

# Green2015

An Action Plan for the First 500 Acres

by PennPraxis

for Philadelphia Parks and Recreation

supported by the William Penn and Lenfest Foundations

# TABLE OF CONTENTS

4	<b>CHAPTER 1</b> EXECUTIVE SUMMARY	74	<b>CHAPTER 6</b> THE FIRST 500
18	<b>CHAPTER 2</b> PHILADELPHIA LOVES ITS PARKS		<ul style="list-style-type: none"><li>• We're Well on Our Way</li><li>• Recreation Centers and Underused PPR Sites</li><li>• Public Underused Land</li><li>• Schoolyards</li><li>• Private Underused Land</li><li>• Implementation Costs</li></ul>
	<ul style="list-style-type: none"><li>• The Benefits of Parks</li><li>• What's Your Park?</li><li>• The Time Is Right</li></ul>	102	<b>CHAPTER 7</b> WHAT WE CAN DO TODAY
28	<b>CHAPTER 3</b> THE GOALS OF GREEN 2015		<ul style="list-style-type: none"><li>• Immediately Achievable Steps for Philadelphia Parks and Recreation</li><li>• Citizens: What You Can Do Today</li><li>• Parks on the Near Horizon</li></ul>
	<ul style="list-style-type: none"><li>• Greenworks Philadelphia Mandate: 500 Acres</li><li>• What Does 500 Acres Look Like?</li><li>• Green2015 Process</li><li>• Citizen Principles</li></ul>	110	<b>CHAPTER 8</b> BEYOND 2015
36	<b>CHAPTER 4</b> PRIORITIES FOR NEW PARKS		<ul style="list-style-type: none"><li>• Connecting to PHILADELPHIA2035</li><li>• A Vision for the Future of Philadelphia's Green Network</li><li>• Looking Ahead</li></ul>
	<ul style="list-style-type: none"><li>• Fair and Equal Access to Parks within Walking Distance</li><li>• Stormwater Management in Our Neighborhoods</li><li>• Environmental Benefits of Regional Significance</li><li>• Transportation and Land Use</li><li>• Healthy Living</li><li>• Partners on the Ground</li><li>• Site-Selection Criteria Matrix</li></ul>	126	<b>APPENDICES</b>
54	<b>CHAPTER 5</b> OPPORTUNITY SITES		<ul style="list-style-type: none"><li>• A. Acknowledgements</li><li>• B. Interview List</li><li>• C. Additional Implementation Research</li><li>• D. Endnotes</li><li>• E. Image Credits</li></ul>
	<ul style="list-style-type: none"><li>• Recreation Centers and Underused PPR Sites</li><li>• Public Underused Land</li><li>• Schoolyards</li><li>• Private Underused Land</li></ul>		

## LETTER FROM THE DIRECTOR

PennPraxis is pleased to submit *Green2015: An Action Plan for the First 500 Acres* to the Philadelphia Department of Parks and Recreation and the Philadelphia City Planning Commission.

Over the past year, we have had the privilege of working in partnership with these city agencies, along with many other colleagues, to help establish criteria to guide the city in adding 500 acres of greened public space by 2015. This goal was put forth in the “Equity” section of *Greenworks Philadelphia*, the City of Philadelphia’s sustainability plan. One of its major aims is to provide park space to residents who don’t have a park within a half-mile walk of their homes. The target number of 500 acres of greened public space is considered the minimum amount that will advance the city’s objective of becoming more fair, livable, and competitive.

Already, we are well underway in our efforts to achieve this *Greenworks* goal.

Since the start of the Nutter Administration in 2008, many people across the city have been creating parks. In fact, as *Green2015* demonstrates, a range of public, private, nonprofit, and

institutional partners has proved the power of collective action. And we’ve learned that we can create an equitably distributed network of park spaces using funding sources that already exist to support other related policy objectives.

This study was generously funded by the William Penn Foundation and the Lenfest Foundation. The Penn Project for Civic Engagement and the Pennsylvania Horticultural Society skillfully crafted a civic-engagement program for *Green2015* that allowed Philadelphia citizens to inform the plan. The Philadelphia Water Department was a valued partner, lending both technical expertise and professional insight into how to create green infrastructure. And a host of advisory group members, experts, policy makers, advocates, and citizens contributed their knowledge, skills, and plans toward the effort. We are grateful for everyone’s contributions.

The benefits of green public space are abundantly clear. Be it for social, economic, ecological, or public-health reasons, creating accessible, green public space adds real value to the lives and welfare of our citizens, our city, and our region. Taken together, the impact of these benefits is exponential.

Philadelphia’s long tradition of an interconnected system of parks and green public spaces dates to its founding. *Green2015* aspires to build upon this legacy—creating new types of parks that will help us meet the challenges of our generation while connecting Philadelphians and their parks with the world beyond.

Harris Steinberg, FAIA  
Executive Director, PennPraxis

December 2010





Green  
2015

Chapter 1



# CREATING PARKS FROM VACANT AND UNDERUSED LAND

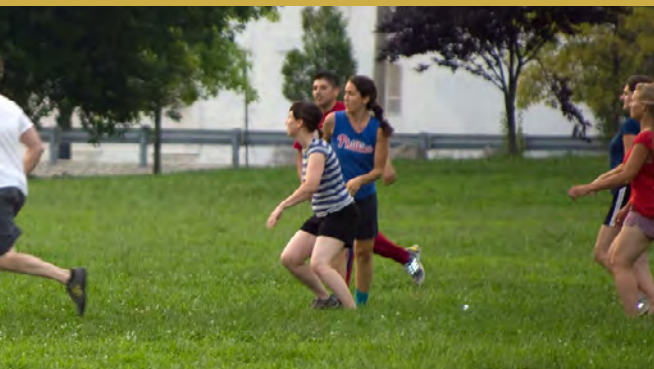
The goal of Green2015 is to unite city government and neighborhood residents to transform 500 acres of empty or underused land in Philadelphia into parks for neighbors to enjoy by 2015. As we all know, vacant lots hurt our communities. Transforming these empty spaces into parks and green places creates important new opportunities for kids to play and neighbors to gather.

Most of the land that can be greened is already publicly owned and therefore requires no money to acquire. The planning, implementation, and maintenance of these parks will be a collaborative effort among many partners, including neighbors, businesses, nonprofit organizations, developers, and the city.

In the past, greening has been a successful strategy for addressing everything from blight removal to water quality in Philadelphia. Green2015 shows how parks can again be used to improve our city and neighborhoods.







## What's Your Park?

What park do you visit regularly when you want to walk your dog, play with your child, or sit on a bench and watch the world go by? Chances are that your park plays many roles to help your neighborhood. In addition to their many recreational uses, parks help manage stormwater runoff, provide healthy habitats for local plant and animal species, remove greenhouse gases, and offer land to plant fresh food. But in Philadelphia today, over 200,000 residents can't answer the question "What's your park?" because they have no parks in their neighborhoods. Green2015 is necessary to ensure that every resident has fair and equal access to a park.

Green2015 will only succeed, however, if it creates parks that are clean, safe, and ready to use. The new Philadelphia Department of Parks and Recreation (PPR) has made "clean, safe, and ready to use" a priority and is committed to achieving these standards for existing and new park spaces. PPR is studying ways to manage costs, involve community members, and ensure long-term maintenance. Solutions will include new ways to generate maintenance revenue and new park designs that are easier to maintain. PPR will be working with community members every step of the way as new opportunities for city parks are identified.



## PRIORITIES FOR NEW PARKS

*Greenworks Philadelphia*, Mayor Michael Nutter's sustainability plan, prioritizes new parks for neighborhoods that have little or no access to parks or green space. **There are currently more than 200,000 Philadelphians, about 1 in 8 residents, who do not live within a 10-minute walk of a public green space.** New parks on formerly vacant land will transform neighborhoods, create jobs, help reduce crime, and provide access to fresh food. Access to parks is essential to the health of every community across the city.

### CREATING ACCESS

About 202,000 Philadelphians do not live within walking distance of a park, which represents about 12 percent of the city's total population. This is comparable to about 65 percent of Pittsburgh's total population. Leaving this many citizens without access to park space is like leaving the entire cities of Allentown and Erie combined without access to parks. If you added the populations of Harrisburg, Lancaster, and Reading together, you would still have fewer residents than the number of Philadelphians who do not currently have access to parks within walking distance of their homes.

### ADDING JOBS AND ECONOMIC VALUE

**Parks add value to public investment, increase property values, and improve the local economy** by attracting

businesses, residents, and tourists. As a result of the Philadelphia Water Department's Green City, Clean Waters program, which will utilize green infrastructure around the city to better manage stormwater, an average of **250 people will be employed with green jobs annually.**<sup>1</sup>

### ENGAGING PARTNERS

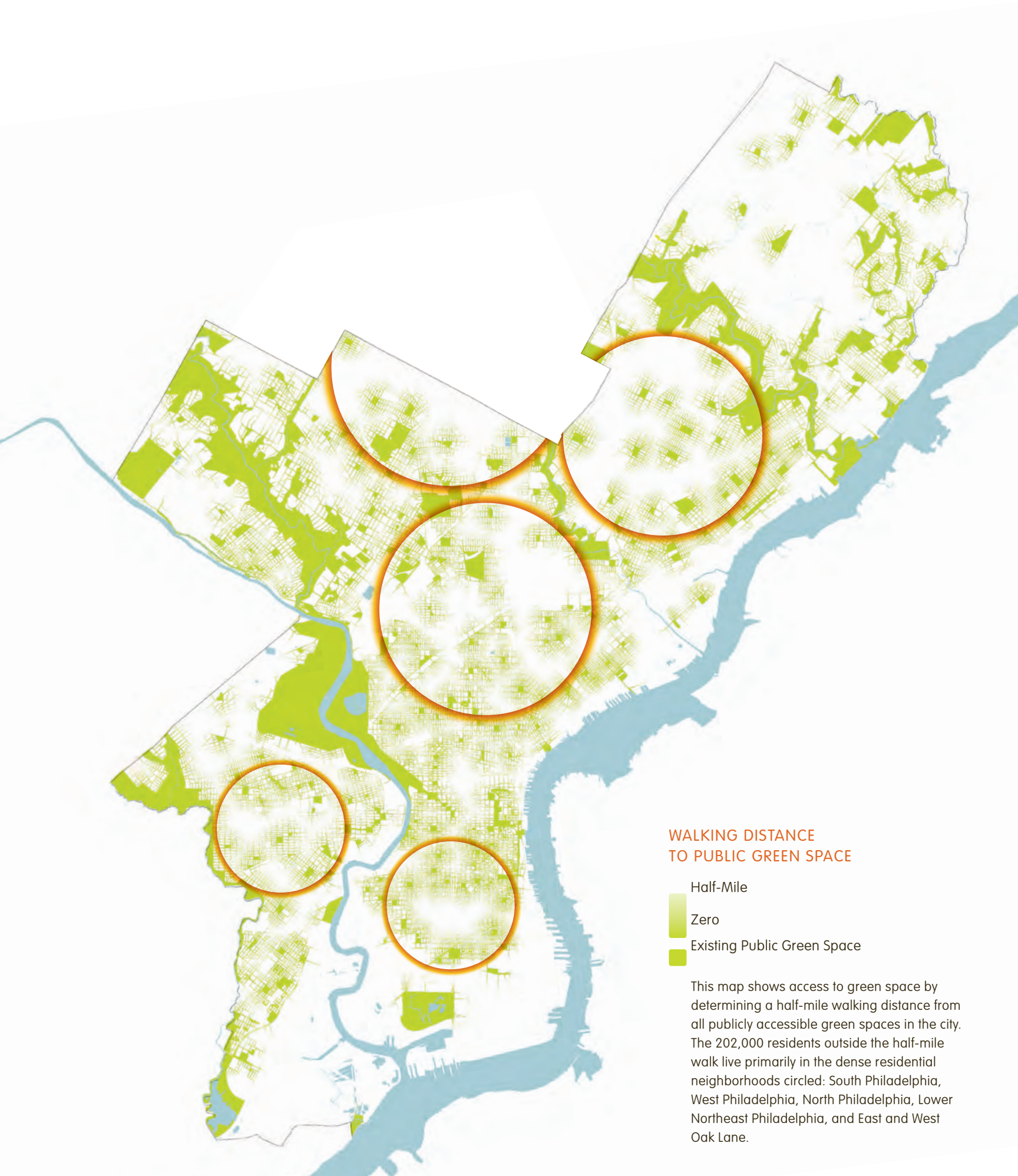
Many city agencies, nonprofit organizations, and private companies, as well as thousands of citizens, are already helping to create new green spaces in Philadelphia. In 2007, the extensive network of **volunteer and friends groups in Philadelphia contributed more than 229,000 hours of volunteer labor** working on green space, valued at \$8.6 million.<sup>2</sup> This collaboration of government, citizens, and the private sector makes it possible to give more Philadelphia residents the chance to enjoy parks.

### IMPROVING HEALTH

**Green space improves our overall health**, reduces health-care costs, improves air quality, and saves lives. The new green stormwater infrastructure created through Green City, Clean Waters, to which Green2015's acreage will contribute, will improve air quality sufficiently to reduce the number of premature deaths in the city by an average of one to two annually, prevent about 20 asthma attacks per year, and reduce work loss or school absences by up to 250 days per year.<sup>3</sup>

### PROTECTING AND RESTORING NATURE

Green space saves money by catching stormwater runoff and managing flood waters, reduces deaths caused by excessive heat, protects our drinking water, saves energy, and helps reduce the impact of climate change. Implementing the *Green City, Clean Waters* plan will produce a citywide green stormwater infrastructure network, of which Green2015's acreage are an important part. This will result in up to 1.5 billion pounds of carbon dioxide emissions avoided or absorbed over the next 40 years, the equivalent of removing close to 3,400 vehicles from Philadelphia's roadways each year.<sup>4</sup>



**WALKING DISTANCE  
TO PUBLIC GREEN SPACE**

- Half-Mile
- Zero
- Existing Public Green Space

This map shows access to green space by determining a half-mile walking distance from all publicly accessible green spaces in the city. The 202,000 residents outside the half-mile walk live primarily in the dense residential neighborhoods circled: South Philadelphia, West Philadelphia, North Philadelphia, Lower Northeast Philadelphia, and East and West Oak Lane.

## OPPORTUNITY SITES

Our top opportunities for transforming underused land into new city parks exist at recreation centers and on underutilized, publicly owned land. These public sites exist in every neighborhood across the city, and in many cases they are not living up to their full potential as vibrant centers for community use.

Within the parts of the city that do not have easy access to parks, **there are 62 acres of paved recreation centers and underused PPR land, and greening these will serve an average of 1,100 residents per new acre of park.** In these same areas, **there are 426 acres of schoolyards under the jurisdiction of the Philadelphia School District**, and greening each of these acres will serve an average of 260 residents per new acre of park. **The total student population at these schools is over 36,200 children.**

As there are about 10,000 vacant properties in the city's inventory, sites must be selected that meet a certain number of criteria to ensure that these parcels are transformed into successful parks. For example, sites must be at least one-quarter acre in size; this minimum area helps ensure that there is enough space both to catch stormwater and to serve as a recreation amenity for neighbors.<sup>5</sup> There are about 558 acres of publicly owned vacant sites that are one-quarter acre in size and that are located in neighborhoods that currently lack walkable access to green

space. However, one-quarter acre is just a minimum; in reality, PPR should prioritize sites that are larger. **A full list of indicators for selecting sites for future parks can be found on page 52 of the full report.**

The Green2015 mandate for more parkland also encourages the private sector to create new green places. As of July 2010 data, the total amount of vacant land in Philadelphia is 4,100 acres, over three times the size of Center City, so plenty of land is available to ensure that all residents are within easy walking distance of a park.<sup>6</sup>

As a part of the process of creating *Green2015*, over 200 residents in summer 2010 participated in public forums, and their input played a central role in determining the plan's recommendations. The plan also builds on input received from thousands of others during earlier park-planning projects. The community principles that resulted help shape the citywide green vision embodied in this plan:

### COMPLETE THE SYSTEM

First, serve neighborhoods with less green space, providing parks within a reasonable walking distance of all city residents.

### IT TAKES A VILLAGE

Create parks that enhance people's relationships and create stronger communities. Community members must work together and with PPR to make certain that their parks remain clean and safe.

### THERE'S GOLD IN GREEN

Identify future green spaces that will act as catalysts for the revitalization of underutilized industrial sites, vacant land, and their surrounding communities.

### LOOK BEYOND THE BEND

Any new green space created for 2015 must meet the city's long-term vision for open space.

### PROTECT RESOURCES

Any new green space should provide a multitude of benefits for city residents.

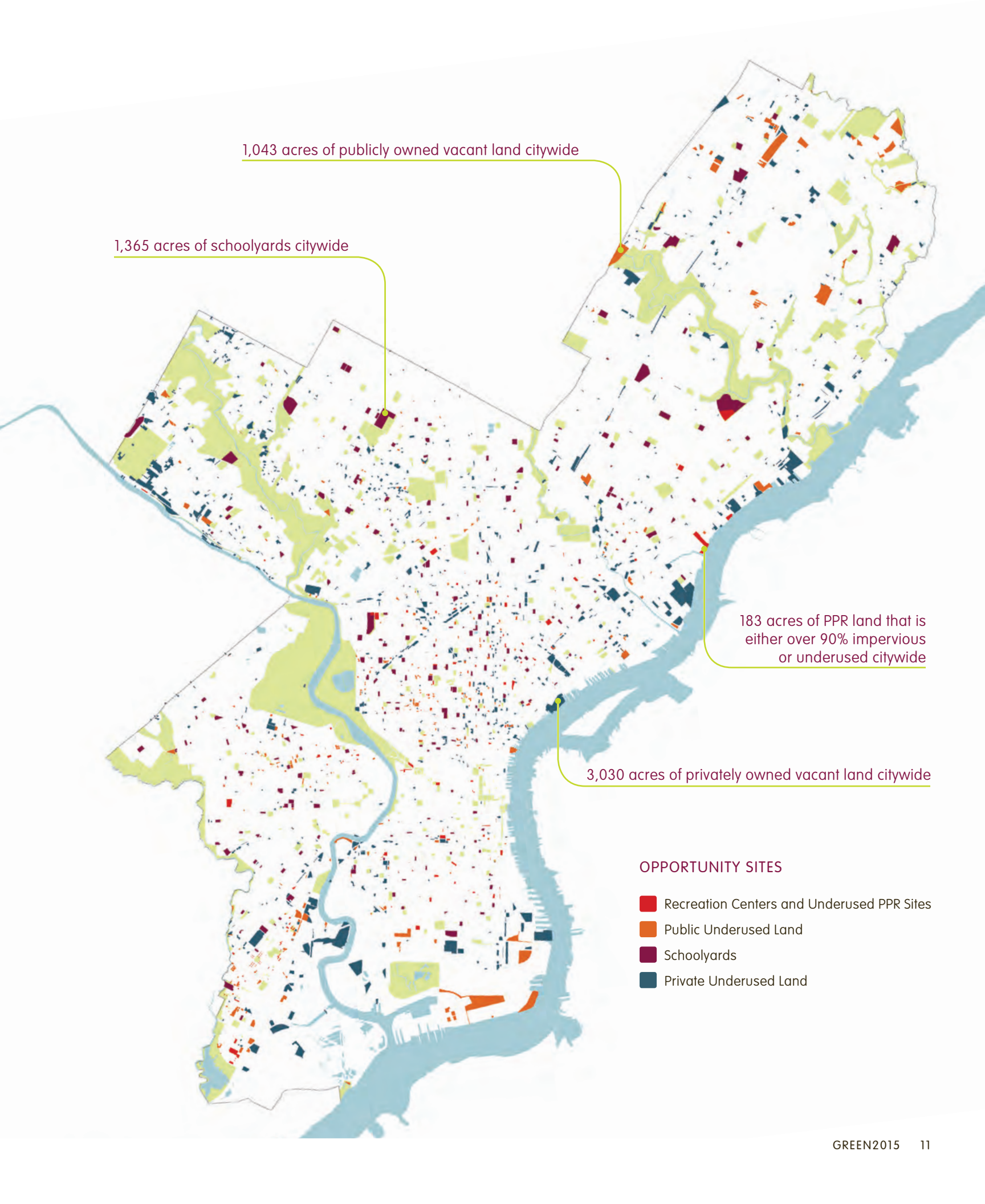
### RESPECT DIVERSITY

Create diverse and multifunctional spaces for changing age groups, recreation types, and animal habitats.

### INVESTMENT YIELDS DIVIDENDS

Raise the funds necessary to acquire, design, implement, and maintain new city parks.





1,043 acres of publicly owned vacant land citywide

1,365 acres of schoolyards citywide

183 acres of PPR land that is either over 90% impervious or underused citywide

3,030 acres of privately owned vacant land citywide

### OPPORTUNITY SITES

- Red square: Recreation Centers and Underused PPR Sites
- Orange square: Public Underused Land
- Purple square: Schoolyards
- Dark blue square: Private Underused Land

## HOW WE GET TO 500 ACRES

There are tens of thousands of underused parcels in Philadelphia. *Green2015* presents the results of a thoughtful approach to identifying 500 acres of land from these opportunity sites, many of which are currently harming Philadelphia's neighborhoods and costing taxpayers millions of dollars. Making some of that land into new city park space helps **remove blight, provides children and families with places to play, reduces basement flooding, and raises property values.**

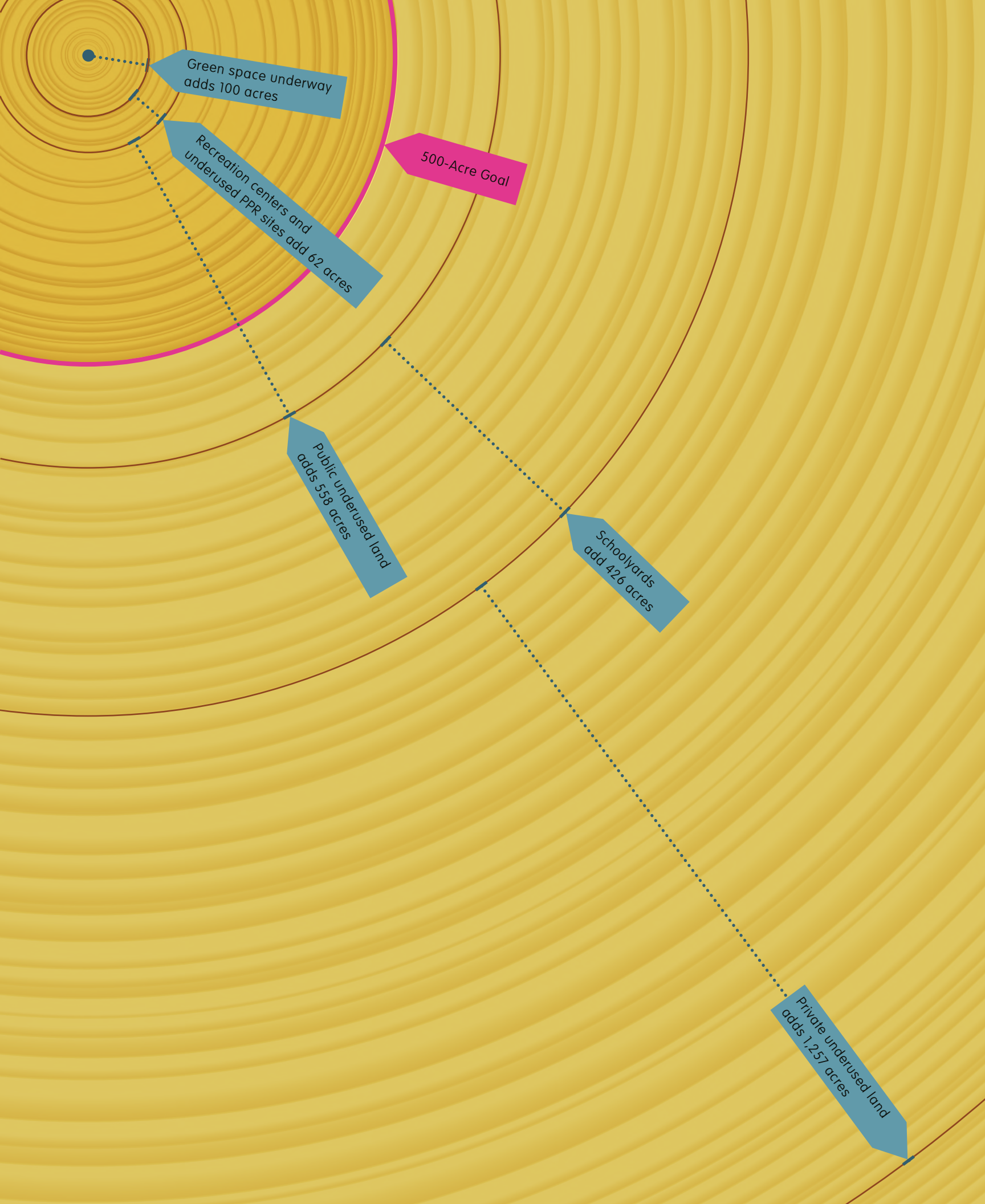
The city is already well on its way to achieving the Green2015 goal. **Since Mayor Nutter took office in 2008, 100 acres have been added** to the city's green landscape, almost half of which will not or did not cost the city anything in acquisition and construction costs. If this trend continues, about 200 of the 500 acres will be added by the private sector by 2015, and the city, with various partners, will create and maintain the remaining parks through existing capital funds, innovative design solutions, and partnerships with communities and other stakeholders. These sorts of **partnerships will help add new park space to improve lives, revitalize neighborhoods, and build a better city at an affordable cost.**

### PARTNER AND COLLABORATE

Creative partnerships and collaborations between the public and private sectors are already in place to achieve the goals of Green2015, including these:

- Philadelphia Water Department's Green City, Clean Waters;
- Philadelphia Department of Public Health's Get Healthy Philly;
- School District of Philadelphia's new facilities master plan;
- Philadelphia Industrial Development Corporation's new focus on using green amenities to draw business and jobs to the city;
- The Philadelphia Managing Director's Office and Finance Director's Office, which include the creation of parks in their citywide strategy for managing vacant land; and
- Temple University, University of Pennsylvania, and Drexel University, which are adding new green spaces as a part of their campus expansions.





Green space underway  
adds 100 acres

Recreation centers and  
underused PPR sites add 62 acres

500-Acre Goal

Public underused land  
adds 558 acres

Schoolyards  
add 426 acres

Private underused land  
adds 1,257 acres

## WHAT WE CAN DO TODAY

These are some of the actions that the Philadelphia Department of Parks and Recreation can take:

- Partner with the Philadelphia Water Department's Green City, Clean Waters initiative to increase the amount of public green space in order to better manage stormwater.
- **Transform one or two recreation centers** as a demonstration project to test low-maintenance design ideas and sustainable-design practices.
- Coordinate the policy initiatives of PPR, the School District of Philadelphia, the Philadelphia Water Department, and the Philadelphia Department of Public Health to **green schoolyards and make them assets for students and neighborhoods**. This could allow schools to gain funding associated with Green City, Clean Waters and Get Healthy Philly—a measure that by itself could dramatically improve the greening of Philadelphia. One outcome of this coordination of efforts could be the creation of a list of potential demonstration sites that address the issues of access, healthy living, and stormwater management.
- Reduce the impediments to transforming schoolyards into parks. Work with the nonprofit community to help implement a citywide schoolyard greening program, building on successful pilot projects in Philadelphia as well as national programs.

- Partner with the Managing Director's Office and the Finance Director's Office and their vacant land task force to create a streamlined process for identifying and **transforming public vacant land into public parks** and green spaces.
- Work with the Mayor's Office of Sustainability to create a database to track the progress of parks projects and identify priority sites for green space.
- Meet with the upper management of all public agencies that own land to discuss the free or low-cost transfer of publicly owned vacant land for the purpose of creating new city parks.
- Work with the Philadelphia Industrial Development Corporation to open its park spaces in the Navy Yard to the public for longer hours, and identify other PIDC-managed places in the city where park space can help support economic development.
- Coordinate with the Philadelphia Water Department and **private land-owners who have expressed interest in greening their parcels** to manage stormwater, thereby reducing their stormwater-management fees.
- Work with Philadelphia International Airport to ensure that public access is granted on a portion of the 82 acres of compensatory wetland sites in Philadelphia required as a part of its runway expansion plan.

- **Create a "rail corridor watch list"** with the Mayor's Office of Transportation, the city's Law Department, and Delaware Valley Regional Planning Commission that identifies rail corridors. With this watch list, whenever a site becomes available for sale or donation, the city will be able to coordinate a purchase or an easement for a walking and biking trail. This starts us down the path of achieving the long-term goal of a connected network of green trails.
- Work with Neighborhood Gardens Association, Natural Lands Trust, and Trust for Public Land to identify possible areas in which to implement Green2015 where they would be most useful for PPR.

Citizens can help by taking part in these actions:

- Coordinate with PPR to **outline the specific needs of Friends of Parks groups** and form an agreement with PPR so that citizens can receive support and training in how to improve and maintain their parks.
- Encourage large landowners to dedicate a portion of their lands for new park space.
- **Work with state and local elected officials** to protect existing public parks and to gain funding for the expansion and maintenance of existing spaces.
- **Bring existing neighborhood plans to PPR** to identify what parcels in each neighborhood would be best used as park space (based on the criteria on page 52) and could be created by 2015. Coordinate these efforts with the Philadelphia City Planning Commission's district plans as they get underway.
- **Identify vacant land** that poses a public nuisance and a potential nonprofit conservator to gain control of the land and create a future park under the Pennsylvania Abandoned and Blighted Property Conservatorship Act.



60 E. Willow Grove  
 Upper Roxborough Reservoir  
 Nicetown Skate Park  
 Gustine Lake Interchange  
 Kroc Center  
 Panati Playground Addition  
 Temple University Quadrangle  
 Tuttleman Field  
 Kensington CAPA  
 Girard Avenue Interchange  
 54th and Upland Streets  
 Mill Creek Park  
 Drexel Park  
 Barnes on the Parkway  
 Center City Greenway  
 Festival Pier  
 Race Street Pier  
 Walnut Hill Community Park and Farm  
 Shoemaker Green  
 Greenfield School  
 Dilworth Plaza  
 Penn Park  
 Julian Abele Park  
 Hawthorne Park  
 Karen Donnelly Park  
 Grays Ferry Crescent  
 National Heat and Power  
 3801 South 58th Street  
 Washington Avenue Green Expansion  
 Washington Avenue Green  
 Navy Yard Parks  
 Byberry Meadow Parcel  
 Lardner's Point  
 Philly Coke

**WE'RE WELL ON OUR WAY**

- Sites completed or underway (100 acres)
  - Sites already identified for greening (105 acres)
- Size of dots on map indicates their relative acreage*



## BEYOND 2015

The 500 acres of park space that will be added by 2015 within the city limits represents a great start to the city's transformation into a green city. The map at right, described in fuller detail in the full report, shows **a vision for a greener Philadelphia that is tied to the city's 25-year comprehensive plan**. Each feature on the map represents a proposed green trail designed to connect our parks to neighborhoods citywide. Connecting Philadelphians to parks is the path to a healthier and more competitive Philadelphia in the 21st century. **Green2015 is a smart road map to a green Philadelphia**. It updates the meaning of "park space" for the 21st century and rethinks the future of Philadelphia's park system.

### RIVERS AND CREEKS

Complete all watershed parks and river trails to ensure continued public access for pedestrians and cyclists.

### HISTORIC STREAMS

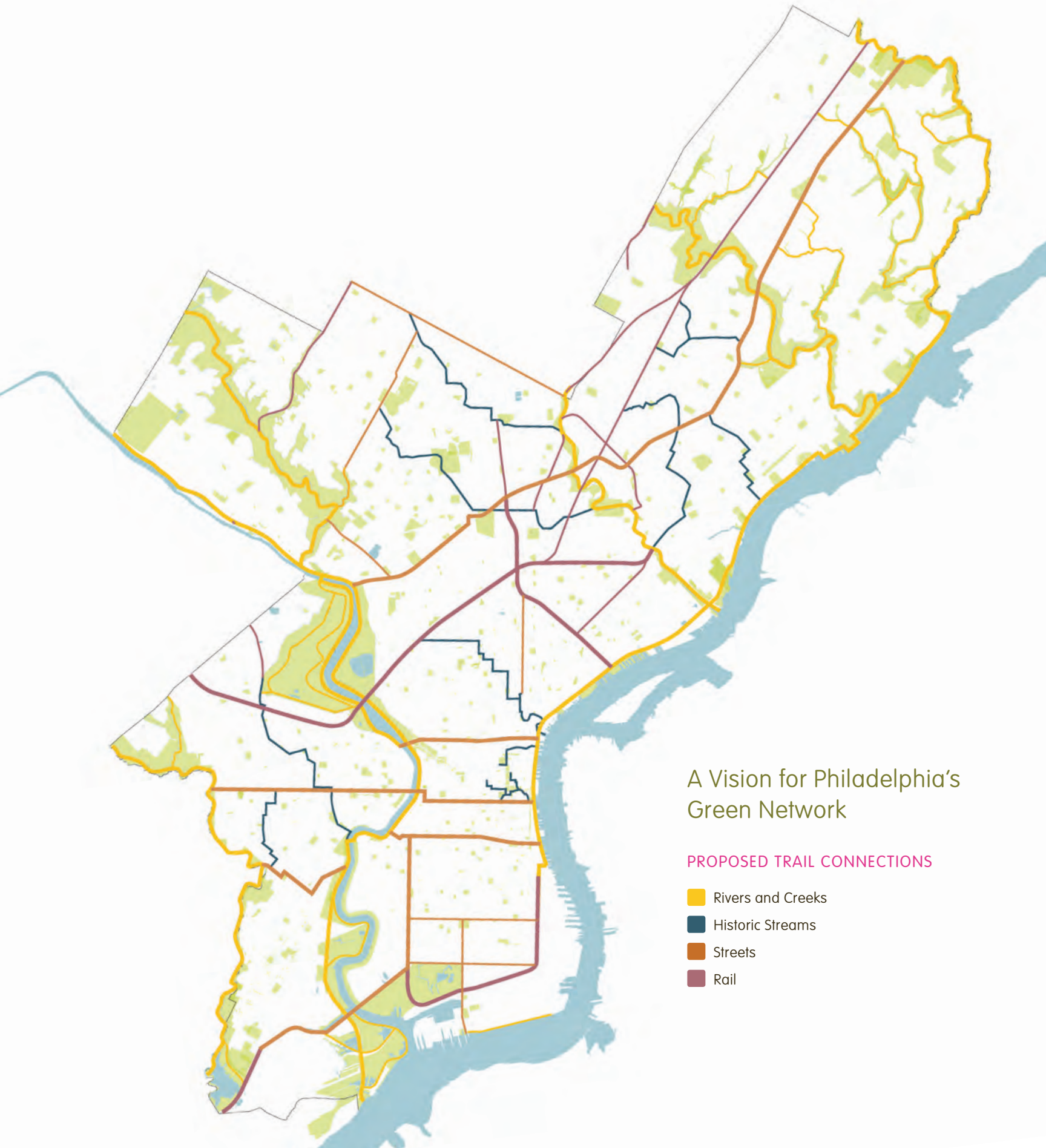
Create small-scale bicycle and pedestrian corridors following the course of a historic stream. "Creek walks" typically connect multiple streets with coherent streetscape, signage, and where possible a separated bike path.

### STREETS

Provide on-grade bicycle and pedestrian routes to existing parks following a street right of way, with varying levels of separation depending on the width of the roadway.

### RAIL

Use existing rail corridors (some active, some vacated) to create major, separated bicycle and pedestrian connections that link citizens to existing waterfront parks and that contain significant planting.



## A Vision for Philadelphia's Green Network

### PROPOSED TRAIL CONNECTIONS

- Rivers and Creeks
- Historic Streams
- Streets
- Rail

PHILADELPHIA  
LOVES ITS PARKS



The image features a series of concentric circles on a yellow background. The innermost circle is light yellow and contains the text 'Green 2015'. This is surrounded by a pink ring, which is further enclosed by a magenta ring. Several more faint, light yellow concentric circles are visible in the background. A blue arrow points from the right towards the pink ring.

Green  
2015

Chapter 2

# THE BENEFITS OF PARKS

The transformative effect of parks in Philadelphia and other cities across the country is well documented. The importance of high-quality, well-maintained green spaces has been demonstrated in such wide-ranging areas as affordable housing and new industrial development. Parks make our dense cities healthy and livable, competitive and resilient.

Today's parks serve many uses. They provide gathering places for citizens, the pathways on which we ride our bikes (and teach our children how to ride theirs), the riverfront greenways that prevent flooding, the sports fields that provide recreational opportunities for our children, the trees that relieve the sweltering summer sun, the rain gardens that filter stormwater, and the places that offer escape from the bustling city, places that draw us to live in a particular neighborhood and draw us to relax after a long day's work. City parks provide residents with equal access to public space, create new jobs and economic value for the city, promote healthy living, improve water quality, and help prevent flooding.

## FAIR AND EQUAL ACCESS TO PARKS WITHIN WALKING DISTANCE

Philadelphia's parks began with William Penn's five public squares in what is now Center City. Following the Civil War, city leaders realized the importance of parks, not only to protect the water supply, but also to give city residents relief from the stress of a growing industrial metropolis. Since then, our park system has grown to become a regional and national cultural asset that is on par with the Philadelphia Museum of Art and the Philadelphia Orchestra.

Providing equal access to park space is important because parks help bring neighbors together. In 2007, the extensive network of volunteer and friends groups in Philadelphia contributed more than 229,000 hours of volunteer labor while working on green space, labor valued at \$8.6 million.<sup>9</sup> Parks serve multiple purposes, including providing fresh-food access. A study by researchers at the University of Pennsylvania reports that Philadelphia community gardens produced over two million pounds of fresh produce in summer 2008 alone, most of which went to feed neighborhood residents or to supply local philanthropic organizations.<sup>10</sup>

The power of park space to transform neighborhoods has become clear in recent decades with the increase of

Compare Philadelphia on a Per Capita Basis with Other Cities in Terms of Parks per 1000 Residents<sup>13</sup>

City	Total Population	Park Acres
Washington, DC	591,833	7,617
Seattle	598,541	5,476
Boston	620,535	4,897
Baltimore	636,919	4,905
<b>Philadelphia</b>	<b>1,540,351</b>	<b>10,886</b>
New York	8,363,710	38,019
Chicago	2,853,114	11,907



vacant land in the city. In some of Philadelphia's most challenged neighborhoods, the work of the Philadelphia Green program of the Pennsylvania Horticultural Society (PHS) has been an important part of a strategy to stem disinvestment and depopulation. Neighborhoods all over Philadelphia attribute their recent growth and revitalization to the transformation of vacant properties into productive green space by PHS and other partners.<sup>11</sup> A study underway by the Cartographic Modeling Lab at the University of Pennsylvania shows that the greening of lots through PHS's Vacant Land Stabilization program contributed to a reduction in crime in these neighborhoods.<sup>12</sup>

### JOBS AND ECONOMIC VALUE

Green space brings jobs to Philadelphia. As a result of the Philadelphia Water Department's Green City, Clean Waters program, which will utilize green spaces around the city to better manage stormwater, an average of **250 people will be employed with green jobs annually.**<sup>14</sup> In a study on the economic impact of commercial-corridor improvements in Philadelphia, the Local Initiative Support Corporation and the consulting firm Econsult found two factors that helped create economically vital business districts: the cleaning and greening of vacant land along these corridors and the creation of Business

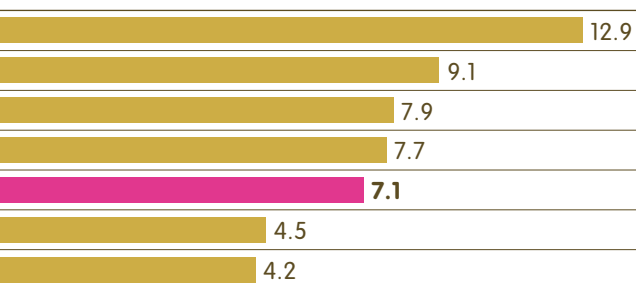
Improvement Districts (BIDs). Both had a "consistently significant relationship to corridor success."<sup>15</sup>

**Parks bring revenue to the city and its residents.** A study of more than six years' worth of greening projects in the New Kensington neighborhood determined that the greening of vacant lots created a 37 percent increase in the values of adjacent properties. Conversely, values declined by as much as 20 percent for properties located close to a non-greened vacant lot. The cumulative impact of the greening was found to be significant: **\$4 million in increased property value** due to the trees planted in New Kensington and **\$12 million in increased property value** due to the greening of vacant lots.<sup>16</sup> A study recently completed for PHS found that the value of homes near converted green spaces appreciated at an average of 13.3 percent per year, while the average home value increased by 7.8 percent during the same period, yielding **\$22.2 million in incremental tax revenue** after seven years.<sup>17</sup> The Philadelphia Water Department estimates that the implementation of Green City, Clean Waters will increase property values in greened neighborhoods by 2 to 5 percent, or up to **\$390 million.**<sup>18</sup>

Parks provide free recreation space, which also has economic value. A report by the Coalition for Philadelphia's Riverfronts in Philadelphia indicates that the total **recreational value of connected waterfront greenways alone is \$28 million.**<sup>19</sup>

According to a citizen survey done by Penn Future in 2006, "**92 percent of Philadelphians believe that environmental and infrastructure improvements are necessary to improve the area's economic competitiveness and growth.**"<sup>20</sup>

Park Acres per 1000 Residents



## Quantifying the Value of Philadelphia's Parks and Recreation Resources<sup>8</sup>:

### REVENUE-PRODUCING FACTORS FOR CITY GOVERNMENT

- Tax Receipts from Increased Property Value: \$18,129,000
- Tax Receipts from Increased Tourism Value: \$5,177,000
- Tax Receipts from Real Estate Transfer Tax: \$1,137,000

Estimated Total, Municipal Revenue-Producing Factors: \$24,443,000

### COST-SAVING FACTORS FOR CITY GOVERNMENT

- Stormwater Management Value: \$5,949,000
- Air-Pollution Mitigation Value: \$1,534,000
- Community Cohesion Value: \$8,600,000

Estimated Total, Municipal Cost Saving Factors: \$16,083,000

### COST-SAVING FACTORS TO CITIZENS

- Direct-Use Value: \$1,076,303,000
- Health Value: \$69,419,000

Estimated Total, Citizen Cost-Saving Factors: \$1,145,722,000

### WEALTH-INCREASING FACTORS FOR CITIZENS

- Property Value from Park Proximity: \$37,887,000
- Profit from Tourism: \$40,263,000

Estimated Total, Wealth-Increasing Factors: \$78,150,000

In 2006, green infrastructure improvements made by the Philadelphia Water Department and others saved nearly \$35 million in hard infrastructure costs.<sup>28</sup>

### HEALTHY LIVING

**Simply put, city parks save lives.** People with access to public green space are healthier. The one-mile extension of the Schuylkill River Trail from the Art Museum to Locust Street opened in 2000 sees up to 2,200 users per warm-weather day and has been a boost to adjacent neighborhoods. Numerous studies have shown that green space is good for our physical and medical health and that exposure to nature and green helps us recover from ailments more quickly.<sup>22</sup> A study by Penn State University showed that visits to parks reduced stress, lowered blood pressure, and improved physical health.<sup>23</sup> As a result, parks reduce health-care costs. A study in the October 2000 issue of *The Physician and Sportsmedicine* found that **physically active individuals had lower annual direct medical costs** than did inactive people. If all inactive American adults became physically active, the potential savings could be \$76.6 billion.<sup>24</sup>

Park space also improves air quality and reduces the urban heat-island effect that makes our neighborhoods unbearable on hot summer days. Estimates indicate that the new green stormwater infrastructure created through Green City, Clean Waters, which includes some of Green2015's acreage, could lower heat in the city to the extent that more than

**140 excessive-heat-related fatalities could be avoided** over the next 40 years.<sup>25</sup> In addition, the improved air quality resulting from full implementation of Green City, Clean Waters will reduce the number of premature deaths in the city by an average of one to two annually and will prevent about 20 asthma attacks per year. It will also **reduce work loss or school absences by up to 250 days per year.**<sup>26</sup>

Further, park space saves energy. The Philadelphia Water Department estimates that the implementation of Green City, Clean Waters will lower electricity use by six million kilowatts per hour and fuel use by eight million kBTU per year.<sup>27</sup>

### WATER QUALITY AND FLOOD PREVENTION

Fairmount Park was created on either side of the Schuylkill River to protect the city's water supply. The integral relationship between parks and water continues today.<sup>28</sup> An important benefit of creating more green space citywide is catching stormwater runoff, which will help prevent basement flooding and hazardous sewage overflows. In 2006, green infrastructure improvements made by the Philadelphia Water Department and others captured 17 million gallons of rainwater, **saving nearly \$35 million in hard infrastructure costs.**<sup>29</sup>

## The Costs of Vacant Land

Creating parks on public land not only attracts residents and increases tax revenue, but it can also serve practical purposes that save city governments millions of dollars in expenses. According to a study released in 2010 by the Redevelopment Authority of Philadelphia, the City of Philadelphia currently spends over \$21 million annually responding to and maintaining vacant land, much of which is privately owned. These are among the costs<sup>21</sup>:

- City Council, staff time, \$100,000
- Fire Department, cost of responses, \$5.95 million (includes police)
- Department of Public Health, vector control, \$33,000
- Law Department, follow-up on delinquent tax accounts, \$400,000
- Department of Licenses and Inspections, clean and seal demolition-code enforcement, \$7.92 million
- Managing Director's Office, Community Life Improvement Program, \$1.8 million
- Office of Housing and Community Development, maintain vacant parcels, \$2.99 million (includes PHDC)
- Department of Public Property, managing city-owned vacant parcels, \$100,000
- Redevelopment Authority, managing vacant parcels under RDA ownership, \$1.63 million
- Streets Department, disposal of waste dumped on vacant parcels, \$390,000

### TOTAL COST OF VACANT LAND TO THE CITY OF PHILADELPHIA: \$21.3 MILLION

The study also concluded that Philadelphia's vacant land costs its residents \$3.6 billion in lost household wealth, reducing adjacent property values by 6.5 percent and by up to 20 percent in some neighborhoods.

## Quantifying the Social Benefits of Green Infrastructure

Park space preserves the environmental benefits of watersheds and other ecosystems. For its *Green City, Clean Waters* initiative, which seeks to manage stormwater using green infrastructure techniques, the Philadelphia Water Department (PWD) conducted a "triple bottom-line analysis" to quantify the additional environmental, social, and economic benefits that creating these public spaces would yield over simply building new sewer pipes. PWD estimates that full implementation of *Green City, Clean Waters* will prevent five to eight billion gallons of combined sewer overflow from going into our rivers every year and restore 11 miles of streams and up to 190 acres of wetlands.<sup>30</sup> Twenty years after its full implementation, according to PWD's conclusions, the net social benefits of the \$1.6 billion

plan add up to a present value of \$2.2 billion<sup>31</sup>. That \$2.2 billion comes from these positive effects:

- Heat-stress mortality reduction: \$778,000,000
- Increased recreation: \$487,000,000
- Added property value: \$391,000,000
- Improved water quality and habitat: \$319,000,000
- Improved air quality: \$100,000,000
- Social costs avoided through green jobs: \$81,000,000
- Energy savings: \$21,000,000
- Carbon-footprint reduction: \$14,000,000 (1.5 billion pounds of carbon dioxide emissions avoided or absorbed)
- Reduction in construction-related disruptions: \$4,000,000

## The Economic Value of Protected Open Space in Philadelphia

GreenSpace Alliance and Delaware Valley Regional Planning Commission, with work from the Economy League of Greater Philadelphia and Econsult, released a study in November 2010 that shows the value of open space to residents of Southeastern Pennsylvania through the lens of property value, environmental benefits, healthy living, and more. Here are the findings of how Philadelphia County benefits from its green space network:

- Total Property Value Added by Open Space: \$6.4 billion (\$9,763 per household)
- Total Property and Transfer Tax Revenues Added by Open Space: \$69.6 million (\$106 per household)
- Annual Environmental benefits: \$10.5 million
- Total Economic Value of Recreational Activity: \$221.1 million
- Total Health-Related Cost Savings: \$408.6 million
- Annual Expenditures: \$131.1 million
- Total Employment: 1,055
- Annual Earnings: \$46.1 million
- Annual Taxes: \$10.3 million<sup>32</sup>

# WHAT'S YOUR PARK?

What park do you go to when you walk your dog, play with your child, or sit and watch the world go by? Chances are that your park plays many roles to help your neighborhood. In addition to recreational uses, parks help manage stormwater runoff, provide healthy habitats for local plant and animal species, remove greenhouse gases, and offer land to plant fresh food. But in Philadelphia today, over 200,000 residents can't answer the question "What's your park?" because they have no parks in their neighborhood. Green2015 is necessary to ensure that every resident has fair and equal access to a park.

Green2015 will only succeed, if it creates parks that are **clean, safe, and ready to use**. The Philadelphia Department of Parks and Recreation (PPR) has made these standards a priority for existing and new park spaces. This cannot be achieved without addressing issues of cost, community involvement, and long-term maintenance. PPR is studying new ways to generate maintenance revenue and new park designs that are easier to maintain. PPR has heard citizens' concerns and is making maintenance a top priority. In addition, the Philadelphia Water Department is working with community groups to determine the best approach for maintaining neighborhood green infrastructure and has set aside \$100 million in Green City, Clean Waters for maintenance. Further, PPR will involve the community in the site selection and programming process to ensure that the new park spaces are productive and valued by neighbors.

Once land for a park is secured and made publicly accessible, a wide variety of green uses can take place at each site. At right are different types of parks found in Philadelphia today:

## Square

### Function

A basic unit of the park system, a square often includes a playground and an area for socializing and relaxation.

### General Acreage

One to 10 acres

### Example

Carroll Park, West Philadelphia



## Wetland

### Function

A wetland is an area of naturalized, low-lying land saturated with water to protect against flooding.

### General Acreage

One-half-plus acre, depending on location within watershed

### Example

Saylor's Grove, Northwest Philadelphia



## Neighborhood Park

### Function

The neighborhood park is a larger park filled with more active programs, including ball fields and trail networks.

### General Acreage

One to 25 acres

### Example

Clark Park, West Philadelphia

## Sports Field

### Function

Green sports fields are used for active recreation.

### General Acreage

One-quarter to two acres, depending on the sport

### Example

Capitolo Playground, South Philadelphia







## Rain Garden

### Function

Runoff is directed into a basin with native plants, providing an attractive amenity while managing stormwater.

### General Acreage

One-tenth of impervious area draining to garden

### Example

Herron Recreation Center, South Philadelphia

## Playground

### Function

A playground offers the use of manufactured equipment and games geared toward small children.

### General Acreage

One-quarter acre minimum

### Example

Norris Square, North Philadelphia



## Greenway

### Function

A greenway is a landscaped path along a waterfront that offers convenient pedestrian and bicycle access.

### General Acreage

100-foot width

### Example

Schuylkill River Trail, Center City



## Community Garden/ Urban Farm

### Function

Often part of a neighborhood park; these provide gardening opportunities and fresh produce for nearby residents.

### General Acreage

One-tenth acre if part of a park, one-half acre if a stand-alone farm

### Example

Schuylkill River Park Community Garden, Center City; Glenwood Green Acres, North Philadelphia



## Large Waterfront Park

### Function

Parks created along our rivers and creeks draw users from throughout the region and are designed to protect the quality of the water supply.

### General Acreage

100-plus acres

### Example

Pennypack Creek, Northeast Philadelphia

## Meadow

### Function

As a large field of native species, a meadow serves ecological functions and provides a habitat refuge.

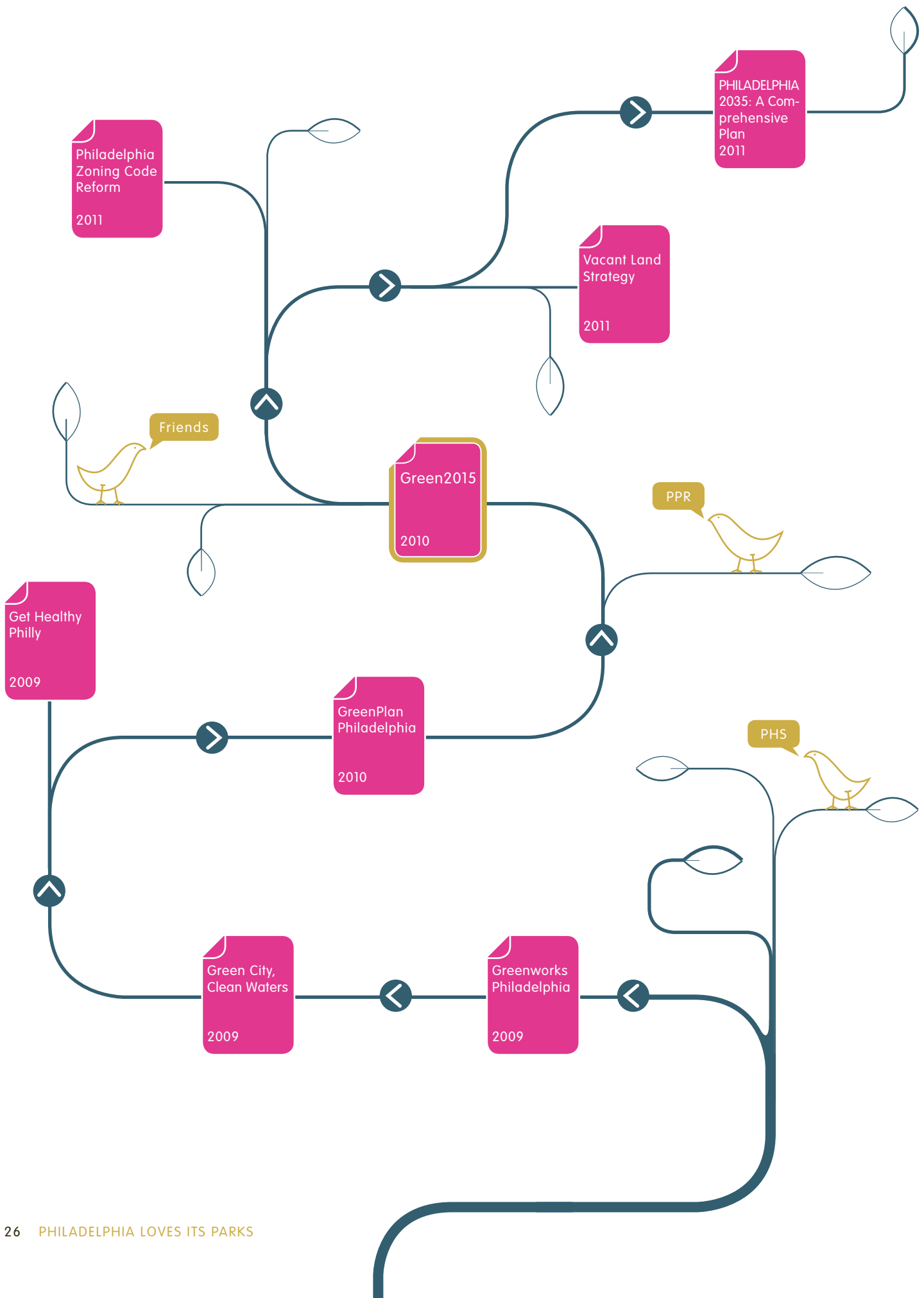
### General Acreage

10-plus acres

### Example


Houston Meadow, Northwest Philadelphia







## THE TIME IS RIGHT

Green2015 is one of many policy initiatives the city has begun with the goal of making Philadelphia a greener and healthier city. Here are some of the prior and current initiatives that are shaping the city's green agenda:


 *Greenworks Philadelphia*, unveiled in spring 2009, represents Mayor Nutter's plan for making Philadelphia the greenest city in America. Released by the Mayor's Office of Sustainability, *Greenworks* establishes 15 targets that include increasing energy efficiency in buildings, managing stormwater overflow in city sewers, increasing residents' access to fresh food, and creating green-collar job opportunities for Philadelphia's workforce.


 *Green City, Clean Waters* is PWD's proposal for protecting and enhancing our watersheds by managing stormwater with innovative ecological infrastructure throughout the city while maximizing economic, social, and environmental benefits to Philadelphia. While many cities are simply building larger underground pipes (gray infrastructure) to ease the burden on their combined storm and sanitary sewer systems, *Green City, Clean Waters* offers the innovative approach of using green infrastructure that serves valuable infiltration functions while also creating jobs, saving


lives, and saving energy costs. PWD intends to use \$1.6 billion in capital funds to leverage \$3 billion of total investment over a 20-year period and to convert one-third of Philadelphia's drainage area that is currently connected to the combined sewer system into a diffused, permeable network of sustainable infrastructure that distributes the task of managing the first inch of rain water across the city during storms.

 In early 2010, the Philadelphia City Planning Commission began *PHILADELPHIA2035: The Comprehensive Plan*, and the team will be finished by spring 2011. The city's first comprehensive plan in 50 years, *PHILADELPHIA2035* will serve as the most important planning-policy document in the city for decades to come. Once the citywide plan is released, the planning commission will work on 18 district-level plans through 2016. The plan includes a section on open-space projects that shows the value of public park space for the long-term viability of the city.

 *Get Healthy Philly* is an initiative of the United States Department of Health and Human Services to carry out community-based prevention and wellness strategies to prevent obesity and tobacco use. A group of local organizations, led by the Philadelphia Department of Public Health, received \$25 million in spring 2010 to implement a two-year strategy that implements sustainable programs aimed at lowering tobacco-use rates and promoting physical activity in daily living. Projects include enabling 1,000 corner stores to start selling fresh produce, building outdoor play spaces, instituting health-food programs and nutrition classes in schools, developing fitness programs in all recreation centers, and making public health a cornerstone of the comprehensive planning process.

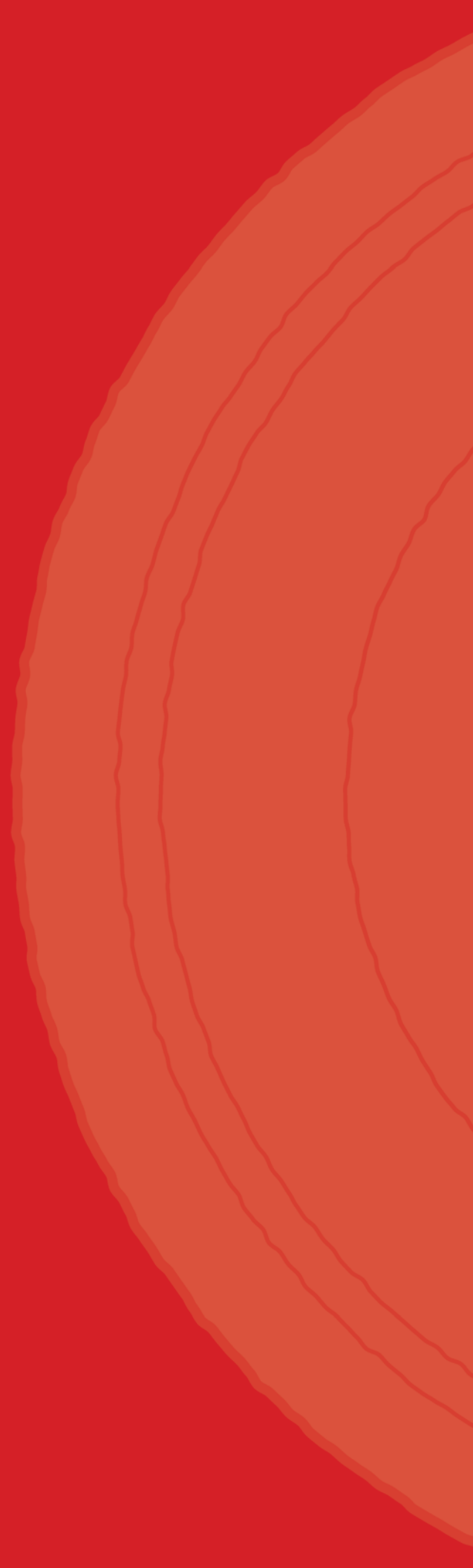
 *GreenPlan Philadelphia*, which began under the leadership of the Office of the Managing Director in 2006, presents an extensive analysis of various green places in order to establish a long-term open-space plan for the city. Led by planning consultants Wallace Roberts and Todd, LLC, *GreenPlan* has had an impact beyond its own purview, as parts of the plan were used in *Greenworks Philadelphia* and *Green2015*.

 The current administration is working on devising a citywide strategy for how to acquire, manage, and dispose of vacant land. July 2010 data from the Philadelphia Water Department and the City Planning Commission show approximately 40,600 vacant lots in Philadelphia, one-quarter of which are owned by the City of Philadelphia. The Redevelopment Authority has taken steps to address the city's vacant-land disposition process, and now the Office of the Managing Director and the Office of the Director of Finance will develop a citywide policy on vacant land management.<sup>33</sup>

 In May 2007, voters overwhelmingly approved the creation of a Zoning Code Commission to reform and modernize Philadelphia's outdated and complex zoning code. The project is being done in coordination with the Philadelphia City Planning Commission's comprehensive planning process. Drafts of the new zoning language have been public since spring 2010 and are expected to be formally adopted in 2011.

Green2015 can contribute positively to multiple city strategies by creating new city park spaces that will help Philadelphia become a greener, healthier, and better-connected city.

# THE GOALS OF GREEN2015

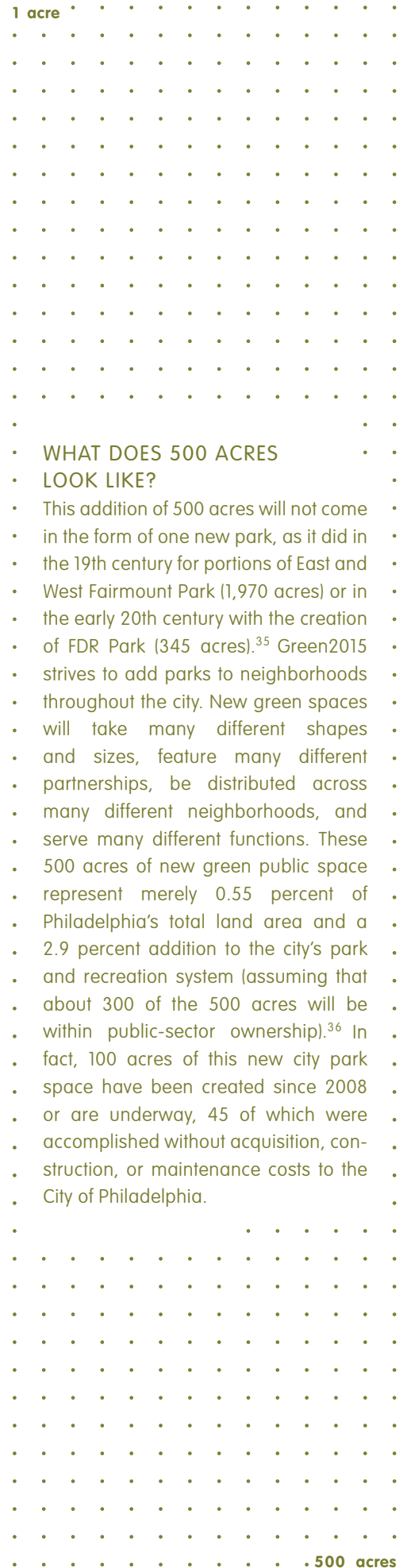






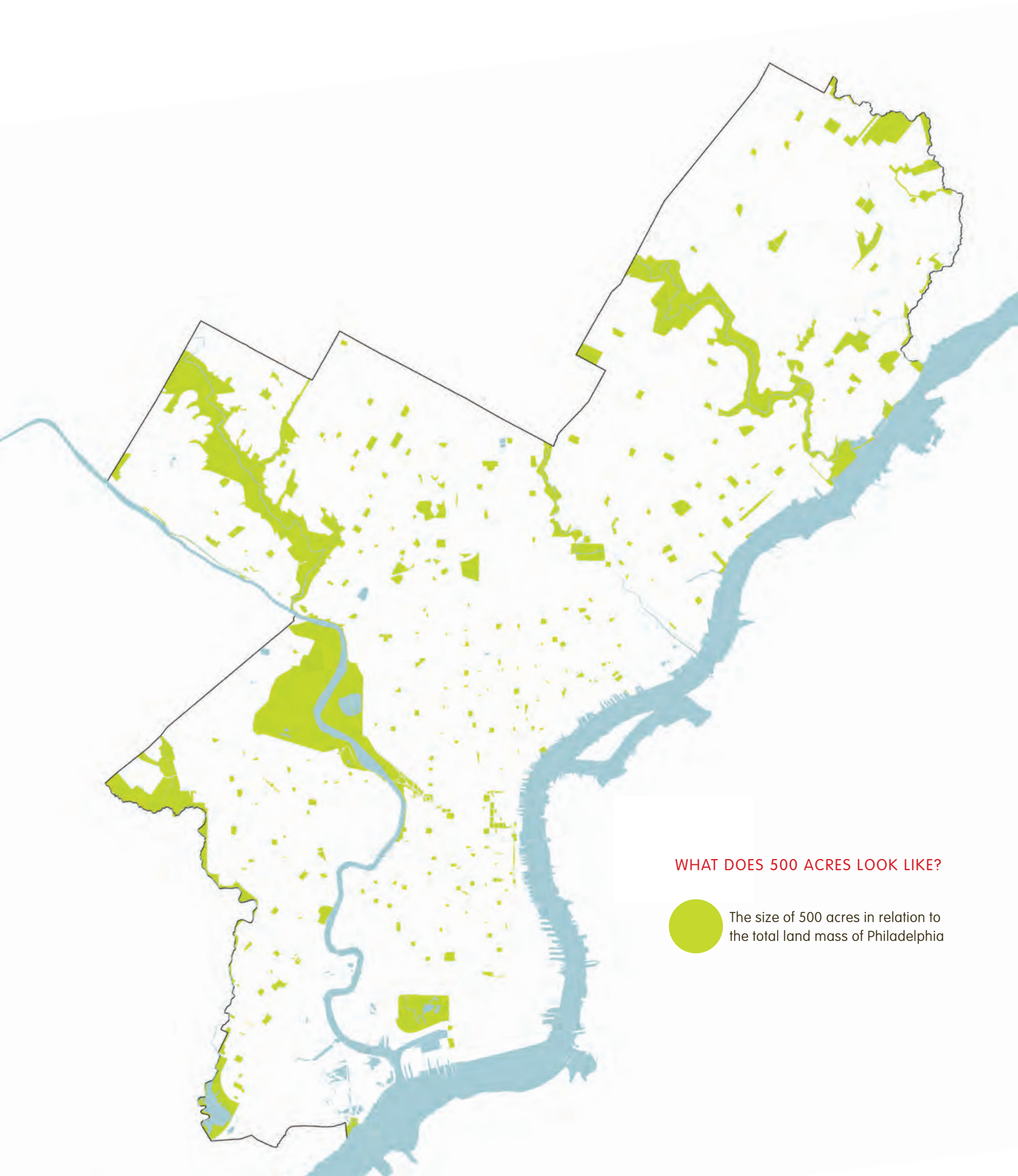
# GREENWORKS PHILADELPHIA MANDATE: 500 ACRES

Green2015 received its mandate from the chapter called “Equity” in *Greenworks Philadelphia*, which called on the city to create 500 new acres of “greened public space” by 2015 in order to increase public access to parks and recreational resources.<sup>34</sup> The “greened public space” classification casts the net of possible types of open space broadly: the spaces must simply be outdoor areas that are heavily planted and open for public use, regardless of ownership. Throughout this action plan we refer to these potential new green spaces as parks, although many will not look like a traditional park. Green2015 places emphasis on creating parks that are basic, useable, and easy to maintain and that have minimal infrastructure, while acknowledging that opportunities to create more extensively designed spaces will arise as well.




**WHAT DOES 500 ACRES LOOK LIKE?**

This addition of 500 acres will not come in the form of one new park, as it did in the 19th century for portions of East and West Fairmount Park (1,970 acres) or in the early 20th century with the creation of FDR Park (345 acres).<sup>35</sup> Green2015 strives to add parks to neighborhoods throughout the city. New green spaces will take many different shapes and sizes, feature many different partnerships, be distributed across many different neighborhoods, and serve many different functions. These 500 acres of new green public space represent merely 0.55 percent of Philadelphia’s total land area and a 2.9 percent addition to the city’s park and recreation system (assuming that about 300 of the 500 acres will be within public-sector ownership).<sup>36</sup> In fact, 100 acres of this new city park space have been created since 2008 or are underway, 45 of which were accomplished without acquisition, construction, or maintenance costs to the City of Philadelphia.



WHAT DOES 500 ACRES LOOK LIKE?

 The size of 500 acres in relation to the total land mass of Philadelphia

# GREEN2015 PROCESS

To create this *Green2015* action plan, PPR and PennPraxis combined citizen values and input with technical expertise.

## ADVISORY GROUP

Co-convened by Parks and Recreation Commissioner Michael DiBerardinis and Deputy Mayor for Economic Development Alan Greenberger, the Green2015 Advisory Group included 40 government officials, nonprofit leaders, and other stakeholders. This advisory group helped guide the process and provided input at important stages of the plan.

## CIVIC ENGAGEMENT

In collaboration with PennPraxis, the Pennsylvania Horticultural Society and the Penn Project for Civic Engagement designed and facilitated a civic-engagement process for Green2015 that focused on familiarizing citizens with the Greenworks Philadelphia mandate and then asking them how PPR should prioritize site selection for public green space, given the short timeline and the goal of coming closer to fair and equal access. Trained moderators facilitated the dialogue and submitted notes from each discussion group, which were used as the basis for the Citizen Principles.

## STAKEHOLDER INTERVIEWS

PennPraxis staff interviewed over 140 public officials, design professionals, landholders, and community members from Philadelphia and around the country. See Appendix B, page 129, for a list of stakeholder interviews.

## EXTENSIVE PLAN REVIEW

Green2015 builds upon a strong base of long-term planning projects recently completed or underway in Philadelphia. The team carefully reviewed documents by the Philadelphia Water Department, Philadelphia Industrial Development Corporation, Economy League of Greater Philadelphia, Greenspace Alliance, Pennsylvania Environmental Council, and the Redevelopment Authority.

## CITY-SCALE DATA ANALYSIS

PennPraxis conducted an extensive geospatial data-collection process, reviewing data on the existing conditions in Philadelphia for public green space, vacant-land ownership, impervious-surface coverage, urban tree cover, demographics, public-health indicators, transportation access, regional ecological systems, social capital, and more. The next chapter presents a condensed summary of this analysis.

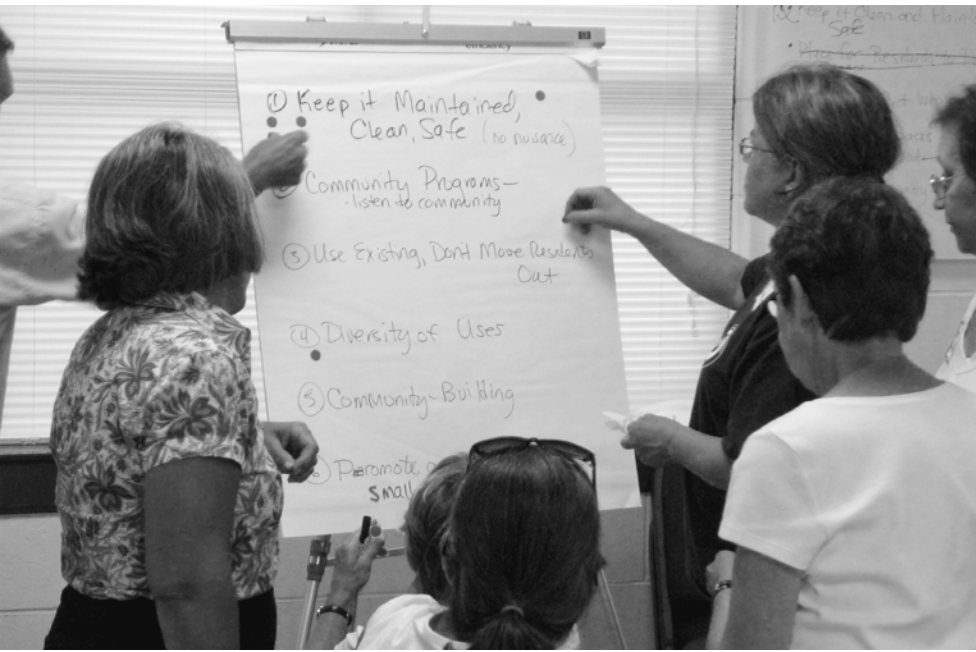
## DESIGN WORKSHOPS

After distilling the Citizen Principles and identifying themes emerging from the interviews and geospatial-data analysis, PennPraxis organized a series of four design workshops. In the workshops, a targeted group of experts refined the themes and helped shape the approaches for implementing Green2015. Two workshops focused on design and site selection, while the other two focused on acquisition, maintenance, and stewardship.

## CITY PARTNERS

Four city agencies played especially important roles in helping PennPraxis refine the details of the plan and its recommendations: PPR, Philadelphia City Planning Commission, Philadelphia Water Department, and Philadelphia Department of Public Health. PennPraxis met with staff from these agencies throughout the process to learn from their expertise and keep updated on their related projects.





LOOK BEYOND THE BEND

IT TAKES A VILLAGE

THERE'S GOLD IN GREEN

PROTECT RESOURCES

COMPLETE THE SYSTEM

RESPECT DIVERSITY

INVESTMENT YIELDS DIVIDENDS

# CITIZEN PRINCIPLES

Approximately 200 people participated at six Green2015 public forums throughout the city in May and June 2010. Opinions were also collected on the project website, at neighborhood group meetings, and from *GreenPlan Philadelphia*, for which the city held a robust citywide civic-engagement process in 2006. The following principles were distilled from the input of a diverse group of residents, business owners, community leaders, and park volunteers.

## COMPLETE THE SYSTEM

Fairmount Park is one of the largest urban parks in the country, but because the park grew out of the need to protect our water supply, the current system disproportionately favors those who live near the Upper Schuylkill River and the Wissahickon Creek. Too many areas of the city are without access to public green space. First, serve neighborhoods with less green space, providing parks within a reasonable walking distance of all city residents and acknowledging that a half-mile walk is not appropriate in every neighborhood. Pay particular attention to dense neighborhoods and give consideration to the young and the elderly, who are most in need of park space. Pay close attention to physical barriers such as highways and railroad lines that would limit pedestrian access to existing parks and trails.

## IT TAKES A VILLAGE

Create parks that enhance people's relationships and create stronger communities. Do not plan in a vacuum; ensure that any new green space fits into the neighborhood in which it is located. When appropriate, locate new green space so that it is connected to or relates to other green spaces nearby. This provides a cohesive experience that extends beyond an isolated public space and improves existing parks. Remember that parks can only be successful if they are safe. Community members must work together and with PPR to make certain that their parks remain clean and safe.

## THERE'S GOLD IN GREEN

As Philadelphia's population has declined since the mid-20th century, the city's landscape has become littered with empty lots and buildings, harming neighborhoods and costing the city hundreds of millions of dollars. Converting underused lots to productive parks can help regenerate the land and the surrounding communities. Identify future green spaces that will act as catalysts for the revitalization of underused industrial sites, vacant lands, and their surrounding communities. Well-maintained green space can play an important role in neighborhood renewal and help spark interest and investment from people both inside and outside the community. Incorporate a plan for job creation and revenue generation into the overall vision for PPR.

## LOOK BEYOND THE BEND

Any new green space created for 2015 must meet the city's long-term vision for open space. Develop a citywide strategy for new park creation based on the principles of equal access, healthy living, and environmental performance that will position Philadelphia as the greenest city in the nation. Think comprehensively

and make decisions with an eye to the long view—as our forebears did with the creation of the Fairmount Park system. Make sure that future parks fit within the larger open-space networks identified in the City Planning Commission's *PHILADELPHIA2035* comprehensive plan. Remember that a connected city is a competitive city.

## PROTECT OUR RESOURCES

Any new green space should provide a multitude of benefits for city residents. New green space should promote healthy living while enhancing the city's natural ecosystems. Design spaces that will improve air quality, curb heat-related deaths, improve access to nutritious foods, increase exercise and recreation opportunities, increase neighborhood aesthetic and economic value, protect natural and cultural resources, and protect landscapes.

## RESPECT DIVERSITY

The identities of our neighborhoods and their residents are always evolving, so create diverse and multifunctional spaces for changing age groups, recreation types, and animal habitats. Add green elements to our existing public spaces to help strengthen community resources and increase their use as town squares for all neighborhood residents.

## INVESTMENT YIELDS DIVIDENDS

Raise the funds necessary to acquire, design, implement, and maintain new city parks. Long-term maintenance is central to the success of any park space over time. Develop and maintain local involvement through the support of friends groups. Cultivate a regional strategy for fundraising and conservation while encouraging local community members to take ownership of their park spaces.







Green  
2015

Chapter 4

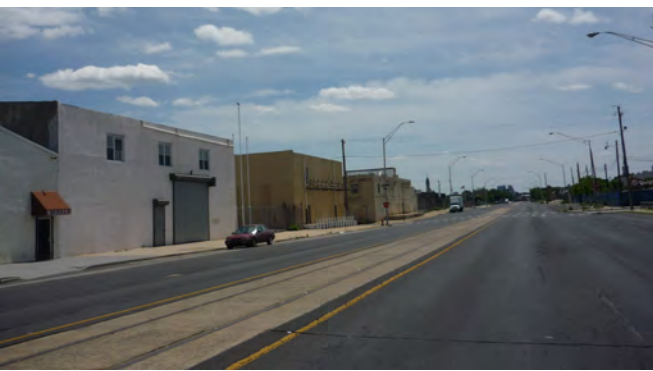
# PRIORITIES FOR NEW PARKS

Green2015 seeks to establish 500 acres of new city parks thoughtfully and strategically. This chapter presents the key priorities that will guide decisions about where to create new parks. While the Greenworks Philadelphia goal is to ensure that all residents have fair and equal access to parks, other important considerations will also guide the creation of new parks. A synthesis of these considerations can be found in the site-selection criteria matrix at the end of this chapter.

The following sections within this chapter look at Philadelphia's need for new green space according to different criteria. Within each section, small maps show the primary datasets analyzed to determine the "need for green" in each category. The large map shows the composite map that combines the data to present a full picture of where new parks are needed most and where opportunities exist. Many of these categories overlap, showing a "need for green" in certain Philadelphia neighborhoods for multiple reasons, while others prioritize different parts of the city.





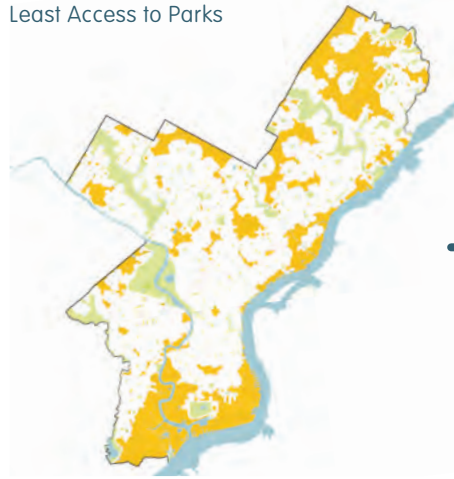




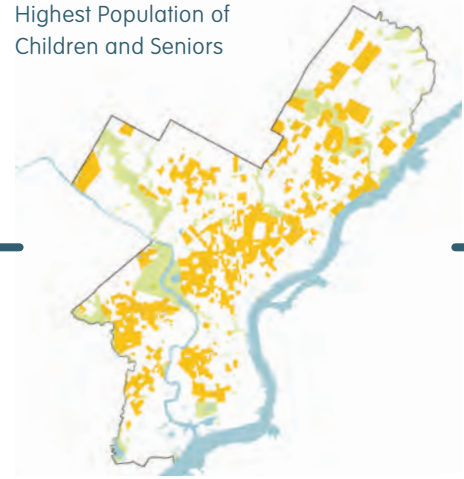
# FAIR AND EQUAL ACCESS TO PARKS WITHIN WALKING DISTANCE<sup>37</sup>

The primary purpose of the 500-acre mandate in *Greenworks Philadelphia* is to increase the number of residents within walking distance of public green space. Therefore, it is important to understand what parts of the city are currently served by parks and where fair and equal access to green can be enhanced. The Green2015 project team mapped the number of residents living within a half-mile walk of green space. This included mapping all PPR land (not including sites that are vacant or overwhelmingly paved) as well as institutional open space that we know is publicly

Least Access to Parks



Highest Population of Children and Seniors



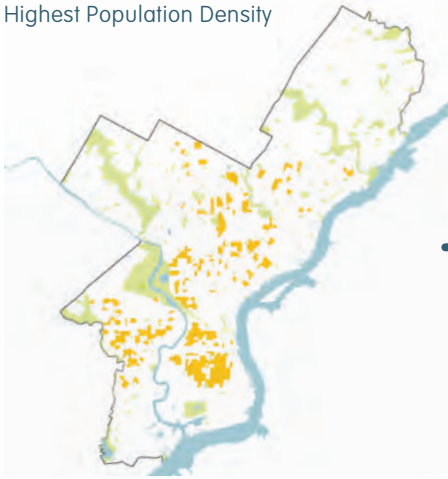
accessible, although it is privately owned (for example, parks built by universities such as Drexel University, University of Pennsylvania, and University of the Sciences). Thus, Green2015 presents a new and more inclusive definition of “greened public space.” Showing the dense residential areas in the city was also important, since a new park will have greater impact in a densely populated area. Population-density indicators also eliminate those parts of the city that are heavily industrial (mainly along the riverfronts). The Green2015 project team also prioritized the need for access to green by considering the presence of users with the greatest need for public parks: children under 18 years old, seniors over 65 years old, and residents with low income.

Even with 9,995 acres within the Philadelphia park system, there are still areas of the city without access to useable parks or connections to the existing large parks that could provide places for safe outdoor activity. **There are 202,000 people currently not served by green space within a half-mile walking distance of their homes, populating 25,900 acres of the city.** A primary aim of Green2015 is to find opportunity sites for new city park space within these areas of

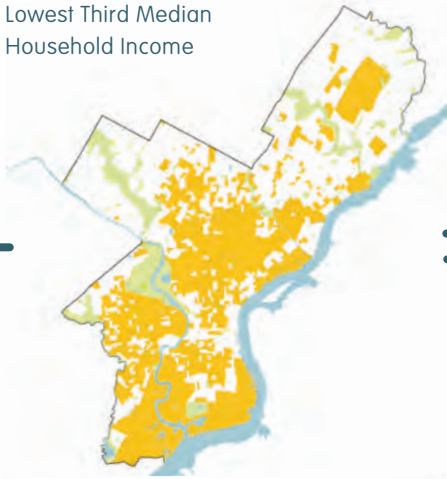
low access to green space. Here are some findings compiled through the mapping process.

- Number of greened acres in Philadelphia within a half-mile walk: 65,365 / 71.3 percent of total land
- Number of residents within half-mile walk: 1,338,180 / 88.2 percent of total population
- Total number of residents under the age of 18: 406,409
- Number of residents over the age of 65: 214,144
- Highest population density in Philadelphia: 133 people per acre, West Philadelphia
- Area with largest population density and lowest access to green: South Philadelphia
- Area with largest population of children and seniors and lowest access to green: North Philadelphia

Highest Population Density

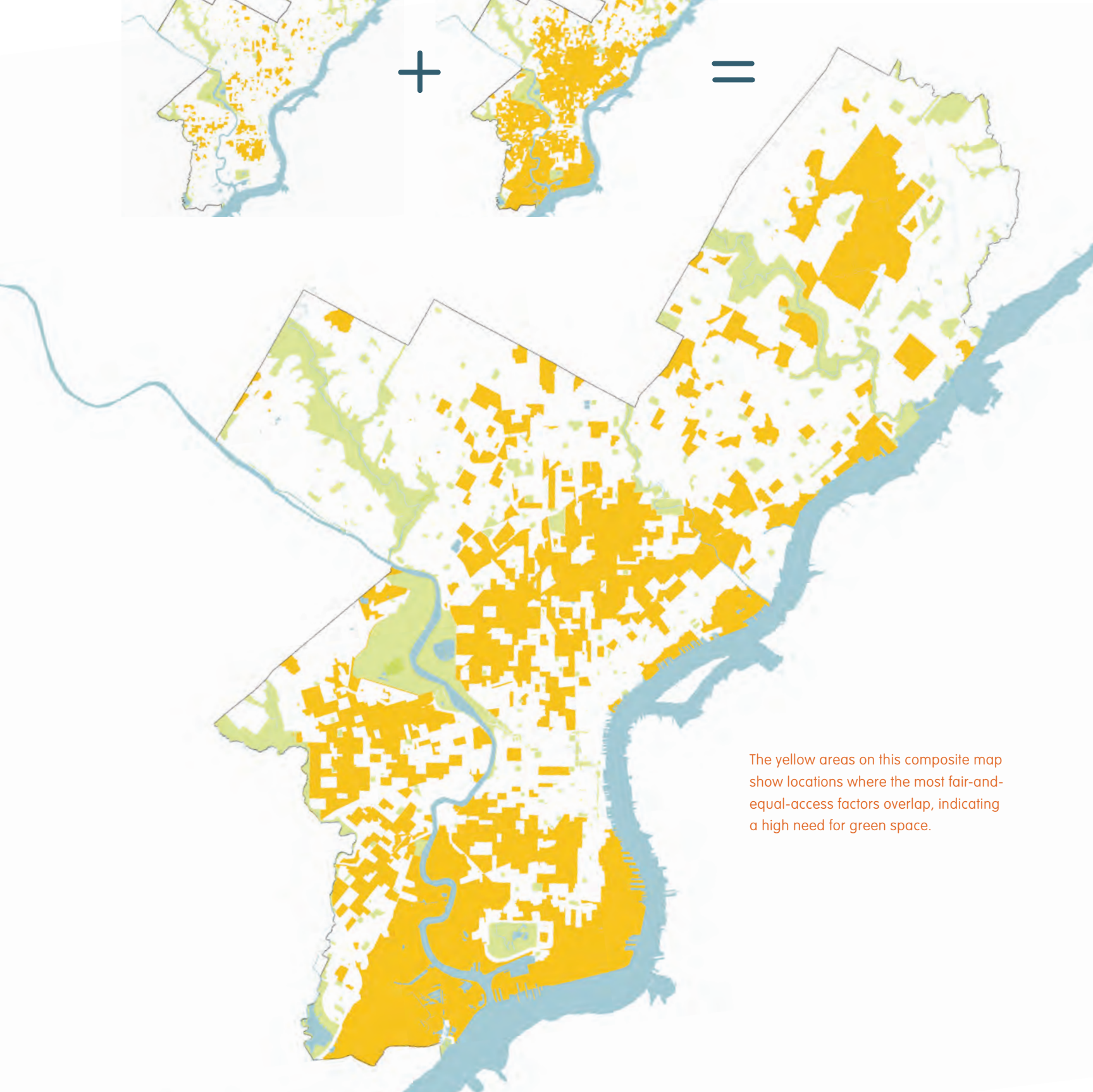


Lowest Third Median Household Income



+

=



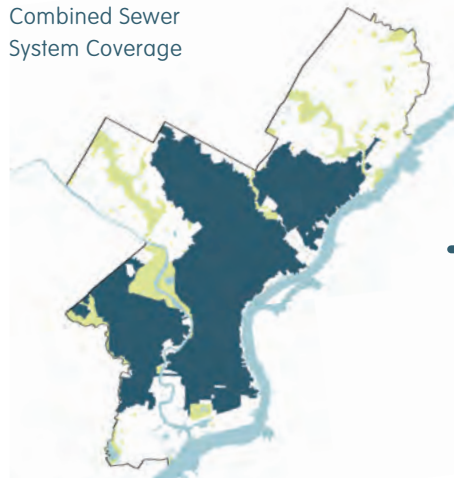
The yellow areas on this composite map show locations where the most fair-and-equal-access factors overlap, indicating a high need for green space.

## STORMWATER MANAGEMENT IN OUR NEIGHBORHOODS<sup>38</sup>

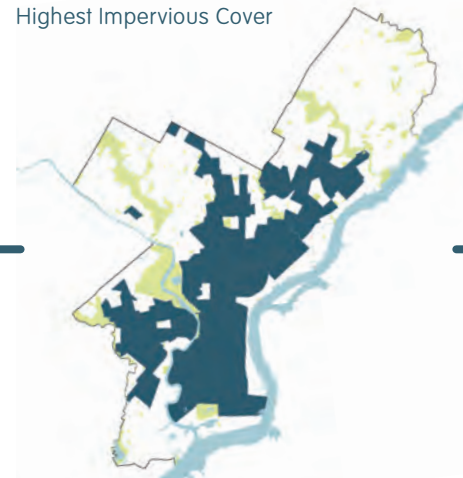
As mentioned above, the Philadelphia Water Department is poised to implement incentives for a green stormwater infrastructure system to address the overburdened sewer system. Thus it makes sense to align the Green2015 goal of equal access to parks with a site's environmental performance as we identify future sites for city park space. We can improve the urban environment by linking park access with stormwater management.

Green2015 began its environmental analysis by using the *Green City, Clean Waters* vision of targeted, green stormwater infrastructure projects within the area of the combined

Combined Sewer System Coverage



Highest Impervious Cover



sewer system (about 60 percent of Philadelphia's total area) to alleviate pressure on the sewers by managing stormwater before it enters the system. The Philadelphia Water Department anticipates management of 1,700 acres of impervious surface within the combined sewer drainage area within the first five years of implementation. Every greened acre keeps 900,000 gallons of stormwater from entering the sewer system each year. So it makes sense for PWD's initiative to be linked with PPR's Green2015 goals. Most areas in the city with little or no access to green space are also within the combined sewer system drainage area, which means they are priority areas for the Philadelphia Water Department.

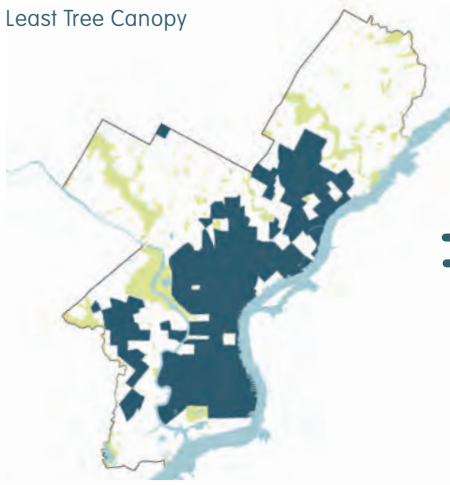
Within the combined sewer area, we looked at numerous indicators to develop a general "need for green" metric. This gave us a better sense of which neighborhoods could most benefit from new city park space from an environmental perspective. We looked at the percentage of impervious surface and the percentage of tree cover by census tract. As materials such as asphalt and concrete prevent water from flowing into the soil and force stormwater into the sewer drains, the areas with the highest surface cover and lowest tree cover have a high "need for green." Because Philadelphia is a densely

paved city, consistent and system-wide efforts will be needed to convert a large percentage of impervious surfaces to porous surfaces and to increase our tree canopy. Here are some findings compiled through the mapping process.

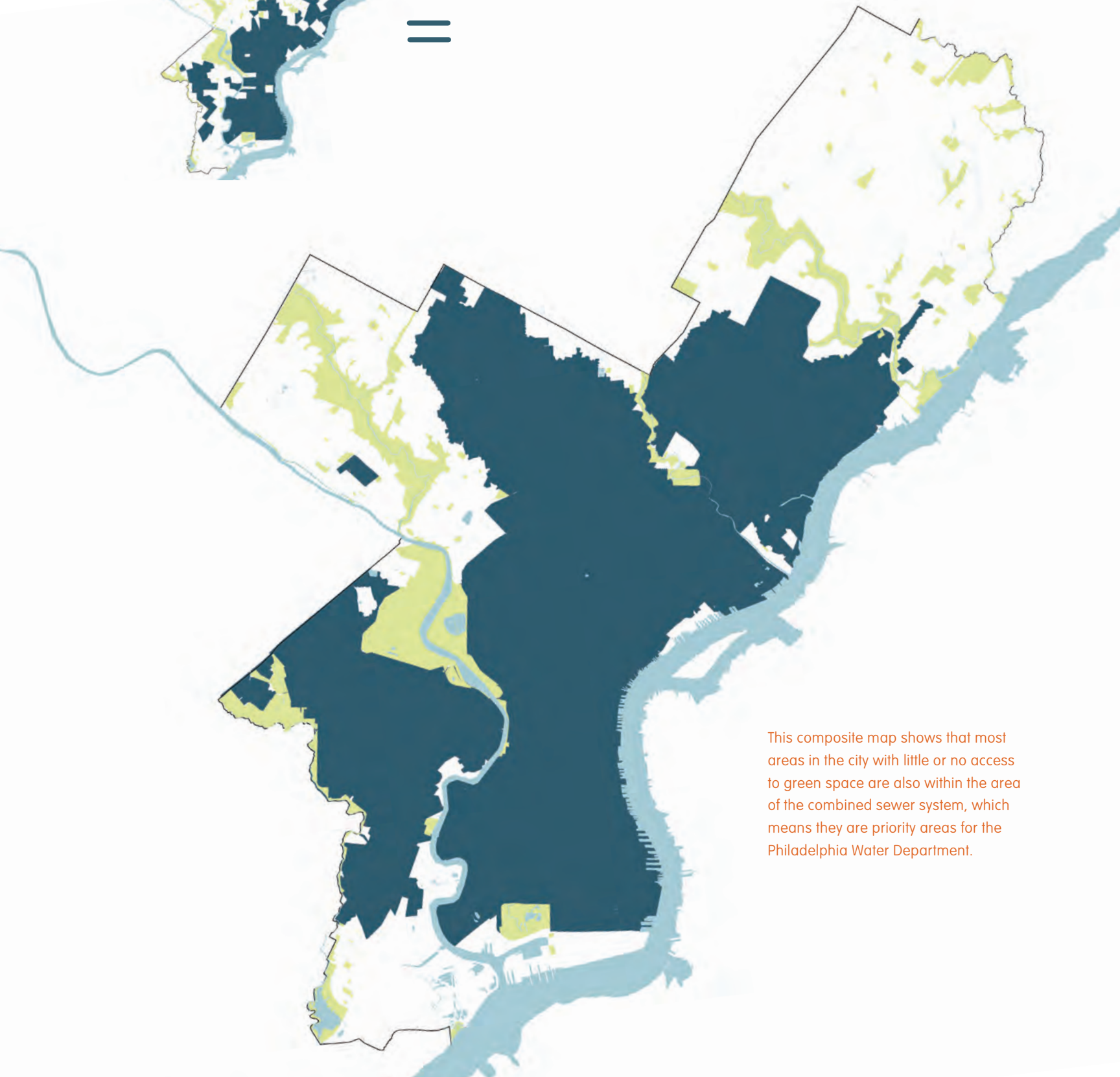
- City land area within the combined sewer system: 39,780 acres
- Percent of tree canopy citywide: 19.6
- Neighborhood with the highest need for green (per its tree canopy and impervious-surface percentages): South Philadelphia (1.8 percent tree cover)



Least Tree Canopy



=

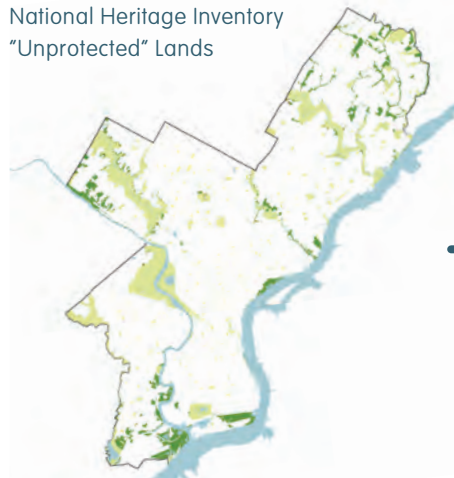


This composite map shows that most areas in the city with little or no access to green space are also within the area of the combined sewer system, which means they are priority areas for the Philadelphia Water Department.

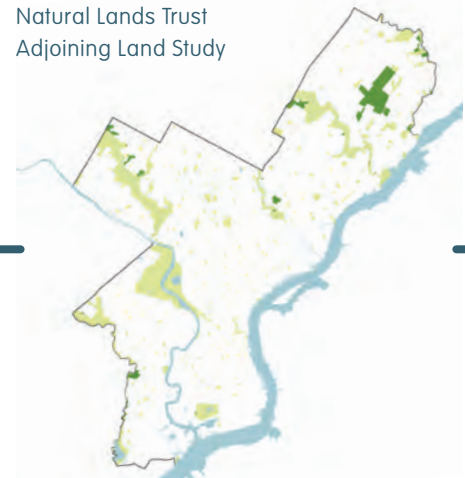
## ENVIRONMENTAL BENEFITS OF REGIONAL SIGNIFICANCE<sup>39</sup>

Any citywide park-planning process must consider the impact of new parks on the environment. Targeted investments can have significant positive impacts on water systems, habitat areas, species preservation, and watershed restoration. Green2015 used this data and other indicators to determine what potential park locations offer substantial ecological benefits and how those locations rated in terms of the Greenworks Philadelphia goal of creating fair and equal access. Two important datasets for this work were the 1999 Fairmount Park Adjoining Land Study by Natural Lands Trust and the 2008 National Heritage Inventory by the Western Pennsylvania Conservancy, the goal

National Heritage Inventory  
"Unprotected" Lands



Natural Lands Trust  
Adjoining Land Study



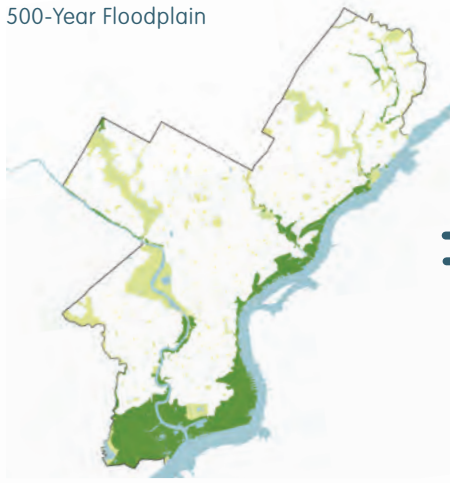
of which was to identify unprotected lands that needed to be acquired in order to preserve healthy naturalized areas. Green2015 combined these factors with the outline of the 500-year floodplain. Given what we know about climate change, the location of the floodplain can inform how the city should develop in the future.

The environmental-benefits composite map has interesting similarities to the fair-and-equal-access composite map on page 41, as well as stark differences. Immediately visible on these maps are areas such as the Schuylkill and Delaware Rivers. **While these areas do not show up as high priority from the perspective of half-mile pedestrian access, they still need to be considered for greening because of their crucial environmental benefits.** The environmental-benefits composite map calls for finishing incomplete environmental and trail connections along our rivers and creeks, such as the Poquessing, Tacony-Frankford and Cobbs Creeks. Overall, however, the environmental-benefits composite map shows opposite needs to those revealed by the access map. Targeted green investments in high-density neighborhoods that have long since been detached from natural systems do little for larger ecological goals such as habitat survival and water quality. Rail corridors are also identified on the environmental-

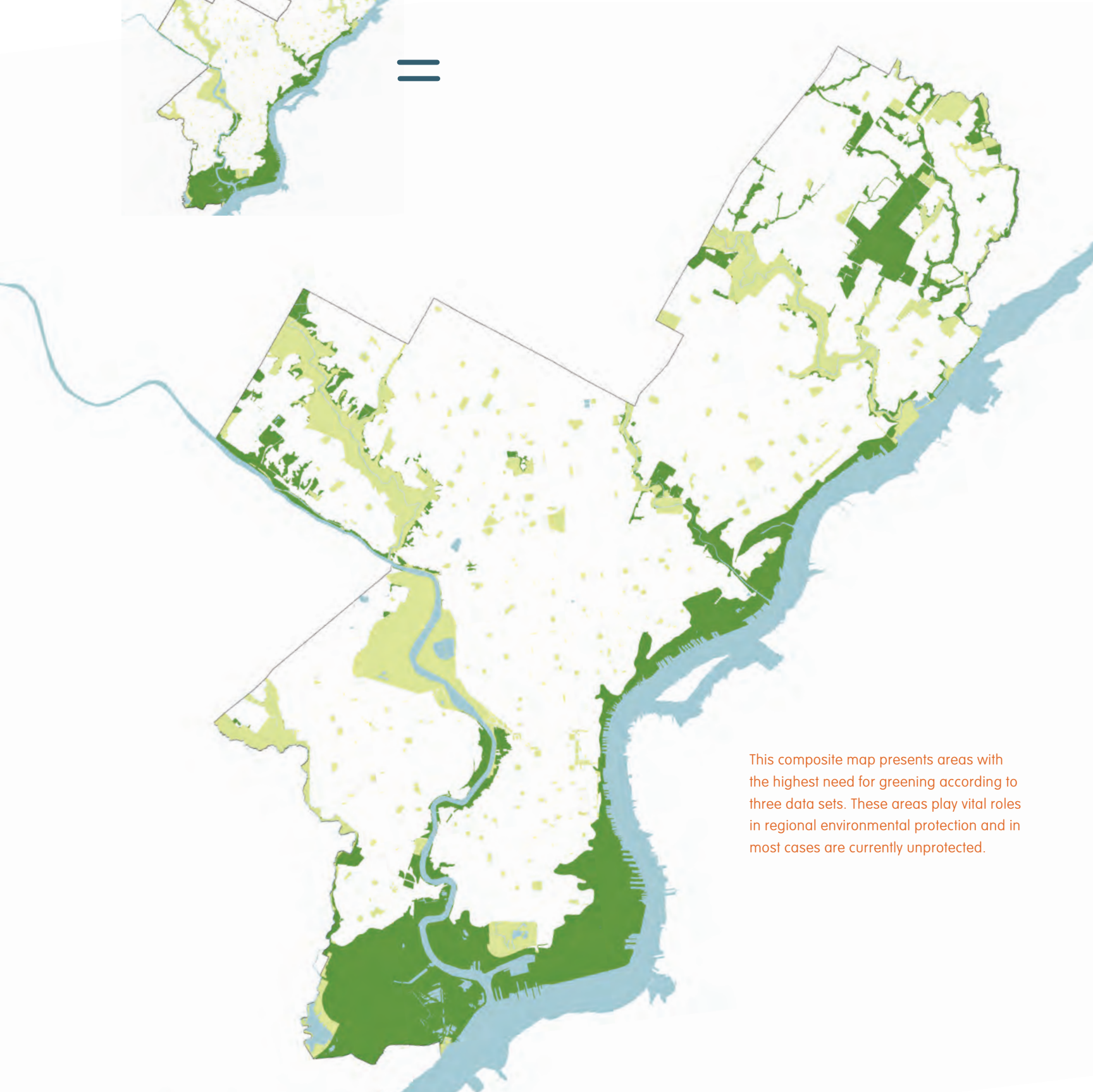
benefits composite map, as their linear nature and de-facto green condition after generations of neglect make them prime candidates for naturalization and preservation. Here are some findings compiled through the mapping process.

- Acres of unprotected priority land in National Heritage Inventory for Philadelphia: 7,645
- Number of sites identified in Philadelphia as unprotected priority land in Adjoining Lands Study: 96
- Priority ecological corridors identified in two studies: Delaware River, Schuylkill River, Tacony-Frankford Creek, Poquessing Creek

500-Year Floodplain



=



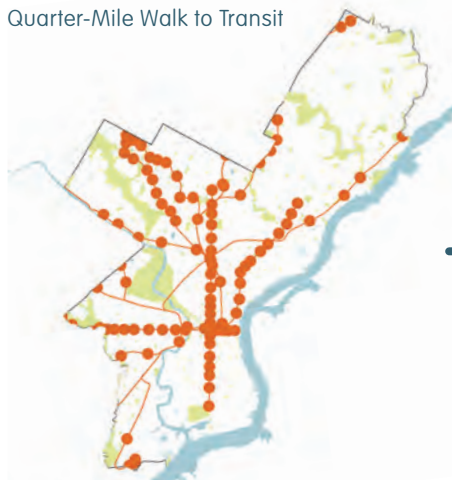
This composite map presents areas with the highest need for greening according to three data sets. These areas play vital roles in regional environmental protection and in most cases are currently unprotected.



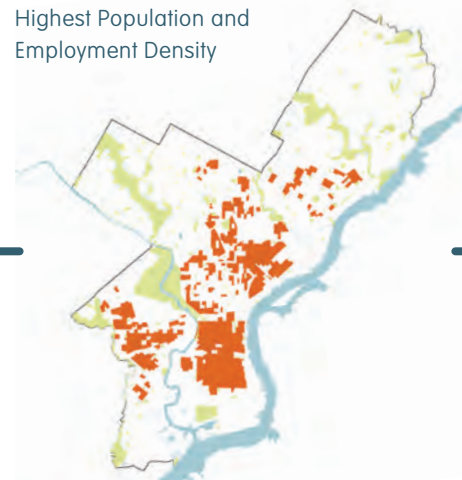
## TRANSPORTATION & LAND USE<sup>40</sup>

While the goal of locating new city park space within a half-mile walk of residences is a good general measure for green space, planning needs to be integrated with planning for other systems and land uses. For this reason, Green2015 looked at hubs of activity around public transit, aiming to find opportunity sites that might further increase activity in those areas. Green2015 began by drawing a quarter-mile radius around all Market-Frankford Line, Broad Street Line, and Regional Rail stations, exploring the potential in the immediate vicinity of heavy rail transit. Green2015 layered a composite of population and employment density on top of this, recognizing that park space can

Quarter-Mile Walk to Transit



Highest Population and Employment Density



be just as valuable in employment centers as it is in population centers. The correlation of population and employment density was highest in Center City, but other parts of the city were highlighted as well, including the northeastern stations along the Market-Frankford El and the southern edges of South Philadelphia. A further level of analysis was conducted around “service-based centers” and “transit-based centers,” which had been identified by the City Planning Commission for PHILADELPHIA2035. These centers prioritize areas of future long-term growth in Philadelphia according to proximity to transit, open space, and city-operated facilities. Green2015 also looked at those centers that did not fully meet the City Planning Commission’s criteria for “service-based centers” to see if there were underused or redundant facilities that could be converted to green space.

Finally, the value of Philadelphia’s extensive rail infrastructure provides an opportunity to create linear corridors for recreation as well as connections to larger waterfront parks in the city and region. **Philadelphia has over 77 miles of vacated rail from its industrial past that currently sit unused by adjacent communities.**<sup>41</sup> Many such rails run through neighborhoods that are underserved by green space. Green2015 looked at all

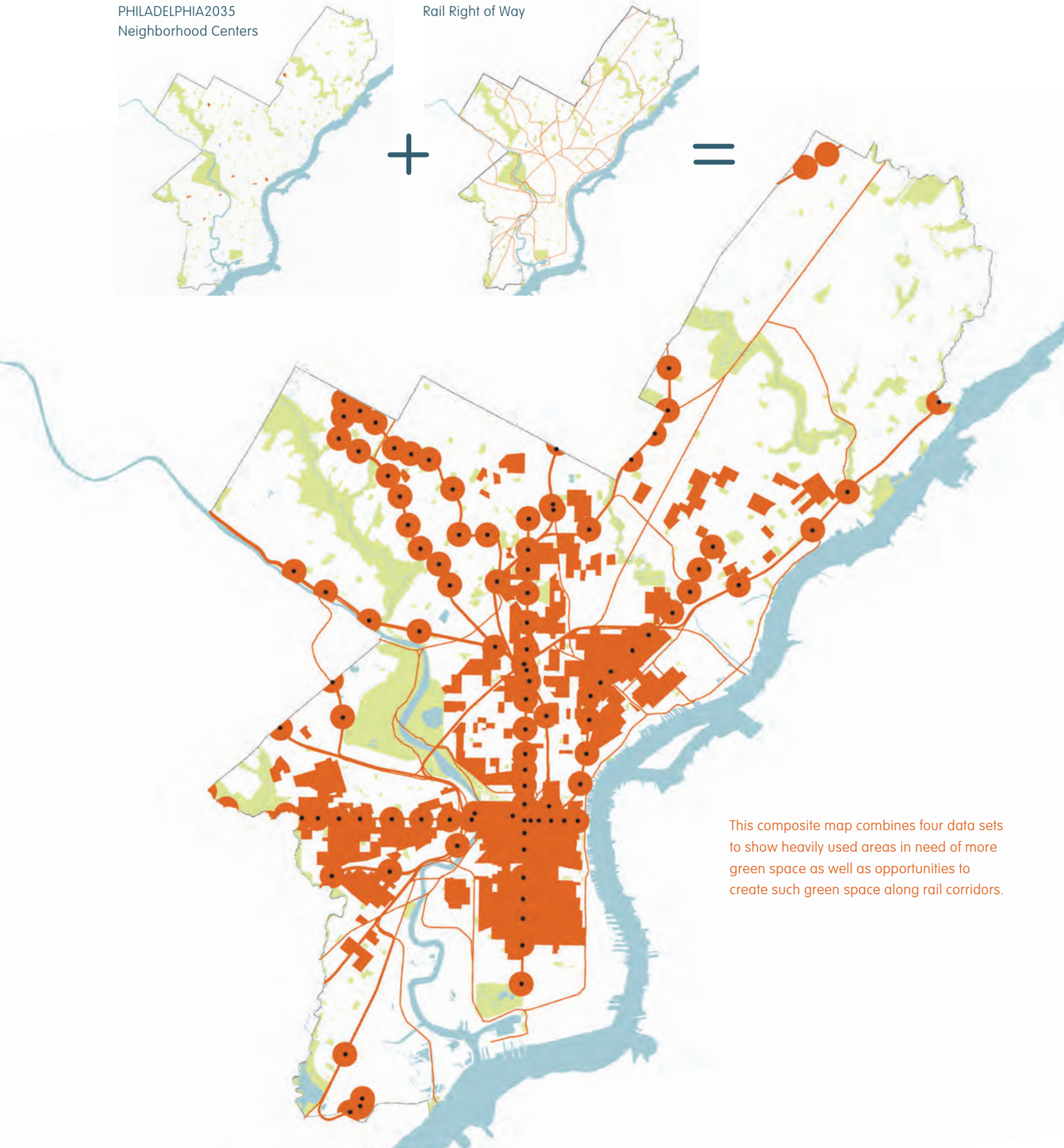
rail-corridor conditions in the city—from the busiest passenger track in the nation along the Amtrak Northeast Corridor to a vacated freight-rail line with nothing left but a dirt path—and prepared an assessment of the viability of the rail-corridor network for use as a citywide system of connecting trails, based on available data regarding ease of implementation. The potential for rail corridors to contribute to a connected park network will be discussed in greater detail later in the report.

Here are some findings compiled through the mapping process.

- Number of rail transit stations in Philadelphia: 98
- Rail stations lacking access to green space: 13
- Number of service-based centers identified by the City Planning Commission: 9
- Acres of railroad right-of-way: 2,103
- Acres of railroad right-of-way identified as either vacated or heavily underused and included in the “Beyond 2015” chapter of this report: 219

PHILADELPHIA2035  
Neighborhood Centers

Rail Right of Way



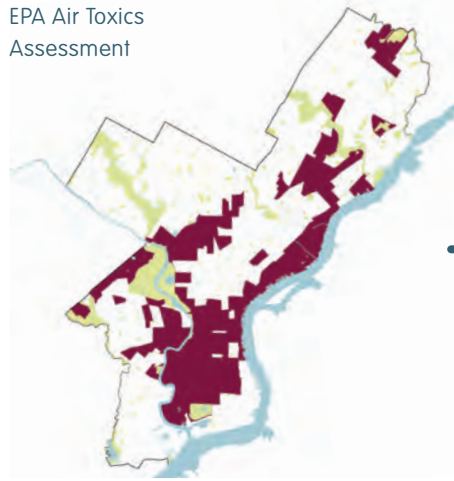
This composite map combines four data sets to show heavily used areas in need of more green space as well as opportunities to create such green space along rail corridors.



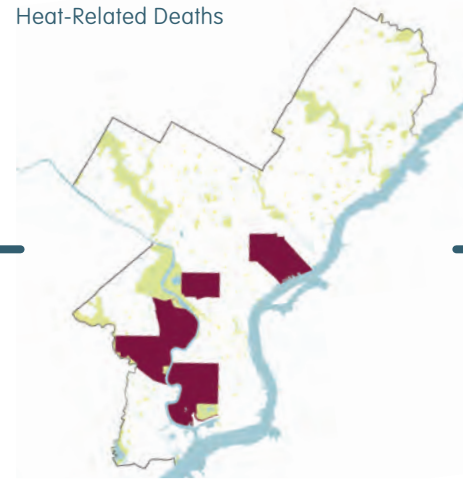
## HEALTHY LIVING<sup>42</sup>

Yet another important benefit that park space brings to Philadelphia is improved health for our citizens—our children, our seniors, and everyone in between. New city park space for safe recreational activity must be a part of the city’s health agenda, as the Philadelphia Department of Public Health is demonstrating through its Get Healthy Philly program. The concept of calculating the full health benefits of city park space is relatively new, but many different factors can be incorporated into such an analysis. First, Green2015 looked at median household income across the city (shown in the “Fair and Equal Access” section via the map on page 41), as public-health professionals

EPA Air Toxics Assessment



Heat-Related Deaths



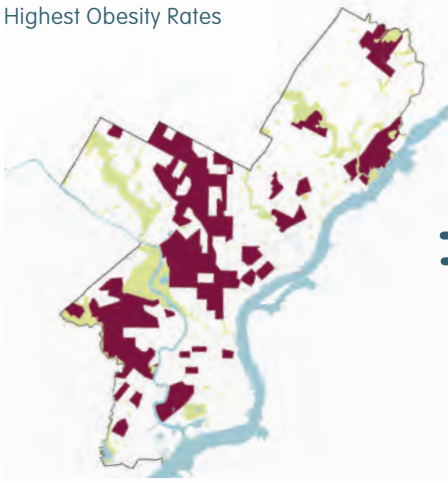
generally state that income level is the single strongest factor in assessing susceptibility to health problems. As it turns out, many of the areas in the city with low access to green space are also areas with a relatively high percentage of low-income residents.

Next, Green2015 looked at three additional health indicators: the urban heat-island effect, air quality, and obesity. As a city, Philadelphia gets little relief from the urban heat-island effect, which raises temperatures in cities where paved surfaces dominate. This heat sends utility bills skyrocketing in the summer and puts the elderly and those with low income at risk of heat stroke due to Philadelphia’s relative lack of urban tree canopy and of reflective-surface areas. This issue plagues almost every neighborhood in the city, with the exception of those alongside the large waterfront parks, as vegetation reduces the heat-island effect.

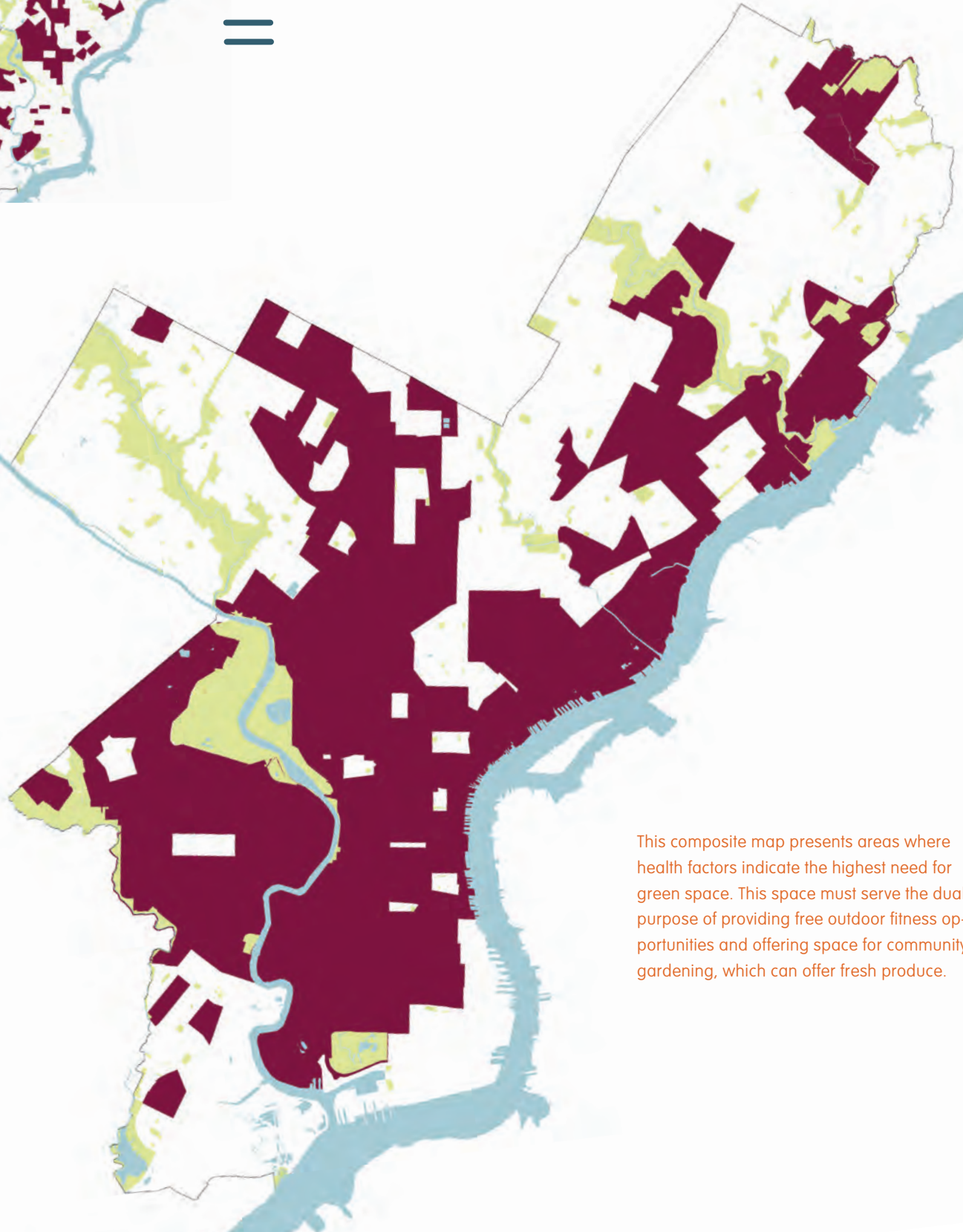
Green2015 also looked at air-quality data because of the impact that trees and other vegetation have on local air quality. The incidence of asthma in Philadelphia children continues to increase with every passing year, so looking at the power of plants and green spaces to filter air pollution is important, especially in low-income areas and in neighborhoods without fair and

equal access to park space. Finally, data on the prevalence of obesity in Philadelphia was assembled from the annual health survey administered by Public Health Management Corporation, as well as from auxiliary data describing the characteristics of the geographic area. While the data is not comprehensive, it **shows the correlation between obesity and poverty, therefore identifying focus areas for creating new park space that can serve the dual benefits of providing free outdoor fitness opportunities and providing space for community gardening and urban agriculture**, which can offer fresh produce to parts of the city without easy access to grocery stores. Data from the Philadelphia Department of Public Health confirms a frequent correlation between neighborhoods without access to fresh food and those without access to public green space. This bolsters the argument for the fair and equal distribution of park space and adds further strength to the case that green space is a viable investment in the strength of our neighborhoods and the overall future of our city.

Highest Obesity Rates



=



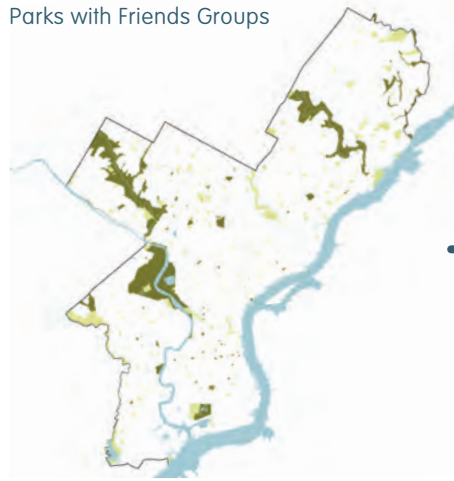
This composite map presents areas where health factors indicate the highest need for green space. This space must serve the dual purpose of providing free outdoor fitness opportunities and offering space for community gardening, which can offer fresh produce.

## PARTNERS ON THE GROUND

An extensive volunteer and nonprofit network supports the Philadelphia Department of Parks and Recreation in ongoing maintenance and cleanups and has been critical to the continued quality of our parks. While it is impossible to map all of the resident hours put into park upkeep around the city, knowing the locations of PPR's nonprofit and citizen partners is important for two reasons: to highlight areas of the city that appear to have the capacity to adopt future park spaces and to identify neighborhoods in which such networks are needed. The latter are potential focus areas for future training in park care.

The work done by the Philadelphia Green program of the Pennsylvania Horticultural Society (PHS) in cooperation with PPR has had an important impact on the city's landscape. Its work in facilitating the creation of friends groups in neighborhoods across the city has been central to the success of many green spaces. Largely due to the work of PHS and the Philadelphia Parks Alliance, there are 137 friends groups and neighborhood organizations whose focus is to provide ongoing care for green space within the PPR inventory.<sup>43</sup> Philadelphia Green's efforts include working with faculty at 70 schools around Philadelphia as a part of the Green City Teachers program and with seven additional schools for the

Parks with Friends Groups



Community Development Corporations



Green City Youth Program. There are also more than 1,900 volunteers in PHS's Tree Tenders and Garden Tenders programs.<sup>44</sup>

Two other datasets that offer a broad view of the organizations around the city involved in caring for green space are the project boundaries of community development corporations (CDCs) and neighborhood organizations. CDCs often include tree planting and beautification as parts of their mission of neighborhood improvement and development. New Kensington CDC is one of the most prominent examples in Philadelphia of a CDC that has launched extensive tree-planting projects, helped green vacant land and schoolyards, and incorporated environmentally friendly development into the neighborhood fabric. Neighborhood associations coordinate park cleanup days and fundraising events for local green spaces or partner with PPR or organizations such as CDCs to tackle larger goals. Mapping both of these types of groups shows where paid nonprofit staff members as well as citizen volunteers are working on greening and other initiatives in the name of community improvement.

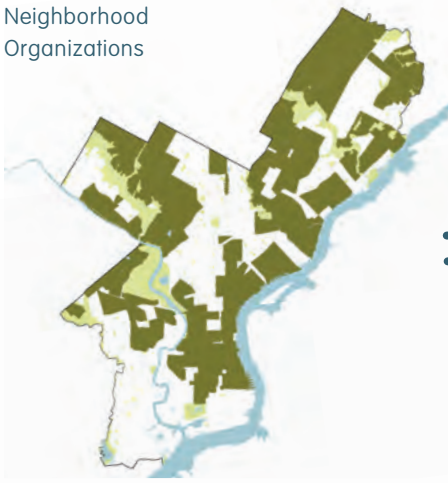
Due to data limitations, the mapping of this volunteer work shows neither the true extent of our "green" social capital nor its limits. Other

organizations not mapped include business improvement districts, which typically see greening as a part of their larger marketing and promotion strategy. Center City District, for example, maintains 800 street trees within its boundaries and leads the Plant Philadelphia initiative so that residents and businesses can plant trees as well. There are also green-specific nonprofits such as UC Green, which has planted over 2000 trees in University City, West Philadelphia, and Southwest Philadelphia.<sup>45</sup> However, PPR must foster partnerships in communities to support existing volunteer networks and to ensure that volunteer capacity grows in areas that do not already have it.

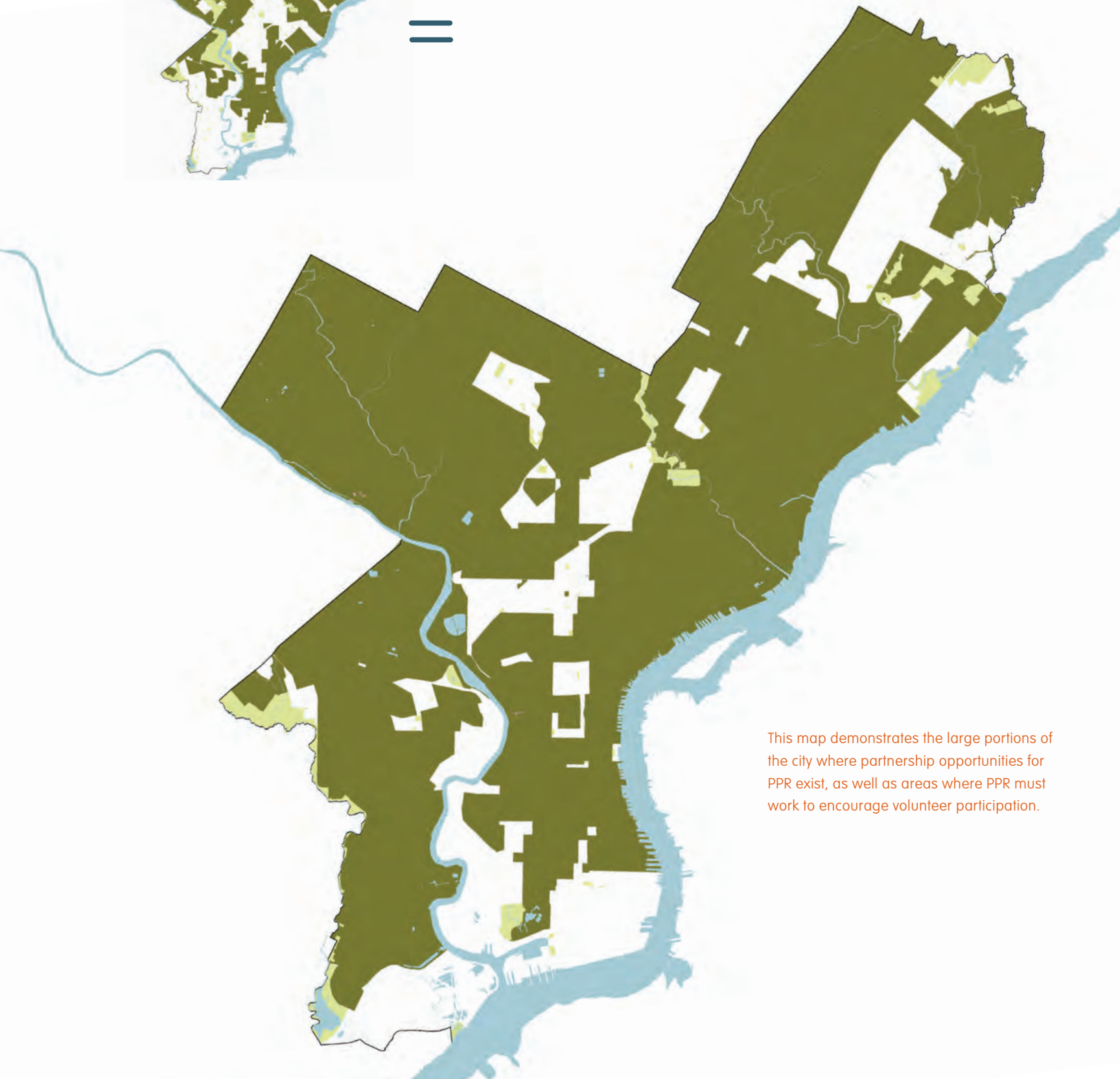
This impressive web of formal and informal activity boosts the civic life of the city, and its work is measurable economically. For instance, in 2007, volunteers contributed 220,891 hours in "sweat equity" to Philadelphia's parks, at a value of over \$4.3 million for that year, with additional financial contributions totaling over \$4 million.<sup>46</sup> Ongoing maintenance is one of the most important issues to residents, and with an extensive network of nonprofits and volunteers, it **should be a goal of PPR to better support these volunteer networks to accomplish even more throughout the city.**



Neighborhood  
Organizations



=



This map demonstrates the large portions of the city where partnership opportunities for PPR exist, as well as areas where PPR must work to encourage volunteer participation.

# SITE-SELECTION CRITERIA MATRIX

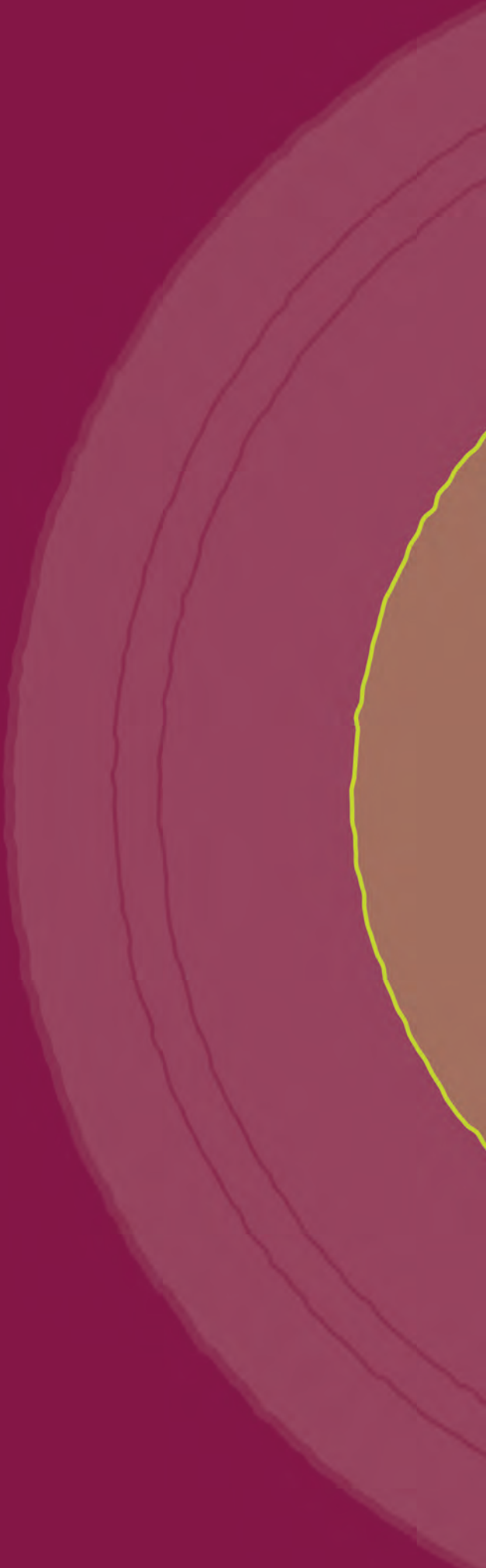
This matrix provides a decision-making framework for the City of Philadelphia as it works to create new parks on a fast timeline. Those criteria listed in Tier 1 are most important. The more criteria overall that a particular site meets, the better the case for creating a new green space there, though it is understood that new green space could be valuable to any neighborhood in the city. The green spaces that meet the most criteria will provide the most benefits in areas of access, the environment, the economy, and citizen health.

PRIMARY INDICATORS	
INDICATOR	PRIORITY
Access to Green	The new space provides quick access to green by foot (half-mile walk or less). Give preference to those sites that, when transformed into a park, will provide access in currently underserved areas.
Population Density	The new space will serve more people in an area of dense residential population. Give priority to those green spaces in denser areas.
Ownership	<p>If a city government agency is creating the park, give priority to publicly owned land for ease of implementation.</p> <ul style="list-style-type: none"> <li>• <i>Is the site currently managed by Philadelphia Parks and Recreation but not in use as a public green space?</i></li> <li>• <i>Is the site owned by the City of Philadelphia?</i></li> <li>• <i>Is the site owned by the School District of Philadelphia, or is it an open schoolyard that has a blacktop ready to be greened?</i></li> <li>• <i>Is the site owned by another public or quasi-public agency, such as the Redevelopment Authority, the Housing Authority, SEPTA, PIDC, PAID, Gas Commission, PWD, DRPA, PRPA, PennDOT, the Commonwealth of Pennsylvania, or the United States of America?</i></li> </ul>
Current Use	If a city government agency is creating the space, give priority to land that is vacant or underused for ease of implementation.
Acreage	The new park must be able to serve recreational and environmental functions for the neighborhood. Do not consider sites smaller than 1/4 acre, and give priority to sites greater than 1 acre that have the capacity to serve multiple benefits. Additional acreage standards may apply, depending on the planned use.
<i>Green City, Clean Waters</i>	The new space must successfully manage stormwater to achieve its full potential as a "greened acre." Give priority to those sites that have been approved by the Philadelphia Water Department as potential green infrastructure that will take pressure off the combined sewer system.
<i>PHILADELPHIA2035: The Comprehensive Plan</i>	<p>Future green spaces must fit into the long-term goals of the city. Identify green space that addresses policy set by the comprehensive plan for Philadelphia.</p> <ul style="list-style-type: none"> <li>• <i>Does the site address one of the goals of the RENEW section of the plan?</i></li> <li>• <i>Does the site contribute to a linear connection identified in PHILADELPHIA2035 that crosses multiple neighborhoods?</i></li> <li>• <i>Does the site add green space to one of the "service-based centers" or "transit-based centers" identified as priority growth areas?</i></li> </ul>

## SECONDARY INDICATORS

INDICATOR	PRIORITY
Impervious Surface	New green space should contribute to the health of the neighborhood. Give priority to sites within census tracts that contain high amounts of impervious surface within the combined sewer system.
Tree Cover	New green space should help reduce urban heat-island effect. Give priority to sites within census tracts of low tree cover.
Partners on the Ground	Local stewardship is crucial to the success of any park space. Give priority to sites within areas where community stewardship and pride already exist, based on such indicators as neighborhood groups, nonprofits, tree-tender volunteers, and community-based arts organizations. For areas that do not have this active volunteer network already, PPR must incorporate building this network into the park plan.
Riverfront	Philadelphia's rivers and streams are its most prized natural possessions. Give priority to sites that are on the following riparian corridors: Delaware, Schuylkill, Pennypack, Tacony-Frankford, Poquessing, and Cobbs.
Income	New green space should go to those who need it most. Give priority to sites in areas with lower overall median household income as defined by the latest U.S. Census data.
Age	New green space should go to those who need it most. Give priority to sites in areas with greater overall child and senior populations as defined by the latest U.S. Census data.
Obesity Prevention	New green space can improve the health of its users as well as the health of the environment. Give priority to sites in areas where obesity rates are high, as defined by annual survey data by the Public Health Management Corporation. <ul style="list-style-type: none"> <li>• Consider community gardening and urban agriculture as potential green-space uses in areas with low access to healthy foods, on the condition that the garden have hours of public accessibility.</li> </ul>
Rail Transit	New green space should be linked to centers of density and to multiple modes of transportation. Give priority to sites within a quarter-mile walk of high-speed and regional-rail transit.
"Unofficial" Green	Many residents in underserved neighborhoods have created green spaces on their own for their community's benefit. Give priority to such sites.
Ecological Significance	The new green space should serve an ecological benefit when possible. Give priority to sites identified within Western Pennsylvania Conservancy's Natural Heritage Inventory (2008) as "priority unprotected" and identified in the Natural Land Trust Adjacent Lands Study (1999) as high and medium priority.
Bike and Trail Network	New green space should be connected via multiple modes of transportation. Give priority to sites that are along an existing or proposed component of the bike and trail network, giving priority to (1) off-road paths, (2) complete green streets, and (3) dedicated bicycle right-of-way.
Floodplain	Future growth must contribute to the health of the city. Prioritize sites that replace impervious surface with porous surface within the 500-year floodplain.
Maintenance Costs	A maintenance plan should already be in place before construction begins. Prioritize sites that allow for creative approaches to keeping costs minimal, especially in terms of ongoing maintenance.
Commercial Corridors	New green space should also be a part of a destination area of the city. Give priority to sites near commercial corridors and activity centers.
Enforcement Opportunities	When looking at land that is not owned by the City of Philadelphia, partner with agencies such as Water, Revenue and Licenses and Inspections to identify sites that are ideal for conversion to green.
<i>Greenworks Philadelphia</i>	Give priority to sites that coincide with other <i>Greenworks</i> initiatives, such as improving tree canopy and increasing access to fresh, local foods.
<i>GreenPlan Philadelphia</i>	Give priority to those sites identified as an "opportunity" by the long-term open space plan for the city.
<i>Philadelphia Pedestrian and Bicycle Plan</i>	Give priority to sites that connect to proposed expanded pedestrian and bicycle routes, as listed in the long-term Pedestrian and Bicycle Plan.
Neighborhood Plans	In advance of the City Planning Commission's district-level planning, give priority to sites identified as priority green-space sites by neighborhood plans approved by the City Planning Commission.
Interagency Collaboration	Ensure that the site has been presented or will be presented to Commerce, Planning, Transportation, and other city agencies to make sure that no redundancy occurs and that green space is the best use for that particular parcel.

OPPORTUNITY  
SITES





Green  
2015

Chapter 5

# OPPORTUNITY SITES

The reality is that there is enough vacant land in Philadelphia to accommodate all of the city's revitalization goals for affordable housing, job centers, and new city park space. In fact, using the current Philadelphia Planning Commission estimates on population and job growth for 2035, Philadelphia will need 1,306 acres of new construction to meet this additional demand. In a city with 4,100 vacant acres, there is plenty of land to go around.

Using the criteria and priorities outlined in the previous chapter, Green2015 compiled the list of possible opportunity sites in the city that by 2015 could become green, be made publicly accessible, and serve environmental and health benefits. We looked first at vacant or underused land that is publicly or privately owned, which presents a wealth of potential. July 2010 data from the Philadelphia Water Department and the City Planning Commission shows approximately 40,600 vacant lots in Philadelphia (representing 5 percent of the city's total land area), 10,000 of which are owned by the city, the Redevelopment Authority, and the Philadelphia Housing Authority. However, **many such parcels are former rowhouse sites left empty**

**during Philadelphia's population decline and therefore are too small to create a meaningful park.**

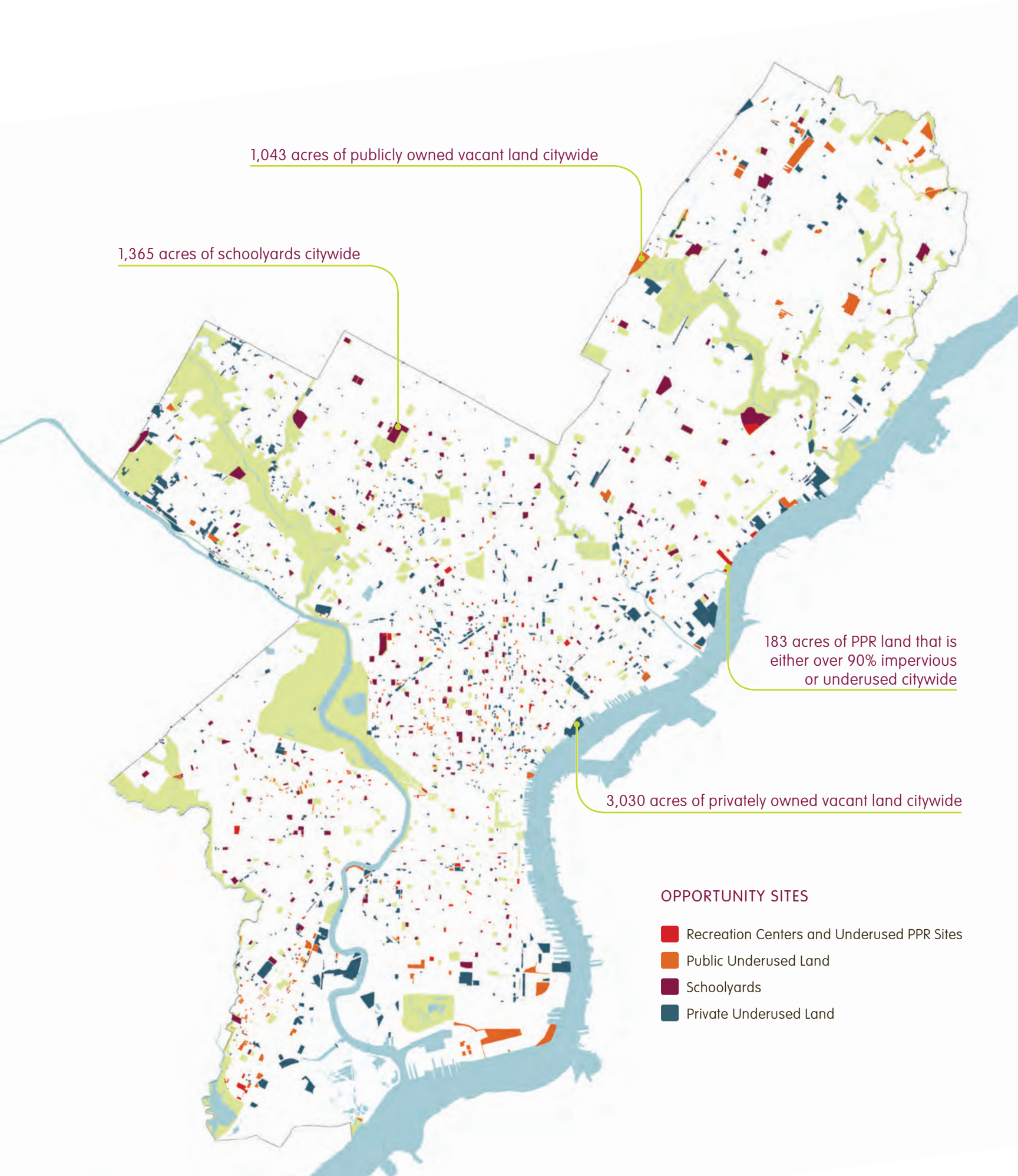
Despite the extensive inventory of vacant land in Philadelphia, Green2015 had to look deeper to examine opportunity sites that are equitably distributed throughout the city and are at least one-quarter acre in size. That is the minimum size that can accommodate both stormwater-management needs and recreational space. Using these standards, **recreation centers and schoolyards were identified as assets in need of greening.** These sites, owned by public agencies and already serving as community gathering spaces, are crucial because they can give our children safe, healthy, and high-quality places to play. Every

child in Philadelphia should have a park space to play in before, during, and after school; at the moment, many do not.

In fact, many schoolyards are dominated by staff parking and do not actually have play areas, so creating green spaces on these sites would help increase park access for our kids. While many have ball fields and other green spaces, a significant number of recreation centers and schoolyards are primarily impervious surface—pavement or asphalt that stops the flow of water into the ground soil. This can cause flooding during storms. Such areas become unbearably hot sites for summer play and will now be cost burdens to their owners, as increases in stormwater rates will be phased in over the next four years to account for the costs of impervious-surface coverage.

Each type of opportunity site—recreation centers, public vacant land, schoolyards, and private vacant land—brings different conditions and restrictions, but all should be considered when identifying priority sites for future green spaces.<sup>47</sup> The city is interested now in creating more park space citywide and in devising a cohesive strategy for vacant-land management; these two projects will build on one another's success.

Greening has been used as an approach to stabilizing vacant lots in Philadelphia since the 1970s. Greening underused public land makes that land a valuable asset for the city on numerous levels: it provides residents with a safe community space for gathering and recreation, it makes the area more desirable as a place to live, it raises property values, and it dedicates city tax money to public assets and saves the public money that was being spent on blighted sites that offered no return on investment.



1,043 acres of publicly owned vacant land citywide

1,365 acres of schoolyards citywide

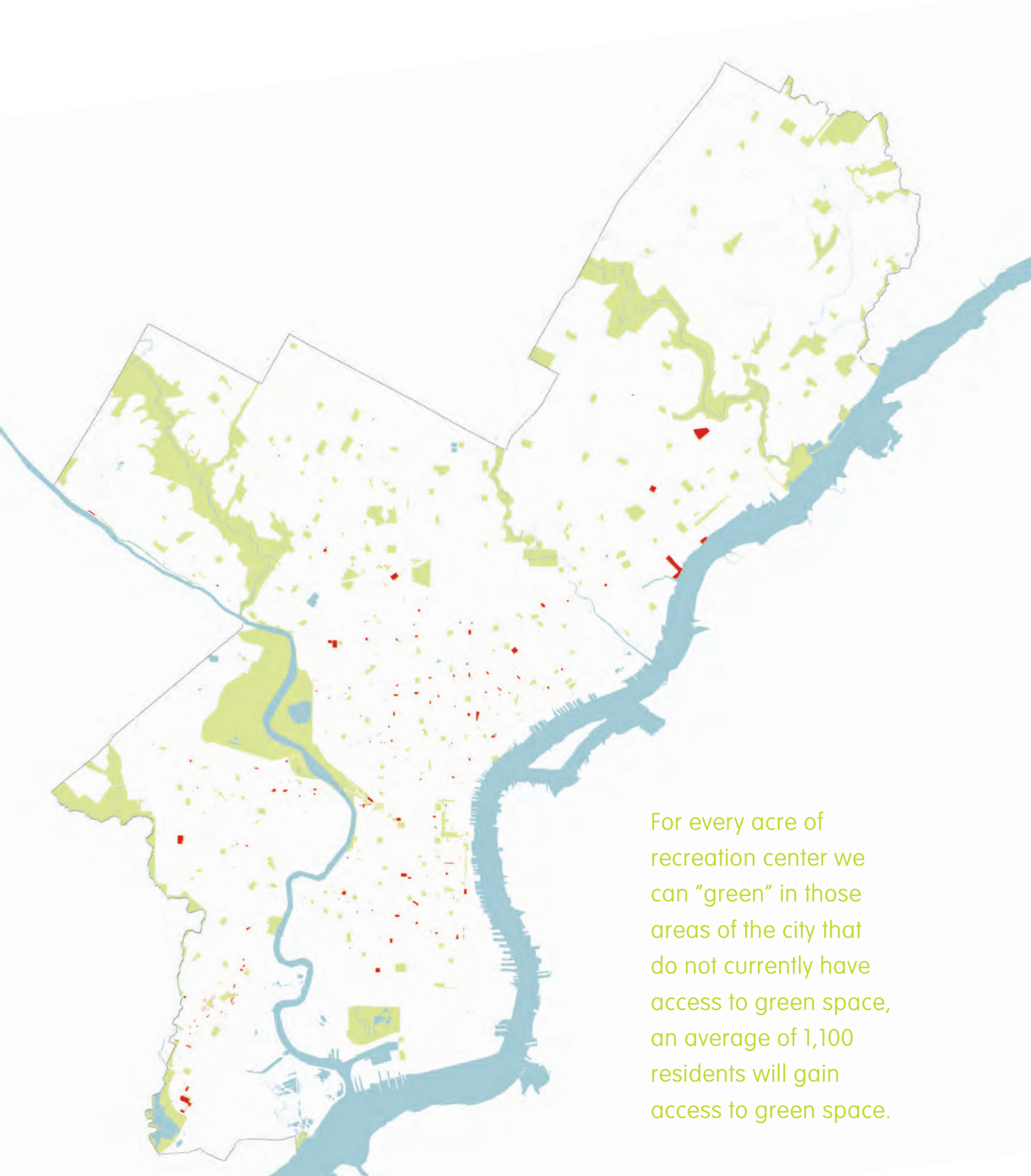
183 acres of PPR land that is either over 90% impervious or underused citywide

3,030 acres of privately owned vacant land citywide

**OPPORTUNITY SITES**

- Recreation Centers and Underused PPR Sites
- Public Underused Land
- Schoolyards
- Private Underused Land





For every acre of recreation center we can “green” in those areas of the city that do not currently have access to green space, an average of 1,100 residents will gain access to green space.

## RECREATION CENTERS AND UNDERUSED PPR SITES

Lands under PPR's jurisdiction are the easiest to transform into park space because the department has embraced greening as a priority. Its 181 playgrounds and recreation centers are well distributed throughout residential neighborhoods and already serve as **neighborhood focal points**. Designed to require minimal maintenance, most play areas are asphalt yards; sometimes even playing fields are not made of actual grass. Those that are predominantly covered with asphalt become ideal opportunities to construct green stormwater infrastructure in order to capture local stormwater runoff.

In order to identify high-priority recreation centers in need of greening, Green2015 looked at sites that are more than 90 percent covered with impervious surface.<sup>48</sup> **Green2015 identified 62 acres of recreation centers** that meet this criterion, 20 of which are located within the neighborhoods identified in this

study as not currently having fair and equal access to green space. For every acre of recreation center we can "green" in those areas of the city that do not currently have access to green space, an average of 1,100 residents will gain access to green space.

In addition, PPR manages 121 acres of vacant or underused land, 42 acres of which are located in neighborhoods that do not currently have fair and equal access to green space within walking distance. These sites should be considered as new city park opportunities. Even sites that would not make good publicly accessible green space can still be considered for other uses that benefit the public. Potential uses include rain gardens for stormwater infiltration, tree-farm sites that can help the city achieve the Greenworks Philadelphia tree-planting goal, community gardens (with sites being leased), and easements for watershed protection.<sup>49</sup>

In addition, recreation centers can be redesigned to accomplish many different functions. Balancing new greening with the wealth of programming that already exists on site is an important consideration. Many recreation centers have multiple basketball courts, sets of playground equipment, a swimming pool, a splash park, and fixed tables and chairs for chess, so they often do not have large, continuous areas that can be greened. But strategic greening and tree planting can still be accomplished on these sites; trees will provide much-needed

cover for the children who attend day camp during Philadelphia's hot summers. This kind of greening has already begun, and PPR recently received a PENNVEST grant to plant 2,500 new trees at recreation centers. Added opportunities for greening exist on sports fields, as some baseball fields are seldom used, and their soil is so compacted that it can serve little environmental function.

Greening recreation centers aligns with PPR's youth-development strategy. PPR plans to heighten the quality and public profile of its youth-development opportunities. It is engaged in efforts to expand its leadership in out-of-school activities, to engage more of the city's youth, and to make the benefits of its programs better known. PPR will create innovative programs to accomplish a range of goals, including better **connecting children, youth, and families to the outdoors**; developing successful partnerships; expanding the use of technology; and increasing the focus on community engagement and public relations. The physical transformation of recreation-center sites through greening could be a crucial part of this strategy.

Sites managed by Philadelphia Parks and Recreation that could become enlivened green spaces in their communities include the following: **1** This vacant lot adjacent to Duckrey Playground in North Philadelphia, **2** Northern Liberties Recreation Center, and **3** West Mill Creek Playground in West Philadelphia.



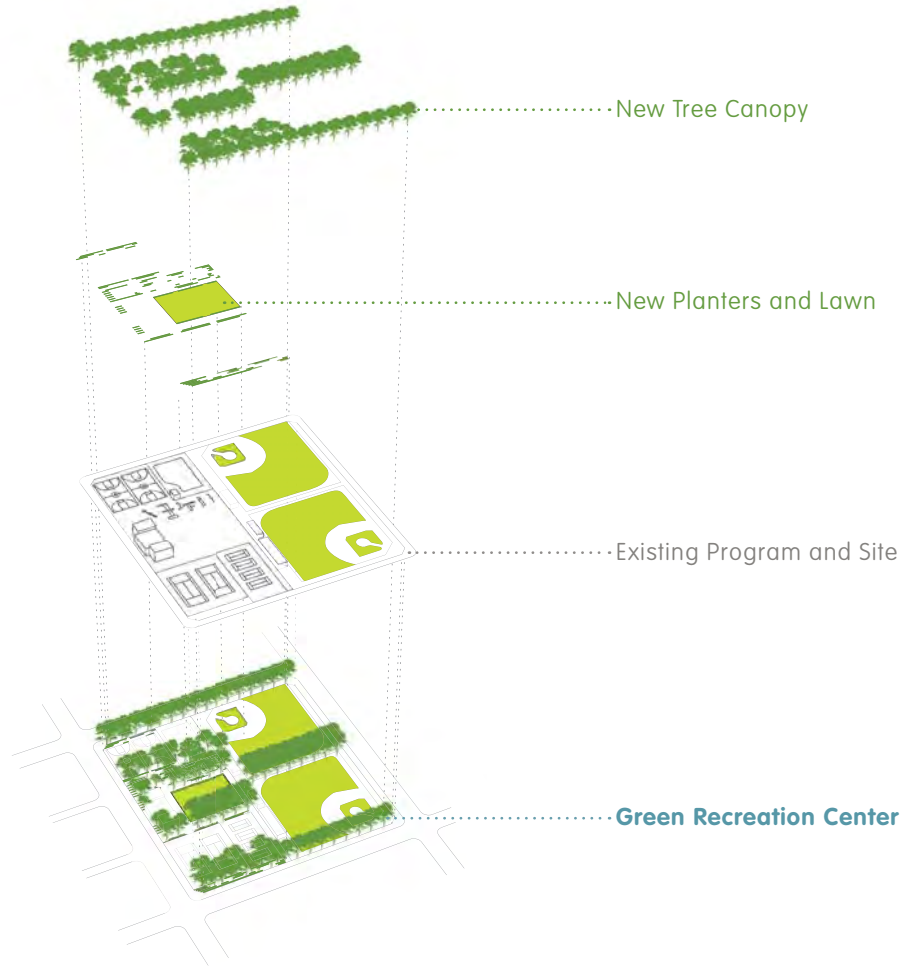


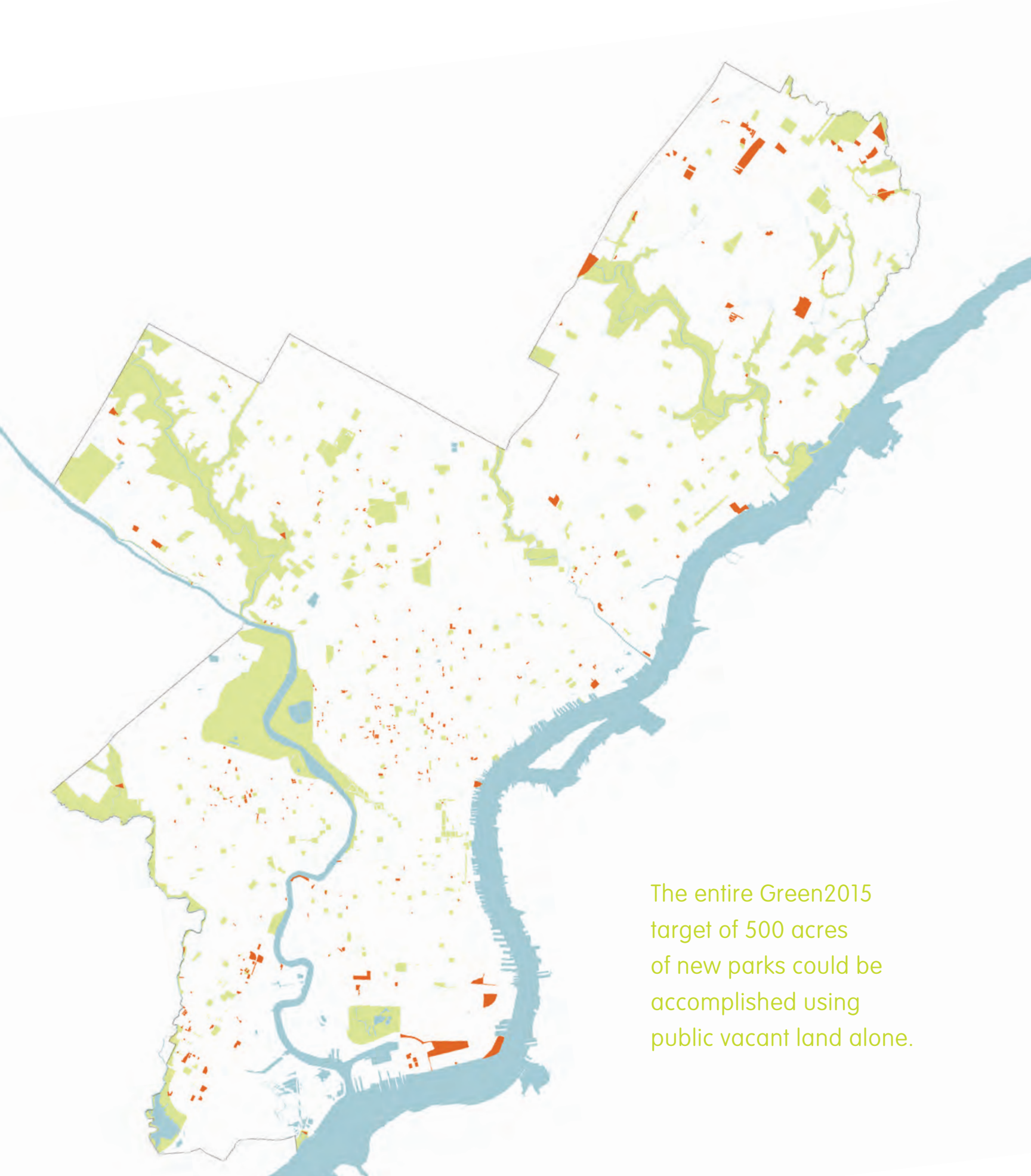
## A TRANSFORMATION: RECREATION CENTERS AND UNDERUSED PPR SITES

**1** Dozens of recreation centers across the city, including this 3.7-acre site in South Philadelphia, are overwhelmingly paved and heavily programmed. **2** Small adjustments such as rearranging programming to create space for a central green area and adding elements like small planters, porous pavement, and trees create a much more useful and comfortable play site for neighborhood residents.









The entire Green2015 target of 500 acres of new parks could be accomplished using public vacant land alone.



# PUBLIC UNDERUSED LAND

As noted earlier, of the 40,600 vacant parcels in Philadelphia, about 10,000 are owned by a local public agency. Most are scattered throughout residential areas in neighborhoods such as North Philadelphia, so it is not surprising that most of the public vacant land in Philadelphia is in small parcels; 95 percent of them are less than one-tenth of an acre in area. These parcels are not ideal candidates for public green space, unless several parcels can be assembled into one larger green site. While many contiguous vacant lots exist, ownership of these parcels can vary from a single agency to multiple agencies or can even be a mix of public and private ownership. Differences in ownership can make converting public vacant land into parks challenging, but it is worth the effort to transform sites that are large enough to make valuable contributions to a neighborhood. Recommendations for how to green sites depending on their ownership can be found in the next chapter.

The city currently does not have a strategy for the acquisition, management, or disposition of vacant land, although the Office of the Managing Director and the Office of the Finance Director hope to have draft recommendations for one soon. There is no centralized agency charged with

consolidating decades-worth of property records and titles into a single, accurate inventory. City agencies with purview over vacant land work with their specific land holdings only, and land-use decisions are not yet made on a comprehensive, citywide scale. In addition, different agency missions can lead to differing interests regarding the best use for a specific site.

The Green2015 project team looked at publicly owned vacant parcels of one-quarter acre or larger. From this data, we calculated the following land-availability statistics.

- Publicly owned vacant land greater than one-quarter acre: 777 acres in Philadelphia, 558 in areas without access to green
- Quarter-acre parcels assembled from the Department of Public Property: 215 acres in Philadelphia, 77 in areas without access to green
- Quarter-acre assemblages of contiguous parcels owned by a single city agency: 818 acres in Philadelphia, 560 in areas without access to green
- Quarter-acre assemblages of contiguous parcels owned by multiple city agencies: 831 acres in Philadelphia, 560 in areas without access to green

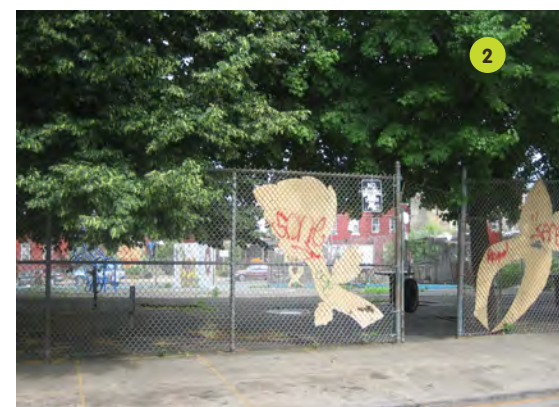
The entire Green2015 target of 500 acres of new parks could be accomplished using public vacant land alone. There is ample vacant land in Philadelphia—enough to build affordable housing, new job centers, and new green space. **The goals of Green2015 should be one element of a citywide strategy for vacant-land acquisition, use, and disposition.** These parcels can be transformed into public open space without acquisition costs or long legislative processes. This would help the city's budget by

removing a portion of the \$21 million that the City of Philadelphia spends every year responding to problems associated with vacant land.

Because of the scattered nature of public vacant land, the rendering on pages 64 to 65 shows its potential for filling in important gaps in access in residential neighborhoods with relatively small yet targeted green investments.

Sites managed by public agencies that could be converted to green include the following:

- 1 this Clean and Green lot in East Kensington,
- 2 this quarter-acre lot in North Philadelphia, currently used as an informal recreation space, and
- 3 this lot in Mill Creek, owned by the Philadelphia Housing Authority.



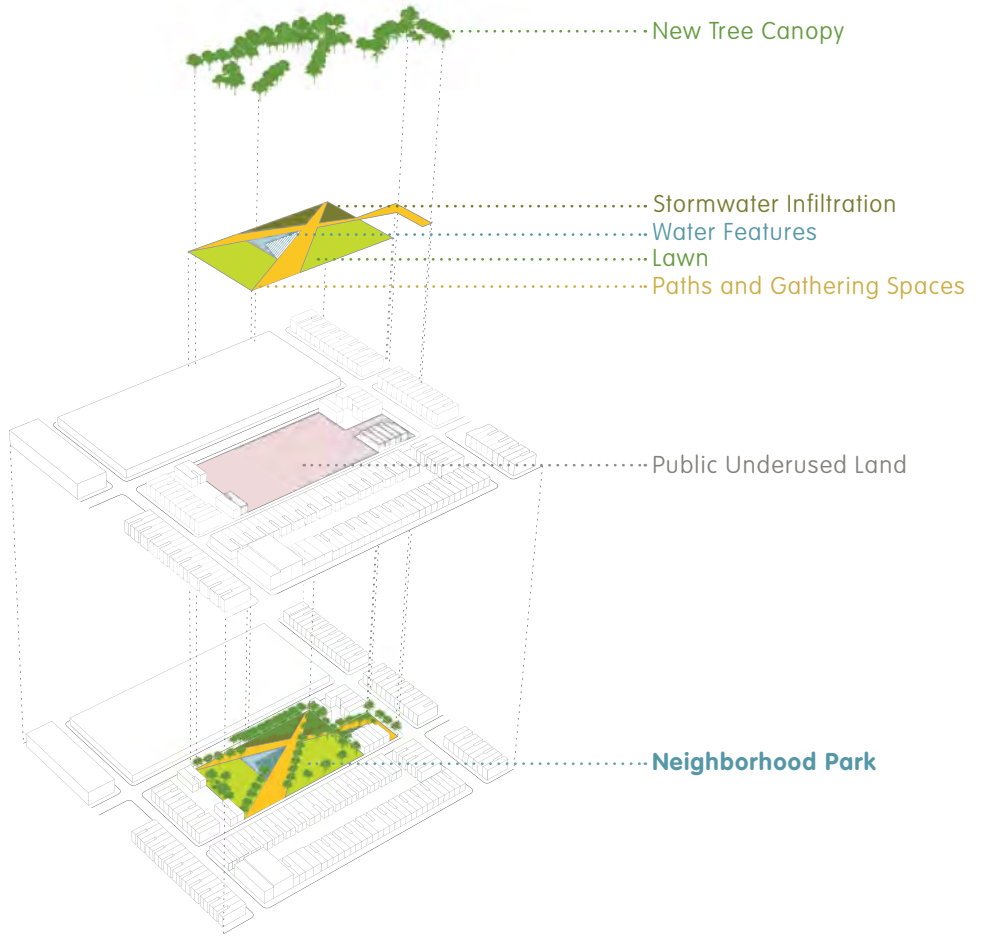


## A TRANSFORMATION: PUBLIC UNDERUSED LAND

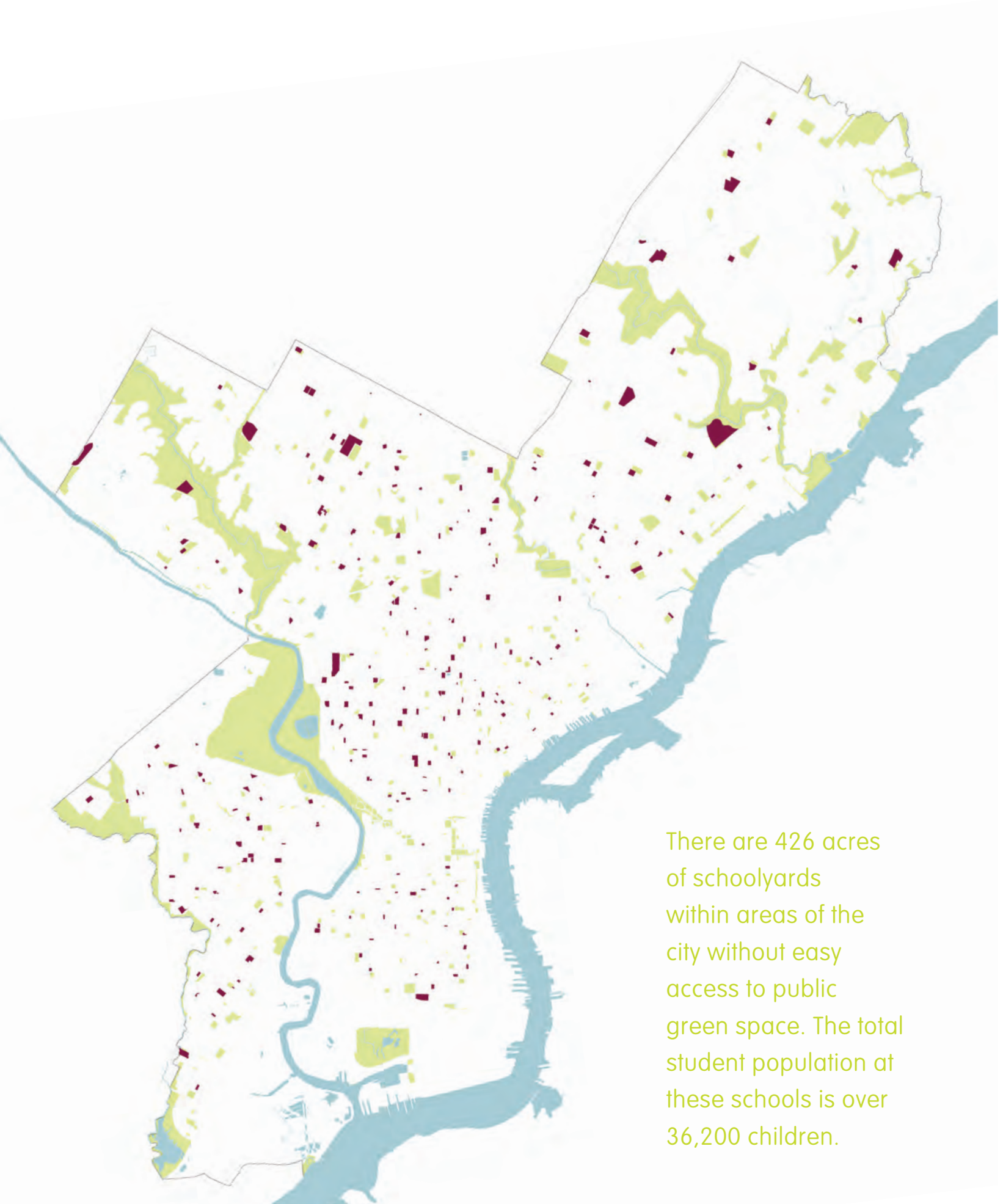
**1** Sites such as this 1.3-acre assemblage of lots in North Philadelphia sit vacant across the city. **2** Land transfers between public agencies would allow sites like these to become permanent neighborhood parks where children can play, parents and grandparents can comfortably watch them play, and local residents can find a new source of pride in their communities.











There are 426 acres of schoolyards within areas of the city without easy access to public green space. The total student population at these schools is over 36,200 children.



## SCHOOLYARDS

Because of their equitable distribution across the city, their role as community gathering places, and their extensive impervious-surface coverage, schoolyards are an important part of a citywide greening strategy. The creation of safe, inviting city parks that are easily available for recreation strengthens neighborhoods and helps ease the growth of obesity, diabetes, asthma, and other health issues. By greening schoolyards, the city and school district could have an immediate positive impact on our children, providing them with **a space to play, outdoor classrooms, and fresh-food gardens**. And since many school properties are already open to the public after school hours, these new green yards would be available to the entire community. School District of Philadelphia Superintendent Arlene Ackerman has said that she would like **“green campuses”**—campuses that increase educational opportunities and provide more beautiful schools for children

to enjoy—to be a part of her agenda and legacy. The conversion of schoolyards into public green spaces was identified in both *Greenworks Philadelphia* and *Green City, Clean Waters* as vital to future greening efforts. In a time of fiscal constraint, the option of sharing resources while dividing operations and maintenance responsibilities could be explored. The School District of Philadelphia is the largest owner of impervious pavement in the city aside from the city itself, and with the Philadelphia Water Department charging for impervious-surface coverage as of July 1, 2010, the school district may have a financial reason to go green. Federal funding for healthy living and fitness initiatives such as “socialized recess” offer additional incentives to upgrade schoolyards.

There are 426 acres of schoolyards within areas of the city without easy access to public green space. The total student population at these schools is **over 36,200 children**. Fifty-one of these acres are on sites that have greater than 90 percent impervious cover, and 71 additional acres are slightly less impervious but could still benefit from intensive greening. Many schools are currently studying how to green their yards. For every acre of schoolyard “greened” in these areas, an average of 260 residents gain access to green space.

Since most of the schoolyards in dense urban areas consist of entire city blocks with nothing but asphalt

and pavement, even a small amount of green can go a long way. Recent schoolyard greening examples include the School of the Future in Parkside, Penn Alexander School in West Philadelphia, Greenfield School in Center City, and the McCloskey School in East Mount Airy. Many schoolyards have empty tree pits that can be filled, which would provide shade for children and help reduce the heat-island effect in the warm months. These types of interventions can be accomplished without compromising existing uses, such as play equipment, basketball courts, and parking. On particularly large sites, woods or meadows could be constructed, along with amphitheater seating for performances or outdoor classes. Sports fields could be planted with buffalo grass, which needs no mowing or watering, as used for the newly opened Kensington Creative and Performing Arts High School. And because most schoolyards have a similar layout across the city, a consistency can be developed between sites, while individual schools may choose the form of “green intervention” they prefer.

These three sites owned and operated by the School District of Philadelphia are among hundreds throughout the city where asphalt could be converted to green space to benefit the children who attend the school, as well as the larger community: **1** South Philadelphia High School, **2** Laura Wheeler Waring School in Spring Garden, and **3** Stephen Decatur School in Northeast Philadelphia.



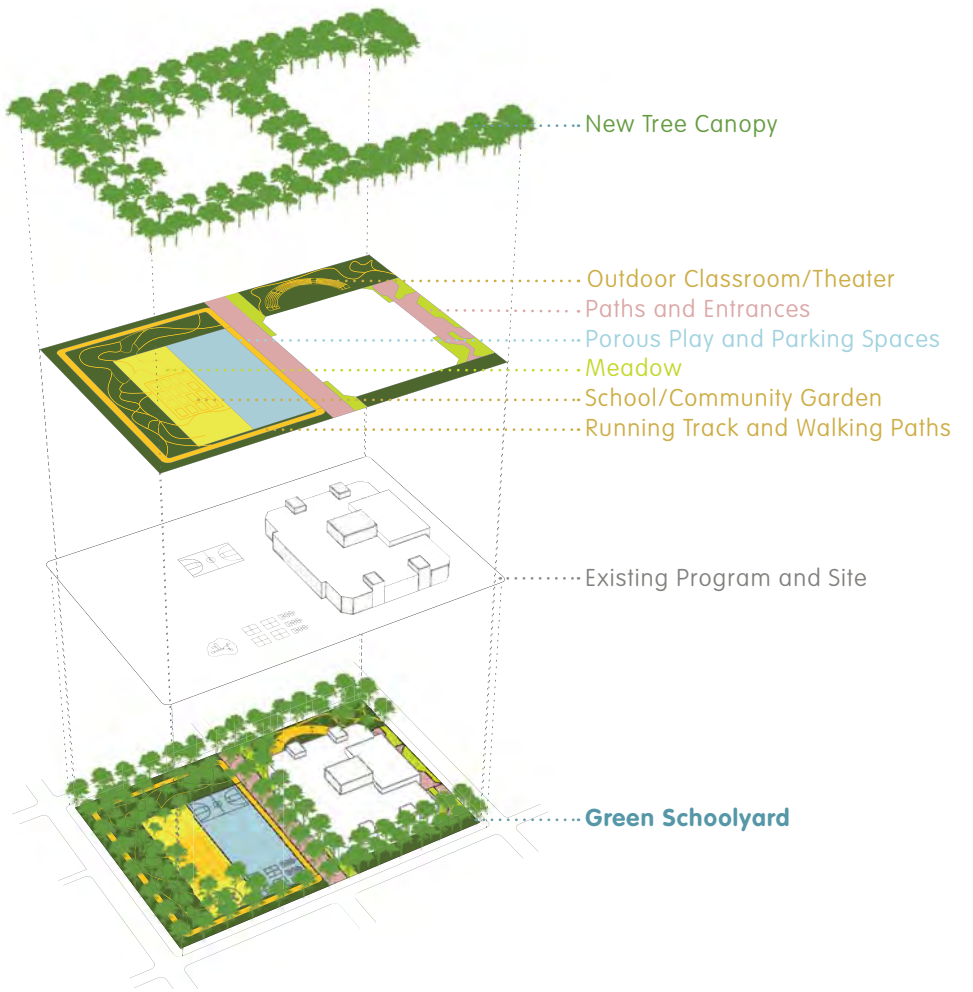


## A TRANSFORMATION: SCHOOLYARD

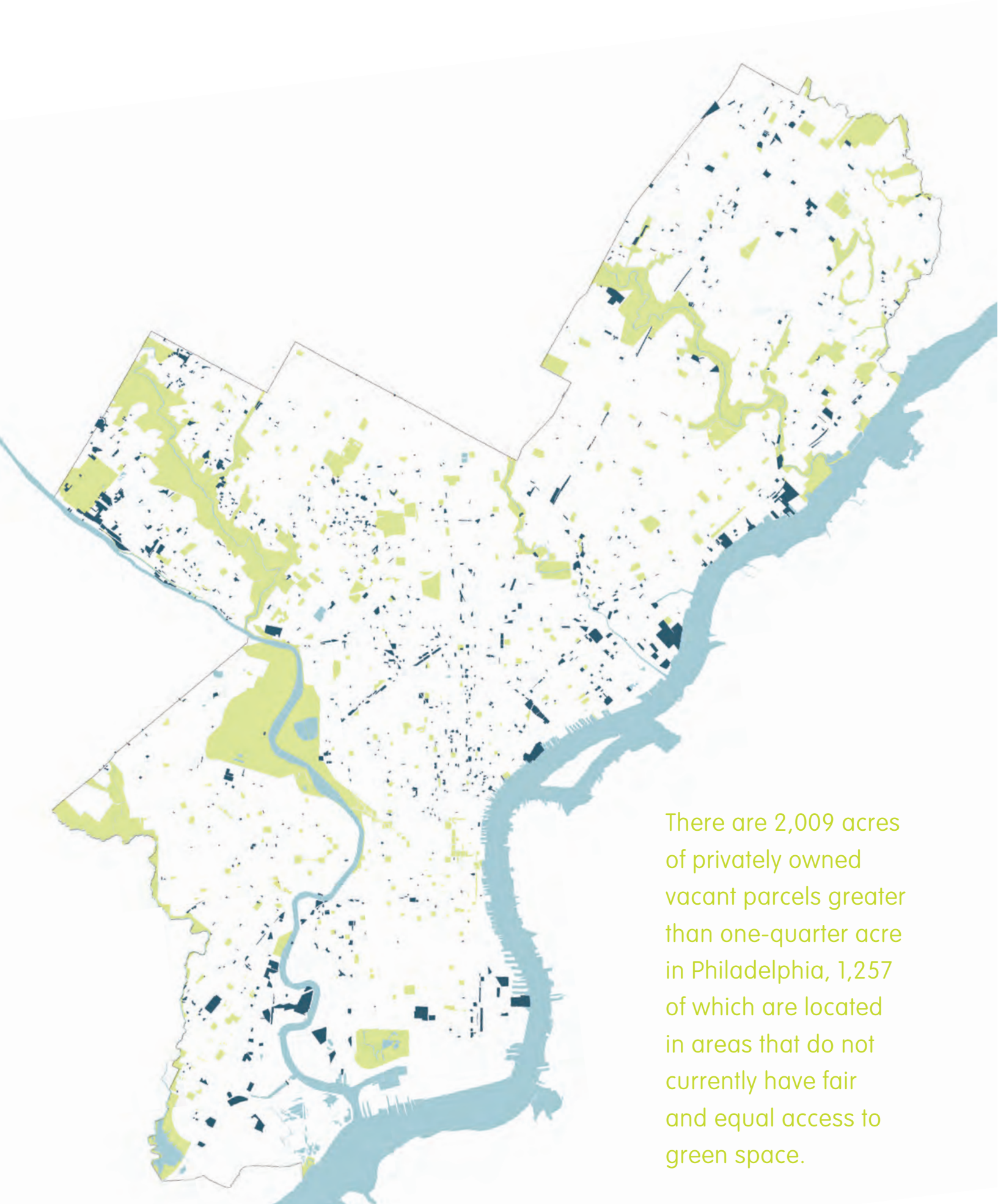
**1** Schoolyards with little more than asphalt and a play structure are distributed throughout Philadelphia's underserved neighborhoods. **2** This 4.3-acre site in North Philadelphia shows how planting new green can transform a schoolyard into a vibrant space with such amenities as an outdoor running track, a community garden, an amphitheater for student performances, and a stormwater meadow that also provides educational opportunities. This creates a schoolyard that brings tremendous value to the students and the surrounding community.











There are 2,009 acres of privately owned vacant parcels greater than one-quarter acre in Philadelphia, 1,257 of which are located in areas that do not currently have fair and equal access to green space.

# PRIVATE UNDERUSED LAND

Privately held vacant land represents the majority of available land in Philadelphia. Opportunities for transforming this land into parks will inevitably arise, and some of these transformed properties will play important parts in the city's progress toward its long-term green vision.

Current data shows that privately owned land represents 75 percent of all vacant acres in Philadelphia. Because of the relative size and location of many of these parcels, they can make valuable additions to the green-space network. While many privately owned rowhouse lots would not be ideal for green space, **there are significantly more large vacant parcels in private ownership than in public ownership.** These large lots are primarily former industrial sites, though some are private parcels in residential neighborhoods. Because Philadelphia's rivers were important locations for industry, some of these

large, privately owned vacant lots run along the rivers. This makes them especially valuable, as **they can help the city complete public access along our waterfronts, as well as protect habitat and mitigate flood damage.** Such lands include parcels along the Delaware River, Lower Schuylkill River, Tacony-Frankford Creek, Cobbs Creek, and Poquessing Creek. The next chapter presents strategies for the use of some of these vacant lands through joint agreements, partnerships, zoning, and enforcement.

There are 2,009 acres of privately owned vacant parcels greater than one-quarter acre in Philadelphia, 1,257 of which are located in areas that do not currently have fair and equal access to green space. This is a significantly higher number of suitably sized plots than the public owns in the city. However, much of this private underused land is in areas without dense residential neighborhoods, so its conversion to parkland would not address the goal of providing park space within easy walking distance of residential areas for those currently underserved.

In addition to empty parcels, there are thousands more acres of industrial land in the city that are partially underused, with large portions sitting fallow or occupied by parking lots or junkyards. These sites are often in areas that currently lack access to park space.

The rendering on pages 73 to 74 of privately owned vacant land converted to green space shows an example of a large industrial parcel along a riverfront. **A parcel of this size is ideal for integrating parks with private development, since well-designed green space can make the site more attractive for potential developers.** This site is 28 acres total, only three of which are needed to make a trail connection through the site. Such sites showcase the economic benefit of open space. **Investing in green space yields financial return in the form of business and real-estate taxes, as well as bringing many other financial benefits.**

Three-quarters of the 40,600 vacant parcels across Philadelphia are privately owned. Examples of privately owned vacant land in neighborhoods underserved by park space include these sites in **1** Brewerytown, **2** Fairhill, and **3** Kensington.



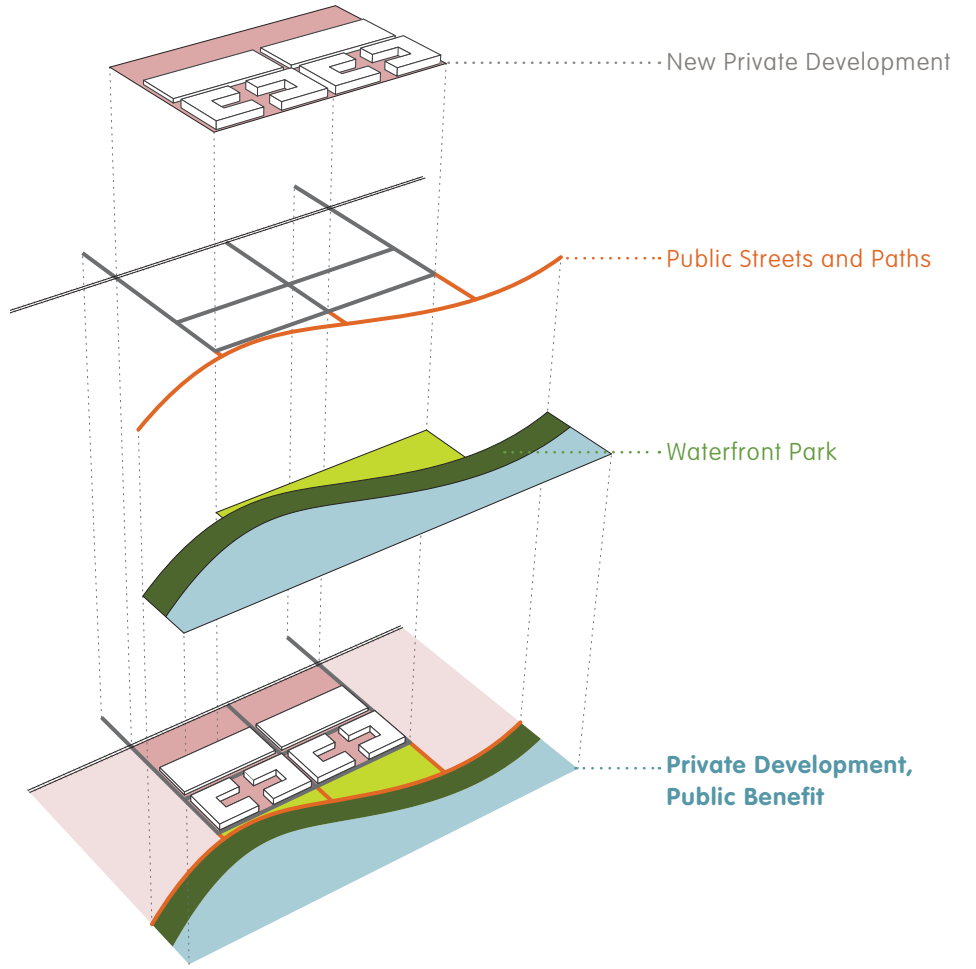


## A TRANSFORMATION: PRIVATE UNDERUSED LAND

**1** Public green space can be created on private land, such as this 28-acre site along the Lower Schuylkill River. It makes the site more marketable for future development, provides a neighborhood benefit, and may earn a credit toward PWD's parcel-based stormwater charges. **2** Creating basic public access and a generous greenway extends trail connectivity through a previously inaccessible riverfront area and stimulates private development on site.







# THE FIRST 500



Chapter 6





# WE'RE WELL ON OUR WAY

Thanks to the ongoing initiatives of public agencies, institutions, nonprofit organizations, and private developers, the city is well on its way to adding 500 new acres of public green space by 2015. Since Mayor Nutter took office in 2008, 100 acres have been funded as new park space, and construction is either underway or will begin shortly. The largest transfer, 35 acres at the Upper Roxborough Reservoir, represents a partnership between PPR and the Department of Public Property. Other sites range from major university expansion to park space as a part of a museum to an urban farm on vacant SEPTA property. Thus the city has already met 20 percent of the Greenworks Philadelphia goal.

As this report shows, the city can acquire, fund, construct, and maintain new green spaces on four major types of opportunity sites using existing resources and initiatives.

## RECREATION CENTERS AND UNDERUSED PPR SITES

Use existing capital funding to transform sites managed and operated by PPR into improved, greener places.

## PUBLIC UNDERUSED LAND

Green land that the city government already owns.

## SCHOOLYARDS

Partner with the School District of Philadelphia to make green improvements

to schoolyards that will give children needed places to play and enhance the role of schoolyards as community focal points.

## PRIVATE UNDERUSED LAND

Use code and tax enforcement and legislative tools to help turn private vacant land into park space. This includes railroad corridors as potential walking and biking trails.

The four identified types of opportunity sites present different ways to accomplish the short-term goals of addressing access issues and the long-term goals of strengthening our neighborhoods, improving environmental performance, and encouraging

healthy lifestyles. **The recommendations are not set in stone; rather, they offer the City a number of options, in no particular order, to be explored simultaneously in order to create a variety of park spaces that contribute to the richness of the city's park system.**

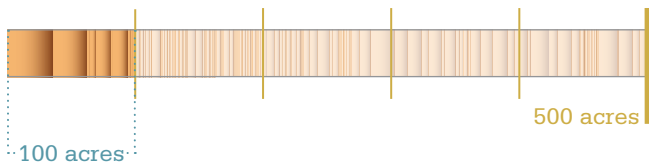
Next we present a closer view of the 100 new green acres to date. The subsequent sections present how the four major types of opportunity sites can be transformed into park space.



**WE'RE WELL ON OUR WAY**

■ Sites completed or underway (100 acres)

*Size of dots on map indicates their relative acreage*



## 100 ACRES TOWARD OUR GOAL

### DREXEL PARK

Near the northern edge of campus, at 32nd Street and Powelton Avenue, Drexel University redeveloped a brownfield into a 2.5-acre open space known as Drexel Park. The site was originally purchased with the intent to build permanent structures on the space, but input from the community caused Drexel to reconsider and ultimately to create usable open space that offers picturesque views of the skyline and the Schuylkill River. Drexel maintains the option to develop a building on the site in the future. The site was dedicated in October 2008.<sup>50</sup>

### HAWTHORNE PARK

A new public green space is underway just south of Center City at 12th and Catharine Streets. The park is approximately half of a city block, and the land was previously owned and managed by the Philadelphia Housing Authority (PHA). As a part of a new revitalization plan for the Martin Luther King Plaza area, PHA turned over the land to the former Department of Recreation for development and maintenance. Funding for the project has come from public and private organizations, including the Pennsylvania Department of Conservation and Natural Resources, the City of Philadelphia, Pew Charitable Trusts, and the William Penn Foundation.

### JULIAN ABELE PARK

Located in the Graduate Hospital neighborhood of Philadelphia at 22nd and Montrose Streets, Julian Abele Park is an important addition to a community lacking public green space. The site is comprised of reclaimed vacant lots of about one-third of an acre in size. The lots were originally in the Redevelopment Authority's inventory and were greened as a part of PHS's Philadelphia Green program. After a series of city approval processes (including the RDA board and City Planning Commission, as well as a City Council bill), the land was transferred to the former Department of Recreation. The park is named after Julian Abele, the first African-American graduate of the Penn architecture program, who designed the Philadelphia Museum of Art and the Free Library while working for Horace Trumbauer. Neighbors support the park through the Friends of Julian Abele Park, which coordinates maintenance and programming.

### RAY AND JOAN KROC CORPS COMMUNITY CENTER

Completed earlier this year, the Kroc Community Center in Northwest Philadelphia is an important addition to public open space in an area of need. The entire facility is 12.4 acres and includes a large outdoor fitness and recreation area. The community

center is one of 25 throughout the nation that will be created as a part of a Salvation Army project to provide recreation space in underserved neighborhoods. Although the fitness-and-recreation portion of the Kroc Community Center will be important to the Green2015 public green space goal, the center will provide other important resources for the community as well, including education, job training, and human services. The site also has environmental amenities, including planted areas and berms that naturally filter stormwater. Staff and facility maintenance will be funded through an endowment that is a part of the capital campaign.<sup>51</sup>

### GRAYS FERRY CRESCENT

The Schuylkill River Development Corporation (SRDC) is a public-private partnership aimed at making the Schuylkill Banks Master Plan by the SRDC a reality. The group completed remediation on the east side of the Schuylkill riverfront stretch between 34th and Wharton Streets earlier this year. The waterfront was previously owned by DuPont and hosted a research facility that created vehicle coatings. SRDC is the sponsor of the 3,300-foot-long by 200-foot-wide bike and pedestrian greenway, which is currently under construction. The final cost of the project is about \$2 million.



## WHERE ARE THE FIRST 100 ACRES?

Name	Intersection	Acres	Leader
5422–5465 Upland Way	54th Street and Upland Way	0.6	PPR
60 E. Willow Grove	East Willow Grove Avenue and Winston Road	0.25	PPR
Barnes on the Parkway	20th Street and Ben Franklin Parkway	2	Barnes Foundation
Drexel Park	32nd Street and Powelton Avenue	2.5	Drexel
Grays Ferry Crescent	Schuylkill River between 34th Street and Grays Ferry Avenue	10.5	SRDC
Albert M. Greenfield School	23rd Street and Sansom Street	0.7	Greening Greenfield Committee
Hawthorne Park	12th Street and Catharine Street	1	PPR, PHA, PWD
Julian Abele Park	22nd Street and Montrose Street	0.33	RDA, PPR, PHS
Karen Donnelly Park	Moyamensing Avenue and Dickinson Street	0.17	PPR
Ray and Joan Kroc Corps Community Center	Wissahickon Avenue and Hunting Park Avenue	12.4	Salvation Army
Lardner's Point Park	Delaware River and Levick Street	4.5	PPR, DRCC
Kensington Creative and Performing Arts High School	North Front Street and Berks Street	2.5	School District
Penn Park	30th Street and Walnut Street	24	Penn
Washington Avenue Green	South Columbus Boulevard and Washington Avenue	1	DRWC
Race Street Pier	North Columbus Boulevard and Race Street	1	DRWC
SugarHouse Casino Greenway	Shackamaxon Street and the Delaware River	1.3	SugarHouse
Upper Roxborough Reservoir	Eva Street and Port Royal Avenue	35	PPR
Walnut Hill Community Park and Farm <sup>52</sup>	46th Street and Market Street	0.25	TEC-CDC
<b>Total Acres: 100</b>			

### KENSINGTON CREATIVE AND PERFORMING ARTS HIGH SCHOOL

The new Kensington CAPA is led by Youth United for Change. The new LEED gold facility, located at Front and Berks Streets (at the Berks Market-Frankford El Station), will transform an area of 2.5 acres into an inviting, environmentally friendly green space for students and residents. The publicly accessible schoolyard is an example of the transforming of former industrial land into a new, productive use that benefits the community.

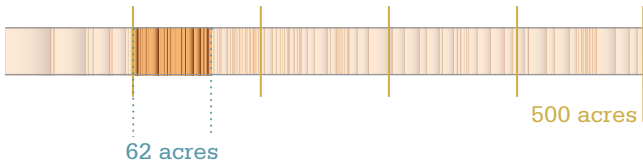
### WALNUT HILL COMMUNITY PARK AND FARM

The Enterprise Center Community Development Corporation and Walnut Hill residents are transforming a quarter-acre vacant lot at 4610 Market Street, adjacent to the Market-Frankford Line, into a new pocket park and urban garden. SEPTA owns the property and signed a long-term lease with TEC-CDC. The farm has been underway since spring 2010, while the pocket park is still in the planning phase. The



farm is a great example of numerous community organizations (including UC Green, PHS, and Walnut Hill Civic Association) forming partnerships to create public green space.<sup>52</sup>

Park spaces of all kinds have been created since 2008 in Philadelphia's neighborhoods, including **1** Kensington Creative and Performing Arts High School, **2** Karen Donnelly Park in South Philadelphia, **3** Walnut Hill Community Park and Farm, and **4** Penn Park in University City, which is under construction and scheduled to open in Fall 2011.



Transforming impervious recreation centers and underused PPR sites in underserved neighborhoods could add over 62 acres of green space.

## RECREATION CENTERS AND UNDERUSED PPR SITES

### TRANSFORMATION

The easiest land to transform is land already managed by PPR. Because a greening process for recreation centers requires physical improvements to existing capital facilities, allocations from the city's capital budget can be made to help pay for construction costs. These would be additions to future budgets and **would not take money away from other initiatives.** Because the land is within city ownership, recreation centers are also "greened acre" opportunities for the Philadelphia Water Department and its Green City, Clean Waters initiative.<sup>53</sup> Finally, the Department of Public Health is in the process of creating new fitness programs and installing exercise equipment in recreation centers city-wide, making them another possible partner in physical improvements or new programming. PPR is already discussing overlapping initiatives with the city's Department of Public Health and Water Department, a sign of PPR's willingness to partner.

### OPPORTUNITY SITES<sup>54</sup>

**Recreation centers that are greater than 90 percent impervious surface and are located in areas without half-mile access to green space**

**Frankford Valley Playground,** Church and Tacony Streets, 0.94 acre

**Guerin Recreation Center,** 1600 Jackson Street, 1.78 acres

**Harold Playground,** Huntingdon Street and Kensington Avenue, 0.7 acre

**Lower Mayfair Playground,** Robbins and Hawthorne Streets, 5.62 acres

**Play lot,** W. Venango and 11th Streets, 0.82 acre

**Sayre Morris Recreation Center,** 59th and Spruce Streets, 8.57 acres

**Tolentine Community Center,** 1025 Mifflin Street, 0.72 acre

**PPR-managed sites greater than one-quarter acre in size that are not currently serving as public parks and that could be converted to green uses**

**3rd Street and Bainbridge Street,** 1 acre (currently a parking lot)

**17th Street and Oxford Street,** 0.4 acre

**29th Street and Clearfield Street,** 6.1 acres

**42nd Street and Cambridge Street,** 0.7 acre

**67th Street and Dorel Street,** 0.3 acre

**86th Street and Luther Street,** 13.9 acres (in what appear to be unbuilt meadows along the Lower Schuylkill)

**Buist Street and Robinson Street,** 0.4 acre

**Germantown Avenue and Allegheny Avenue,** 0.8 acre

**Jasper Street and Buckius Street,** 0.4 acre

**Marshall Street and Susquehanna Avenue,** 0.5 acre

**Master Street and Willington Street,** 0.5 acre

**Natrona Street and Susquehanna Avenue,** 0.3 acre

**Pompey Street and Phillips Street,** 0.9 acre

**Tacony Street,** south of Dietz and Watson plant, 22.4 acres

**PPR-managed recreation centers that are overwhelmingly impervious in other areas within the combined sewer system**

**10th and Lemon Playground,** Lemon between 10th and 11th Streets, 0.37 acre

**33rd and Wallace Playground,** 33rd and Wallace Streets, 0.8 acre

**39th and Olive Playground,** 39th and Olive Streets, 1.47 acres

**Amos Playground,** 16th and Berks Streets, 0.89 acre

**Baker Playground,** Landsdowne and Conestoga Streets, 0.62 acre

**Barry Playground,** 18th and Bigler Streets, 3.5 acres

**Black Coyles and McBride Playground,** Hazzard and Collins Streets, 0.87 acre

**Burke Playground,** Second and Jackson Streets, 1.4 acres

**Clayborn and Lewis Playground,** Poplar and 38th Streets, 0.6 acre

**Marie Dendy Recreation Center,** 10th and Jefferson Streets, 0.75 acre

**Deritis Playground,** Frazier and Grays, 1 acre

**Di Silvestro Playground,** 15th and Morris, 1.6 acres

**Duckrey Playground**, 16th and Susquehanna Streets, 1.17 acres

**Eighth and Diamond Playground**, Eighth and Diamond Streets, 0.59 acre

**Fishtown Recreation Center**, Montgomery Avenue and Moyer Streets, 1.34 acres

**Ford PAL Recreation Center**, Mercy between Sixth and Seventh Streets, 0.6 acre

**Marcus Foster Memorial Stadium**, 16th between Hunting Park Avenue and Staub Street, 6.5 acres

**Garden Court**, 47th and Spruce Streets, 0.49 acre

**Frank Glavin Playground**, Westmoreland and Almond Streets, 0.52 acre

**Halert Playground**, Boston and Coral Streets, 0.43 acre

**Heritage Park Playground**, Clearfield and Sydenham Streets, 0.63 acre

**Lindbergh Park**, parcel south of 63rd and Dicks Streets, 0.69 acre

**Maguire Playground**, Lehigh Avenue and Mascher Street, 0.42 acre

**Municipal Services Building**, 1401 JFK Boulevard, 2.33 acres

**Name unknown**, Fernon Street between 23rd and Point Breeze, 0.25 acre

**Name unknown**, Preston and Aspen Streets, 1.53 acres

**Name unknown**, Venango and Marvine Streets, 0.82 acre

**Name unknown**, Waterloo and Westmoreland, 2 acres

**Nelson Playground**, 301 W. Cumberland Street, 0.59 acre

**Northern Liberties Recreation Center**, Third and Fairmount Avenue, 0.45 acre

**Panati Playground**, 22nd and Clearfield Streets, 1.03 acres

**Reed Playground**, Ontario and Dillman Streets, 0.3 acre

**Rizzo Rink**, Front and Washington Streets, 2.3 acres

**Schmidt Playground**, Ontario and Howard Streets, 0.27 acre

**Stokley Playground**, Elkhart and Thompson Streets, 0.67 acre

**Tiptop Playground**, Front and Richmond Streets, 0.63 acre

**Towey Playground**, 1832 Howard Street, 1.25 acres

**Trenton and Auburn Playground**, Trenton Avenue and E. Auburn Street, 0.88 acre

**Veterans Playground**, Ninth and Cumberland Streets, 0.58 acre

**Waterloo Playground**, Cumberland and Waterloo Streets, 0.93 acre

**Weccacoe Playground**, Catharine and Leithgow Streets, 0.73 acre

**Wilmot Park**, Hawthorne and Meadow Streets, 0.35 acre

**Winchester Playground**, Sydenham between York and Dauphin Streets, 0.53 acre

**These recreation centers and playgrounds present opportunities for greening and connections to larger PPR facilities to better serve the community:**

**48th and Woodland Playground**, near Kingsessing Recreation Center

**Carmella Playground**, near Gambrel Playground

**Clayborn & Lewis Playground**

**Clemente Recreation Center**, near Francisville Recreation Center

**Miles Mack Playground**

**Piccoli Playground**, near Tacony Creek Park

**Roosevelt Playground**, near Vogt Playground

**Rose Playground**

**Sturgis Playground**, near Olney Playground

Potential sites for future greening include **1** Tiptop Playground in Northern Liberties and **2** a parcel next to Panati Playground recently acquired by the city in order to work with a local nonprofit that would help develop a master plan for the playground.



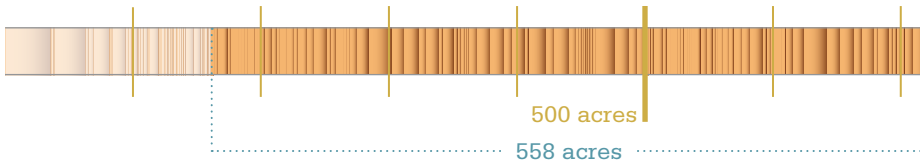
#### SPOTLIGHT

### Shissler Recreation Center

Fishtown, Philadelphia

In June 2010, PPR launched the green transformation of Shissler Recreation Center in Fishtown. Through a partnership involving two City Council members, Pennsylvania Horticultural Society, New Kensington CDC, Mural Arts Program, the Philadelphia Water Department, and others, Shissler will receive a new sports field, rain gardens, stormwater trenches, a new spray park, improved fencing and sidewalks, and street trees along Blair Street. This is the signature green investment in a PPR project called “Shissler to the River,” which also includes improvements to nearby Palmer Park, a new playing field and stormwater trenches at Hetzel Field, and streetscape improvements along Norris Street, Frankford Avenue, and Columbia Avenue. Improvements are scheduled to be completed in Spring 2011.





Transforming public underused land in underserved neighborhoods could add over 558 acres of green space.

## PUBLIC UNDERUSED LAND

### TRANSFORMATION

When greening existing public land or facilities, **acquisition costs are nominal**. While the city is exploring the opportunity to create a single vacant-land inventory and management process, until such a system is created, ease of land transfer for green space depends on which agency manages the property, as different missions, disposition policies, and board compositions can affect the length of the acquisition process. A transfer of land currently managed by the Department of Public Property, and the Philadelphia Housing Development Corporation (PHDC) is relatively uncomplicated for PPR because it is an interdepartmental transaction and therefore does not require approval by City Council. While most vacant sites managed by the Department of Public Property, OHCD, and PHDC are too small to be converted into new city parks, the Department of Public Property, which manages about 50 percent of publicly owned vacant land in Philadelphia, is proactively seeking to dispose of its vacant properties and has made progress in updating its listings by posting its full inventory online. The Department of Public Property has stated that it welcomes serious inquiries from city agencies and members of the public who wish to convert vacant parcels under its jurisdiction into productive uses for the city.

Land owned and held by other agencies (with the main ones being Redevelopment Authority and Philadelphia Housing Authority) requires board approval and a City Council vote. While both agencies often establish open spaces in their developments, these additional approvals are likely to mean that the project will take longer to implement. Further, nominal transfer of land to date has occurred mainly for the purpose of creating affordable housing, so transfer for the purpose of new city parks would be a different application of nominal transfer. It should be noted that most publicly owned vacant parcels are small (less than one-quarter acre in size). So looking at the inventory of multiple city agencies presents opportunities for the city to assemble parcels managed by different agencies into larger development parcels. A citywide strategy for the use of its vacant land holdings would allow for the quick assembly, use, and disposition of such parcels.

With land owned by a state or federal agency, there are often acquisition costs. While both agencies often establish open space as part of its developments, nominal transfer of land involving these two agencies to date has occurred mainly for the purpose of creating affordable housing, so transfer for the purpose of creating standalone city parks

would be a different application of nominal transfer.

### OTHER CITIES

Rust Belt cities offer important lessons in vacant-land management. With state-enabled legislation, Genesee County, Michigan, established a single “land bank” to bring all public vacant land under county control. This action centralized vacant-land management, acquisition, and disposition within one agency instead of five or more agencies (which has caused coordination problems in Philadelphia). However, critics of the Genesee County model point to the lack of comprehensive land-use planning to guide decision making and to poor maintenance of the land they control. State Rep. John Taylor introduced legislation in Harrisburg that, if approved, would allow Philadelphia to create such a land bank.

In Detroit, greening initiatives on vacant lots range from large-scale commercial farming to neighborhood-based urban gardening. The Greening of Detroit greens vacant lots, creates community gardens, plants and tends street trees (see spotlight), and trains community members to maintain the green space and foster other green initiatives in their neighborhoods. This is similar to the Philadelphia Green program at the Pennsylvania Horticultural Society. Detroit is also

Public underused sites for potential future greening include **1** Vacancies along North American Street, **2** North Front Street in Northern Liberties, **3** vacancies along the Amtrak Northeast Corridor in Strawberry Mansion, and **4** the Festival Pier site on the Central Delaware riverfront.

home to the Detroit Garden Resource Program, which supports urban-farming initiatives through training, education, and focus groups on improving coordination and turnout for community events.

Through the Pittsburgh Mayor's Office of Neighborhood Initiatives, Pittsburgh has implemented various programs to productively reuse city-owned vacant land. One such initiative is the Green Up program, which converts city-owned vacant lots into community green spaces. That city's Mayor's Office provides plants and signs for the Green Up lots, and the local Penn State Cooperative Extension provides soil testing and technical assistance. Each Green Up site has a community partner organization that can coordinate volunteers or staff to maintain ongoing maintenance and care of each lot. Pittsburgh's Climate Action Plan also offers some interesting ideas for vacant land reuse, including ways to alter building demolition so that the leftover lot is easier to convert into a productive use, as well as ways to use brownfields to grow plants that produce feedstock for biofuel, to reduce dependence on foreign oil.<sup>55</sup>



SPOTLIGHT  
**Neighborhood Nursery Program**  
 Detroit, Michigan



In the Neighborhood Nursery program, the Greening of Detroit organization prepares the vacant lot, builds the earthen mounds used to contain fresh soil, spreads mulch, and plants trees. The trees are grown for three to five years and are cared for by the community and the group's Green Corps before being transplanted into the community.<sup>56</sup> This program simultaneously creates productive uses of vacant land and improves the city's landscape. PPR has also taken responsibility for implementing the Greenworks Philadelphia goal of planting 300,000 new trees by 2015, so implementing a program like Detroit's would help PPR reach that goal, as well as greening vacant lots and providing a revenue-making opportunity for for-profit nurseries.

After a 2009 study by the Urban Land Institute commissioned by the Redevelopment Authority of Philadelphia determined that the remedial costs needed to prepare Logan Triangle for conventional construction would far exceed the economic return, the city now feels that a green use such as an urban tree farm might be more appropriate. Indeed, as the City of Philadelphia is committed to planting 300,000 trees by 2015, the Logan Triangle offers an ideal place for a temporary tree farm to help the city reach that goal.

SPOTLIGHT  
**Using Vacant Lots to Grow Street Trees**

Feasibility studies done through a landscape-architecture studio at Penn State University concluded that vacant lots can yield anywhere between 350 and 1400 street trees per acre, depending on whether the parcel is designed as a hybrid open space or a full tree farm. A private tree nursery would earn \$75 per tree in revenue from production and be a source of new green jobs in Philadelphia.<sup>57</sup>

## OPPORTUNITY SITES<sup>58</sup>

### Managed by the Department of Public Property

#### Capital Facilities

Public Property staff identified these as potential sites for greening:

**Medical Examiner's Office,**  
University Avenue and Curie  
Boulevard

**Philadelphia Senior Center,**  
Broad Street and Lombard Street

In the following areas, a cluster of public facilities exists in a neighborhood underserved by park space. Each area presents the city with an opportunity to green existing public land for public benefit.

**59th Street and Lancaster Avenue**

**65th Street and Haverford Avenue**

**Broad Street and Snyder Avenue**

**Germantown Avenue and Butler Street**

**Kensington Avenue and Castor Avenue**

**Second Street and Lehigh Avenue**

PPR should examine these sites with the City Planning Commission to see which facilities might have redundancies or opportunities to become community green spaces.

*The following properties are vacant and outside a 10-minute walk of existing green space:*

**9551 Academy Road, 56.9 acres**

**3117 South Columbus Boulevard, 26.3 acres**

**3140 South 61st Street, 22.1 acres**

**9319 Bluegrass Road, 6 acres**

**330 Domino Lane, 5.2 acres**

**5345 Baynton Street, 2.1 acres**

**299 Byberry Road, 2.1 acres**

**1670 Kinsey Street, 1.4 acres**

**623 North 55th Street, 1.3 acres**

**1001 Hellerman Street, 1.2 acres**

**11728 Gifford Avenue, 1 acre**

**139 East Clearfield Street, 0.8 acre**

**332 East Tioga Street, 0.8 acre**

**1508 South 49th Street, 0.8 acre**

**319 South 56th Street, 0.8 acre**

**2301 North 4th Street, 0.7 acre**

**517 West Huntingdon Street, 0.7 acre**

**5115 West Stiles Street, 0.7 acre**

**6309 Cherokee Street, 0.6 acre**

**3130 North 2nd Street, 0.6 acre**

**3042 North 4th Street, 0.6 acre**

**1024 West Lehigh Avenue, 0.6 acre**

**201 East Indiana Avenue, 0.6 acre**

**1751 North 4th Street, 0.5 acre**

**1611 Ruan Street, 0.5 acre**

**2459 Kensington Avenue, 0.5 acre**

**2600 Grant Avenue, 0.4 acre**

**3101 North 8th Street, 0.4 acre**

**926 East Locust Avenue, 0.4 acre**

**260 East Luzerne Street, 0.4 acre**

**3280 Morrell Avenue, 0.4 acre**

**925 North 7th Street, 0.4 acre**

**3222 H Street, 0.3 acre**

**432 North Edgewood Street, 0.3 acre**

**4610 Hedge Street, 0.3 acre**

**2914 North 2nd Street, 0.3 acre**

**4716 Baltimore Avenue, 0.3 acre**

**2201 East Tioga Street, 0.3 acre**

**2216 North 9th Street, 0.3 acre**

**2122 North Park Avenue, 0.3 acre**

**6540 North 15th Street, 0.3 acre**

**3809 Frankford Avenue, 0.3 acre**

**4039 Warren Street, 0.3 acre**

*Other large vacant lands owned by the City of Philadelphia:*

**2981 Comly Road, 51.4 acres**

**400 Dearnley Street, 28 acres**

**4975 Ashburner Street, 18.1 acres**

**5302 Lindbergh Boulevard, 17.2 acres**

**701 Ramona Avenue, 13.6 acres**

**3800 Island Avenue, 12.6 acres**

**501 North Columbus Boulevard, 12 acres**

**2600 Grant Avenue, 11.3 acres**

**8975 Ridge Avenue, 9 acres**

**416 West Rittenhouse Street, 7.2 acres**

**11635 Academy Road, 6.8 acres**

**4000 Whitaker Avenue, 6.7 acres**

**7500 Stenton Avenue, 5.8 acres**

**432 East Wister Street, 5.2 acres**

**623 West Lehigh Avenue, 2.75 acres**

**1100 North Front Street, 2.3 acres**

**5150 Wayne Avenue, 0.5 acres**

### Managed by the Philadelphia Housing Development Corporation

There are no parcels outside the half-mile access to parks that are greater than one-quarter acre in size. However, many vacant lots exist throughout the city that offer opportunities for adding park space in the city.

### Owned by the Redevelopment Authority

**3116 South 82nd Street, 38.7 acres**

**5450 Arch Street, 8.6 acres**

**1233 North Hutchinson Street, 7 acres**

**8400 Mario Lanza Boulevard, 5.8 acres**



3030 North 20th Street, 5.3 acres  
 48 North Wiota Street, 5 acres  
 (currently in use as community garden)  
 2775 Red Lion Road, 4.8 acres  
 2937 South 61st Street, 4.5 acres  
 8100 Mario Lanza Boulevard, 4.1 acres  
 4917 Aspen Street, 3.8 acres  
 2800 West Dauphin Street, 3.5 acres  
 2933 South 61st Street, 3.4 acres  
 5800 Eastwick Avenue, 2.3 acres  
 8601 Cheney Place, 2.3 acres  
 3016 South 61st Street, 1.8 acres  
 3223 South 61st Street, 1.5 acres  
 9201 Dewees Street, 1.2 acres  
 2935 North 2nd Street, 0.6 acre

#### Owned by the Philadelphia Housing Authority

There are no parcels outside the half-mile access to parks that are greater than one-quarter acre in size. However, many vacant lots exist throughout the city that offer opportunities for adding park space in the city.

#### Owned by the Philadelphia Industrial Development Corporation or the Philadelphia Authority for Industrial Development

*The following properties are vacant and outside a 10-minute walk of existing green space:*

11450 Northeast Boulevard, 36 acres  
 11430 Northeast Boulevard, 28.7 acres  
 3025 Meetinghouse Road, 23.9 acres  
 5000 Summerdale Road, 14.3 acres  
 14515 McNulty Road, 13.3 acres  
 2900 South 20th Street, 13 acres  
 10011 Sandmeyer Lane, 12.8 acres  
 2021 Woodhaven Road, 12.6 acres

10051 Sandmeyer Lane, 5.1 acres  
 7411 Holstein Avenue, 5 acres  
 3105 South 61st Street, 2 acres  
 4870 Jefferson Street, 2 acres  
 5801 Tacony Street, 1.3 acres  
 2612 Gregg Street, 1 acre  
 238 West Sedgley Avenue, 1 acre  
 6975 Norwitch Drive, 0.7 acre  
 1635 South 49th Street, 0.7 acre  
 2639 Gregg Street, 0.5 acre  
 2613 Gregg Street, 0.5 acre

#### Owned by the Philadelphia Parking Authority

**North Delaware and Allegheny Avenues**, 7.2 acres: Adjacent to Pulaski Park, this impound lot presents a great opportunity to expand the small pier park on the Delaware River.

#### Owned by the Philadelphia Gas Commission

2900 East Venango Street, 1.1 acres

#### Examples of multiagency assemblages greater than one-quarter acre

The nonprofit Clean Air Council is leading the planning process to extend the Cobbs Creek Trail south to the Heinz Tinicum Wildlife Refuge. Most of the land along the creek south of the park terminus at Woodland Avenue is publicly owned, including the following parcels.

PPR owns a 26.2-acre parcel at **Cibotti Recreation Center** that partially fronts the creek at 77th Street and Elmwood Avenue.

The Redevelopment Authority owns the parcels along the creek from **75th to 78th Street**, as well as 93.3 acres south of **84th Street along the creek**.

**North American Street and Montgomery Avenue**, 1.6 acres

**Letterly and Amber Streets**, 0.33 acre  
**Third and Berks Streets**, 0.5 acre  
**Handball court on Fifth Street** between York and Dauphin, 0.25 acre

#### Underused land within PennDOT's jurisdiction

**4110 and 4154 East Thompson Street and 4050 Aramingo Avenue**: 4.96 acres adjacent to I-95 that could help with public access along the Frankford Creek

PennDOT owns **two parcels adjacent to the Frankford Creek along Adams Avenue and Deal Street**, north of Kensington Avenue. These two parcels total 1.1 acres and offer a good opportunity to extend public access to the creek south of Juniata Park.

**Gustine Lake**, Ridge Avenue and City Avenue, 0.25 acre

#### Underused land within Commonwealth of Pennsylvania ownership

**Department of General Services**, 860 Byberry Road, 6.5 acres

**Department of General Services**, Ruffner and Blaine Streets, 2.51 acres

**Department of General Services**, Island and Glenmore Avenues, 1.48 acres

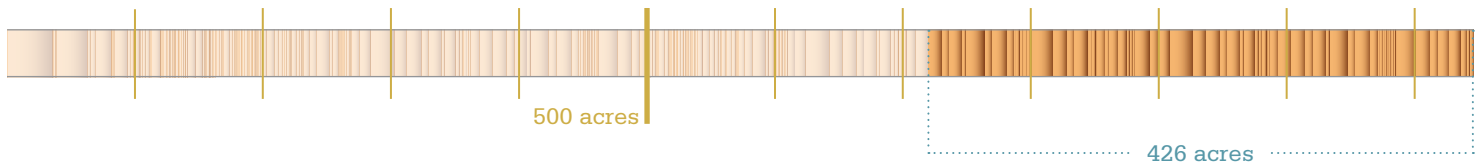
**Department of General Services**, Shunk Street and Delaware Avenue, 0.86 acre

**Department of General Services**, 11956 Stevens Road, 0.7 acre

**Department of General Services**, Aramingo Avenue and the Delaware Expressway, 0.44 acre

#### Underused land within federal ownership

7071 Milnor Street, 21.3 acres



## SCHOOLYARDS

### TRANSFORMATION

A strong partnership between the city and the School District of Philadelphia will allow green schoolyards to be created and maintained. The city's school district is governed by the School Reform Commission (SRC), a state-run commission consisting of three state appointees and two city appointees. Preliminary meetings with the school district have offered promising signs that a partnership can be established.

A successful citywide schoolyard greening project has not yet been established in Philadelphia. Individual schools have formed successful schoolyard greening partnerships with the school district; examples include McCloskey School with the Ogontz Avenue Revitalization Corporation and Greenfield School with the Greening Greenfield Committee (see spotlight). Maintaining the improved schoolyard can be a challenge. Research indicates that, in the past, the School District of Philadelphia has required that the partner organization assume general liability coverage in perpetuity for any green improvements made on the schoolyard.

Greening schoolyards citywide will enable the school district to offer students better recreation opportunities and bring down their stormwater management bills at the same time.

By greening sites, the School District of Philadelphia—the largest owner of impervious surface in the city after the City of Philadelphia—would invest capital dollars now to save on recurring water costs for decades to come. In addition, state legislation indemnifies property owners from liability if the land is designated for recreational use.<sup>59</sup>

### OTHER CITIES HAVE GREENED THEIR SCHOOLYARDS

Cities that have successfully revitalized schoolyards have done so through partnerships and initiatives backed by strong political leadership. Joint-use agreements—formal agreements between separate governmental entities that set forth the terms and conditions for shared use of public properties—have allowed for citywide schoolyard greening initiatives that would not otherwise have been possible.<sup>60</sup>

In 2008, People for Parks, a nonprofit in Los Angeles, published the Community School Parks Report, which calculated that two-thirds of children and youth under the age of 18 in Los Angeles did not live within walking distance of a park or playground.<sup>61</sup> The report called for the Department of Recreation and Parks and the Unified School District to establish a partnership focused on improving children's access to parks

and recreation. In response to the report, the L.A. City Council approved and the school district and the parks department developed 15 pilot sites to “transform schools in high-need areas.”<sup>62</sup> The L.A. City Council's support of the partnership created community, public, and agency buy-in.<sup>63</sup> Today, through this work, Los Angeles can increase opportunities for recreation in neighborhoods where there is little open available land, and the school district—because it is participating in joint projects with the city—has access to funding that was once unavailable. People for Parks was an essential component of the city-school district partnership. As a trusted local entity, People for Parks ensures that the needs and desires of communities and schools are incorporated into the overall design plan.<sup>64</sup> People for Parks, working with the city's parks department, developed a summer program to teach neighborhood youth how to maintain green spaces. In Los Angeles, public agencies and nonprofits are sharing their expertise. In the process, they're improving education and expanding green space.

In New York City, a combination of high-level administrative support and community support was key to schoolyard greening. New York City's mayor mandated that by 2030 every New Yorker should live within a

Transforming public schoolyards in underserved neighborhoods could add over 426 acres of green space.

10-minute walk of a park or playground. In order to realize this goal, the mayor committed \$110 million to build parks and playgrounds. The city and the nonprofit Trust for Public Land (TPL) developed new ways to form partnerships with 185 schools to transform asphalt lots into community play areas, yielding 200 acres of new play space when complete. TPL facilitated key partnerships between city agencies, the school district, and the community. TPL's work reflects the understanding that every schoolyard-improvement project requires the participation of the students and the community in a site-planning exercise to foster investment, ownership, and stewardship.<sup>65</sup>

Boston's successful schoolyard initiatives were spurred by a mayor who recognized an opportunity for improved schoolyards to transform schools and communities. A cabinet-level task force established a blueprint for schoolyard revitalization, outlining a process that would enable schoolyards to function as both community centers and outdoor classrooms. The blueprint requires the school and community to begin by developing a collaborative working group, which has led more than 60 Boston schools to develop partnerships with local health centers, senior centers, community colleges, churches, supermarkets, hospitals,

and community development corporations. Regarding site maintenance, the city supplies "baseline" maintenance for schoolyards, such as trash and graffiti removal, while the school district and the community provide ongoing care, such as planting and maintaining gardens and flower areas. In Boston, the schools have made a concerted effort to involve students in maintenance through curriculum and community service. Some Boston schools have also established their own maintenance funds.

One interesting aspect of the Boston Schoolyard Initiative was its approach to funding. In addition to the \$16 million contributed by the mayor, the city established a separate entity, the Boston Schoolyard Funders Collaborative (BSFC), to oversee private-sector involvement in the schoolyard initiative. Since the mid-1990s, BSFC has served as the managing entity for the schoolyard initiative, administering grants, coordinating funding, and working with city partners. Boston public schools have received over \$4 million through the BSFC.<sup>66</sup> The BSFC can typically fund \$1 for every \$2 that the city spends on schoolyard initiatives.<sup>67</sup>

## SPOTLIGHT

### Greening Greenfield Committee

Philadelphia, Pennsylvania



The Albert M. Greenfield School, a Philadelphia public school located at 23rd and Sansom Streets, recently completed the construction of its environmentally friendly schoolyard. The collaboration between the Albert M. Greenfield Home and School Association (HSA), the school district, and the city was essential to accomplish the project. The HSA is organized by involved parents with experience in raising capital funds. It arranged for the local Community Design Collaborative to organize four design workshops with community members, parents, and students, which helped build support for the project. The district provided staff assistance. As a nonprofit managing the project, the HSA was released from many obligations, including district procurement and construction-liability requirements. The Philadelphia Water Department worked with the HSA to create a design that captures 75 percent of the stormwater on site. Notable features of the Greenfield playground include a native-plant rain garden, a permeable playing surface, planters with built-in seating, and shade trees. As a result of these collaborations, the Greening Greenfield Committee raised \$365,000 to design and install the first phase of construction on a multitasking park. In April 2010, the Pennsylvania Department of Environmental Protection announced an award for \$200,000 for the continuing development of this environmentally friendly schoolyard.<sup>68</sup>



## OPPORTUNITY SITES FOR SCHOOLYARDS<sup>69</sup>

Using our site-selection criteria for new park space, the following schoolyards are ideal candidates for several reasons: their geographic distribution in neighborhoods that are not well served by park space, their participation in the School Wellness Council program with the Philadelphia Department of Public Health, and their large impervious-surface coverage, which could be repurposed for stormwater drainage.

**Barton School**, Rosehill Street and Wyoming Avenue, 3 acres

**Beeber School**, 59th Street and Malvern Avenue, 1.5 acres

**Business and Technology High School**, 13th Street and Green Street, 0.75 acre

**Central School**, Ogontz Avenue and Olney Avenue, 15.8 acres

**Cramp School**, Howard Street and Tioga Street, 1.5 acres<sup>70</sup>

**Edmonds School**, Sedgwick Street and Thouron Avenue, 4.6 acres

**Ellwood School**, 13th Street and Oak Lane Avenue, 1.6 acres

**Girard School**, 18th Street and Passyunk Avenue, 1.2 acres

**Hamilton School**, 57th Street and Spruce Street, 1.4 acres

**Jones Annex**, Memphis Street and Ann Street, 0.16 acre

**Leeds School**, Sedgwick Street and Mount Pleasant Avenue, 4.6 acres

**McDaniel School**, 23rd Street and McKean, 0.6 acre

**Moore School**, Tyson Avenue and Summerdale Avenue, 3.66 acres

**Olney High School**, Front Street and Duncannon Avenue, 3.5 acres

**Pennypacker School**, Washington Lane and Thouron Avenue, 0.29 acre

**Rhawnhurst School**, Castor Avenue and Hartel Avenue, 6.6 acres

**Rowen School**, 19th Street and Haines Street, 2 acres

**Sayre School**, 58th Street and Walnut Street, 4 acres

**Shawmont School**, Eva Street and Shawmont Avenue, 5.9 acres

**Sheppard School**, Howard Street and Somerset Street, 0.3 acre

**South Philadelphia High School**, Broad Street and Snyder Avenue, 2.5 acres

**Southwark School**, Ninth Street and Mifflin Street, 1.2 acres

**University City High School/Drew Elementary**, 38th Street and Warren Street, 10.3 acres

**Grover Washington School**, B Street and Olney Avenue, 3 acres

**Willard School**, Emerald and Orleans Streets, 0.66 acre

**Ziegler School**, Saul Street and Comly Street, 1.2 acres

The following schools are also in neighborhoods not well-served by park space and could be improved to better serve students and the neighborhood:

**AMY Northwest**, Ardleigh and Upsal Streets, 33.48 acres

**Anna Shaw**, 54th Street and Warrington Avenue, 1.68 acres

**Beeber-Wynnefield**, 59th Street and Malvern Avenue, 0.57 acre

**Edward Bok**, Ninth and Mifflin Streets, 0.37 acre

**Ellwood Annex**, 70th Avenue and Old York Road, 0.38 acre

**George Pepper**, 84th Street and Lindbergh Boulevard, 24.84 acres

**George Washington**, Bustleton Avenue and Gorman Street, 24.52 acres

**J. Hampton Moore**, Longshore Avenue and Summerdale Avenue, 3.66 acres

**Lankenau**, 201 Spring Lane, 27.89 acres

**Morrison**, Third Street and Duncannon Avenue, 0.32 acre

**Northeast High**, Cottman Avenue and Algon Avenue, 28.9 acres

**Randolph Skills Center**, Henry Avenue and Roberts Avenue, 5.92 acres

**Roberto Clemente**, Front Street and Erie Avenue, 2.86 acres

**Sheridan School**, Ontario Street and G Street, 0.23 acre

**Swenson Arts and Technology Center**, Roosevelt Boulevard and Red Lion Road, 8.21 acres

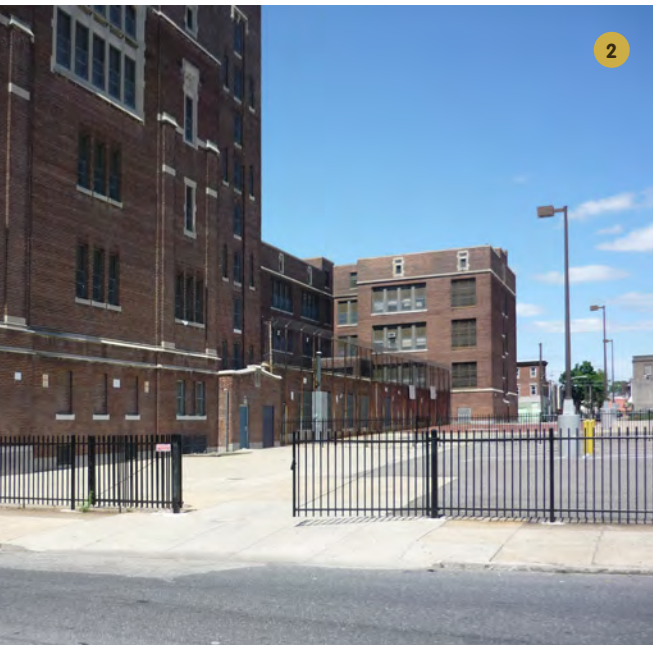
**Thomas Edison**, Second and Luzerne Streets, 21.39 acres

**Thomas Shallcross**, Byberry Road and Woodhaven Road, 72.54 acres

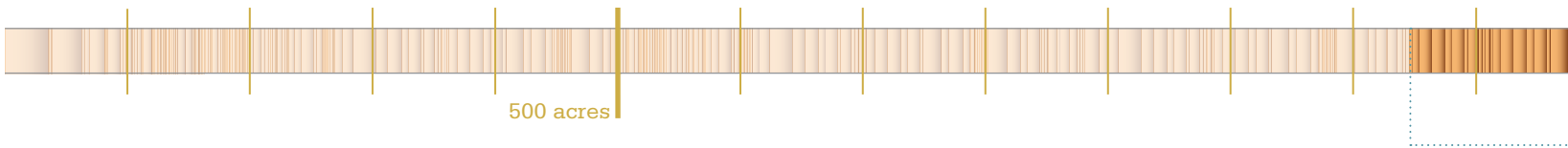
**Walter Saul**, Henry Avenue and Cinnaminson Street, 20.18 acres



Potential schoolyards for future greening projects include **1** William Harrity School in West Philadelphia, **2** Kensington High School for Business, **3** Mitchell Weir Elementary School in Southwest Philadelphia, **4** Charles Drew Elementary School in University City, and **5** George Nebinger School in Queen Village.







# PRIVATE UNDERUSED LAND

## TRANSFORMATION

Because there are so many small, privately owned vacancies in the city, dense residential neighborhoods without fair and equal access to parks—such as Newbold and Point Breeze—struggle to identify opportunities for new green spaces in their communities. Everyone agrees that Philadelphia’s current process for vacant-land acquisition and enforcement is not working, but with the new strategy being drafted by the Office of the Managing Director and Finance Director, **Green2015 can be a part of a solution.** Philadelphia Revenue Department data from summer 2010 shows that one in every five properties in Philadelphia is in some form of tax delinquency, with the most indebted property owing \$4.4 million in back taxes. Some property owners have not paid their property taxes in decades.<sup>71</sup> As a result of lax enforcement, many tax-delinquent landowners keep their parcels blighted, awaiting a development opportunity. A recent amnesty program that cut penalties and interest to encourage delinquent property owners to pay their debt generated about \$60 million of the \$583 million owed to the city and school district.<sup>72</sup> Since claiming eminent domain is generally not a viable option, the primary way for the city to gain control of private vacant land is via the Philadelphia Sheriff’s Office, which

forecloses on egregiously delinquent properties and then sells them to interested buyers. However, the city government is often hard-pressed to participate in these auctions, for two reasons: it costs the Philadelphia Law Department hundreds of dollars just to put one property through the foreclosure process, and Philadelphia is one of the few cities in the country where the city government has to be able to pay off all of the delinquency fees and penalties on the lien to gain property ownership. But progress is underway. The recent passage of Act 135 at the state level, which allows a municipality or nonprofit to assume ownership of a building when the owner refuses to act, will be helpful at the neighborhood level, and the citywide vacant-land management strategy will provide policies on a citywide scale.

**Numerous recently approved or pending policies could enable the creation of park space on private property** without the lengthy vacant-land acquisition process by using foreclosure or eminent domain. These new policies are tied to development standards or enforcement guidelines that could have a significant positive impact on the city’s landscape.

For instance, the City of Philadelphia’s proposed zoning code, in its current draft form, contains numerous

stipulations regarding open space. The zoning code is targeted for a vote in City Council in spring 2011, but ultimately public officials and citizens will decide which requirements are included in the final version. The proposed code includes these features:

- A minimum of 10 percent of every multifamily, commercial, and industrial project larger than 10,000 square feet shall be “common open space”;
- Open space is one of the “a la carte” options for density bonuses, increasing the opportunity for developers to create green space in order to receive extra floor-area ratio for the development;
- A mandatory waterfront setback of at least 30 feet is proposed;
- Standards for steep-slope and flood protection would be applied to riversheds and creeksheds citywide;
- A requirement is proposed that for every tree removed during construction, two must be planted; and
- Enhanced landscape standards would go beyond shrub buffers surrounding surface parking lots.<sup>73</sup>

In addition to the proposed zoning regulations, other incentives to create green space on private property include the previously discussed parcel-based stormwater billing



1,257 acres

initiative underway by the Philadelphia Water Department. As of July 2010, landowners are charged fees based on the amount of impervious surface on their property and the size of their parcel. This shifts the primary financial responsibility for stormwater management from large water users to the sites that produce the most runoff in storm events. These rates apply to all landowners in the city, including the City of Philadelphia and the School District of Philadelphia. PWD does not receive any more revenue from these bills than it did under the previous rate structure; rather, landowners are being charged on a different basis, with some paying more and some less depending on the nature of their properties. With this shift, large commercial and industrial landowners with impervious surfaces such as parking lots are beginning to see increases in their water bills. By 2014, when the new rates are fully phased in, some landowners will see their rates increase by tenfold, with annual bills going into the six-figure range. Coincidentally, many such property owners are located within neighborhoods in which residents do not have green spaces within a half-mile walk of their homes.

PWD has already been contacted by numerous landowners who want to make changes to their properties to seek credits in order to reduce their

stormwater rate; these changes add additional greened acres to help PWD achieve their goal of 9,500 greened acres within the combined sewer drainage area. As the rates increase over the next three years, PWD has the opportunity to develop partnerships and programs to create green infrastructure on private properties, which could be accessible to the public. Even if the land remains in private ownership, state law indemnifies private property owners from liability if the land is designated as having a recreational use.<sup>74</sup> Recommended programs and actions include these:

- Develop standards for working with landowners to create public green spaces on their properties. In time, this stormwater management investment may pay for itself due to the credit-based savings in water bills every year. Another alternative is a “land swap” through which the developer transfers the impervious portion of the property at no cost to PWD and/or PPR, which then converts the parcel to public green space. This establishes a new park in a Philadelphia neighborhood with no acquisition costs.
- Create an “in lieu fee” program that allows developers whose sites would not make ideal “greened acres” to pay money into a fund that finances green infrastructure elsewhere in

Transforming private underused land in underserved neighborhoods could add over 1,257 acres of green space. In 2007, Jefferson University opened Sidney and Ethal Lubert Plaza, their new central campus green space. Jefferson replaced an above-ground parking structure with an underground garage and park, which features an integrated stormwater management system, public art, and seating.



the same watershed, therefore still reducing the pressure on the combined sewer system. Having a project registry coordinated by a single city agency facilitates the matching of these opportunities with projects that the City of Philadelphia has determined to be high priority for greening. This is similar to Portland, Oregon’s “One Percent for Green” program, through which a developer who does not meet the city’s green-street requirements must pay 1 percent of a project’s construction costs to a city fund used to cover design and/or construction costs of stormwater-management projects.

Other longer-term strategies to create new city parks using privately owned vacant land include coordination with the Philadelphia Revenue Department and the Department of Licenses and Inspections (L&I). Each agency has

## SPOTLIGHT

### Rail Corridors

Philadelphia, Pennsylvania



Rail corridors are a significant opportunity for Philadelphia's long-term green network, as they offer continuous off-road connections across the city. There are 77 miles of vacated track in Philadelphia, with other stretches used intermittently.<sup>75</sup> The Lehigh Avenue Viaduct is an example of an underused rail corridor that could serve to connect the Delaware River with neighborhoods in North Philadelphia without fair and equal access to green space. Inactive except for one train that serves one rail customer, the Lehigh Viaduct has 500 feet of non-rail right-of-way at its widest point. The legal acquisition and abandonment process for railroads is very complicated; if the corridor is not yet legally abandoned, then the corridors can be acquired for public use, but additional research must be conducted into titles and easement agreements, some of which were verbal and are not available in written form. For a more detailed description on how to convert rail right-of-way to green trails in Philadelphia, see page 131.

In addition to Lehigh, other corridors deserve mention for the short-term opportunities they provide. They are listed according to the names in use when they were active freight lines.<sup>76</sup>

- 60th Street Branch along the Lower Schuylkill in Southwest Philadelphia, owned by Conrail and soon to be reactivated because of Philadelphia International Airport's expansion plan
- Fort Washington Branch in the Cresheim Valley in Northwest Philadelphia, owned by SEPTA and adjacent to PECO right-of-way. Plans are already underway to use this right-of-way for a trail extension from the Wissahickon.
- Bethlehem Branch through the Logan section of the city, ending at Fern Rock Transportation Center, mostly owned by SEPTA, with a permanent easement back to Conrail over the property.
- Olney Branch through North Philadelphia, ending at Tacony Creek Park, owned by Conrail, abandonment status unknown
- Trenton Avenue Branch in Northeast Philadelphia, owned by Conrail, abandonment status unknown
- Oxford Branch in Lower Northeast Philadelphia, owned by Conrail, abandonment status unknown
- Frankford Branch that runs parallel to the Frankford Creek in Northeast Philadelphia, owned by Conrail, abandonment status unknown
- Land-assembly opportunity: 294 underused parcels adjacent to the Amtrak Northeast Corridor in Philadelphia, at least 72 of which are publicly owned
- Land-assembly opportunity: 64 underused parcels adjacent to the 25th Street viaduct in South Philadelphia, including an RDA parcel with a community garden and a 3.8-acre vacant parcel owned by a church

enforcement strategies that bode well for coordinating actions in the future. Also, the city's Law Department, working with the Sheriff's Office, has agreed to increase the number of tax-delinquent sheriff's sales to 600 per month, which should provide greater opportunities to make abandoned properties more productive. With the site-selection criteria presented in this document (page 52), PPR could work with Revenue and L&I to determine which tax-delinquent, unsafe properties would make ideal city parks. From there, the agencies could coordinate a landowner citation process and elevate these parcels as high priority for future sheriff's sale. PPR could then acquire the parcels at a nominal cost and convert the parcels to public green space.

These and other discussions are currently underway, as the mayor has directed the finance director and the managing director to coordinate a vacant-property strategy that will be comprehensive and accurate. The working group includes PPR and various other agencies mentioned in this document. The group expects to have draft policies for review soon.

Conservation easements—legally enforceable land-preservation agreements with private landowners that protect lands as open space—should continue to be pursued by PPR as a way to protect private land from development. Benefits from conservation easements for the parcel owner include reduced income and real-estate taxes, as well as limited liability. For the purposes of conservation and public access, land protection is still an important mission for the city. Lands listed as unprotected in the 2008 Western Pennsylvania Conservancy's Natural Heritage Inventory would be ideal sites for conservation easements, if public access was not possible. PPR already has conservation easements on private parcels abutting the

Wissahickon and Poquessing Creeks, and the Natural Lands Trust helped to protect the land around the Schuylkill Center for Environmental Education, 332 acres in total, earlier this year via a conservation easement.

## OPPORTUNITY SITES<sup>77</sup>

Green2015 has identified sites under private ownership for which discussions are already underway about the sites' value as green space. These sites range from formerly industrial riverfront parcels, which are needed for wetlands to compensate for large-scale development elsewhere along the river, to a series of smaller parks that have already been constructed but that are not yet fully accessible to the public.

### Sites identified in discussions with the Philadelphia Industrial Development Corporation

**Former National Heat and Power site**, Schuylkill River and 49th Street, 17 acres

**3801 South 58th Street**, Schuylkill River and 58th Street, 28 acres

**Navy Yard**, South Broad Street and League Island Boulevard, 21.5 acres (various parcels)

**Former Philly Coke site**, Delaware River and Orthodox Street, 70 acres. PIDC controls the riverfront side of this site, which represents 11 acres of potential future green space.

**Byberry meadow parcel**, Carter Road and Southampton Road, 30 acres

### Privately owned sites in Philadelphia identified by the Philadelphia International Airport as wetland opportunities as a part of its \$5.2 billion expansion plan

**Former National Heat and Power site** (see above)

**3801 South 58th Street** (see above)

**Former Philly Coke site** (see above)

**Port Richmond Rail Yards**, Delaware River from Cumberland Street to Indiana Avenue, 200 acres

**Former Dodge Steel site**, Delaware River and Unruh Street, 24 acres

**Former Pinnacle Casino site**, Delaware River from Beach Street to Schirra Drive, 50 acres

**Parcel between Robbins and Deveraux Streets**, 13 acres

**Parcel south of Tacony Boat Launch**, 11 acres

**Parcel at Princeton and New State Road** behind Tacony Boat Launch, 10 acres

**Parcel north of Bridge Street**, Delaware River and Bridge Street, 17 acres

**Pennsylvania Fish and Boat Commission boat launch property**, Delaware River and Walbach Street, 12 acres

**Property between South 58th Street and South 61st Street along the Schuylkill River**, 17 acres

**Parcel between 84th Street and Bartram Avenue**, over 100 acres

Please note that many of the sites identified here appear in other parts of the document, where they are listed as being ideal for new public green space.

### Institutional sites identified as green-space opportunities

Temple University:

- **Temple University Quadrangle**, Berks Street and Liacorous Walk, 1 acre
- **Tuttleman Field**, 12th Street and Montgomery Avenue, .4 acre

University of Pennsylvania:

- **Shoemaker Green**, University of Pennsylvania: 33rd Street and Smith Walk, 3.75 acres

- **Friends Hospital**, Roosevelt Boulevard and Langdon Street, 47 acres. Adding these 47 acres presents a unique opportunity to extend the corridor of protected land along Tacony Creek. These lands could be added via easement if the hospital wanted to maintain ownership.

Other opportunity sites within private ownership either have already been greened or provide value to existing communities. Such sites include "Clean and Green" sites, community gardens and urban farms, cemeteries, unofficial parks, places of worship, and private and parochial schoolyards. Example sites are listed below.

"Clean and Green" sites, a part of the Pennsylvania Horticultural Society Vacant Land Stabilization Program, are generally small (the average lot size is 1600 square feet, about 1/30 of an acre) and privately owned. Assemblages of contiguous parcels in underserved neighborhoods could be worth examining further as transformation opportunities. Examples include the following:

**3300 C Street**, 2.7 acres

**3301 North Lawrence Street**, 2.4 acres

**1100 West York Street**, 1.6 acres (currently functioning as Village of Arts and Humanities art park)

**3230 C Street**, 1.5 acres

**Parcels between 37th and 38th Streets, Folsom Street to Mantua Avenue**, 1.3 acres

**Parcels between Ninth Street and Delhi Street, Susquehanna Avenue to Dauphin Street**, 1.3 acres



Community gardens and urban farms are very important to Philadelphia's network of informal green spaces. Since many community gardens are relatively small in size (in 2009, 85 percent of the community gardens in Philadelphia were on lots of less than a quarter acre), PPR could focus on making support services such as soil-safety information available for gardeners, in partnership with the Department of Public Health. They could also protect the large and productive farms whose operators are open to partnerships that would encourage public access.<sup>78</sup> These are the largest urban farms in Philadelphia:

**Airport Garden**, 8301 Bartram Avenue, 10 acres

**Benjamin Rush State Park**, 2700 Burling Avenue, 9 acres

**Manatawna Farm**, 359 Spring Lane, 5.3 acres

**Glenwood Green Acres**, 1801 West Glenwood Avenue, 2.8 acres

**Spring Gardens**, 1800 Wallace Street, 1.8 acres

**Railroad Garden**, 2000 Martin Luther King Drive, 1 acre

**Wissinoming Park and North Cedar Hill Cemetery**, 5766 Frankford Avenue, 1 acre

The Water Department is assisting local cemeteries to attain Audubon Certification, which requires a public-access and education component. The cemeteries applying for certification include these:

**Northwood Cemetery**, 15th Street and Haines Street, 75 acres

**Greenmount Cemetery**, Front Street and Courtland Street, 73.6 acres

**Laurel Hill Cemetery**, Ridge Avenue and Hunting Park Avenue, 68.8 acres

**Ivy Hill Cemetery**, Lowber Avenue and Easton Street, 61.3 acres

**Woodlands Cemetery**, 40th Street and Woodland Avenue, 51 acres

**Cheltenham Hills Cemetery**, Lowber Avenue and Washington Lane, 29.4 acres

**Har Nebo Cemetery**, Oxford Avenue and Summerdale Avenue, 24 acres

**William Penn Cemetery**, Trevoise Road and Bustleton Avenue, 18.7 acres

**Magnolia Cemetery**, Levick Street and Jackson Street, 17.3 acres

**Fairhill Cemetery**, Germantown Avenue and Cambria Street, 4.7 acres

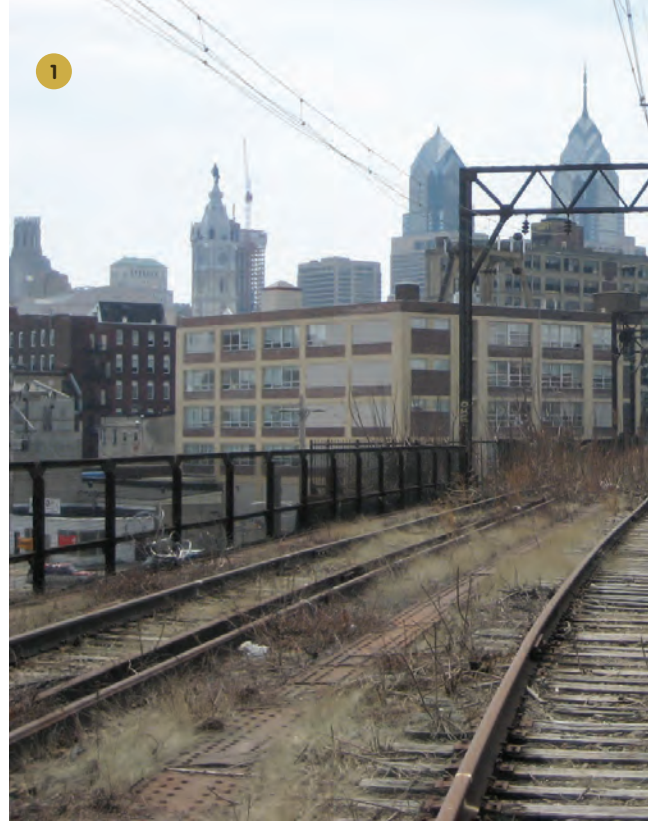
**Mount Carmel Cemetery**, Frankford Avenue and Cheltenham Avenue, 4.6 acres

Other large cemeteries in Philadelphia include Mount Moriah Cemetery (61st Street and Kingsessing Avenue, 79 acres) and North Cedar Hill Cemetery (Frankford Avenue and Cheltenham Avenue, 57 acres). These are outside the half-mile walk zone to parks.

Other privately owned parcels of note that could become parts of the park system include the following:

**Reading Viaduct**, 11th and Callowhill Streets, 2 acres. This mile-long stretch of old Reading Railroad track officially ceased operations in 1984. In 2003, the Reading Viaduct Project formed to promote their concept of turning the viaduct into a linear park. Today, the viaduct is populated with trees and grasses and continues under the ownership of the Reading International Inc., descendant of the Reading Railroad. The Philadelphia City Planning Commission notes the viaduct as a proposed future open space in the comprehensive plan.

**Medical Mission Sisters**, 8400 Pine Road, 69 acres. This private parcel in Northeast Philadelphia directly abuts Pennypack Park and has dozens of forested acres that are too steep for







development and would make logical additions to the large waterfront park. It is also being discussed as a possible site for senior housing.

**Origlio Beverage**, 3000 Meetinghouse Road, 24 acres. PPR has discussed with Origlio the possibility of converting some of this parcel into an extension of Poquessing Creek Park.

**Ivy Ridge Trail**, Umbria Street and Parker Avenue, 5 acres. Ivy Ridge Trail is a proposed rail-to-trail conversion beginning at the head of the Manayunk Bridge in Philadelphia and extending seven-tenths of a mile to the active regional-rail station at Ivy Ridge. This unused SEPTA right-of-way is envisioned as a crucial link between two active trails: the Cynwyd Heritage Trail in Lower Merion and the Schuylkill River Trail that begins again in Montgomery County and is paved to Valley Forge.

**4601 Market Street**. There are currently plans to convert the old Provident Mutual site into the new police headquarters. As the parcel offers ample green space surrounding the building and is a site along the Mill Creek path, the city has a great opportunity to open this green for public use.

**Logan Triangle**, Roosevelt Boulevard and Ninth Street, 47 acres. While various city agencies have ownership holdings in the Logan Triangle, multiple private owners still need to be compensated in order for the city to assume full control of this site. Though the site's environmental-remediation costs make it infeasible for most forms of development, a combination of green space, public art, and "green" development could all make sense as future uses of this large site.

Many community organizations and nonprofits have constructed unofficial parks in their neighborhoods.

These sites serve the function of a park but are often located on private land categorized as vacant and not protected as open space. Such unofficial parks include the series of open spaces created by the Village of Arts and Humanities along Germantown Avenue in North Philadelphia, sites such as Emerald Street Park in East Kensington and Ogden Park in Francisville, and art gardens such as one created by the Semilla Arts Initiative at Fourth and Somerset Streets. PPR could review appeals for assistance on a case-by-case basis in accordance with the site-selection criteria outlined in this document (page 52).

In addition to these spaces, a variety of sites owned and operated by private and nonprofit institutions with community-related missions offer opportunities for new city parks. These include churches and other places of worship, community centers, private schools, and parochial schools. There are 1,143 acres devoted to places of worship in Philadelphia and 540 acres of private and parochial schools.<sup>79</sup> If a park space exists on such a site, it could be opened to the public as a part of the city's park system. If a park does not yet exist on the sites, they become potential early-action sites because they already serve as community centers.

There are many different types of private spaces that should be considered for future greening projects, including **1** the old Reading Viaduct, which could become a signature open-space destination in Philadelphia, **2** a formerly industrial site along the Schuylkill River at 58th Street, which could be an extension of the Schuylkill River Trail and Bartram's Garden, **3** The Woodlands, one of many cemeteries around the city already being used as park spaces for joggers and ball players, and **4** Logan Triangle, a 47-acre site with mixed ownership along Roosevelt Boulevard that could create a significant amount of new green space in an underserved neighborhood.



## IMPLEMENTATION COSTS

To add 500 acres of new city park space in Philadelphia by 2015, we need to foster partnerships that will advance public and private projects throughout the city. Greening initiatives are underway across Philadelphia, designed and implemented by a variety of government agencies, nonprofit groups, and private institutions. With this growing momentum for green, **aligning existing city initiatives and forming strategic partnerships will enable the city to reach the Green2015 goal.**

### CREATING NEW GREEN SPACE

**By focusing efforts on land already in public ownership, such as recreation centers, schoolyards, and public vacant land, the costs of creating new green public space are minimized, as acquisition costs are low.** While opportunities will arise to create public green space on private land, these more costly acquisitions should be a part of a comprehensive, citywide strategy to build our green infrastructure.

For recreation centers, allocations from the city's capital budget can be made to help pay for construction costs because the work involves physical improvements to existing public facilities. These amounts would be additions to future budgets and would not take money away from other initiatives.

As noted elsewhere, to the extent that new green space manages stormwater, the Philadelphia Water Department may have funds that can help with design, construction, and maintenance costs through Green City, Clean Waters. This initiative will play an important role in the implementation of Green2015 on a number of fronts:

- Most new green-space projects will also need to incorporate design elements that address stormwater overflow and flooding, so PWD and PPR will have the opportunity to work together through PWD's \$1.6 billion capital initiative. The document *Green City, Clean Waters* estimates that it takes an average of \$250,000 to convert an acre of impervious surface to a "greened acre."<sup>80</sup>
- PWD's stormwater-management requirements for any new development on a site larger than 15,000 square feet—along with the parcel-based stormwater charge to account for impervious surface—will likely aid in the creation of new park spaces. For example, the School District of Philadelphia, the largest owner of impervious surface in the city after the City of Philadelphia, could invest capital dollars now in park space to save on recurring water costs for decades to come.

The \$5.2 billion expansion planned for the Philadelphia International Airport will trigger the construction of compensatory wetlands required by the Army Corps of Engineers. The recently approved environmental impact statement calls for 82 acres of wetland mitigation on the Delaware and Schuylkill Rivers. Given that riverfront land is largely private, meeting that requirement means that many wetlands will need to be newly constructed instead of using existing public land.<sup>81</sup> The airport has identified hundreds of privately held acres as potential conversion sites, and most are located on the Delaware and Schuylkill Rivers in Philadelphia; that list is shown on page 93. The 49-acre Food Distribution Center and the 239-acre Southport expansion will also require hundreds of acres of new riverfront wetlands.

Additionally, through its Get Healthy Philly grant, the Philadelphia Department of Public Health has seed money for greening initiatives. It is currently working to identify schools that have both a Wellness Council and the greatest "need for green" according to Green2015 and is applying for a Pennsylvania Department of Health grant that could bring in up to \$330,000 for schoolyard greening.

With a similar mission as the city's Department of Public Health, the Philadelphia Urban Food and Fitness Alliance received \$1.2 million from the W.K. Kellogg Foundation to organize and facilitate projects over the next three years to improve local food systems. Projects are already underway with the school district and youth groups to improve access to healthy foods and safe recreation spaces in our neighborhoods.

SEPTA is in discussions with PPR and PHS about greening rail stations, planting street trees along



their perimeters, and creating friends groups to help maintain the sites.

A detailed list of possible state and federal grants available for new city parks can be found in Appendix C, under “Other Funding Sources,” pages 133 to 134.

**There are a host of private funding sources to call upon for green-space improvement projects.** For example, the Home Depot Foundation recently awarded \$1 million to Local Initiatives Support Corporation (LISC) and the Pennsylvania Horticultural Society for greening work in eastern North Philadelphia and to the Fairmount Park Conservancy to help fund improvements in Hunting Park.<sup>82</sup> The Philadelphia Eagles donates \$100,000 every year to the School District of Philadelphia for a capital project on a schoolyard, such as the installation of new playground equipment; recent examples include Richard Wright School in Strawberry Mansion and Potter-Thomas School in Fairhill. Philadelphia Electric Company (PECO) offers a Green Region Program to help cities plan, protect, and improve green space in the Philadelphia area.<sup>83</sup> The Sustainable Communities Initiative in West Philadelphia offers up to \$60,000 in grants each year for neighborhood-beautification projects. The American Cities Foundation has already funded work related to green-space planning and economic development in West Philadelphia.<sup>84</sup> Local apparel and footwear retailer VILLA sponsors teen centers and cleanup projects with PPR. Smaller funding opportunities also exist, such as the Pepsi Refresh Challenge, the Awesome Foundation, and KaBOOM! Playgrounds. These represent more targeted startup funding; when added to other sources, they, too, could yield new project opportunities.

PPR has started to combine a variety of funding sources for projects in the

system. For example, to aid in achieving the Greenworks Philadelphia tree-planting goal, PPR has secured \$2.5 million in the city capital budget and \$2.3 million from the state-administered PENNVEST program and has enlisted private partners, such as the University of Pennsylvania and Independence Blue Cross. These private partners contribute funds and in-kind services by engaging their employees in planting efforts on their properties. In addition, PPR worked with the Fairmount Park Conservancy to revitalize Hunting Park, which received funding from KaBOOM!, Ryan Howard Family Foundation, Citizens Bank, and the Robert Wood Johnson Foundation, in addition to the Home Depot Foundation.<sup>85</sup>

Private and nonprofit sectors play important roles in creating green space on private property as a way to enhance market value and employee quality of life. **Of the first 100 acres added to the city’s open-space system since 2008, 45.2 acres were accomplished without acquisition, construction, or maintenance costs to the City of Philadelphia.** If the current trend continues, **more than 200 acres would be financed through private sources.** Institutions such as the University of Pennsylvania and a quasigovernmental agency, the Philadelphia Industrial Development



Corporation, are demonstrating the economic and quality-of-life value of public green space through campus and private development. Indeed, Penn’s and PIDC’s combined 166 acres of potential green space, which Green2015 identifies in the “Private Underused Land” section of this chapter, would yield a significant contribution toward the 500-acre goal.

## MAINTAINING NEW GREEN SPACE

**Ongoing maintenance of open space is of critical importance.** Volunteer groups often spend most of their time with basic upkeep, such as removing trash and graffiti, leaving little time for larger improvements to their parks. Citizens we questioned told us that their use of existing parks is often negatively affected by the perceived lack of safety or of regular maintenance. PPR has made “clean, safe and ready to use” a priority and is committed to achieving these standards for existing as well as new park spaces. PPR is also studying ways to improve upon current practices, including new ways to generate maintenance revenue, ways to design parks that are easier to maintain, and ways to create more multifunctional spaces.

Many of the inefficiencies that make existing PPR sites difficult to maintain can be addressed in the design of new sites. **Poor design often**

Recent public space improvements in Philadelphia include **1** the installation of a KaBOOM! Playground in Walnut Hill and **2** the revitalization of the baseball fields at Hunting Park by a collection of funders, including the Fairmount Park Conservancy, Citizens Bank, and the Ryan Howard Family Foundation.



**results in inefficient maintenance practices.** Examples from across the country demonstrate how simple design changes that incorporate sustainable-management practices can make park spaces more viable and successful, as well as cheaper to maintain. Parks that are well maintained better serve their communities and inspire neighborhood investment.

Here are some design ideas to simplify maintenance<sup>86</sup>:

- Install irrigation cisterns linked to roof leaders;
- Replace concrete and asphalt with porous surfaces;
- Create rain gardens in lesser-used areas, planted with greensward, low-mow, or meadow;
- Strategically place shade trees adjacent to buildings and over thermal masses such as paved areas, parking lots, pools, and walls;
- Plant native trees or shrubs that produce food for wildlife;
- Make green waste into compost, which can improve the nutrient quality of the soil and help retain some of its moisture content;
- Plant sports fields with buffalo grass, which needs no mowing or watering, as used in the new Kensington Creative and Performing Arts High School;
- Remove invasive plants that are not native to Pennsylvania and could potentially harm the environment and people;
- Identify opportunities to combine complementary programming, such as using farm and fields to manage stormwater, installing cisterns over hard courts, etcetera;
- Install educational signage and do outreach on sustainable-design

practices to encourage people to treat green spaces with care; and

- Protect and restore buffers in our large waterfront parks wherever possible.

The Pennsylvania Department of Conservation and Natural Resources is one of the first state agencies to encourage and fund innovative solutions to park maintenance, with \$10 million in grants to cities that implement more natural options that minimize upkeep and are kinder to

This money will be used to fund maintenance functions over the 20-year implementation period and to establish mechanisms for ongoing maintenance after the program ends. This \$100 million is a baseline number that will increase; as Green City, Clean Waters leverages public as well as private dollars for green infrastructure, funding for maintenance will continue to rise. PWD is working with community groups to determine the best approach for maintaining neighborhood green infrastructure such as



the land and wildlife while still allowing municipalities to provide places for sports, play, and other recreational activities.<sup>87</sup> Andropogon Associates conducted a study that ran concurrently with the development of Green2015 to develop strategies for how to **adapt PPR facilities to make them more environmentally functional and less expensive to maintain.** PPR will be able to implement some of these practices on a citywide scale in the future.

PWD has planned for over \$100 million in operation and maintenance expenditures for green stormwater infrastructure as a part of the overall cost of Green City, Clean Waters.<sup>88</sup>

Parks that are well maintained better serve their communities and inspire neighborhood investment.



rain gardens, bioswales, street trees, planters, porous pavement, and green roofs. Another important step in expanding maintenance capacity is to use green stormwater infrastructure to stimulate the creation of green-collar jobs to maintain green projects. **The green economy could create full-time jobs and teach skill sets that strengthen our neighborhoods environmentally, economically, and socially.** This will entail working with city government job-creation programs and nonprofit organizations.

Another potential source of maintenance funds could be created from the new stormwater charges. Penn Future, a statewide environmental nonprofit, is working on a “green it forward” campaign to encourage those landowners who will save money with the new parcel-based stormwater charges to donate some of that savings toward creating or maintaining public green space throughout our city.

**It is important to identify sources of funding in addition to the municipal budget to pay for the ongoing maintenance of green space.** Park systems in other cities have been able

to generate as much as 35 percent of their operating budgets from outside sources of revenue.<sup>89</sup> For example, more than 40 partnerships operate in support of parks in New York City, spending \$87 million annually on upkeep.<sup>90</sup> Park maintenance must remain a part of a city’s operating budget, because it is critical that public spaces not become overly privatized; their mission, accountability, and fundamental rights are important issues to debate and defend. However, other revenue sources can complement public-sector funding. The Friends of Rittenhouse Square recently commissioned a revenue-generation study, and SEPTA sold the naming rights to Pattison Station on the Broad Street Line to AT&T for \$5 million; these actions have raised important questions about the role of the private sector in public space.

**1** Shoemaker Green, a 3.75-acre green space planned by the University of Pennsylvania, is an example of a park financed entirely by the private sector; it features sustainable-design practices that will make the site easier to maintain.

**2** Community members have been greening eastern North Philadelphia over the last year thanks to a partnership with PHS, LISC and Asociación Puertorriqueños en Marcha that received funding from the Home Depot Foundation.

## SPOTLIGHT Brooklyn Bridge Park

Brooklyn, New York

New York City’s Brooklyn Bridge Park, upon completion, will be a 65-acre park along 1.2 miles of Brooklyn’s waterfront. The park contains promenades, planted areas, lawns, playgrounds, ball courts and fields, a wave-attenuation system, berms, and a naturalized waterfront. All of these elements will require ongoing maintenance. In 2008, the Brooklyn Bridge Park Development Corporation estimated that annual maintenance fees would run a minimum of \$16,104,000 per year.<sup>97</sup> While the city funded the design and construction of the park, the city’s general fund cannot support park maintenance. Recognizing this, early in the design phase, the city and state reserved six sites (or approximately 9 percent of the project area) for development, including residential, hotel, and commercial structures. Rather than paying taxes to the general fund, the site owners will pay ground rent and payments in lieu of taxes (PILOTs) into a fund solely for ongoing maintenance of Brooklyn Bridge Park. While this mixed-use financing option offers one approach to park maintenance and revenue generation, it is not immune to criticism. Gradually, Brooklyn Bridge Park has opened to the public, and Brooklynites are beginning to better understand the various ways that public space and private space can coexist and mutually support each other. Slowly, the community is coming to see that without the financing structure that allows for ongoing maintenance, there would be no Brooklyn Bridge Park.





PPR generates revenue from concession and special uses of open space and facilities, and this revenue could support approximately 10 percent of its operating budget.<sup>91</sup> PPR, the Fairmount Park Conservancy, and the Parks and Recreation Commission are currently working on a study funded by the William Penn Foundation, the conservancy, and the commission that will provide strategies to streamline the process for creating new concessions and revenue-generation opportunities so that businesses can thrive in our park and add to the park experience while also generating revenue to sustain the park's beauty. This study will be completed in early 2011.

Potential ideas for revenue generation include the following:

- Establish a partnership with local professional-sports teams to either create a fund or pay for grounds crews to help maintain recreational facilities citywide, as PPR has already done with the Ed Snider Youth Hockey Foundation to upgrade its ice-skating facilities.
- Identify opportunities for increased concessions, dining, and local food operations in public green spaces. Stephen Starr has the catering and concession rights at Franklin Square and the Horticulture Center (estimated to yield \$200,000 in annual revenue for PPR from the Horticulture Center alone). This could help promote local economic-development goals by encouraging neighborhood food providers such as the taquerias in South Philadelphia to set up stands in parks. A portion of the proceeds could go toward park maintenance and operational needs.
- Use proceeds from sales of produce grown on PPR community-garden sites to fund park maintenance.
- Create an "Adopt a Park" program through which the partner agrees to maintain or upgrade a facility



in exchange for naming rights or advertisement signage for a limited time.

- Allow citizens to contribute RecycleBank rewards toward green infrastructure across the city. This helps create incentives for businesses to trumpet their green initiatives, thereby supporting the creation of green jobs connected to stormwater management and public space.
- Include an option on water bills to fund green spaces at schools, in a program similar to Portland's GreenBucks. The Philadelphia Water Department or PECO could include an option on citizens' water bills allowing customers to contribute \$1, \$3, or \$5 per billing period to help public schools maintain green stormwater-management facilities on school property.<sup>92</sup>
- Ease the permitting process to allow more and larger music festivals to occur within our parks, and charge a fixed amount for the necessary cleanup or allow a portion of the proceeds to go toward park maintenance.
- Collect demolition materials and sell for reuse, as the People for Urban Progress did with some of the roof fabric from the demolished RCA Dome in Indianapolis.<sup>93</sup> The money raised from this sale will finance

a project to design and construct shade structures from the remaining dome fabric for city parks. A similar project could occur in Philadelphia. In a similar project, sod from the site of a professional soccer game in Detroit was removed from the Silverdome and used to improve a public park in Southwest Detroit.<sup>94</sup>

- Establish a Special Fund License Plate through PennDOT so that citizens can choose to support PPR while buying their vehicle tags.<sup>95</sup> State legislation underway in Arizona would offer citizens the choice to pay \$9 as a part of their vehicle-registration process to fund state parks.<sup>96</sup>

Other potential revenue sources are listed in Appendix C under "Other Funding Sources," on pages 133 to 134.

**1** Mayor Nutter, Commissioner DiBerardinis and others pose with members of the Phillies and Major League Baseball for a partnership with MLB that will help transform Marian Anderson Recreation Center into an indoor training ground for Philadelphia's first Urban Youth Academy. The project will also include two state-of-the-art baseball fields that will be built at FDR Park. **2** Community volunteers cut weeds and an overgrown tree on a pocket park in the Graduate Hospital neighborhood. **3** Center City recently received a grant from the William Penn Foundation to assume ownership of Chestnut Park. Plans include a reworked lighting scheme, repair of the park's fountain, and increased security and programming at the site during the day.





## PARTNERS ON THE GROUND

While new revenue-generation mechanisms could go a long way to help fund new city park space, maintaining those parks requires the involvement of hundreds of volunteers who dedicate their time to local parks through friends groups. The roles played by these volunteers are vitally important. In 2007, volunteers worked 220,891 hours in Philadelphia's parks, generating over \$4.3 million in "sweat equity."<sup>98</sup> These groups substantially expand PPR's maintenance capacity and will be just as critical in keeping new parks safe and attractive. PHS has actively cultivated stewardship groups in recent years, and a strengthened connection between PHS and PPR could benefit the system.

To minimize disparities in park maintenance and care across Philadelphia, PPR and PHS could investigate funding for a joint program that coordinates volunteer efforts citywide and distributes resources according to need. A joint effort that teaches skills and provides support (rather than relying solely on formal agreements) would help ease pressure on PPR. Partnership for Parks, a collaboration between the City Parks Foundation and New York City Parks and Recreation, offers a model

for Philadelphia to explore. Funded equally by both organizations, Partnership for Parks is a parks-department program that helps teach volunteers how to become more established, obtain funding, and provide other important functions that the department can no longer accomplish on its own. Such coordinated effort in Philadelphia could take the following actions:

- Implement the PHS model for creating friends groups in areas where new public parks will be created.
- Use city funding to leverage outside funding in a way that PPR does not have the staff capacity to do.
- Increase the capacity of already successful friends groups so that **they can fundraise for their parks**. This creates a new sense of local control that is crucial to park success and safety. These groups could establish endowments that support maintenance, operations, or programs, thus augmenting the role of the system-wide Fairmount Park Conservancy.

- **Create job-training programs** similar to PHS's Community Land Care or Roots to Re-entry, in which residents are trained in maintaining green infrastructure such as rain gardens.<sup>99</sup> Programs could be created for youth through the Philadelphia Youth Network or Greater Philadelphia Urban Affairs Coalition, for the homeless population through Ready, Willing & Able, or on a neighborhood-specific basis through nonprofits such as the Village of Arts and Humanities. This effort would achieve the multiple benefits of providing jobs for at-risk populations, helping Philadelphia residents learn marketable skills, and creating a local resource pool for maintaining public green spaces.
- Coordinate cleanup efforts through larger organizations, such as the school district, the United Way Day of Action, and YouthWorks.
- Permit friends groups to "adopt" a connecting corridor or schoolyard.
- Learn how to coordinate robust volunteer programs through initiatives such as Americorps and City Year.



# WHAT WE CAN DO TODAY



Chapter 7





Green  
2015

# MAKING IT HAPPEN

PPR must act collaboratively and efficiently to achieve the Green2015 goal to create 500 acres of new city parks by 2015. This goal can only be reached by bringing together government, neighborhood residents, the nonprofit sector, and the private sector. The following chapter outlines some immediately achievable action steps that can be taken by the Philadelphia Parks and Recreation, as well as by local citizens interested in greening their communities.

## IMMEDIATELY ACHIEVABLE STEPS FOR PHILADELPHIA PARKS AND RECREATION

### System-Wide

- Establish an official partnership with the Philadelphia Water Department focusing on the sustainable design, construction, operation, and maintenance of PPR's site inventory in order to meet the goals of Green City, Clean Waters. Public open space, including streets adjacent to parks, currently makes up approximately 10 percent of the city's impervious cover.
- Work with the Mayor's Office of Sustainability to create a database with which to track the progress of parks projects and identify priority sites for green space.
- Meet with the upper management of all public agencies that own land

to discuss the nominal transfer of publicly owned vacant land for new city parks.

### Recreation Centers

- As a demonstration project to test low-maintenance design ideas, transform one or two standard neighborhood recreation centers according to the recommendations made by Andropogon Associates on how to adapt existing facilities using sustainable-design practices.

### Public Underused Land

- Continue to work with the Managing Director's and Finance Director's Offices to devise a streamlined process for identifying and converting publicly owned vacant land to public green space. Such strategies could include coordinating enforcement efforts through the city's Revenue Department and Department of

Licenses and Inspections, inviting local developers to a roundtable discussion with the city about potential opportunities on city-owned land, and integrating parks into planning for future development.

- Meet with the upper management of all public agencies that own land to discuss the free or low-cost transfer of publicly owned vacant land for the purpose of creating new city parks.

### Schoolyards

- Align the policy initiatives of PPR, the School District of Philadelphia, the Philadelphia Water Department, and the Philadelphia Department of Public Health. This will enable these groups to prepare a joint work plan for the construction, operations, and maintenance of schoolyard-greening projects citywide that achieve the goals of Green2015, Green City, Clean Waters, and Get Healthy Philly.
- Work with the school district to draft a series of demonstration sites that address the issues of fair and equal access, healthy living, and stormwater management.
- Create or engage a new nonprofit organization to help implement the schoolyard-greening process by administering grants, coordinating outside funding, and working with

city and school-district partners on ongoing maintenance.

- At schools identified for future greening, organize school programs so that science teachers and students are involved in the planting and raising of the trees. If these programs are successful, classes could help grow trees in adjacent green spaces as well.

### Private Underused Land

- Work with the Philadelphia Industrial Development Corporation to open its park spaces in the Navy Yard to the public for longer hours, and identify other PIDC-owned properties in the city where park space can improve the quality of life in areas targeted for economic development.
- Work with Philadelphia International Airport to ensure that public access is granted on compensatory wetland sites in Philadelphia.
- Determine the amount and locations of wetlands needed for other large-scale infrastructure projects, such as the new Food Distribution Center and the Southport expansion.
- Coordinate with the Philadelphia Water Department and private landowners who have expressed interest in greening their parcels in order to reduce paved surfaces that raise their stormwater-management billing rates.
- Create a “rail corridor watch list” with the Mayor’s Office of Transportation, the Law Department, and the Delaware Valley Regional Planning Commission that identifies rail corridors that could be converted to walking and biking trails. Establish an agreement saying that, as grants become available or capital projects arise that involve improvements to some of these corridors, the potential for public

access on or adjacent to these corridors will be considered as a part of the work plan.

- Work with the Philadelphia Department of Public Health to establish a community-gardening and urban-agriculture Web portal that provides information on soil safety, basic gardening tutorials, and an inventory of available plots around the city.
- Work with the Neighborhood Gardens Association, the Natural Lands Trust, and the Trust for Public Land to identify possible areas for implementing Green2015 that would be most useful for PPR.

### Implementation Costs

- Work with PHS on the possibility of a coordinated stewardship-development program with PPR.
- Partner with citizens to identify opportunities where new green-space improvements can be coupled with funding to upgrade existing facilities nearby.
- Identify priority items from the Parks and Recreation Commission’s revenue-enhancement study that can be implemented in the short term.
- Work with the philanthropic community on raising funds for creating and maintaining new parks.

### CITIZENS: WHAT YOU CAN DO TODAY

- Create a partnership with PPR that outlines the specific needs of friends groups and an agreement in principle to help craft a volunteer development group with PPR and PHS.
- Encourage large landowners to dedicate a portion of their lands for new park space.
- Work with state and local elected officials to protect existing public

parks and to obtain funding for expansion and maintenance of existing spaces.

- Bring existing neighborhood plans to PPR to identify parcels in your neighborhood that would serve well as park space, based on the criteria on page 52, and to suggest that these parcels should be transformed by 2015. Align these plans with the district plans of the Philadelphia City Planning Commission as they get underway.
- Identify vacant land where a nonprofit conservator could gain control of the land and create a future park under the Pennsylvania Abandoned and Blighted Property Conservatorship Act, which became law in February 2009 and states that neighborhood groups can now petition the court to create green space on vacant land that has been abandoned and blighted property.
- Build on the work of the Community Design Collaborative School Greening Committee to do outreach to principals, parent-teacher groups, and neighbors on the citywide school-yard greening initiative.
- At your next civic-association meeting, propose launching an initiative to support maintenance and etiquette in public space. This could include coordinating cleanups and encouraging those who use the park to participate. Such a project could be coordinated with the Streets Department’s “Unlitter Us” campaign.



## PARKS ON THE NEAR HORIZON

What follows are preliminary lists of sites in different phases of feasibility. Some already have design plans underway that include green space, most have tentative agreements in place for conversion to green space, and others were identified in discussions with partners as ideal sites for new green space because of site criteria and ownership status. Whatever their current differences, these are all sites that would help PPR reach its 2015 target. Here are details on several sites.

**Nicetown Skate Park:** This 2.5 acre site, which fronts onto Germantown Avenue between the Wayne Junction train station and Nicetown CDC's Nicetown Court Development, is currently owned by the Redevelopment Authority. In 2006, with help from the RDA, the City Planning Commission created conceptual plans for a storm-water-management skate park. Since then, the project has established a series of partnerships in order to construct the park. PennDOT has included the skate park in its redesign of the overpass, Nicetown CDC is capable of maintaining the space, and Franklin's Paine has the capacity to engineer, build, and program the physical structure of the park.

**Byberry Meadow Parcel:** When this section of Northeast Philadelphia was developed into housing, the developer

Name	Intersection	Leaders	Acres
Center City Greenway	Between 15th and 20th on Market and JFK	City, CCD	0.25
Dilworth Plaza	15th and Market Streets	City, SEPTA, CCD	2
Festival Pier	North Delaware Avenue and Spring Garden Street	DRWC	7.5
Girard Avenue Interchange	East Girard Avenue and Richmond Street	PennDOT	12.5 <sup>100</sup>
Gustine Lake Interchange	City Avenue and Ridge Avenue	PPR, PennDOT	0.25
Lower Schuylkill: National Heat and Power	Schuylkill River and 49th Street	PIDC	5
Lower Schuylkill: 3801 South 58th Street	Schuylkill River and 58th Street	PIDC	3
Mill Creek Park	47th Street and Fairmount Avenue	PHA	1.7
Navy Yard	South Broad Street and League Island Boulevard	PIDC	21.5
Nicetown Skate Park	Germantown Avenue and Roberts Avenue	RDA	2.5
Panati Playground Addition	22nd Street and Clearfield Street	PPR	0.25
Philly Coke	Delaware River and Orthodox Street	PIDC	11
Washington Avenue Green expansion	Delaware River and Washington Avenue	DRWC	1.3
Schmid's Park	Germantown Avenue and Van Horn Street	Tower	1
Shoemaker Green	33rd Street and Smith Walk	Penn	3.75
Byberry Meadow Parcel	Carter Road and Southampton Road	PIDC	30
Temple University Quadrangle	Berks Street and Liacorous Walk	Temple	1
Tuttleman Field	12th Street and Montgomery Avenue	Temple	0.4

Total Acres : 105



**PARKS ON THE NEAR HORIZON**

■ Sites identified for greening (105 acres)

*Size of dots on map indicates their relative acreage*



1



2

signed an agreement with the commonwealth that a 30-acre parcel on Southampton Road adjacent to the Poquessing Creek would be preserved as open space. However, this protection was conditional upon a city agency serving as its conservator. If PPR agreed to become the conservator of this parcel, now under the auspices of the Philadelphia Industrial Development Corporation, this would add 30 acres of green space adjacent to the Poquessing Creek with no cost to acquire.

**Mill Creek Park:** PPR is currently in discussion with the Philadelphia Housing Authority, Councilwoman Jannie Blackwell's office, and the Philadelphia Water Department about converting a 1.7-acre site at 47th Street and Fairmount Avenue into a new city park. The site is currently owned by PHA and is shown as a green space in the master plan of the Lucien Blackwell Homes, recently constructed across the street. A community center would be constructed further north on 47th Street, and improvements to the existing Mill Creek Playground across the street would be made as well.

**Lower Schuylkill Connections:** A partnership between PPR and PIDC could add a full mile of riverfront access to the Schuylkill River Trail. While funding is underway to fill the gaps

in the trail from Center City south to the Grays Ferry Bridge, the path of the trail on the west side of the river and its connection to Bartram's Garden have yet to be finalized. On each side of Bartram's is a potential site: PIDC owns the former National Heat and Power site to the north, and PIDC has submitted a bid to purchase the 3801 South 58th Street site to the south. Knowing the value of high-quality green space to economic development, PIDC is talking to PPR to establish an agreement to construct a riverfront greenway on both sites, which would create at least eight new acres of park space and provide direct access to Bartram's Gardens and the Lower Schuylkill, which would not otherwise be possible.

**Recreation Centers:** PPR should focus its initial efforts on recreation centers that are greater than 90 percent impervious and that lie in areas without half-mile access to green space. The following centers meet these criteria.

**Frankford Valley Playground,** Church and Tacony Streets, 0.94 acre

**Guerin Recreation Center,** 1600 Jackson Street, 1.78 acres

**Harold Playground,** Huntingdon Street and Kensington Avenue, 0.7 acre

**Lower Mayfair Playground,** Robbins and Hawthorne Streets, 5.62 acres

**Play lot,** W. Venango and 11th Streets, 0.82 acre

**Sayre Morris Recreation Center,** 59th and Spruce Streets, 8.57 acres

**Tolentine Community Center,** 1025 Mifflin Street, 0.72 acre

There are additional recreation center and playground sites throughout the city that are overwhelmingly paved for which opportunity currently exists through state and local funding initiatives to leverage funding for greening projects. These should also be short-term focus sites for PPR. Sites include the following:

**Eighth and Diamond Playground,** Eighth and Diamond Streets, .59 acre

**Fishtown Recreation Center,** Montgomery Avenue and Moyer Streets, 1.34 acres

**Heritage Park Playground,** Clearfield and Sydenham Streets, 0.63 acre

**Marie Dendy Recreation Center,** 10th and Jefferson Streets, .75 acre

**Nelson Playground,** 301 W. Cumberland Street, 0.59 acre

**Northern Liberties Recreation Center,** Third and Fairmount Avenue, 0.45 acre

**Panati Playground,** 22nd and Clearfield, 1.03 acres





**Schmidt Playground**, Ontario and Howard Streets, 0.27 acre

**Towey Playground**, 1832 Howard Street, 1.25 acres

**Veterans Playground**, Ninth and Cumberland Streets, 0.58 acre

**Waterloo Playground**, Cumberland and Waterloo Streets, 0.93 acre

**Schoolyards:** Using our site-selection criteria for public green space, Green2015 found the following schoolyards to be ideal candidates for greening because of their geographic distribution, their participation in the Wellness Council program with the Department of Public Health, and their impervious-surface coverage, which could be repurposed for storm-water drainage.

**Barton School**, Rosehill Street and Wyoming Avenue, 3 acres

**Beeber School**, 59th Street and Malvern Avenue, 1.5 acres

**Business and Technology High School**, 13th Street and Green Street, 0.75 acre

**Central School**, Ogontz Avenue and Olney Avenue, 15.8 acres

**Cramp School**, Howard Street and Tioga Street, 1.5 acres<sup>101</sup>

**Edmonds School**, Sedgwick Street and Thouron Avenue, 4.6 acres

**Ellwood School**, 13th Street and Oak Lane Avenue, 1.6 acres

**Girard School**, 18th Street and Passyunk Avenue, 1.2 acres

**Hamilton School**, 57th Street and Spruce Street, 1.4 acres

**Jones Annex**, Memphis Street and Ann Street, 0.16 acre

**Leeds School**, Sedgwick Street and Mount Pleasant Avenue, 4.6 acres

**McDaniel School**, 23rd and McKean, 0.6 acre

**Moore School**, Tyson Avenue and Summerdale Avenue, 3.66 acres

**Olney High School**, Front Street and Duncannon Avenue, 3.5 acres

**Pennypacker School**, Washington Lane and Thouron Avenue, 0.29 acre

**Rhawnhurst School**, Castor Avenue and Hartel Avenue, 6.6 acres

**Rowen School**, 19th Street and Haines Street, 2 acres

**Sayre School**, 58th Street and Walnut Street, 4 acres

**Shawmont School**, Eva Street and Shawmont Avenue, 5.9 acres

**Sheppard School**, Howard Street and Somerset Street, 0.3 acre

**South Philadelphia High School**, Broad Street and Snyder Avenue, 2.5 acres

Some of the sites identified during the Green2015 process as sites that will likely be converted to green space by 2015 include **1** this 1.7-acre site at 47th and Aspen Streets, which would be converted by PPR and PHA as part of the Lucien Blackwell Homes development in Mill Creek; **2** the Nicetown Skate Park site, part of which runs under an elevated portion of Roosevelt Boulevard; and **3** the parade grounds at the Philadelphia Navy Yard, one of four park sites either already completed or underway at the Navy Yard that is not yet fully open to the public.

**Southwark School**, Ninth Street and Mifflin Street, 1.2 acres

**University City High School/Drew Elementary**, 38th Street and Warren Street, 10.3 acres

**Grover Washington School**, B Street and Olney Avenue, 3 acres

**Willard School**, Emerald and Orleans Streets, 0.66 acre

**Ziegler School**, Saul Street and Comly Street, 1.2 acres

Greening all sites on the three lists above would yield 215 new acres of public green space for the city. Add these to the 100 acres already in the green pipeline since 2008 and the city would have achieved over 60 percent of the Greenworks Philadelphia goal of 500 acres through cooperation between city agencies, the school district, and other public and private landowners.

These sites are the initial recommended sites that meet the criteria of fair and equal access, environmental performance, and public health. There are many more sites within public ownership that meet site-selection criteria, and even more within private ownership. PPR should explore all of these opportunities over the next four years, with the above lists serving as a guide for the first round of opportunity.

# BEYOND 2015



Chapter 8



Green  
2015



# CONNECTING TO PHILADELPHIA2035

Philadelphia's need for green transcends the purview of PPR or any single city agency. Park projects initiated today should help the city achieve broader long-term objectives, such as contributing to citizen health, making our neighborhoods more livable, and helping relieve the overburdened combined sewer system. In order to make informed choices about green space today, new city park projects should fit into the long-term open-space strategies proposed in *PHILADELPHIA2035: The Comprehensive Plan*. When released in 2011, this will be the guiding planning-policy document in Philadelphia for the next 24 years.

To supplement the targets outlined in the city's forthcoming comprehensive plan, Green2015 puts forth a vision for Philadelphia's future green-space network that will connect current actions with a long-term green vision that benefits all Philadelphians. Some long-term goals shown in this map include a new, connected green network along many of our underused rail and utility corridors; the map also reveals the land acquisitions needed to complete public access along our waterfront corridors. When viewed together with the map of current conditions in 2010 and an illustrative map of 500 new acres of park space in 2015, the map demonstrates how targeted investments in parks can significantly address issues of access and environmental performance while building toward a long-range vision of a greener city.



**Today:** The existing inventory of green spaces across Philadelphia paints the picture of a system that is inequitably distributed.



**2015:** Recommendations from Green2015 are used to create 500 new acres of open space in underserved neighborhoods and construct some important trail extensions.



**2035:** Crucial cross-city linkages are developed using river frontage, rail rights-of-way, and wide roadways to create a trail network that links all neighborhoods to our waterfront parks, the largest assets in the park system.

# A VISION FOR PHILADELPHIA'S GREEN NETWORK

This Green2015 report shows that reaching the goal of adding 500 acres of new public green space by 2015 is achievable through creative public-private partnerships. Given this fact, we can set our sights higher for 2035. The comprehensive plan could call for all residents to be within a 10-minute walk of a neighborhood park or green recreation center offering certain important uses and functions by 2035. Such a goal would prioritize parks that serve multiple purposes and provide residents with spaces that offer a wide variety of benefits. The creation of new city parks could also be a part of the long-term strategy for bolstering the “service-based” and “transit-based” centers identified in the comprehensive plan as centers for future growth.

To serve both the city’s long-term strategy for a green network and the goal of creating more open space in the short term, stronger and more connections need to be built between Philadelphia’s neighborhoods and existing waterfront parks, with new walks, trails, and greenways. These connecting routes will serve as new city parks and link residents to larger parks, such as East and West Fairmount Park, Pennypack Park, and Wissahickon Valley Park. Parks of this size are significant regional assets. While the likelihood of creating

new parks on the scale of our large waterfront parks is remote today, an interconnected series of walks, greenways, and trails from and along our rivers, creeks, streams, rail lines, and streets can be added to make large riverfront parks accessible to residents and visitors from anywhere in the city.

To serve both the city’s long-term strategy for a green network and the goal of creating more open space in the short term, stronger and more connections need to be built between Philadelphia’s neighborhoods and existing waterfront parks, with new walks, trails, and greenways.

This map of Philadelphia’s future green network shows different types of trail connections, each with different treatments depending on the

extent of the intervention and its current context and condition. These are the categories of connections as shown in the comprehensive plan and recommended actions:

## RIVERS AND CREEKS

Complete all watershed parks and river trails to ensure continued public access for pedestrians and cyclists.

## HISTORIC STREAMS

Create small-scale bicycle and pedestrian corridors following the courses of historic streams. This series of “creek walks” will connect multiple streets with coherent streetscape, signage, and (where possible) a separated bike path.

## STREETS

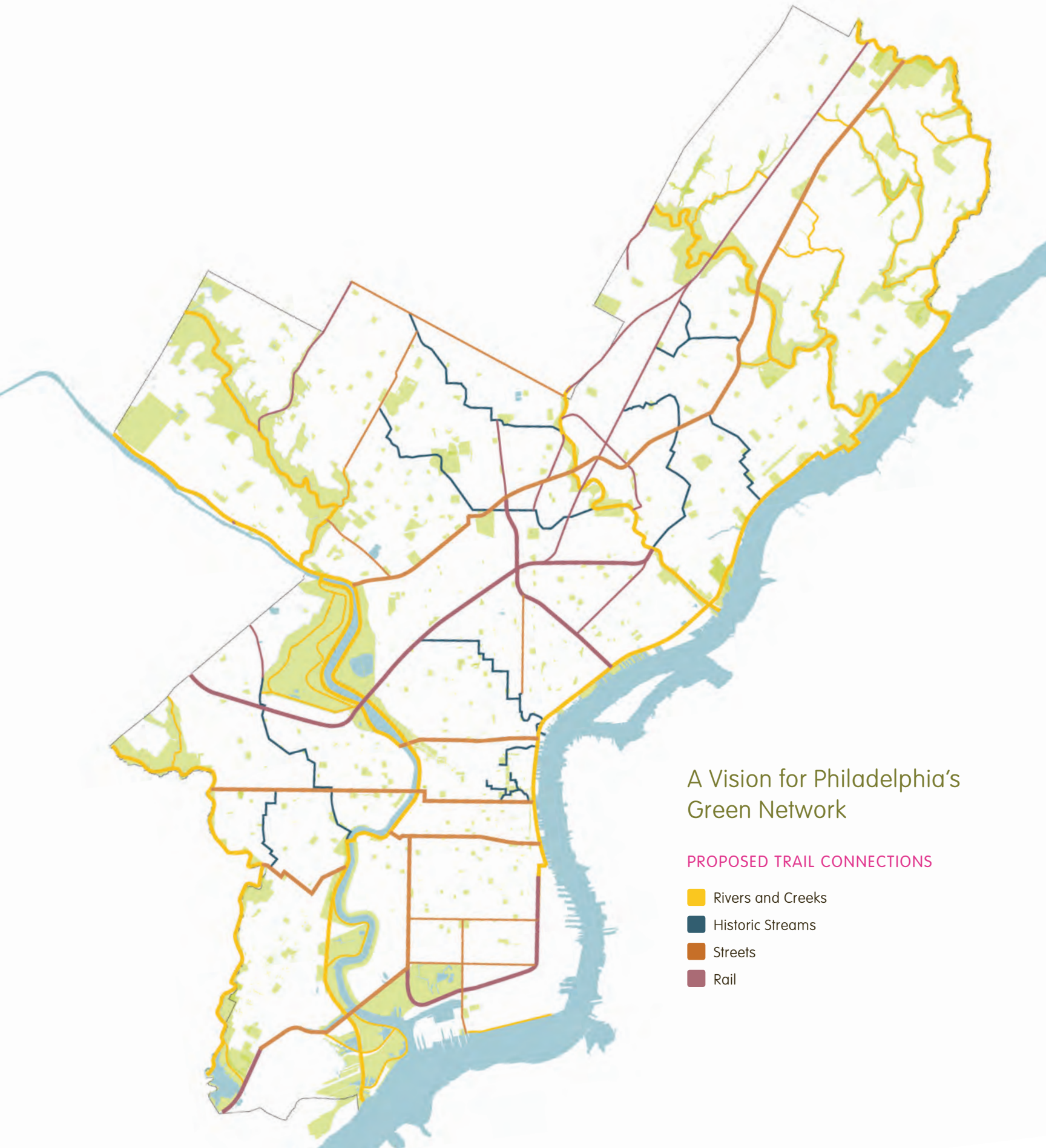
Provide on-grade bicycle and pedestrian routes to existing parks following a street right of way, with varying levels of separation depending on the width of the roadway.

## RAIL

Using existing rail corridors (some active, some vacated) to create major, separated bicycle and pedestrian connections, with significant planting, to link citizens to existing waterfront parks.

The next section will review each component of the vision in more detail.





## A Vision for Philadelphia's Green Network

### PROPOSED TRAIL CONNECTIONS

- Rivers and Creeks
- Historic Streams
- Streets
- Rail



# RIVERS AND CREEKS

Philadelphia and its rivers are forever linked. The stretches of East and West Fairmount Park along the Schuylkill River and up through the Wissahickon Valley are our most prized green assets. Green2015's long-range vision proposes to complete the riparian corridors for all remaining rivers and creeks, every one of which touches an underserved neighborhood. It is vital that we complete our riparian-watershed parks and trails. This work will ensure continued public access to and along our waterways, protect our natural resources and habitat, and maintain water quality for future generations.





As we can see from the current extension of the trail along the Lower Schuylkill River and the planning and implementation of new waterfront parks and trails along the North and Central Delaware River, both the public and private sectors in Philadelphia recognize the social, environmental, and economic value of public access to open space along our waterfronts. These efforts will complete our waterfront parks while adding a new, 21st-century character of open space to our public realm.

The following large waterfront parks are incomplete and offer important sites for future projects:

- Lower Schuylkill River
- Delaware River
- Tacony-Frankford Creek
- Cobbs Creek
- Poquessing Creek

These riparian parks should include public-access trails and naturalized buffers to filter pollutants and manage flood events—an important step in mitigating the impact of climate change. Extensive work in planning and implementation has been done along the Schuylkill and Delaware

Rivers. Completing the creeks warrants equal attention, as so many of our smaller waterways are in a state of neglect. The nonprofit Clean Air Council has adopted the process of completing Cobbs Creek Park. The Philadelphia Water Department has done extensive work along the Tacony-Frankford Creek, and the City Planning Commission is doing detailed design analysis on how to extend public access from Juniata Golf Course to the Delaware River. The Poquessing Creek is a forgotten creek in many respects, although PPR is working to implement further corridor protection and trail connections along it.



**1** The Frankford, Cobbs, and Poquessing Creeks are riparian parks that are incomplete and crowded by various forms of commercial and industrial development that turn their backs on the parks. As shown here, adjacent impervious surfaces often create an ecological burden on Philadelphia's large parks. **2** This rendering of Poquessing Creek shows how improving public access points along these waterfront parks can increase visibility, make the parks more inviting, and filter stormwater before it reaches the creek.



# HISTORIC STREAMS

The land upon which Philadelphia was built was once a dense web of marshland, creeks, streams, and tributaries leading to the Schuylkill and Delaware Rivers. Most of these waterways were put underground in the 19th century—converted into stormwater and sewer conduits that served the expanding industrial city. Traces of these streams remain today, as their ghost routes follow sewer lines along low points in the city's topography. This makes them ideal sites for rain gardens and for intercepting stormwater in the case of large storms. Names such as Mill Creek, Cohocksink Creek, Dock Creek, Aramingo Creek, and Wingohocking Creek still define portions of the city.

The proposed long-term green network shows a series of creek walks—foot and bike routes that would follow historic stream beds that are now underground in pipes but that once crisscrossed Philadelphia. These walks could connect with our large waterfront parks (as they were once tributaries and thus lead to the parks), and they offer routes through the city that go pleasantly against the grid. Walks would follow the existing street network and be marked by special signage, landscaping, and pavement. They would be recognizable throughout the city as neighborhood-level connections to larger cross-city trails and greenways, many of which would



link neighborhood parks and other green assets along the way. These historic-stream connections would provide a green link in key neighborhoods that lack access to green, most notably the northern portion of West Philadelphia and West Oak Lane.

The creek walks can also link existing parks and vacant parcels that could be turned into green spaces in the future. One such parcel is the Logan Triangle—47 acres of abandoned houses and streets north of Roosevelt Boulevard in Logan. It includes the old path of the Wingohocking Creek in an area known for its sinking homes. A recent Urban Land Institute study determined that it would be

too costly to remediate the site for construction; this makes the Logan Triangle an ideal example of a site linked to the historic-stream network that could have parkland as one of its future uses.<sup>102</sup>

Making people more aware of stream beds has educational benefits as well. Interpretive signs could be installed to guide users along the paths and to provide information on the importance of the stream network to our sewer system and to water quality.



These are the proposed creek walks:

**The old Mill Creek through West Philadelphia**, which connects eventually to West Fairmount Park, the Schuylkill River, and Lower Merion;

**The old Thomas Run**, which runs primarily along 55th Street and connects Cobbs Creek, the 58th Street greenway, and the proposed greenway along West Market Street;

**The old Cohocksink Creek** through Northern Liberties and into North Philadelphia and the Delaware River;

**The old Wingohocking Creek**, extending from Juniata Park to Washington Lane;

**The old Rock Run**, an old tributary of the Frankford Creek in West Oak Lane;

**The old Dock and Willow Creeks**, connecting Franklin Square, Independence Mall, and other parks along the Delaware River (Dock Street follows the old path of the Dock Creek);

**The old Little Tacony Creek**, which connects residents of Northeast Philadelphia to the Delaware River and the Roosevelt Boulevard greenway;

**The old Wissinoming Creek**, which connects residents of Northeast Philadelphia to the Delaware River and the Roosevelt Boulevard greenway; and

**The old Sandy Run**, which connects residents of Northeast Philadelphia to the Pennypack and to proposed primary and secondary greenways.

**1** Most of the proposed historic creek walks would run along residential streets, such as this one along the Mill Creek in West Philadelphia. **2** If implemented, these pathways would use street right of way, additional planters, and paving to give the street a unique identity as a connection that recognizes the historic creek flow and shows residents that traveling along this street will link them to a larger park space.





# STREETS

Thirty-eight percent of Philadelphia's surface area is comprised of streets; they are the primary way to move around the city, whether on foot or by bike or auto.<sup>103</sup> Streets represent the finest-grain connections throughout our neighborhoods as well as the quickest routes out of town, and therefore they can become parts of the city's long-term green network. While using roads does not allow for continuous, uninterrupted stretches of trails, streets do provide on-grade routes through communities to existing parks.

Green2015 identifies a series of streets with different levels of traffic demand, all of which have right-of-way that could be redesigned to extend the city's green network into and through the city, linking us to our neighborhoods, to Fairmount Park, to rivers, and to the region. These streets include the following:

**Roosevelt Boulevard**, connecting the Far Northeast with Hunting Park;

**Hunting Park Avenue**, connecting Roosevelt Boulevard with East Fairmount Park;

**Columbus Boulevard and Delaware Avenue**, connecting trails along the North and Central Delaware River with Oregon Avenue, Washington Avenue, and Spring Garden Street;



**West Market Street**, connecting Schuylkill Banks with Cobbs Creek;

**Spruce and Pine Streets**, connecting the Delaware River and the Schuylkill River trails in Center City;

**Oregon Avenue**, connecting the Delaware and Schuylkill River trails in South Philadelphia;

**Pattison Avenue**, connecting the Delaware River and FDR Park;

**Washington Avenue**, connecting the Delaware and Schuylkill River trails at the southern end of Center City;

**Spring Garden Street**, connecting the

Delaware and Schuylkill River trails at the northern end of Center City;

**58th Street**, connecting the Schuylkill River and Cobbs Creek trails;

**Penrose Avenue and Bartram Avenue**, connecting FDR Park, the Schuylkill River Trail, and Heinz Wildlife Refuge;

**Henry Avenue**, connecting the Wissahickon Creek with the Roosevelt Boulevard trail;

**North American Street**, connecting the Delaware River and Cohocksink Creek trails to the North Philadelphia trail network; and





Washington Lane, connecting to the Wissahickon Creek.

Conditions range widely across the street corridors. Some corridors are already being rethought via the Philadelphia City Planning Commission's Pedestrian and Bicycle Plan, which is currently underway.



**1** This rendering shows how the space under the Market-Frankford El already being used by pedestrians in an unsafe manner can be improved and protected through painted bike lanes, vegetation, and public art. This would create a direct connection from the Schuylkill River Trail to the Cobbs Creek Trail. **2** The long-term trail network would include on-road and off-road connections to large waterfront parks using primary street corridors, including Market Street in West Philadelphia.



# RAIL

The best opportunities for pedestrian and bicycle connections linking neighborhoods to the large waterfront parks are rail corridors. The original purpose of these corridors was to allow for the efficient movement of material, goods, and people. When pieces of the rail network that are currently in use are combined with vacated tracks, the composite framework would allow a Philadelphian from the furthest reaches of Northeast Philadelphia to reach the opposite corner of Southwest Philadelphia. From there, the greater Philadelphia region lies ahead.

Philadelphia has hundreds of miles of railroad track, 77 miles of which are underused or vacated. These could make ideal pedestrian and bicycle connections across the city. In fact, some rail corridors surround existing waterfront parks and therefore would not only increase access to these parks but would also expand the parks, serving as additional trails in areas where the existing park is land-locked and cannot expand further. Most of the corridors proposed in this document are vacated and therefore would not compete with active rail. Safety, security, and maintenance issues can be addressed for the corridors with active rail.

The design treatment needed to incorporate pedestrian and bicycle





traffic into our rail corridors would vary depending on the location and type of existing rail lines, as a wide variety of conditions exist in Philadelphia, including these:

**Heavily trafficked rail corridors along which adjacent vacancies could be used for a trail:** Amtrak's Northeast corridor and CSX's 25th Street viaduct in South Philadelphia;

**Lightly trafficked rail corridors with adjacent tracks not currently in use:** Conrail's Port Richmond branch adjacent to Lehigh Avenue;

**Lightly trafficked freight rail corridors without adjacent tracks:** the Trenton Line in Northeast Philadelphia, the Belt Line along the Delaware River, the Swanson Street branch in South Philadelphia, and the 60th Street branch along the Lower Schuylkill River in Southwest Philadelphia;

**Vacated tracks no longer in use:** Fort Washington line along the Cresheim Creek, Conrail's Trenton Avenue viaduct, the Bethlehem Branch in Logan, and former SEPTA rail beyond the Fox Chase station in Northeast Philadelphia; and

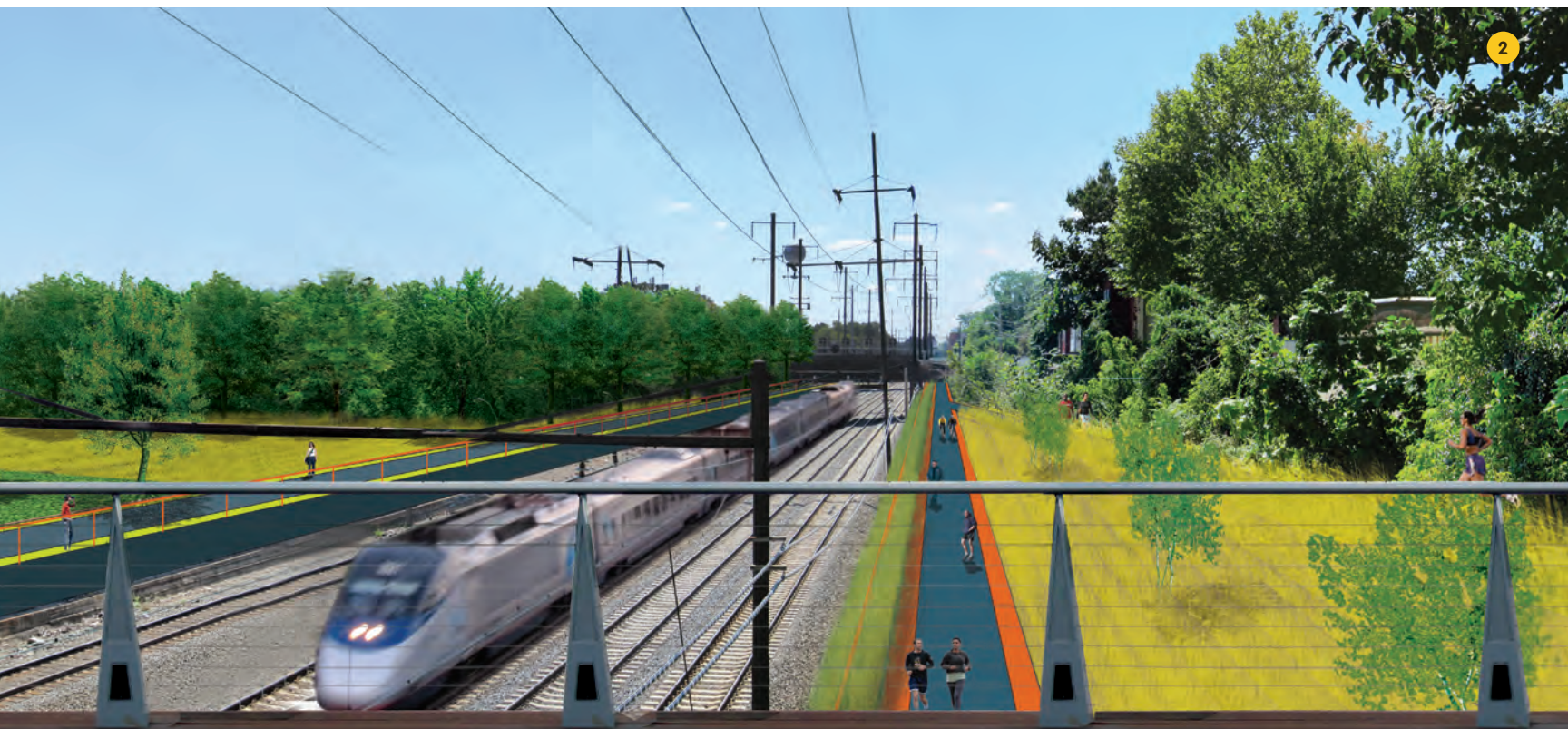
**Corridors that no longer have track:** Oxford, Olney, and Frankford branches in Lower Northeast Philadelphia.

For heavily used rail corridors such as Amtrak's Northeast Corridor and the 25th Street viaduct, converting parcels adjacent to the right-of-way into green, open space will be the key to establishing these connections. Along both corridors, there are numerous vacant parcels that could be converted into public open space immediately. In many cases in Philadelphia, informal trails have already developed; in fact, some with excess adjacent right-of-way are already being used as parks by nearby residents, such as the Lehigh Avenue viaduct in Port Richmond.

Additional details on the ownership and implementation of rail-trails can be found in Appendix C, "Railroads."

**1** While most of the rail connections proposed in this chapter run along vacated or underutilized rights of way, using land along active rail lines like the Amtrak Northeast Corridor (pictured) as a trail link is also possible and can be done safely.

**2** This rendering shows how this important regional transit connection can be beautified and enhanced by using adjacent right-of-way for a walking and biking trail. The smattering of vacant properties along the corridor in North Philadelphia can also be greened to create more generous parks and public-access points.





# LOOKING AHEAD

Numerous issues arose during this planning process that warrant further study and conversation.

## FUTURE OF LAND TRUSTS IN PHILADELPHIA

Partnerships between PPR and private land trusts have been discussed as a way to help PPR implement its Green2015 goals. Private land trusts could help by conducting the legal acquisition process, providing up-front funding for private acquisitions, or even coordinating public dialogue about greening specific sites. An urban land trust could help bring some of the more challenging lands into the park system within Philadelphia, such as rail corridors. Trust for Public Land was crucial to successful schoolyard conversion initiatives in New York and Newark. In the case of Atlanta and its development of the trail-transit Belt Line, the Trust for Public Land helped not only acquire and temporarily hold the land for the city until the city eventually transformed it into parks, but they also paid for the corridors up front while the city worked to pass the Tax Allocation District that would cover the costs. The help of such a group could be beneficial during the long process of acquiring larger, privately owned sites.

Philadelphia currently has three land trusts that have worked locally: the

Neighborhood Gardens Association (NGA), the Natural Lands Trust (NLT), and the Trust for Public Land (TPL). NGA has the hyper-local mission of protecting urban gardens from development threats; it has 30 gardens totaling eight acres in its holdings. NLT has done extensive land-conservation work in the region but little work in Philadelphia. TPL has done acquisition work all over the country, but its work in Philadelphia has been limited so far to an economic study conducted by its advocacy arm.

The roles of all three of these trusts could be strengthened in order to give PPR the support it needs to create new parks. NeighborSpace in Chicago is an interesting model for NGA to examine. NeighborSpace owns or leases 61 gardens and receives funding from the Chicago Parks District and Cook County for maintenance. NLT is currently being funded by the William Penn Foundation to explore opportunities in Philadelphia for private-land acquisition for Green2015; the group is also facilitating the implementation of the Central Delaware Riverfront Master Plan. The type of formal legal support that the group offers would be beneficial to city agencies.

Community land trusts such as the one under development by the Women's Community Revitalization Project in eastern North Philadelphia

are different than trusts dedicated to land conservation for green space. WCRP is creating a land trust not solely for green-space reasons, but also to give community residents a stake in the future development of their neighborhood, whether for housing, commercial, retail, or park-space uses. If PPR establishes partnerships with community land trusts, new city parks could be created in these areas.

The city should not miss the opportunity to secure long-term, dedicated funding in order to continue to create green infrastructure for years to come.

## LARGER CITY LAND ACQUISITION, MANAGEMENT, AND DISPOSITION STRATEGY

Green2015 offers opportunities to convert vacant land to productive use and to help reduce the costs of blighted property to the city's coffers. As noted previously, the Managing Director's Office and Office of the Director of Finance are currently

drafting a citywide vacant-land strategy with the help of a task force that includes PPR, RDA, PHS, and L&I. The working group aims to draft policies that will allow for the fair, transparent, and efficient disposition of vacant property, the reduction of tax delinquency, and a reduction in the long-term costs of maintaining vacant parcels.

### THE FAIRMOUNT PARK CONSERVANCY

The Fairmount Park Conservancy, founded in 1998, is a fundraising arm for PPR. In comparison to other cities, the conservancy has fewer staff members and serves a larger system. Worthy of note is the fact that many of the best-funded parks in the country have individual conservancies that support a specific park. This is true of Prospect Park in Brooklyn and of Forest Park in St. Louis. Prospect Park and Forest Park are easy to visualize; one can mentally picture the extent of the park. In contrast, Philadelphia's conservancy supports a very large, unconnected system of parks and recreation centers that is not easy to visualize, making fundraising more of a challenge. An outgrowth of Green2015 could be the creation of subconservancies for specific parks within the system; another option is a special conservancy campaign to raise funds for a citywide project, such as a rail corridor or a creek-

greening initiative that would have cross-neighborhood impact. Finally, there is room to expand the Fairmount Park Conservancy's services in order to help PPR. For instance, the conservancy could operate concessions so that profits can go directly toward park improvements.

### FUTURE REVENUE GENERATION

The Green2015 proposals require minimal land acquisition and can be achieved by aligning existing funding streams and partnerships. This report also outlines additional funding sources available for public green-space projects. With this in mind, the city should not miss the opportunity to secure long-term, dedicated funding in order to continue to create green infrastructure for years to come. Investing in our city's green future is important to our competitiveness and to the health of our neighborhoods and citizens. For its PlaNYC initiative, New York City allocated nearly \$270 million for green-space capital investments in 2009; in contrast, in fiscal year 2010 in Philadelphia, just \$16 million was financed in capital improvements to Fairmount Park.<sup>104</sup> Green2015 could serve as an impetus for a larger campaign to procure dedicated funding sources beyond 2015, with the goal of further improving our city's strength and competitiveness and the quality of life of its citizens.

# APPENDICES







# A.

## ACKNOWLEDGEMENTS

The Green2015 project team has many people to thank for their assistance with data collection and for their participation in this project.

- Walker Allen, Delaware Valley Regional Planning Commission
- Joni Baumgarten, Philadelphia Department of Parks and Recreation
- Lisa Beyer, Philadelphia Water Department
- John Carpenter, Redevelopment Authority of the City of Philadelphia
- Stephanie Craighead, Philadelphia Department of Parks and Recreation
- Andrew Dobshinsky, Wallace Roberts and Todd, LLC
- Francis Dougherty, School District of Philadelphia
- Grant Ervin, Philadelphia Police Department
- Spencer Finch, Pennsylvania Environmental Council
- Mark Focht, Philadelphia Department of Parks and Recreation
- William Goetz, CSX Corporation
- Bridget Greenwald, Managing Director's Office
- Joseph Gruber, Philadelphia Department of Licenses and Inspections
- Allison Karpyn, The Food Trust
- Danielle DiLeo Kim, Philadelphia City Planning Commission
- Pauline Loughlin, Philadelphia City Planning Commission

- Sarah Low, Philadelphia Department of Parks and Recreation
- Mary Ellen McCarty, Philadelphia Water Department
- Chris Mendel, Andropogon Associates
- Patrick Morgan, Philadelphia Parks and Recreation
- Clint Randall, Philadelphia Department of Public Health
- Leonard Reuter, Philadelphia Law Department
- Brian Schuster, Pennsylvania Horticultural Society
- Jon Sinker, Philadelphia Department of Public Health
- Lysie Solomon, City of Philadelphia Department of Public Property
- Andrew Stober, Mayor's Office of Transportation and Utilities
- Sarah Clark Stuart, Bicycle Coalition of Greater Philadelphia
- Casey Thomas, Philadelphia Water Department
- Domenic Vitiello, Penn Planning
- Marisa Waxman, Philadelphia Department of Revenue

Green2015 would also like to thank those who participated in our four design workshops in July 2010.

- Laurie Actman, Viridity Energy
- Jose Alminana, Andropogon Associates

- Brenda Barrett, Pennsylvania Department of Conservation and Natural Resources
- Drew Becher, Pennsylvania Horticultural Society
- Lisa Beyer, Philadelphia Water Department
- Karen Black, May 8 Consulting
- Lauren Bornfriend, Philadelphia Parks Alliance
- Stephen Buckley, Mayor's Office of Transportation and Utilities
- Stephanie Craighead, Philadelphia Department of Parks and Recreation
- Andrew Dobshinsky, Wallace Roberts and Todd, LLC
- Mark Focht, Philadelphia Department of Parks and Recreation
- John Herzins, Department of Public Property
- Pete Hoskins, Commission on Parks and Recreation
- Fred Kaulbach, Greening Greenfield Committee
- Danielle DiLeo Kim, Philadelphia City Planning Commission
- Giridhar Mallya, Philadelphia Department of Public Health
- Barbara McCabe, Philadelphia Department of Parks and Recreation
- Michael Nairn, Department of Urban Studies, University of Pennsylvania
- Howard Neukrug, Philadelphia Water Department
- Andy Pitz, Natural Lands Trust
- Clint Randall, Philadelphia Department of Public Health
- Maitreyi Roy, Pennsylvania Horticultural Society
- Laura Spina, Philadelphia City Planning Commission
- Andrew Stober, Mayor's Office of Transportation and Utilities
- Pat Toy, Greening Greenfield Committee
- Peter Williamson, Natural Lands Trust
- Sarah Wu, Mayor's Office of Sustainability

## B. INTERVIEW LIST

### PHILADELPHIA

- Glen Abrams, Philadelphia Water Department
- Lisa Armstrong, Greening Greenfield Committee
- Rob Armstrong, Philadelphia Department of Parks and Recreation
- Marissa Barletta, Philadelphia Water Department
- Jennifer Barr, Philadelphia City Planning Commission
- Nancy Bastian, Cecil Baker + Partners
- Drew Becher, Pennsylvania Horticultural Society
- Lisa Beyer, Philadelphia Water Department
- Karen Black, May 8 Consulting
- Blaine Bonham, Pennsylvania Horticultural Society
- Lauren Bornfriend, Philadelphia Parks Alliance
- Dr. Charles Branas, Associate Professor of Epidemiology, University of Pennsylvania
- Stephen Buckley, Mayor's Office of Transportation and Utilities
- Fran Burns, Philadelphia Department of Licenses and Inspections
- Jeff Carpineta, East Kensington Neighbors Association
- Betsy Casanas, Semilla Arts Initiative
- Ollie Cherniahivsky, Ollie Cherniahivsky & Associates
- Marion Coker, Southeastern Pennsylvania Transportation Authority
- Lisa Colby, Philadelphia Department of Public Health
- Byron Comati, Southeastern Pennsylvania Transportation Authority
- Stephanie Craighead, Philadelphia Department of Parks and Recreation
- Dilip da Cunha, Department of Landscape Architecture, University of Pennsylvania
- Joanne Dahme, Philadelphia Water Department
- Charles Davies, Pennsylvania Department of Transportation
- Justin DiBerardinis, Office of Councilwoman Maria Quiñones-Sanchez, Seventh Councilmanic District
- Andrew Dobshinsky, Wallace Roberts & Todd, LLC
- Francis Dougherty, School District of Philadelphia
- Kevin Dow, Philadelphia Department of Commerce
- Phil Economou, Amtrak and Interstate Land Management Corporation
- Nan Feyler, Philadelphia Department of Public Health
- Spencer Finch, Pennsylvania Environmental Council
- Brian Flanagan, Deputy Mayor's Office for Economic Development
- Mark Focht, Philadelphia Department of Parks and Recreation
- David Forde, Office of B. Reynolds Brown, Councilwoman-at-Large
- Sarah Francis, Friends of Cynwyd Trail
- Nick Frontino, Economy League of Greater Philadelphia
- Katherine Gajewski, Mayor's Office of Sustainability
- John Gattuso, Liberty Property Trust
- Terry Gillen, Redevelopment Authority of the City of Philadelphia
- Eva Gladstein, Zoning Code Commission
- Brian Glass, Citizens for Pennsylvania's Future
- William Goetz, CSX Corporation
- Nancy Goldenberg, Commission on Parks and Recreation
- Bridget Greenwald, Managing Director's Office
- Elizabeth Grimaldi, Village of Arts and Humanities
- Christina Yaron Grimes, Passyunk Square Civic Association Education Committee
- Morgan Grove, USDA Forest Service
- Anuj Gupta, Philadelphia Department of Licenses and Inspections
- Prema Katari Gupta, Philadelphia Industrial Development Corporation
- Tomas Hanna, School District of Philadelphia
- Peter Harnik, Trust for Public Land
- Patrick Henwood, School District of Philadelphia
- John Herzins, City of Philadelphia Department of Public Property
- David Hollenberg, Penn Facilities and Real Estate
- Pete Hoskins, Commission on Parks and Recreation
- Pat James, Pennsylvania Horticultural Society
- Michael Johns, Philadelphia Housing Authority
- Jennifer Kates, Office of Councilwoman Maria Quiñones-Sanchez, Seventh Councilmanic District, City of Philadelphia
- Lucy Kerman, Greater Philadelphia Urban Affairs Coalition
- Shawn Kilgallon, Pennsylvania Horticultural Society
- Chris Kingsley, Ivy Ridge Trail
- Christine Knapp, Citizens for Pennsylvania's Future
- John Kromer, Fels Institute of Government



- Ryan Kuck, Preston's Paradise
- Christopher Leswing, Planning Division, Lower Merion Township
- Nora Lichtash, Women's Community Revitalization Project
- Deenah Loeb, City Parks Association
- Paul Lonie, Delaware River City Corporation
- Marangeli Majia-Rabell, Asociación Puertorriqueños en Marcha
- Anuradha Mathur, Department of Landscape Architecture, University of Pennsylvania
- Barbara McCabe, Philadelphia Department of Parks and Recreation
- Shawn McCaney, William Penn Foundation
- Maura McCarthy, Friends of the Wissahickon
- Deborah McColloch, Philadelphia Office of Housing and Community Development
- Amy Miller, East Kensington Neighbors Association
- Beth Miller, Community Design Collaborative
- Robin Morgan, USDA Forest Service
- Molly Morrison, Natural Lands Trust
- Gregory Moton, Exelon Corporation
- Terry Mushovic, Neighborhood Gardens Association
- Michael Nairn, Department of Urban Studies, University of Pennsylvania
- Howard Neukrug, Philadelphia Water Department
- Barry Promos, Interstate Land Management Corporation
- Mark Radatti, Pennsylvania Department of Transportation
- Michael Rains, USDA Forest Service
- Clint Randall, Philadelphia Department of Public Health
- Leonard Reuter, Philadelphia Law Department
- Jennifer Rodriguez, Asociación Puertorriqueños en Marcha
- Maitreyi Roy, Pennsylvania Horticultural Society
- Sandy Salzman, New Kensington Community Development Corporation
- Rick Sauer, Philadelphia Association of Community Development Corporations
- Debby Schaaf, Philadelphia City Planning Commission
- Diane Schrauth, William Penn Foundation
- Greg Scruggs, Wharton School of Business, University of Pennsylvania
- Heidi Segall Levy, Community Design Collaborative
- Lisa Segarra, Norris Square Civic Association
- Josh Sevin, Economy League of Greater Philadelphia
- Lysie Solomon, City of Philadelphia Department of Public Property
- Sara Solomon, Philadelphia Department of Public Health
- Steve Squibb, Pennsylvania Department of Conversation and Natural Resources
- Patrick Starr, Pennsylvania Environmental Council
- Andrew Stober, Mayor's Office of Transportation and Utilities
- Sarah Clark Stuart, Bicycle Coalition of Greater Philadelphia
- Joe Syrnick, Schuylkill River Development Corporation
- Michael Szilagyi, Campbell Thomas & Co.
- Bob Thomas, Campbell Thomas & Co.
- Sarah Thorp, Delaware River Waterfront Corporation
- Louise Turan, Bartram's Garden
- John Ungar, Ogontz Avenue Revitalization Corporation
- Rachel Vassar, Citizens for Pennsylvania's Future
- Domenic Vitiello, PennPlanning
- Susan Wachter, Wharton School of Business, University of Pennsylvania
- Marisa Waxman, Philadelphia Revenue Department
- Katrina Wilhelm, Fairmount Park Conservancy
- Peter Williamson, Natural Lands Trust
- Laurence Wiseman, Center Line Strategy
- Debra Wolf Goldstein, Commission on Parks and Recreation
- Diane-Louise Wormley, Health Promotion Council
- Carolyn Wallis, Pennsylvania Department of Conservation and Natural Resources
- Sarah Wu, Mayor's Office of Sustainability
- Kate Zaidan, Clean Air Council

## CASE STUDIES

- Thomas Baxter, Friends of the Riverfront, Inc. (Pittsburgh, PA)
- Katherine Estes Billmeier, Railroad Park Foundation (Birmingham, AL)
- Joseph Bornstein, Chicago Parks District
- John Bralich, Center for Urban and Regional Studies, Youngstown State University
- Michael Bricker, People for Urban Progress (Indianapolis, IN)
- Jerome Chou, Design Trust for Public Space (New York, NY)
- Nette Compton, New York City Parks and Recreation
- Andrew Hart, Keeping Indianapolis Beautiful
- Cheryl Huber, New Yorkers for Parks
- Peter Lagerway, Toole Design Group (Seattle, WA)
- Michael Lange, Chicago Parks District
- Jonathan Lewis, City of Atlanta Office of Planning
- Richard Lloyd, Brooklyn Bridge Park Conservancy

- Dave Lowin, Brooklyn Bridge Park Conservancy
- Kirk Meyer, Green Schoolyard Network (Boston, MA)
- Maryann O'Malley, People for Urban Progress (Indianapolis, IN)
- Gregory Page, Saint Paul Riverfront Corporation
- Keith Privett, Chicago Department of Transportation
- Ellen Ryan, Brooklyn Bridge Park Conservancy
- Dan Sentz, Pittsburgh Department of City Planning
- Jim Sutherland, Eastern Market Corporation (Detroit, MI)

## C. ADDITIONAL IMPLEMENTATION RESEARCH

### RAILROADS: OPPORTUNITIES

Because railroad rights-of-way form linear, cross-city connections with complicated ownership, utilizing them as ways to connect Philadelphians with their parks will require careful attention. Though they formed the transportation backbone of the 19th-century industrial city, many rail corridors today are underutilized or have been vacated as the city's industrial base has diminished and new forms of transportation have supplanted rail use. These linear pathways would be significant additions to the green network; for example, converting the right-of-way from the Oxford, Frankford, and Bethlehem rail corridors to green (in three vacated stretches in Lower Northeast Philadelphia) would add 135 acres to the city's park landscape.

While these corridors hold great potential for a green, connected network, rail companies are often focused on using and revitalizing their tracks. They are also concerned about the cost to remediate the land if extensive construction was required in providing public access. Converting underutilized or vacated rail lines into greenways that link disparate parts of the city will require proactive and sustained efforts on the part of city government.

The Lehigh Avenue Viaduct is an example of an underutilized rail corridor that could serve to connect the Delaware River with neighborhoods underserved by green space. Largely inactive except for one train that serves one rail customer, the Lehigh Viaduct can accommodate both pedestrian and rail access on the portion east of Kensington Avenue. The standard for recent rail-trails around the country is that 30 feet of separation must be provided between rail and trail; at its thinnest point, the Lehigh Avenue viaduct provides a 100-foot-wide area of non-rail right-of-way. At its widest, it provides 500 feet. In comparison, Penn Park will be built 30 feet away from the nation's highest-trafficked passenger-rail corridor along the Schuylkill River. Either leasing or vacating the Lehigh Avenue viaduct's right-of-way would save the rail owner from maintenance and liability responsibilities, provide the railroad with compensation, and allow the city to manage public access.

### RAILROADS: TRANSFORMATION

The acquisition process for rail corridors is complicated. If the corridor is not yet legally abandoned, then the corridors can be acquired for public use through the Pennsylvania Rails to Trails Act of 1991.<sup>105</sup> This act streamlines the acquisition steps through a process called railbanking. In the case of railbanking, the title remains with the rail company, so that company technically has the right to reclaim the corridor for freight rail, even though the government agency is paying the railroad for the right to use the land. Negotiation with the rail operator is still necessary, which can be time-consuming. In Atlanta, a legal abandonment process that began two years ago for 4.5-mile stretch of rail is still underway because Norfolk Southern wants first to

remove all the steel tracks and ties in order to sell them.<sup>106</sup> However, railbanking expedites the process dramatically and should be considered for corridors in Philadelphia that have yet to be legally abandoned. Through railbanking, the city could negotiate for a particular corridor, or a citywide agreement could be reached with Conrail that would apply to multiple corridors.

Once city representatives reach an agreement with the railroad company to go through the railbanking process, they must go through the discontinuation-of-service process with the Surface Transportation Board, the federal body that must review and approve any proposed change to rail infrastructure.

In Philadelphia, there are likely to be cases in which the rail operator has already legally abandoned the corridor through the Surface Transportation Board. When Conrail went into bankruptcy in the early 1980s, they were given the authority to bypass the STB process and proceed to discontinuance. If the corridor has already been legally abandoned, then ownership generally reverts to adjacent landowners; if the corridor runs through a residential neighborhood, this could mean hundreds of landowners with extensions to their backyards. Most professionals contacted for this report agreed that trying to utilize a rail corridor after it has been legally abandoned is unrealistic.

However, even if service was legally discontinued decades ago, rail companies might still hold a common-law easement. This would work to the city's advantage, because the corridor is "abandoned in fact," as service will clearly no longer run there, but not legally abandoned.

The city's most recent rail acquisition, the old Kensington and Tacony (K & T) line along the Delaware River, took place through what is known as a quickclaim deed. Conrail granted the property to the city without guaranteeing the validity of the title. This means that a property owner could dispute the deed. Such claims would have to be settled in court, but in the case of the K & T trail, the city had funding to do all the title research in advance.<sup>107</sup> PPR currently has designs for the trail underway.

Leasing options are also viable, if the railroad company is not interested in legally abandoning the corridor. A lease would allow the city to open the corridor to the public and also to do grading and landscaping for public use. By converting the land to recreational use, the railroad company is indemnified of liability, the trail will be built relatively quickly, and the railroad company will avoid paying for the environmental remediation needed for more intense construction. With a lease or a sale, striking any at-grade crossings from the corridor (whether currently in use or only on the books) is an essential part of the process. This is done through the Pennsylvania Utilities Commission.

## RAILROADS: OTHER CITIES

Every city has a different approach to transforming rail corridors for trail use. Atlanta's Belt Line is currently working to relocate the lone property owner on a five-mile stretch of freight rail so that the corridor can be used for a biking trail and public transit. The Railroad Park Foundation in Birmingham agreed to maintain an adjacent Norfolk Southern property in order to gain access to one that is now included in the park.<sup>108</sup> The best-known examples, such as the High Line in New York City, were acquired through railbanking and through formal legal-abandonment proceedings.

It is always important to do title research on anything that might resemble a rail corridor. In Seattle, the city was able to secure a portion of the Burke-Gilman Trail because staff found records saying that the railroad company would have to assume financial responsibility for any roads or public access that needed to be rebuilt along the corridor. They used this as leverage to obtain crossing improvements and to purchase the land that eventually became the trail.<sup>109</sup>

Chicago offers important lessons. The Chicago Department of Transportation acquires land upon securing the rails-to-trails agreement, while the Parks District maintains the sites once they have been opened. This is an interesting model, as the local DOT not only has established relationship with rail operators, but also maintains direct ties to state and federal funding for multimodal transportation initiatives. Perhaps an opportunity exists for such a

partnership in Philadelphia through the Office of Transportation and Utilities. Also in Chicago, a trail was developed along a utility easement based on an agreement with the telecom company Commonwealth Edison, which has fiber-optic cable running underneath. Commonwealth Edison collects rent on the trail parcels by leasing them to the city; the city gets continuous land for a relatively low cost.

## RAILROADS SPOTLIGHT: DEQUINDRE CUT, DETROIT, MICHIGAN

Due to their location in the tight grid of Philadelphia's former industrial neighborhoods, many of our underutilized rail corridors are below street grade. This may lead one to question their safety and security. Detroit provides a model for this type of trail. In May 2009, Detroit opened its first mile of the Dequindre Cut. Twenty-five feet below grade, the cut was sold to a casino developer to build an expressway spur when gaming was planned for the Detroit riverfront. When the casinos changed location, they sold the Dequindre Cut to the city for \$1.<sup>110</sup> Construction funding was provided by the state DOT, the Department of Natural Resources Trust Fund, and a coalition of foundations. A \$2 million endowment funded by three separate foundations was formed for the maintenance of the cut, which will be performed by the Detroit Riverfront Conservancy. Streetlights and security cameras are scattered along the trail for safety purposes.<sup>111</sup> The Dequindre Cut has safely operated in Detroit for more than a year.

## RAILROADS: OPPORTUNITY SITES<sup>112</sup>

Most green projects along rail corridors represent long-term opportunities; that is, the time it could take to complete them takes them beyond the target of 2015. However, work can be done now to create access to some parts of the network in the short term.

### *Potential Vacated Rail*

- The Bethlehem line that runs north-south adjacent to the Logan Triangle until it terminates in Fern Rock Transportation Center
- The Oxford line that branches off from the Northeast Corridor and intersects with the Tacony-Frankford Creek

- The Olney branch that runs north-south in lower Northeast Philadelphia and ends in the northern end of Tacony Creek Park
- The Frankford line that runs parallel to the Frankford-Tacony Creek in Northeast Philly to the northeast of the creek itself
- The Swanson line that begins on Swanson Street in South Philadelphia before hitting the Greenwich Rail Yards and looping back toward FDR Park
- The Trenton Avenue line that runs northeast after the termination of Trenton Avenue until it intersects with the Amtrak Northeast Corridor around the Frankford Creek
- The Fort Washington rail connection that runs parallel to the Cresheim Valley in the Wissahickon
- The SEPTA-owned rail beyond the terminus of the Fox Chase Regional Rail line that extends into Pennypack Park

### *Potential Land Adjacent to Active Corridors*

- There are 294 underutilized parcels adjacent to the Northeast Corridor in Philadelphia. These are some of those properties of note:
  - » 24 vacant lots owned by the Department of Public Property, two of which are over a half-acre
  - » 22 vacant lots owned by the Redevelopment Authority
  - » A 4.3-acre site owned by Amtrak that is out of the right-of-way and vacant
  - » Eight additional vacant lots owned by Amtrak and the National Railroad Passenger Corporation
  - » Six vacant lots owned by the Philadelphia Housing Development Corporation
  - » Five vacant lots owned by the Housing Authority
  - » Five vacant lots and warehouses owned by the Philadelphia Industrial Development Corporation and the Philadelphia Authority for Industrial Development
  - » One vacant lot owned by the School District of Philadelphia



- There are 64 underutilized parcels adjacent to the 25th Street viaduct in South Philadelphia, including these properties of note:
  - » Surface parking at the beginning of the viaduct at 25th Street and Washington Avenue, owned by Conrail
  - » A 3.8-acre vacant parcel owned by a church at the northwest corner of 25th and Dickinson Streets
  - » A half-acre parcel on the northeast corner of 25th and Tasker Streets that is owned by the Redevelopment Authority and is currently used as a community garden

Even if discontinuous, these vacant lots adjacent to rail corridors can be converted to green now in order to show the influence that green space can have on a community and to build support for a linear trail along Philadelphia's most robust rail corridors. Improvements could be made to Glenwood Avenue and Sedgley Avenue, as well, to make these more hospitable connectors for pedestrians and cars. A public-art project such as the 2009 Love Letter by the Mural Arts Program along the El in West Philadelphia is fragmented but engaging; a similar project on vacant lots could be implemented in Brewerytown and Strawberry Mansion to bring awareness to the opportunities along the Amtrak corridor.

## OTHER FUNDING SOURCES

Other state and federal grants have been and may continue to be available for public green-space projects. Here are some sources to investigate.

- The Pennsylvania Department of Conservation and Natural Resources (DCNR) is announcing another round of Sustainable Sites Initiative grants for sustainable approaches to park design, construction, and maintenance.
- DCNR's Growing Greener II, a bond initiative to leverage investments in farmland preservation, conservation of open space, watershed protection and trail development, is up for renewal in 2011.
- DCNR Keystone Community Grants program makes grant money available to support greenway and park

planning, design, and development. Land-acquisition and construction grants range from \$150,000 to \$200,000.

- The Pennsylvania Department of Environmental Protection has funded \$6 billion to date in projects implementing non-point source-pollution remediation through Pennvest.<sup>113</sup>
- The U.S. Environmental Protection Agency (EPA) is making available up to \$10 million in grants to local governments to establish and carry out initiatives to reduce greenhouse-gas emissions. Under the Climate Showcase Communities program, EPA expects to award approximately 25 cooperative agreements ranging from \$100,000 to \$500,000.
- Commonwealth Rails-to-Trails grants provide 50 percent funding for the planning, acquisition, or development of rail-to-trail corridors. Eligible applicants include municipalities and nonprofit organizations established to preserve and protect available underutilized railroad corridors for use as trails or future rail service.<sup>114</sup>
- The Pennsylvania Community Transportation Initiative offers funds through PennDOT (\$24 million).
- PennDOT Recreational Trails Program awards grants to develop and maintain recreational trails and trail-related facilities and to acquire easements and properties. Typical grant is about \$150,000.
- The National Oceanic and Atmospheric Administration awards grants of up to \$3 million for land acquisition, research, and educational activities related to public waterfront access through the Coastal and Estuarine Land Conservation Program and National and Estuarine Research Reserve System.
- Congestion Mitigation Air Quality Program grants are awarded to assist areas that do not meet federal air-quality standards.
- Transportation Investment Generating Economic Recovery (TIGER II) Grants have \$400 million to be awarded in urban communities later this year. The Philadelphia region received \$23 million

in the TIGER I program to complete its bicycle network.

- Sustainable Communities Regional Planning Grants are available through the Office of Housing and Urban Development (\$100 million).
- Community Challenge Planning Grants are awarded through the U.S. Department of Housing and Urban Development (\$75 million).
- The Choice Neighborhoods initiative awards grants through the U.S. Department of Housing and Urban Development (\$65 million).
- The federal Safe Routes to School program offers funding for creating sidewalks within 3 miles of a school on publicly owned land, representing an opportunity for trail-construction funding.
- The United States Department of Justice Weed and Seed program offers funding for multiagency approaches to law enforcement, crime prevention, and neighborhood restoration.
- Let's Move is the Obama administration's primary initiative to address public-health issues such as healthy food, better nutritional information, and increased recreational opportunities for children, including improved access to safe parks, playgrounds, and indoor and outdoor recreational facilities.
- The Land and Water Conservation Fund uses receipts from offshore oil and gas leases for park protection and creation.
- One opportunity implemented elsewhere that has not yet been explored in Philadelphia is the aggregating of potential green-space sites within public-housing projects in order to secure funding from HUD community block grants. A wealth of land within PHA ownership could be converted to productive green space, so this partnership opportunity should be explored.

These are some other ideas for generating revenue for ongoing park maintenance that have been discussed throughout the Green2015 process:

- Dedicating a portion of the incremental increase in property value that is

attributable to nearby parks to their maintenance, perhaps through the Real Estate Transfer Tax. For example, the Maryland State Parks system is supported by a 0.5 percent real-estate transactions tax, and Radnor Township in Delaware County increased its real-estate transfer tax from 0.75 percent to 1 percent and dedicated the additional revenues to open space.<sup>115</sup>

- Implementing a 1 percent surcharge on the water and sewer bills rendered to users in the city to go toward park improvements. Since the typical homeowner's monthly bill is about \$51, a 1 percent surcharge would add 50 cents per month. Given the substantial roles parks play in managing water, protecting watersheds, controlling stormwater and runoff, and so on, it is possible to make the case that a small surcharge is justified to offset the park system's water-related expenses.<sup>116</sup>
- Using goats and sheep instead of power mowers and contracted landscapers. This is an innovative and sustainable approach to park maintenance that has been tested in cities such as New York, Los Angeles, and San Diego. A recent study features the potential cost benefits as well, as it could represent a savings of 7 to 12 cents per square foot of land while serving as a revenue opportunity, since droppings can be used as fertilizer and meat can be sold to local restaurants.<sup>117</sup>
- Creating more direct involvement of Business Improvement Districts in the maintenance of green spaces, as has been done in the University City District's work with Clark Park and Malcolm X Park and the Center City District's recent acquisition of Chestnut Park.
- Creating a carbon-offset program that ties grants from carbon-emitting industries to renewable energy, tree planting, or other carbon-negative projects.<sup>118</sup> An offset or a credit program could also be created for stormwater.
- Arranging food and beverage "exclusivity agreements" in which a company pays a fixed fee and a percentage of sales to a school for the exclusive right to sell its product in the facilities.

- Requiring all new development projects that include parks to have mechanisms in place for adjacent residents and businesses to support the operation of the park. Such mechanisms could include creating a Business Improvement District, creating land-lease payments, or instituting an annual fee for park maintenance that would be transferred to PPR.
- When designing new parks and facilities, including revenue-generating amenities to directly supplement park-operation costs, such as bike or boat rental and specialized, privately organized recreational activities.

## COST ESTIMATES

Green2015 outlines a commitment to create 500 new acres of park space for citizens and to do so affordably. A world-class city needs parks, but it also needs to live within its budget, especially in difficult economic times. To get there, we intend at every opportunity to align this initiative with similar efforts underway throughout the city government and to partner with the nonprofit and for-profit private sector, as well as many of the city's leading institutions, to ameliorate the cost of the program. We estimate that if current trends in park creation continue, 200 acres of new park space will be created by the private sector at no acquisition or construction cost to the City of Philadelphia, which represents nearly half of the Green2015 goal. Further, the remaining 300 acres can be created with no acquisition costs by repurposing land that is already publicly owned. These might include public recreation sites, particularly those that feature large paved surfaces where greening would both support the goals of Green2015 and improve management of stormwater runoff according to the Water Department's Green City, Clean Waters program. Other sites could include public schoolyards and other underused public land.

Clearly, the cost of a project can vary according to the type of park space that is created. Some green spaces can be created at relatively low cost, while others carry a higher price tag because of the size and scale of the greening involved. Here is a sampling of what is possible, based on a site area of one-quarter acre, established as the

minimum that can to meet basic stormwater requirements and provide recreational amenities:

- The "Clean and Green" process managed by the Pennsylvania Horticultural Society, which includes cleaning, soil, fence, trees and grass seed costs between \$10,890 and \$13,075 per quarter-acre.<sup>119</sup>
- Cost estimates for constructing wetlands, 82 acres of which are required as part of the airport expansion plan and could be linked to adjacent waterfront parks, are as low as \$12,500 to \$25,000 per quarter-acre, depending on the organization.<sup>120</sup>
- Grays Ferry Crescent, Schuylkill River between 34th and Wharton Streets: an estimated \$50,000 per quarter-acre for asphalt trail, trail lighting, and landscaping.<sup>121</sup>
- The Water Department estimates that it costs an average of \$62,500 per quarter-acre to convert 1 acre of paved surface into a "greened acre" that properly manages stormwater runoff.<sup>122</sup>
- Washington Avenue Green, Delaware River and Washington Avenue: \$142,500 per quarter-acre for design of 3 acres and construction of 1-acre park and wetland restoration.<sup>123</sup>
- Penn Treaty Park, Delaware River and Columbia Avenue: an estimated \$382,140 per quarter-acre for extensive design and construction improvements for the 7-acre park.<sup>124</sup>

## D. ENDNOTES

1. *Green City, Clean Waters: The City of Philadelphia's Program for Combined Sewer Overflow Control*, Philadelphia Water Department (September 1, 2009).
2. *Measuring the Economic Value of a City Park System*, The Trust for Public Land Center for City Park Excellence, 2003, [http://www.tpl.org/tier3\\_cd.cfm?content\\_item\\_id=22879&folder\\_id=3208](http://www.tpl.org/tier3_cd.cfm?content_item_id=22879&folder_id=3208)
3. *Green City, Clean Waters*.
4. Ibid.
5. The Water Department identifies its "priority" sites as those with a minimum drainage area of 9,000 square feet, made up from the impervious site cover and adjacent streets, appropriate topography and site drainage, and adjacent infrastructure to be used for overflow. The site must be able to provide one-tenth of the drainage area for stormwater-management purposes. Smaller sites would be considered on a case-by-case basis.
6. Vacant land data courtesy of Philadelphia City Planning Commission (September 16, 2010).
8. *How Much Does the City of Philadelphia Receive from Its Parks and Recreation System?*, Philadelphia Parks Alliance and The Trust for Public Land Center for City Park Excellence (June 2008).
9. *Measuring the Economic Value of a City Park System*.
10. Vitiello, Domenic, and Michael Nairn, *Community Gardening in Philadelphia: 2008 Harvest Report*, Penn Planning and Urban Studies, University of Pennsylvania, October 2009.
11. Valerie Russ, "Group Taking the Lead to Stamp out Blight in Philadelphia," *Philadelphia Inquirer* (September 17, 2010), [http://www.philly.com/dailynews/local/20100917\\_Group\\_taking\\_the\\_lead\\_to\\_stamp\\_out\\_blight\\_in\\_Philadelphia.html](http://www.philly.com/dailynews/local/20100917_Group_taking_the_lead_to_stamp_out_blight_in_Philadelphia.html)
12. Interview with Charles Branas, Cartographic Modeling Lab, University of Pennsylvania (September 21, 2010).
13. *2010 City Park Facts*, The Trust for Public Land Center for City Park Excellence, 2010, [http://www.tpl.org/content\\_documents/CityParkFacts\\_2010.pdf](http://www.tpl.org/content_documents/CityParkFacts_2010.pdf)
14. *Green City, Clean Waters*.
15. Kathleen L. Wolf, "Business District Streetscapes, Trees and Consumer Response," *Journal of Forestry* (December 2005), [http://www.naturewithin.info/CityBiz/BizTreesAll\\_JFor.pdf](http://www.naturewithin.info/CityBiz/BizTreesAll_JFor.pdf)
16. Susan Wachter, "The Determinants of Neighborhood Transformation in Philadelphia, Identification and Analysis: The New Kensington Pilot Study," The Wharton School, University of Pennsylvania, 2005.
17. Gillen and Baylson, "Valuing the Conversion of Urban Green Space," *Current Issues in Housing and Urban Economics*, American Real Estate and Urban Economic Association Mid-Year Meeting Program, Penn Institute for Urban Research and Pennsylvania Horticultural Society (June 2010).
18. *Green City, Clean Waters*.
19. *The Economic, Environmental, Health, and Quality of Life Benefits of a Fully Connected Waterfront Greenway in Philadelphia*, Coalition for Philadelphia's Riverfronts, Citizens for Pennsylvania's Future (October 27, 2010).
20. "Clean Environment Key to Economy, Philadelphians Tell Pollster; Mayoral Candidates' Position on Environment Very Important to Residents and Business Owners," Terry Madonna and Penn Future, 2006, [http://www.pennfuture.org/media\\_pr\\_detail.aspx?MediaID=169&Archive=Y](http://www.pennfuture.org/media_pr_detail.aspx?MediaID=169&Archive=Y)
21. *Vacant Land Management in Philadelphia: The Costs of the Current System and the Benefits of Reform*, Redevelopment Authority of Philadelphia (November 2010).
22. Jonah Lehrer, "How the City Hurts Your Brain . . . and What You Can Do About It," *Boston Globe* (January 2, 2009), [http://www.boston.com/bostonglobe/ideas/articles/2009/01/04/how\\_the\\_city\\_hurts\\_your\\_brain/?page=1](http://www.boston.com/bostonglobe/ideas/articles/2009/01/04/how_the_city_hurts_your_brain/?page=1)
23. National Recreation and Park Association, "Why Parks and Recreation Are Essential Public Services," [www.nrpa.org](http://www.nrpa.org)
24. City Parks Forum Briefing Papers, "How Cities Use Parks to . . . Improve Public Health," American Planning Association, <http://www.planning.org/cityparks/briefingpapers/physicalactivity.htm>
25. *Green City, Clean Waters*.
26. Ibid.
27. Ibid.
28. "The Fairmount Park System: For the Health and Enjoyment of Citizens," Fairmount Park Commission, <http://fairmountpark.org/HistoryIntro.asp>
29. *Implementing Green Infrastructure: Developing a Winning Strategy to Fund Philadelphia's Ambitious Visions*, Pennsylvania Environmental Council (October 2009).
30. *Green City, Clean Waters*.
31. Ibid.
32. *The Economic Value of Protected Open Space in Southeastern Pennsylvania*, GreenSpace Alliance and Delaware Valley Regional Planning Commission (November 2010).



33. Miriam Hill, "Philadelphia Looks for Ways to Streamline Sales of Publicly Owned Properties," *Philadelphia Inquirer* (September 21, 2010), [http://www.philly.com/philly/news/20100921\\_Philadelphia\\_looks\\_for\\_ways\\_to\\_streamline\\_sales\\_of\\_publicly\\_owned\\_properties.html](http://www.philly.com/philly/news/20100921_Philadelphia_looks_for_ways_to_streamline_sales_of_publicly_owned_properties.html)
34. *Greenworks Philadelphia*, Philadelphia Mayor's Office of Sustainability, April 2009.
35. Park area measurements represent current park size, courtesy of Philadelphia Parks and Recreation, October 2010.
36. Using Philadelphia Parks and Recreation data, the current size of the system is 9,995 acres.
37. Map data are from the following sources: Delaware Valley Regional Planning Commission (DVRPC), Philadelphia Parks and Recreation, GreenPlan Philadelphia, Philadelphia City Planning Commission, and U.S. Census Bureau.
38. Map data are from the following sources: Philadelphia Water Department, Penn State University, U.S. Geological Survey, University of Vermont Spatial Analysis Lab, Philadelphia Parks and Recreation, and the City of Philadelphia Department of Technology.
39. Map data are from the following sources: Western Pennsylvania Conservancy, Natural Lands Trust, Penn Planning, Delaware River Basin Commission, and Federal Emergency Management Agency.
40. Map data are from the following sources: Southeastern Pennsylvania Transportation Authority, DVRPC, Philadelphia City Planning Commission, U.S. Census Bureau, and Wharton Business Analyst.
41. *Abandoned Railroad Inventory and Policy Plan*, Delaware Valley Regional Planning Commission (September 1997).
42. Map data are from the following sources: U.S. Census Bureau, Philadelphia Department of Public Health, Public Health Management Corporation, Cartographic Modeling Lab, and GreenPlan Philadelphia.
43. Data provided by Philadelphia Parks and Recreation, September 2010.
44. Data courtesy of Pennsylvania Horticultural Society, September 2010.
45. Community development corporation and neighborhood organization data courtesy of the Philadelphia City Planning Commission, March 2010. JoAnn Greco, "TLC for a Unique Center City 'Pocket Park,'" *PlanPhilly* (July 14, 2010), <http://planphilly.com/tlc-unique-center-city-pocket-park>
46. The group Independent Sector estimates the value of volunteer time at \$19.51 per hour (<http://www.independentsector.org/>); *Measuring the Economic Value of a City Park System*.
47. Map data are from the following sources: Philadelphia Parks and Recreation, Delaware Valley Regional Planning Commission, GreenPlan Philadelphia, Philadelphia Water Department, and Philadelphia City Planning Commission.
48. Green2015 used 90 percent as a baseline standard because 10 percent of the site area is the Philadelphia Water Department's basic metric for the minimum amount of impervious surface needed to convert to pervious surface in order to make it a "greened acre" that filters the first inch of stormwater.
49. A 2007 study by Urban Partners found that farming in Philadelphia can produce \$120,000 annually.
50. Brandon Gollotti, "The Growth of Drexel University," *PlanPhilly* (April 8, 2009), <http://planphilly.com/node/8594>
51. Thomas Walsh, "North Philly's Industrious Community Creation," *PlanPhilly* (February 5, 2010), <http://planphilly.com/going-green-big-way>
52. Community Design Collaborative, "Green Region Grant for West Philly's Enterprise Center CDC," *Community Design Collaborative Blog* (July 27, 2010), <http://blog.cdesignc.org/green-region-grant-for-west-philly%E2%80%99s-enterprise-center-cdc/>
53. In the context of *Green City Clean Waters*, a "greened acre" is defined as an acre of impervious cover connected to a combined sewer in baseline year 2006 that is subsequently reconfigured to utilize green stormwater infrastructure to manage all or a portion of its stormwater runoff. A "greened acre" is an expression of the physical volume of stormwater that is managed onsite by green stormwater infrastructure. One "greened acre" is equivalent to 1 inch of managed stormwater from 1 acre of drainage area, or 27,158 gallons of managed stormwater.
54. All Philadelphia Parks and Recreation opportunity sites listed were gathered from a combination of datasets from the Delaware Valley Regional Planning Commission, Philadelphia Parks and Recreation, and Philadelphia City Planning Commission. The extent of impervious surface and location within the combined sewer system was calculated using data from the Philadelphia Water Department. User data was from 2009 and courtesy of Philadelphia Parks and Recreation.
55. *Pittsburgh Climate Action Plan*, Pittsburgh Climate Initiative (June 2008), [http://www.city.pittsburgh.pa.us/district8/assets/08\\_pgh\\_climate\\_action\\_plan.pdf](http://www.city.pittsburgh.pa.us/district8/assets/08_pgh_climate_action_plan.pdf)
56. The Greening of Detroit, "Featured Projects," [http://www.greeningofdetroit.com/3\\_1\\_featured\\_projects.php](http://www.greeningofdetroit.com/3_1_featured_projects.php) (accessed September 9, 2010).
57. *Urban Arboretum: From Vacancy to Hybrid Landscape*, Studio report from Landscape Architecture 414, Professors Timothy Baird and Matthew Langan, Pennsylvania State University, Spring 2010.
58. All public underused opportunity sites listed were gathered from datasets from the Philadelphia City Planning Commission and Water Department (dated July 14, 2010) and from the Redevelopment Authority (dated March 10, 2010). State-owned land data was courtesy of the Pennsylvania Department of Transportation and the Department of General Services. Data for the service-based centers was courtesy of the Philadelphia City Planning Commission.

59. Pennsylvania Recreational Use Statute, [http://www.americanwhitewater.org/resources/repository/Pennsylvania\\_Recreational\\_Use\\_Statute.htm](http://www.americanwhitewater.org/resources/repository/Pennsylvania_Recreational_Use_Statute.htm)
60. "What is a Joint-Use Agreement?" National Policy and Legal Analysis Network to Prevent Childhood Obesity, March 2009.
61. Dolesh, Richard, "School of Thought," Parks and Recreation, August 2009.
62. Ibid.
63. Ibid.
64. People for Parks, "Community-School Parks," [http://www.peopleforparks.org/community\\_school\\_parks.html](http://www.peopleforparks.org/community_school_parks.html) (accessed September 9, 2010).
65. "School of Thought."
66. Boston Schoolyard Initiative, "Funding the Initiative" and "An Overview," <http://www.schoolyards.org/funding.htm> and <http://www.schoolyards.org/overview.htm> (accessed September 9, 2010).
67. Interview with Kirk Meyer, Green Schoolyard Network (September 3, 2010).
68. Interview with Lisa Armstrong, Greenfield Greening Committee (April 22, 2010); Greening Greenfield Committee, "Greening Greenfield," <http://www.greeninggreenfield.net/>
69. All lists of schoolyard opportunity sites were gathered from datasets provided by GreenPlan Philadelphia and the School District of Philadelphia. The extent of impervious surface and location within the combined sewer system was calculated using data from the Philadelphia Water Department. Data on the Wellness Council program was provided by the Philadelphia Department of Public Health.
70. Teachers and community members already engaged in community gardening on site: <http://philadelphiagreen.wordpress.com/2010/08/04/school-competes-in-city-gardens-contest/>
71. Data provided by Department of Revenue, dated July 2010.
72. Miriam Hill, "Philadelphia Tax Amnesty Nets \$60 Million," *Heard in the Hall* (July 6, 2010), <http://www.philly.com/philly/blogs/heardinthehall/taxes.html>
73. "Philadelphia's New Zoning Code: DRAFT Modules 2 and 3," Zoning Code Commission (July 14, 2010), <http://www.zoningmatters.org/>
74. Pennsylvania Recreational Use Statute, [http://www.americanwhitewater.org/resources/repository/Pennsylvania\\_Recreational\\_Use\\_Statute.htm](http://www.americanwhitewater.org/resources/repository/Pennsylvania_Recreational_Use_Statute.htm)
75. *Abandoned Railroad Inventory and Policy Plan*, Delaware Valley Regional Planning Commission (September 1997).
76. All lists of railroad opportunity sites were gathered from datasets provided by the Philadelphia City Planning Commission, the Delaware Valley Regional Planning Commission, CSX Transportation, and Pennsylvania Department of Conservation and Natural Resources. Ownership information was provided by the Philadelphia Department of Records.
77. Lists of private underused opportunity sites listed were gathered from a variety of datasets. Airport compensatory-wetland sites were identified by the PHL Capacity Enhancement Program Environmental Impact Statement from the Federal Aviation Administration, released August 2010. "Clean and green" data was provided by the Pennsylvania Horticultural Society, cemeteries were provided by *GreenPlan Philadelphia*, and community gardens were provided by Domenic Vitiello at the University of Pennsylvania. Vacancy data was provided by the Philadelphia City Planning Commission and Water Department (dated July 14, 2010).
78. *Community Gardening in Philadelphia: 2008 Harvest Report*, Vitiello and Nairn; New York City Parks and Recreation's GreenThumb program requires that the 600-plus gardens it assists are open to the public a minimum of 10 hours per week in order to qualify for city resources.
79. Data provided by the Philadelphia City Planning Commission.
80. *Green City, Clean Waters*.
81. "Philadelphia International Airport Capacity Enhancement Program," <http://www.phl-cep-eis.com/>
82. Alan Jaffe, "PHS Receives Home Depot Grant," *Pennsylvania Horticultural Society* (November 20, 2009), <http://www.pennsylvaniahorticulturalsociety.org/aboutus/homedepot2.html>
83. "Green Region," *PECO: An Exelon Company*, [http://www.peco.com/pecores/environment\\_and\\_community/environment\\_for\\_our\\_community/green\\_region/](http://www.peco.com/pecores/environment_and_community/environment_for_our_community/green_region/) (accessed September 9, 2010).
84. "Park West: Linking Communities with Green Space," American Cities Foundation, <http://www.amcities.org/green-jobs-sustainability/park-west-linking-communities-with-green-space>
85. "Revitalizing Hunting Park," Fairmount Park Conservancy, <http://www.fairmountparkconservancy.org/project/RevitalizingHuntingPark.php>
86. Andropogon Associates; *Creating Sustainable Community Parks: A Guide to Improving Quality of Life by Protecting Natural Resources*, Pennsylvania Department of Conservation and Natural Resources, 2007.
87. Pennsylvania Township News, July 2010, <http://www.psats.org/panews.html>
88. *Green City, Clean Waters*.
89. *GreenPlan Philadelphia*, Wallace Roberts and Todd, LLC.
90. *Supporting Our Parks: A Guide to Alternative Revenue Strategies*, New Yorkers for Parks (June 2010).
91. *A Bridge to the Future: Fairmount Park Strategic Plan Summary Report*, Leon Younger and PROS for Fairmount Park Commissioner (June 2004).
92. Portland Bureau of Environmental Services, "GreenBucks," <http://www.portlandonline.com/bes/index.cfm?c=52708> (accessed September 9, 2010).

93. "New Grass Roots: People for Urban Progress," *Urbanophile: Passionate about Cities* (May 20, 2010), <http://www.urbanophile.com/2010/05/20/new-grass-roots-people-for-urban-progress/>
94. Press release, "Silverdome Sod to Live on in Southwest Detroit Soccer Field" (August 5, 2010), <http://www.detnews.com/article/20100814/METRO02/8140376/1410/METRO01/Southwest-Detroit-park-gets-sod-from-soccer-game-at-Silverdome>
95. Pennsylvania Department of Transportation, "PennDOT Driver and Vehicle Services: Special Fund Plates," [http://www.dmv.state.pa.us/license\\_plates/special\\_fund.shtml](http://www.dmv.state.pa.us/license_plates/special_fund.shtml) (accessed September 9, 2010).
96. David Harrison, "Register Your Car, Save a State Park," *Stateline* (March 24, 2010), <http://www.stateline.org/live/details/story?contentId=471391>
97. Brooklyn Bridge Park Financial Plan Presentation, January 29, 2009, <http://www.brooklynbridgeparknyc.org/about-us/project-approvals-presentations> (accessed September 9, 2010).
98. *Measuring the Economic Value of a City Park System*.
99. Philadelphia Green, "Roots to Re-Entry Revisited," *Philadelphia Green Blog* (September 8, 2010), <http://philadelphiagreen.wordpress.com/2010/09/08/roots-to-re-entry-revisited/>
100. Initial designs show 25 acres of space underneath the viaduct. PennDOT is committed to allowing active recreation on this land. We show half of the total acreage being protected for green space.
101. Teachers and community members already engaged in community gardening on site: <http://philadelphiagreen.wordpress.com/2010/08/04/school-competes-in-city-gardens-contest/>.
102. *Logan Triangle*, Urban Land Institute Technical Assistance Program (September 10, 2009).
103. *Green City, Clean Waters*.
104. *Supporting Our Parks*.
105. Pennsylvania Statute 32 P.S. 5611, Rails to Trails Act (March 18, 1991), <http://www.rachelcarsontrails.org/property/rtta/?searchterm=None>
106. Interview with Jonathan Lewis, City of Atlanta Office of Planning (August 24, 2010).
107. Interview with Carolyn Wallis, Pennsylvania Department of Conservation and Natural Resources (August 9, 2010).
108. Interview with Katherine Estes Billmeier, Railroad Park Foundation (August 25, 2010).
109. Interview with Peter Lagerway, Toole Design (September 10, 2010).
110. Interview with Jim Sutherland, Eastern Market Corporation (August 25, 2010).
111. Kelli Kavanaugh, "Cut Loose from the Car," *Metropolis Magazine* (February 18, 2009), <http://www.metropolismag.com/story/20090218/cut-loose-from-the-car>
112. All lists of railroad opportunity sites were gathered from datasets provided by the Philadelphia City Planning Commission, the Delaware Valley Regional Planning Commission, CSX Transportation, and Pennsylvania Department of Conservation and Natural Resources. Vacancy data was provided by the Philadelphia City Planning Commission and Philadelphia Water Department (dated July 14, 2010).
113. Brian Johnson, "PENNVEST Nonpoint Source Funding Program," <http://pacd.org/webfresh/wp-content/uploads/2010/05/Johnson.pdf>
114. *The Tidal Schuylkill River Master Plan*, Schuylkill River Development Corporation, March 2003.
115. Gary Gordon, *Public Finance for Open Space: A Guide for Pennsylvania's Municipalities*, Pennsylvania Department of Conservation and Natural Resources (2003).
116. *Implementing Green Infrastructure*; Jim Pickman, "Financing Options and Recommendations," memorandum for the Parks Reform Task Force (September 1, 2006).
117. Ariel Ben-Amos, *Grazing William Penn's Greene Country Town: Using Goats to Manage Philadelphia's Vacant Land* (self-produced report, 2009).
118. *Implementing Green Infrastructure*.
119. Interview with Shawn Kilgallon, Pennsylvania Horticultural Society (September 3, 2010).
120. *Green City, Clean Waters*.
121. Interview with Joe Syrnick, Schuylkill River Development Corporation (August 1, 2010).
122. *Green City, Clean Waters*.
123. Interview with Sarah Thorp, Delaware River Waterfront Corporation (August 24, 2010).
124. Project estimates for Penn Treaty Park master plan, Becker & Frondorf.



## E. IMAGE CITATIONS

Photographs in this report were taken by PennPraxis staff members Andrew Goodman, Michael Miller, Harris Steinberg, and Maria Tranguch, with the following exceptions:

Page 7

- “Tom the Gardener.” Photograph. Tony the Misfit. Available from flickr: <http://www.flickr.com/photos/tonythemisfit/3495664861/>. Accessed 8 November 2010.
- “Carroll Park kids running” and “carroll-park-cit-bank 064.” Photographs. Philadelphia Green Collection, courtesy of Pennsylvania Horticultural Society. (Reproduced with Permission.)
- “Penn Treaty Park Frisbee.” Photograph. Penn Treaty Park Collection, courtesy of New Kensington Community Development Corporation. (RWP)

Page 24

- “Skyline.” Photograph. monoglot. Available from flickr: <http://www.flickr.com/photos/monoglot/237312213/sizes/l/>. Accessed 8 November 2010.

Page 25

- “Tom the Gardener.” Photograph. Tony the Misfit. Available from flickr: <http://www.flickr.com/photos/tonythemisfit/3495664861/>. Accessed 8 November 2010.
- “Meadow.” Photograph. Fairmount Park Collection, courtesy of Philadelphia Parks and Recreation. (RWP)
- “Pennypack Panorama.” Photograph. Fairmount Park Collection, courtesy of

Philadelphia Parks and Recreation. (RWP)

Page 38

- “Park Carroll 2006 Summer 02,” “Parks Nicetown Sp06 06,” and “SIYP 024 ppt.” Photographs. Philadelphia Green Collection, courtesy of Pennsylvania Horticultural Society. (RWP)

Page 39

- “Parks Campbell Sq Summer06 007,” “137-3743\_INTERFACE\_WATER3,” and “willard-st 028.” Photographs. Philadelphia Green Collection, courtesy of Pennsylvania Horticultural Society. (RWP)

Page 63

- “Germantown Ave Murals 2009 001.” Photograph. Handball Court Collection, courtesy of Asociación Puertorriqueños en Marcha. (RWP)

Page 79

- “CAPA01.” Photograph. Kensington Creative and Performing Arts School Collection, courtesy of Philadelphia Water Department. (RWP)
- “WalnutHill01.” Photograph. Walnut Hill Community Park and Farm Collection, courtesy of The Enterprise Center CDC. (RWP)
- “Penn Park Rendering.” Drawing. Penn Park Collection, courtesy of University of Pennsylvania Facilities and Real Estate. (RWP)

Page 83

- Untitled. Photograph. Detroit Lions Plant trees with The Greening Collection, courtesy of The Greening of Detroit. (RWP)

Page 94

- “GrassHouses.” Photograph. Logan Triangle Collection, courtesy of Maria Tranguch. (RWP)

Page 97

- “IMG\_3927.” Photograph. Walnut Hill Community Playground Collection, courtesy of Imanni Wilkes. (RWP)
- “Hunting Park Groundbreaking\_9.8.10\_1.” Photograph. Hunting Park Groundbreaking Ceremony Collection, courtesy of the Fairmount Park

Conservancy. (RWP)

Page 98

- “Shoemaker-Aerial-E.” Photograph. Shoemaker Green Collection, courtesy of University of Pennsylvania Facilities and Real Estate. (RWP)

Page99

- “Soil Prep Group Pic 2 05-2009 PREMIUM.” Photograph. Neighborhood Greening Collection, courtesy of Asociación Puertorriqueños en Marcha. (RWP)

Page 100

- “Major League Baseball\_0123\_edited-2.” Photograph. Urban Youth Academy Collection, courtesy of Philadelphia Parks and Recreation. (RWP)