has 50 to 60 students who participate in civic engagement activities, either through service-learning courses or through organizational opportunities. The group forms the core of Widener's PHS University Green program. PSC students have participated in two plantings organized by the Chester Shade Tree Commission in collaboration with PHS, including one in partnership with students from Chester High School.

Dr. Kathleen Hornberger, associate professor of biology and director of environmental and community outreach, serves as the University's point person. She explains her role, as well as her high hopes for the program:

The University Green experience has been a very rewarding one for me. It has allowed me to work with professionals who have botanical expertise and are passionate about teaching every citizen, or as many as are willing, just as I tried to teach every student who signed up for my classes about the importance and benefits of trees. The PHS staff has been extremely supportive of having me serve as the campus contact, convincing in their "pitch" to administrators of the need for this program on this campus and in this city, and patient in the pursuit of partners on campus and in the community necessary for this program to be successful. Being an advisor to the city's Shade Tree Commission and engaging the support and enthusiasm of its chair and board has been an important component for engaging and extending this project into the city.

The benefits from University Green in the community will be many. Their neighborhoods will look better, they will be more comfortable (cooler and cleaner air), and they will be more alive (because wildlife, from birds to butterflies, will return). All these qualities should make residents feel better about living in the city of Chester.

The University will benefit as well. Beautification of the city will encourage people to visit, to study here at the University, and to live here full-time. Businesses will want to locate here knowing that the residents care about their community. In turn, more business, more jobs, more money to do philanthropic good works, could extend to and partner with the University. An influx of people will increase diversity: of ideas, of lifestyles, of races, etc. Graduates of

the University will want to stay because there are more job opportunities. Hopefully, people will become content with their surroundings so if they are happy, then they are less violent. Crime will diminish, and people will feel safe living here. (personal interview with Barbara Van Clief, 2009)

Professor Hornberger's sentiments epitomize the goals of University Green. Applying the principles of the program in Chester represents both the ultimate challenge and the supreme success story. For many years Chester residents have dealt with unfulfilled promises, so the challenge is to persuade residents, the school district, and city officials that this program can work. The success story grows more significant with every tree that is planted.

Because the Widener University Green program is integrally tied with the work plan of the Chester Shade Tree Commission ([http://www.chestercity.com/shade\\_tree.cfm](http://www.chestercity.com/shade_tree.cfm)), students have been able to practice technical skills. They attended advanced training on tree care and pruning and will apply that knowledge to neglected park and street trees when they care for them in spring 2010. Several students completed a tree inventory as a project for their Global Information System (GIS) course. Progress will be gradual, but the hope is that Chester residents will begin to believe that positive change is possible and that Widener University students can be a part of that change.

## **Conclusion**

PHS University Green is a new model for urban forestry partnerships. Now completing its first full year, the program demonstrates the power of greening, as well as the challenges in forging successful, lasting partnerships. For those institutions willing to reach out to their communities, the model offers a way to improve the quality of life, build stronger university-community relations, engage students and residents in urban forest stewardship, and strengthen existing urban forestry programs.

"It's a win-win situation," says Patricia Schrieber, associate education director at PHS. "The communities get the physical and environmental benefits that trees bring, and the universities get support for their educational goals. Both will benefit from the closer ties that we hope will result from this program" (personal interview with Jane Carroll, 2009).

## **References**

Kuo, F., and W. Sullivan. 2001. Environment and crime in the inner city: Does vegetation reduce crime? *Environment and Behavior* 33 (3): 343–367.

———. 1996. Do trees strengthen urban communities, reduce domestic violence? Technology Bulletin No. 4, Forestry Report R8-FR 55. Athens, GA: USDA Forest Service Southern Region.

Rodin, J. 2007. *The university and urban revival*. Philadelphia: Penn Press.

Taylor, A. F., A. Wiley, F. E. Kuo, and W. C. Sullivan. 1998. Growing up in the inner city: Green spaces as places to grow. *Environment and Behavior* 30 (1): 3–27.

USDA Forest Service. 2005. Trees pay us back. [www.na.fs.fed.us/urban/treespayusback/vol2/TreesPayUsBack.pdf](http://www.na.fs.fed.us/urban/treespayusback/vol2/TreesPayUsBack.pdf) (accessed May 13, 2010).

Wachter, S. 2004. The determinants of neighborhood transformations in Philadelphia—identification and analysis: The New Kensington pilot study. Philadelphia: The Wharton School. <http://gislab.wharton.upenn.edu/silus/Papers/GreeningStudy.pdf> (accessed May 13, 2010).

Wolf, K. 2005. Business District Streetscapes, Trees, and Consumer Response. *Journal of Forestry* 103 (8): 396–400.

### **Author Information**

Patricia James is education director at Pennsylvania Horticultural Society. Previously she managed civic engagement programs at Swarthmore College, where she helped students and faculty develop service-learning projects on a wide range of topics, including food sustainability, greening the campus, dining hall composting, and community gardening.

Patricia James  
PHS  
100 N. 20th Street  
Philadelphia, PA 19103  
Telephone: 215-988-8800  
Email: [pjames@pennhort.org](mailto:pjames@pennhort.org)

Mindy Maslin is a project manager for the Pennsylvania Horticultural Society. She developed PHS's acclaimed Tree Tenders® program and has been teaching tree awareness and stewardship for 17 years. A community organizer since joining the VISTA program in 1980, Mindy holds a degree in social work from Temple University. Tree Tenders has trained more than 3,000 volunteers throughout the Philadelphia region.

Mindy Maslin  
PHS  
100 N. 20th Street  
Philadelphia, PA 19103  
Telephone: 215-988-8800  
Email: [mmaslin@pennhort.org](mailto:mmaslin@pennhort.org)

Susan M. Pringle is executive director of UC Green. Previously she was land manager at Awbury Arboretum, where she oversaw the ecologically sound re-greening of a 55-acre parcel of land. Susan has a B.S. in horticulture from Temple University and a B.A. in history from Ohio Wesleyan University. She has also studied fundraising and development for executives at Villanova University.

Susan M. Pringle  
Executive Director  
UC Green  
4613 Woodland Ave.  
Philadelphia, PA 19143  
Telephone: 215-573-4684  
Email: [smpringle@ucgreen.org](mailto:smpringle@ucgreen.org)

Barbara (Barley) Van Clief is a project manager for the Pennsylvania Horticultural Society, where she manages the Tree Tenders program serving areas outside of Philadelphia. Previously, she was regional director for Pennsylvania Resources Council, executive director of Perkiomen Watershed Conservancy, and director of environmental education and preserves manager for the Wildlands Conservancy. She holds degrees in biology and psychology from Bucknell University and completed graduate work in environmental education at Slippery Rock University.

Barley Van Clief  
PHS  
100 N. 20th Street  
Philadelphia, PA 19103  
Telephone: 215-988-8800  
Email: [bvanclief@pennhort.org](mailto:bvanclief@pennhort.org)