

# CHAPTER 1

## PROJECT DESCRIPTION

### Introduction

The Delaware Direct Watershed River Conservation Plan (RCP) is one component of multiple ongoing watershed planning efforts led by the Philadelphia Water Department (PWD) and the Delaware Direct Watershed Partnership. In 2006, the PWD obtained grant funding from the Pennsylvania Department of Conservation and Natural Resources (PADCNR) to undertake this RCP effort. River conservation plans are intended to identify significant natural, recreational and cultural resources; to determine issues, concerns and threats to river resources and values; and to recommend specific actions to conserve, enhance and restore the project area.

### Delaware Direct Watershed River Conservation Plan Goals

The Delaware Direct Watershed Partnership, which continues to meet beyond the completion of this plan, will advise the development of future watershed planning efforts in the Delaware Direct Watershed. The goals of the Delaware Direct Watershed RCP were developed to coincide with those developed for all Philadelphia watersheds through the Integrated Watershed Management Planning (IWMP) process. The IWMPs identify improvements to the health of the water resources in Philadelphia watersheds while respecting the diverse needs of stakeholders. The Delaware Direct Watershed River Conservation Plan goals have come to represent an overarching vision for the Delaware Direct Watershed.

#### *Delaware Direct Watershed River Conservation Plan Goals*

- *Riverflow and Living Resources:* Improve stream habitat and integrity of aquatic life
- *In-river Flow Conditions:* Reduce the impact of urbanized flow on living resources
- *Water Quality and Pollutant Loads:* Improve dry and wet weather stream quality to reduce the effects on public health and aquatic life
- *River Corridors:* Protect and restore river corridors, buffers, floodplains and natural habitats including wetlands
- *Flooding:* Identify flood-prone areas and decrease flooding
- *Quality of Life:* Enhance residents' quality of life through environmental improvements
- *Recreation:* Enhance and improve recreational opportunities
- *Stewardship, Communication, and Coordination:* Foster community stewardship and improve inter-governmental, state, local and stakeholder cooperation and coordination on a watershed basis

## 1.1 - Planning Process

The Delaware Direct Watershed is the area of the City of Philadelphia that drains directly to the Delaware River and generally consists of 21 miles of Delaware River waterfront and several city blocks inland. Beginning with European settlement in the 1600s, the Delaware Direct watershed has become increasingly developed and is today home to more than half a million residents in more than 70 neighborhoods. The watershed also includes a large portion of the central business district of Philadelphia, Independence National Historical Park, the Philadelphia International Airport and the Port of Philadelphia. Figure 1.1, the Watershed Base Map, shows project area and some of the neighborhoods within it.

The diversity of resources and the ultra-urban nature of the Delaware Direct Watershed present both opportunities and challenges for watershed health and viability. However, there is evidence that this area is poised to capitalize on the opportunities. Dozens of neighborhood plans, city plans, riverfront plans, community plans and sustainability plans have been undertaken to determine the best ways to move forward. Figure 1.2 maps some of the plans active in the watershed.

One of the major issues facing the Delaware Direct Watershed is the perceived disconnection from its associated water resources. Development of the Delaware riverfront for commercial and industrial use has created barriers to views and access points that reinforce these connections. The conversions of streams to sewers have essentially hidden the water resources so crucial to everyday life in the City. This RCP seeks to unite stakeholders with their local historic streams, rivers and valuable watershed resources through a holistic approach to conservation planning.

Using a community-based planning process, the RCP team capitalized on the momentum of complementary planning efforts, the expertise and enthusiasm of the Delaware Direct Watershed Partnership (previously the RCP steering committee) and the local knowledge of the public that participated in the outreach processes, described in Chapter 3 of this report. This outreach sought to capture the concerns of and amenities identified by the people that live, work and play in the Delaware Direct Watershed. Chapters 2 and 4 - 7 explore the state of the watershed through its socio-economic, natural, cultural and historic aspects, forming a profile of existing conditions. These characteristics are used to identify the components of underlying constraints and document the resources available for managing watershed issues. A summary of watershed issues, as well as the opportunities available to address them, is presented in Chapter 8. The RCP concludes with Chapter 9, which proposes actions for mitigating issues and managing resources.

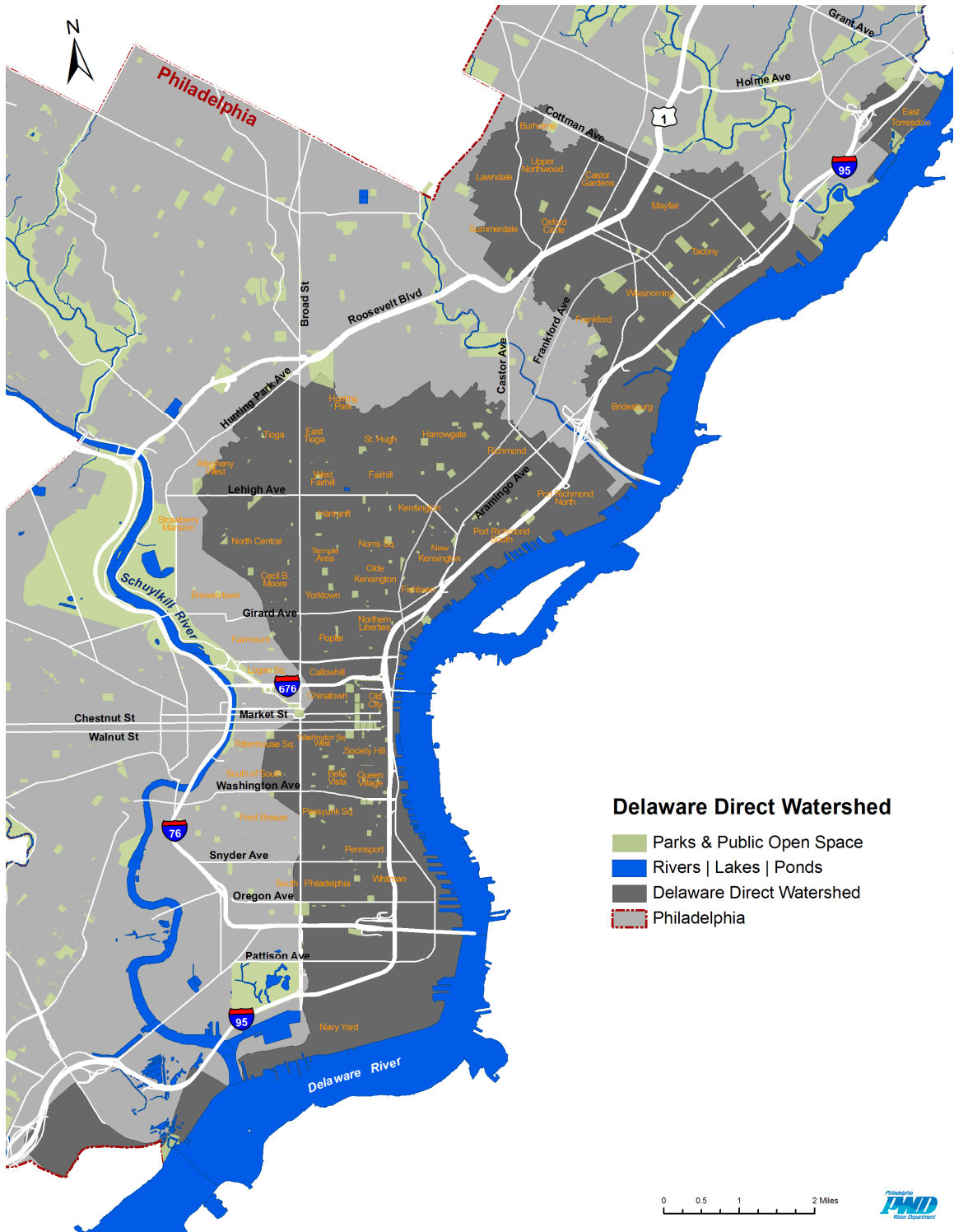


Figure 1.1 - Delaware Direct Watershed Base Map  
 Source: PWD

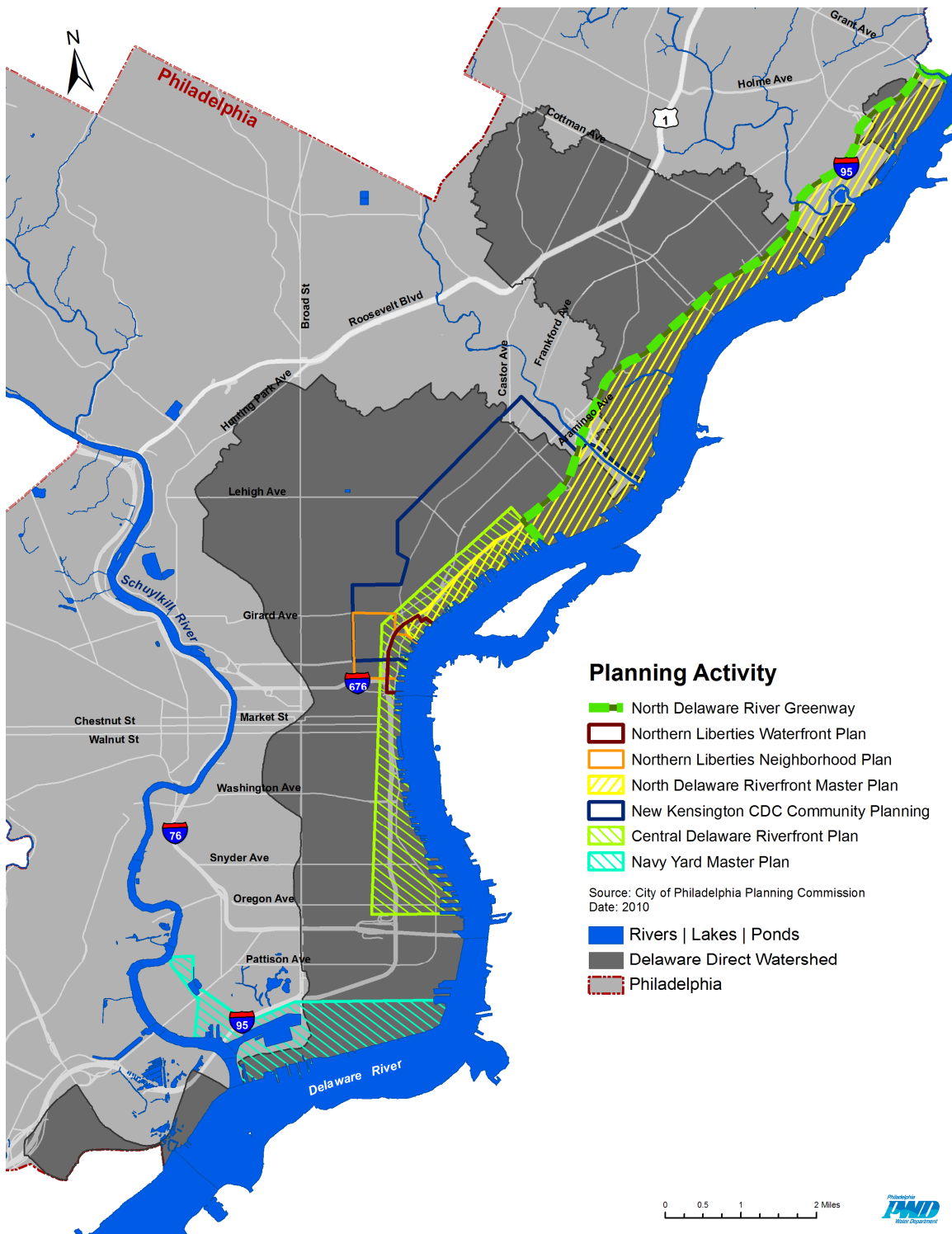


Figure 1.2 - Existing plans in the Delaware Direct Watershed  
Source: PWD

### **What Makes This River Conservation Plan Unique?**

With authorization from the Department of Conservation and Natural Resources (DCNR), the RCP Team determined this watershed deserved a unique approach.

As mentioned, there are many plans and projects that have been previously undertaken or are currently underway in this watershed. Table 1.1 provides a list of plans and projects referenced for the RCP. Several of these plans achieve many of the functions of the RCP, including outreach, goals and objectives, inventory of technical resources and recommendations for implementation. The RCP team determined it would be useful for this report to both build upon and add to the momentum created by these complementary plans. This report identifies the connections of these plans to the goals and objectives of the Delaware Direct Watershed RCP and presents them graphically in Chapter 9. Additionally, the RCP Team adjusted and refined the traditional RCP public participation approach to build upon the vast amount of public input and issue identification gathered by the existing and ongoing plans.

### **Public Participation Process**

The RCP team began by reviewing the outputs from several documents that have significance and potential impact on the Delaware Direct Watershed to identify recurring themes and most frequently cited recommendations. After reviewing and comparing the various planning documents, consensus on several key principles emerged:

- Claim the Delaware waterfront as a signature cultural landscape that defines Philadelphia and informs the surrounding neighborhoods.
- Provide residents and visitors open access and a variety of experiences and amenities along the waterfront, including the ability to “touch the river.”
- Balance public space as a cultural and social resource, with the opportunity to mitigate environmental impacts from human use and development.
- The imperative for government to lead by example on riverfront redevelopment, particularly where ownership and control issues are minimal and re-investment can result in multiple benefits or benefits to the community as a whole.
- The desire of Philadelphians to have distinct and individual neighborhood identities as well as safe, attractive and walkable access to a host of neighborhood amenities such as parks, schools, restaurants, shopping, etc.
- Community input and influence on how neighborhoods are planned and developed, in particular when it comes to redevelopment projects that are likely to have significant impact on the life and/or character of a neighborhood.
- Strong agreement among City residents that multi-modal transportation options such as bus, trolley and light rail are one of, if not the most, highly valued neighborhood amenity, providing relief from parking woes and the noise, congestion and pollution associated with cars.
- An understanding by citizens, professionals and municipal officials that outcomes are determined by both action and policies: Effective policies encourage desirable activities and, symbiotically, citizen action drives and directs municipal policy.

Building on the organizing themes and recommendations in those documents, working groups of experts and stakeholders were convened. The intent and effect of this approach was to maintain the vitality and interest of those who had already made significant planning contributions, to avoid redundant processes and, most important, to move key concepts and recommendations forward. Chapter 3 provides a detailed discussion of the public outreach process.

### **Web-Based Format**

An additional unique element of the Delaware Direct Watershed RCP is its format. With the desire to promote access to the volume of information presented in this report, the RCP team determined it would be most useful to the watershed stakeholders to showcase the plan as a web-based document. The web-based format serves to minimize unnecessary duplication, to synthesize information and, hopefully, to streamline the application of the planning recommendations.

### **Rivers Registry**

Pending approval by the PA DCNR, the RCP recommendations (and the report in its entirety) will become available on the [Pennsylvania Rivers Registry](#). This listing will enable the projects on the recommendations list to be eligible for funding.

The purpose of the registry is to promote river conservation and to recognize rivers or river segments in communities that have completed river conservation plans. The registry is also an avenue to endorse local initiatives by binding them together in a statewide recognition program. In order for a river to be placed on the registry, it must have an approved plan and local municipal support. Registry status must be achieved to qualify for implementation, development or acquisition grants. (Source: DCNR)

*Table 1.1 - Plans and Projects referenced for the Delaware Direct Watershed River Conservation Plan*

<b>PLAN</b>	<b>ON-LINE LOCATION</b>
Action Plan for Central Delaware (2008)	<a href="http://issuu.com/pennpraxis/docs/actionplan_full">http://issuu.com/pennpraxis/docs/actionplan_full</a>
Center City District Planning for Growth 2007 – 2012	<a href="http://www.centercityphila.org/docs/CCD-PLAN07.pdf">http://www.centercityphila.org/docs/CCD-PLAN07.pdf</a>
Central Delaware Riverfront Master Plan	<a href="http://www.plancentraldelaware.com/">http://www.plancentraldelaware.com/</a>
Civic Vision for Central Delaware (2007)	<a href="http://issuu.com/pennpraxis/docs/civic-vision-for-the-central-delaware">http://issuu.com/pennpraxis/docs/civic-vision-for-the-central-delaware</a>
Delaware River: State of the Basin Report, 2008	<a href="http://www.state.nj.us/drbc/SOTB/index.htm">http://www.state.nj.us/drbc/SOTB/index.htm</a>
East Coast Greenway	<a href="http://www.greenway.org/pa.aspx">http://www.greenway.org/pa.aspx</a>
Green City, Clean Waters	<a href="http://www.phillywatersheds.org/what_were_doing/documents_and_data/cso_long_term_control_plan/">http://www.phillywatersheds.org/what_were_doing/documents_and_data/cso_long_term_control_plan/</a>
GreenPlan Philadelphia	<a href="http://www.greenplanphiladelphia.com/">http://www.greenplanphiladelphia.com/</a>
Greenworks Philadelphia, 2009	<a href="http://www.phila.gov/green/greenworks/2009-greenworks-report.html">http://www.phila.gov/green/greenworks/2009-greenworks-report.html</a>
Green 2015: An Action Plan for the First 500 Acres	<a href="http://planphilly.com/green2015-action-plan-first-500-acres">http://planphilly.com/green2015-action-plan-first-500-acres</a>
A Natural Heritage Inventory for Philadelphia County, 2008	<a href="http://www.fairmountpark.org/pdf/nhi.pdf">http://www.fairmountpark.org/pdf/nhi.pdf</a>
New Kensington Riverfront Plan, 2008	<a href="http://www.plancentraldelaware.com/wp-content/uploads/2010/05/NKCDRiverfrontPlan.pdf">http://www.plancentraldelaware.com/wp-content/uploads/2010/05/NKCDRiverfrontPlan.pdf</a>
North Delaware Riverfront Greenway: Master Plan and Cost Benefits Analysis, 2006	<a href="http://www.drcc-phila.org/plans.htm">http://www.drcc-phila.org/plans.htm</a>
North Delaware Riverfront Rail Stations Urban Design Study, 2008	<a href="http://www.philaplanning.org/plans/ndelrailsum.pdf">http://www.philaplanning.org/plans/ndelrailsum.pdf</a>
Northern Liberties Neighborhood Plan, 2005	<a href="http://www.nlna.org/images/NLNA_Plan_WebVersion.pdf">http://www.nlna.org/images/NLNA_Plan_WebVersion.pdf</a>
Northern Liberties Waterfront Plan, 2007	<a href="http://www.nlna.org/images/NLNA_WaterfrontPlan_Web.pdf">http://www.nlna.org/images/NLNA_WaterfrontPlan_Web.pdf</a>
Philadelphia Navy Yard Master Plan, 2004	<a href="http://www.navyyard.org/uploads/files/FinalReport.pdf">http://www.navyyard.org/uploads/files/FinalReport.pdf</a>
Philadelphia Pedestrian and Bicycle Plan	<a href="http://tooledesign.com/philadelphia/documents.html">http://tooledesign.com/philadelphia/documents.html</a>
South Port Expansion Plan	<a href="http://aapa.files.cms-plus.com/SeminarPresentations/07_OPSAFIT_Walsh_Jim.pdf">http://aapa.files.cms-plus.com/SeminarPresentations/07_OPSAFIT_Walsh_Jim.pdf</a>
State of the Delaware River Basin Report, 2008	<a href="http://www.state.nj.us/drbc/SOTB/index.htm">http://www.state.nj.us/drbc/SOTB/index.htm</a>
Water Resources Plan for the Delaware River Basin, 2004	<a href="http://www.state.nj.us/drbc/basinplan.htm">http://www.state.nj.us/drbc/basinplan.htm</a>
<b>PROJECT</b>	<b>ON-LINE LOCATION</b>
Big Green Block	<a href="http://www.phila.gov/findrec/RecCenterDetails.aspx?ID=831">http://www.phila.gov/findrec/RecCenterDetails.aspx?ID=831</a>
Bridesburg Ecological Restoration Project	<a href="http://www.pecpa.org/ecological-restoration/bridesburg-ecological-restoration-project-0">http://www.pecpa.org/ecological-restoration/bridesburg-ecological-restoration-project-0</a>
Columbus Square Stormwater Planters	<a href="http://www.columbussquarepark.org/">http://www.columbussquarepark.org/</a>
Green Public Open Space Program - Vacant Lands Analysis	not published yet
Herron Playground	<a href="http://www.phila.gov/recreation/facilities/Facilities_A-Z.html">http://www.phila.gov/recreation/facilities/Facilities_A-Z.html</a>
Lardner's Point Park	<a href="http://www.dcnr.state.pa.us/sust-lands/studies/lardners-point-park.pdf">http://www.dcnr.state.pa.us/sust-lands/studies/lardners-point-park.pdf</a>
Liberty Lands Park	<a href="http://www.nlna.org/committees/liberty-lands.html">http://www.nlna.org/committees/liberty-lands.html</a>
Pleasant Hill Park Plan	<a href="http://www.dcnr.state.pa.us/brc/keystone/cameos/1pleasanthillparkplanphila.pdf">http://www.dcnr.state.pa.us/brc/keystone/cameos/1pleasanthillparkplanphila.pdf</a>
Race Street Pier	<a href="http://www.delawariverwaterfrontcorp.com/index.php?pageID=59&amp;image=59a">http://www.delawariverwaterfrontcorp.com/index.php?pageID=59&amp;image=59a</a>
River Greenway Design Guidelines	<a href="http://www.philaplanning.org/plans/gwaydesign.pdf">http://www.philaplanning.org/plans/gwaydesign.pdf</a>
Tidal Delaware River Water Trail	<a href="http://www.pecpa.org/tidaltrail">http://www.pecpa.org/tidaltrail</a>
Washington Green Park (Pier 53)	<a href="http://www.delawariverwaterfrontcorp.com/index.php?pageID=64&amp;image=64a">http://www.delawariverwaterfrontcorp.com/index.php?pageID=64&amp;image=64a</a>

## 1.2 - Acknowledgements

This project was financed in part by a grant from the Community Conservation Partnerships Program, Keystone Recreation, Park and Conservation Fund, under the administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation. The Delaware Direct Watershed River Conservation Plan (RCP) Team would like to thank the members of the steering committee who contributed to the development of this plan. The team would also like to thank the members of the watershed community who generously donated their time to attend the River Conservation Plan public outreach events.

### Delaware Direct Watershed RCP Steering Committee Members

The steering committee is made up of stakeholders that represent the broad interests and expertise of agencies, organizations and community groups in the Delaware Direct drainage area. The steering committee helped identify issues of concern, technical resources and outreach strategies. Steering committee members helped recruit participants for the focus groups, workshops and community meetings, and most committee members attended several of these events as well. Quarterly meetings provided an opportunity for cross-pollination on a variety of issues and agendas.

The following individuals served on the Delaware Direct Watershed RCP Steering Committee:

Organization	Representative
Army Corps of Engineers	Chuck MacIntosh
Center City District	Ben Ginsberg
Center City District	Nancy Goldenberg
Dept. of Conservation & Natural Resources	Carolyn Wallis
Philadelphia Parks & Recreation	Barbara McCabe
Delaware River Basin Commission	Jessica Sanchez
Delaware River Basin Commission	John Yagecic
Delaware River City Corp.	Sarah Thorp
Philadelphia Parks & Recreation	Stephanie Craighead
Mayfair CDC	Maurice Hartley
Nature Conservancy	Bill Kunze
New Kensington CDC	Sandy Salzman
Norris Square Neighborhood Project	Reed Davaz McGowan
Pennsylvania Horticultural Society	Maitreyi Roy
PA House of Representatives	Tom Minehart



<b>Organization</b>	<b>Representative</b>
PA House of Representatives	Tony Payton
Passyunk Square Civic Association	Susan Patrone
Passyunk Square Civic Association	Marge Rosenblum
Philadelphia City Planning Comm.	Mike Thompson
Philadelphia City Planning Comm.	Alan Urek
Pennsylvania Environmental Council	Patrick Starr
Penn Praxis	Andrew Goodman
Penn Praxis	Michael Greenle
Penn Praxis	Harris Steinberg
Philadelphia Water Department	Glen Abrams
Philadelphia Water Department	Joanne Dahme
Philadelphia Water Department, Consultant	Tiffany Ledesma Groll
Wissanoming Civic Association	Glen Devil

### **Project Advisor**

Cindy Dunlap, Chief, Planning Projects Section, Pennsylvania Department of Conservation and Natural Resources

### **Project Team**

Glen Abrams, Philadelphia Water Department

Joanne Dahme, Philadelphia Water Department

Tiffany Ledesma Groll, consultant to Philadelphia Water Department

Paul Fugazzotto, consultant to Philadelphia Water Department

Maggie Allio, consultant to Philadelphia Water Department

Katie Shafer, consultant to Philadelphia Water Department

Katie Kranich, co-op to Philadelphia Water Department

Wesley Horner, formerly CH2M HILL

Courtney Marm, CH2M HILL

Brian Marango, CH2M HILL

Joy Lawrence, Pennsylvania Horticultural Society

Todd Baylson, Pennsylvania Horticultural Society

### 1.3 – Planning Initiatives Referenced for the RCP

The following section expands on the list presented in Table 1.1 by providing brief descriptions for the planning efforts and project designs referenced for the RCP.

#### 1.3a – Plans

*A Civic Vision for Central Delaware (2007) / Action Plan for Central Delaware (2008)*

<http://issuu.com/pennpraxis/docs/civic-vision-for-the-central-delaware>

[http://issuu.com/pennpraxis/docs/actionplan\\_full](http://issuu.com/pennpraxis/docs/actionplan_full)

Penn Praxis (the clinical practice of the University of Pennsylvania’s School of Design), the Philadelphia City Planning Commission, and design consultant Wallace, Roberts & Todd (WRT) collaborated on a conceptual “Vision Plan” for the Central Delaware Riverfront, which was funded by the William Penn Foundation and begun in the fall of 2006.

An extensive civic engagement process took place as a result of the plan and included outreach to neighborhood associations, local businesses and individual citizens. The planning process resulted in the production of two reports: *A Civic Vision for the Central Delaware (2007)* and a follow-up report, *An Action Plan for the Central Delaware: 2008–2018 (2008)*. Together, they call for a dramatic physical transformation of the Central Delaware Riverfront.

*Center City District Planning for Growth 2007 – 2012*

<http://www.centercityphila.org/docs/CCD-PLAN07.pdf>

Prepared by Center City District and Central Philadelphia Development Corporation, *Center City: Planning for Growth, 2007-2012* offers proposals for investment and development targeting the years 2007 – 2012 and the Center City area. It also contains a summary of prior plans for Center City from the last 60 years, beginning with the Better Philadelphia Exhibition of 1947. The Center City District retained seven design firms, which focused on the potential future of four districts: East Market Street, West Market Street and JFK Boulevard, Broad Street and City Hall, and the Benjamin Franklin Parkway. The recommendations contained in this document are not meant as final plans, but rather suggestions that should be considered and possibly revised and adopted as a flexible framework for growth.

*Central Delaware Riverfront Master Plan*

<http://www.placentraldelaware.com/>

The Central Delaware Master Plan is a \$1 million planning effort for the area between I-95 and the Delaware River and between Oregon and Allegheny Avenues. The plan will develop overall recommendations for land use and transportation, including zoning and design guideline recommendations. The plan will also map a new system of parks, trails, streets and development sites along with phasing recommendations and cost estimates. A key principle of the plan is to utilize public investment in a “public” realm of parks, trails and streets in order to leverage private investment on adjacent parcels. The parks

will be spaced approximately every ½ mile along the riverfront and will be connected by a continuous, multi-use recreational trail. The parks and trails will obviously accomplish recreational goals; however, they will also be designed to accomplish ecological and environmental goals such as stormwater management, shoreline restoration, wetlands creation and flood prevention. Additionally, a comprehensive street network will be identified for circulation and transportation; certain streets will be designated as “connector streets” and will be targeted for improvements such as landscape, lighting, improved pedestrian and bicycle access, and signage.

#### *East Coast Greenway*

<http://www.greenway.org/pa.aspx>

The Delaware River City Corporation (DRCC) is creating the North Delaware Riverfront Greenway, which is an eight-mile link in the East Coast Greenway in Philadelphia. The East Coast Greenway (ECG) is a project to create a 3,000 mile urban path that links the major cities of the Atlantic coast of the United States from Calais, Maine to Key West, Florida. The path is for non-motorized human transportation (i.e., biking and walking). DRCC works with the Pennsylvania Committee for the East Coast Greenway, which is comprised of volunteers who coordinate route selection in the state.

The East Coast Greenway enters Morrisville, Pennsylvania from Trenton over the Calhoun Street Bridge. It currently enters PA Bicycle Route E for much of the 55-mile route, through Bucks County, Philadelphia, and Delaware County. The route ends in Delaware, near Marcus Hook.

#### *Green City, Clean Waters*

[http://www.phillywatersheds.org/what\\_were\\_doing/documents\\_and\\_data/cso\\_long\\_term\\_control\\_plan/](http://www.phillywatersheds.org/what_were_doing/documents_and_data/cso_long_term_control_plan/)

On September 1, 2009, the Philadelphia Water Department (PWD) submitted the Green City, Clean Waters plan to the PA Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA) to detail how PWD will invest approximately \$2 billion over the next 25 years to significantly reduce Combined Sewer Overflows (CSOs)—a combination of sewage and stormwater that overflows into our rivers and streams when it rains. To ensure this public investment not only results in clean and beautiful waterways but also provides tangible, additional benefits to our citizens, PWD is dedicating a large portion of this plan to a green stormwater infrastructure (GSI) approach. Examples of green stormwater infrastructure include stormwater tree trenches, stormwater planters and stormwater bump-outs.

The Philadelphia Water Department’s vision behind the Green City, Clean Waters plan is to unite the City of Philadelphia with its water environment, creating a green legacy for future generations while incorporating a balance between ecology, economics and equity. The green stormwater infrastructure approach is essential in making this vision a reality.

*GreenPlan Philadelphia*

<http://www.greenplanphiladelphia.com/>

GreenPlan Philadelphia is the City's Parks and Recreation Department's blueprint for sustainable open space. It is the City's first comprehensive plan, targeting its parks, recreation areas and open space. GreenPlan Philadelphia will guide and inform decision-making about open space use, acquisition, development, funding and management. The mission of GreenPlan Philadelphia is to reconnect all Philadelphians to green parks and open space by developing a long-term vision, preparing a strategic plan and implementing the plan's recommendations over the next 15 years. It will ensure that open space continues to enhance the environmental, social and economic well-being of our City.

*Greenworks Philadelphia, 2009*

<http://www.phila.gov/green/greenworks/2009-greenworks-report.html>

The Mayor's Office of Sustainability's Greenworks Philadelphia is the six-year plan to help make Philadelphia the greenest city in America. Greenworks Philadelphia envisions a city in which residents and businesses benefit from lower energy costs, cleaner air, greener neighborhoods, better transit and new jobs. It also acknowledges that broad visions are meaningless unless backed by specific, measurable and achievable shorter-term targets. Therefore, Greenworks Philadelphia also presents the specific steps that all Philadelphians, not just their government, must take over the next seven years to reinvent the City.

Greenworks Philadelphia builds upon the 2007 Local Action Plan for Climate Change, which was produced by the Sustainability Working Group, a task force of municipal employees. The Local Action Plan outlined a series of steps that the City of Philadelphia government should take to reduce greenhouse gas emissions by 10 percent by 2010. Many of these efforts are already underway and are described in Greenworks Philadelphia. Also incorporated are the goals of GreenPlan, the City's open space plan.

Greenworks Philadelphia considers sustainability through five lenses: Energy, Environment, Equity, Economy and Engagement. For each category, an overarching goal was set, with measurable targets and specific initiatives designed and described to help Philadelphia reach the targets by 2015. These goals, targets and initiatives have been refined over the past 10 months by the Sustainability Working Group with input and feedback from City employees, local and national non-profit organizations, and civic and business leaders, including members of the Mayor's Sustainability Advisory Board.

*Green 2015: An Action Plan for the First 500 Acres*

<http://planphilly.com/green2015-action-plan-first-500-acres>

Greenworks Philadelphia includes a recommendation to add 500 acres of new publicly accessible green space to the City by 2015. This plan, referred to as Green2015, outlines the approach to meet the 500-acre goal for Philadelphia. Green2015 aims to unite city government and neighborhood residents around the issue of transforming 500 acres of

empty or under-used land in Philadelphia into parks for neighbors to enjoy by 2015. Transforming these empty spaces into parks and green places creates important new opportunities for children to play and for neighbors to gather. Most of the targeted land, which 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 City agencies. The plan was prepared by Penn Praxis and Philadelphia Parks and Recreation.

*A Natural Heritage Inventory for Philadelphia County, 2008*

<http://www.fairmountpark.org/pdf/nhi.pdf>

The Philadelphia County Natural Heritage Inventory is a document compiled and prepared by the Pennsylvania Natural Heritage Program (PNHP) of the Western Pennsylvania Conservancy (WPC). It contains information on the general locations of rare, threatened and endangered species, of the highest quality natural areas in the county, and areas in need of restoration to native habitat. It is not an inventory of all open space and it is based on the best available information. It is intended as a conservation tool and should in no way be treated or used as a field guide.

Accompanying each site description are general management and restoration recommendations that would help to ensure the protection and continued existence of these natural communities, rare plants and animals while enhancing the quality of existing green space and open space. Recommendations are based on the biological needs of these elements (communities and species) and the efforts necessary to maintain the health of the overall natural system. Managed areas, such as federal, state, city lands; private preserves; and conservation easements are also provided on the maps, where information was available. The maps are useful in determining where gaps occur in the protection of local significant habitats, natural communities and rare species.

*New Kensington Riverfront Plan, 2008*

<http://www.placentraldelaware.com/wp-content/uploads/2010/05/NKCDCRiverfrontPlan.pdf>

The New Kensington Community Development Corporation (NK CDC) produced the New Kensington Riverfront Plan. The plan focuses on the New Kensington stretch of the river and emphasizes a balance between development and open space, creating gateways into the community and creating a framework for implementation. The plan was guided by a broad task force of stakeholders.

*North Delaware Riverfront Greenway: Master Plan and Cost Benefits Analysis, 2006*

<http://www.drcc-philadelphia.org/plans.htm>

The North Delaware Riverfront is a valuable resource to the entire City of Philadelphia. With more than 700 acres of vacant and underutilized land, the riverfront has the potential for greenway development in concert with mixed-use, commercial and residential development. While some of the existing properties need environmental

clean-up, a properly developed continuous greenway and trail system (as proposed in the Greenway Plan) will provide an area devoted to public recreation, open space and economic development for new and existing riverfront neighborhoods.

The North Delaware Riverfront Greenway Master Plan and Cost Benefit Analysis, prepared by the Pennsylvania Environmental Council, Northeast River Task Force and various City agencies, focuses on the implementation of a “Public Greenway” that maximizes return of public investment, the creation of new revenue and significant recreational areas and open spaces for the City of Philadelphia. The analysis contains three alternative greenway scenarios. A consultant team (Greenways Incorporated, Econsult Corporation, and Schelter and Associates) worked to gather all relevant data for the plan, solicit public input, review priorities and synthesize all of the information into a final implementation plan.

*North Delaware Riverfront Rail Stations Urban Design Study, 2008*

<http://www.philaplanning.org/plans/ndelrailsun.pdf>

The North Delaware Riverfront Rail Stations Urban Design Study focuses on the opportunities and challenges facing five stations along SEPTA’s Trenton (formerly R7) regional rail line, which connects Center City Philadelphia with Trenton, New Jersey. The five stations—Bridesburg, Wissinoming (currently closed), Tacony, Holmesburg Junction and Torresdale—each present a unique set of issues and constraints related to their existing uses, market pressures and transportation infrastructure. At the same time, all of the stations share much in common, including a proximity to the North Delaware Riverfront, which promises to change substantially over the coming decades. The guiding objective of this project is to transform each station into an active community resource that serves the needs of and encourages increased rail ridership by existing and new residents alike. The study was prepared for the Philadelphia City Planning Commission by Interface Studio, Lager Raabe Skafta Landscape Architects, Jaskiewicz Transport International and Nina Liou.

*Northern Liberties Neighborhood Plan, 2005*

[http://www.nlna.org/images/NLNA\\_Plan\\_WebVersion.pdf](http://www.nlna.org/images/NLNA_Plan_WebVersion.pdf)

The Northern Liberties Neighborhood Plan, prepared by Interface Studio for the Northern Liberties Neighbors Association (NLNA), seeks to amplify the community’s uniqueness and provides a guide that represents community goals for the neighborhood’s future. The document is also a tool to organize the planning efforts and coordination with City agencies and other stakeholders/investors that will be partners in the implementation of the plan. Completed in 2005, GIS and three-dimensional modeling techniques were utilized to help community members quantify and comprehend the changes underway, while also enabling them to visualize the impact of proposed future development. Through the planning process, local stakeholders were encouraged to establish priorities and goals for the neighborhood’s redevelopment, improvements were identified for open space and major streets, and policies were recommended to retain the community’s mixed-use character.

*Northern Liberties Waterfront Plan, 2007*

[http://www.nlina.org/images/NLNA\\_WaterfrontPlan\\_Web.pdf](http://www.nlina.org/images/NLNA_WaterfrontPlan_Web.pdf)

The Northern Liberties Waterfront Plan was released in April 2007 by the Northern Liberties Neighbors Association. This community-based riverfront vision guides development from the Benjamin Franklin Bridge to Penn Treaty Park. Commissioned by NLNA and financed by local developers, it is the first community plan to address land along the central Delaware. The plan focuses on ideas for narrowing the gap between the river and its neighbors, such as east-west “civic incisions” that reclaim important connector streets as public space, manicured parks under portions of I-95, and floating trail elements in the river that will allow people to travel along a continuous riverfront trail despite private control of riparian land.

*Philadelphia Navy Yard Master Plan, 2004*

<http://www.navyyard.org/uploads/files/FinalReport.pdf>

Located just below South Philadelphia, the Navy Yard comprises approximately 1,200 acres with the Navy, commercial ship building and other industrial activities occupying the Shipyard, which makes up the western portion of the site. To the east of the Shipyard, the Navy Yard Master Plan calls for the establishment of five distinct districts that propose a dynamic, mixed-use waterfront development that successfully extends the City south to its riverfront. The five districts are: Corporate Center, Historic Core, Research Park, Marina District and East End.

Corporate Center (72 acres) proposes to construct approximately 1.4 million square feet of new office space, 110,000 square feet of potential retail and 5,600 parking spaces.

Historic Core (167 acres) plans to reuse 2.4 million square feet of existing buildings in conjunction with 1.4 million square feet of new development for office space, residential units, and creates an opportunity for an academic or research campus.

The Research Park (81 acres) design includes facilities for research and development, office, light manufacturing and distribution.

The Marina District (115 acres) envisions a 250-slip marina, an executive conference center, recreation and marina support facilities. Two development options exist, in which one is primarily commercial and the other is primarily residential.

East End (87 acres) is presented in the plan in three alternative designs: an industrial development, a residential neighborhood and an 18-hole championship golf course.

*Philadelphia Pedestrian and Bicycle Plan*

<http://tooledesign.com/philadelphia/documents.html>

The Pedestrian and Bicycle Plan identifies strategies to increase the number and frequency of people walking and bicycling in the City by improving the connectivity,

safety, convenience and attractiveness of Philadelphia's pedestrian and bicycle networks.

An expanded bikeway network will not only make bicycling safer and more convenient, but will also help to promote a wider recognition and acceptance of bicycling as a viable transportation mode. Likewise, improving the pedestrian network will enhance the safety, comfort, efficiency and attractiveness of walking in Philadelphia.

The plan includes physical infrastructure recommendations, as well as recommendations for policies, regulations, design standards and programs that affect walking and bicycling Citywide.

#### *South Port Expansion Plan*

[http://aapa.files.cms-plus.com/SeminarPresentations/07\\_OPSAFIT\\_Walsh\\_Jim.pdf](http://aapa.files.cms-plus.com/SeminarPresentations/07_OPSAFIT_Walsh_Jim.pdf)

The Philadelphia Regional Port Authority's South Port Expansion Plan proposes that the main ship channel of the Delaware River be deepened from its existing 40 feet to 45 feet over a distance of 109.4 kilometers. This action will result in 27 million cubic yards of dredged material. This is an approximately \$265 million project with a local match of \$76 million. The final environmental review of the potential project is currently in progress by Pennsylvania, New Jersey and Delaware.

#### *Water Resources Plan for the Delaware River Basin, 2004*

#### *Delaware River: State of the Basin Report, 2008*

<http://www.state.nj.us/drbc/basinplan.htm> (Basin Plan)

<http://www.state.nj.us/drbc/SOTB/index.htm> (State of the Basin Report)

In 1999, the Delaware River Basin Commission (DRBC) began a process to develop a new and unifying vision for water resources management in the Delaware River Basin. The Water Resources Plan for the Delaware River Basin (Basin Plan), unveiled in 2004, presents a direction for integrated water resource management. The Basin Plan acknowledges the connection between land and water and valuing aquatic habitat protection, while ensuring adequate flows and supplies for human needs. In accepting the new Basin Plan, the governors of each participating state directed the preparation of a periodic environmental conditions report. The Delaware River: State of the Basin Report (2008) fulfills that mandate.

The State of the Basin Report is designed to serve as a benchmark of current conditions and a point of reference for gauging progress toward management goals. It also provides a platform for measuring and reporting future progress in water resource management and serves as a guide for adjusting monitoring and assessment programs. Finally, it is intended to communicate our understanding of the health of the Basin to increase public involvement in the Delaware River Basin and Estuary Program activities, and to build consensus on a broad array of actions that can be taken to continue to improve water quality, water availability, and to enhance the living resources of the Delaware River Basin.



### **1.3b - Project Designs**

#### *Big Green Block*

<http://www.phila.gov/findrec/RecCenterDetails.aspx?ID=831>

The Shissler Recreation Center and the surrounding blocks, located in Fishtown and often referred to as the Big Green Block, saw significant site improvements in 2010 as a result of the collaboration between the Philadelphia Water Department, the Pennsylvania Horticultural Society (PHS), New Kensington Community Development Corporation, Sustainable 19125, Mural Arts Program, and the new Philadelphia Parks and Recreation. Improvements to the Shissler Recreation Center and the surrounding area include rain gardens in the parking lot, bioretention on the sports field, stormwater tree trenches and murals.

The Kensington Creative and Performing Arts (CAPA) High School (also a project of the Big Green Block) design includes several green stormwater infrastructure features, such as porous pavement in the parking lot, reinforced turf material at service roads, and underground detention facilities for the slow release of stormwater. Fifty percent of the roof surfaces on the property contain a green roof system. Several rain gardens are installed throughout the property, and rain water is harvested from the gym for use in the building. Plumbing fixtures and the reuse of rainwater will reduce potable water use by more than 40% at Kensington CAPA High School. The Philadelphia Water Department's (PWD) stormwater management guidelines and regulations informed the development of this project and significantly shaped the design.

#### *Bridesburg Ecological Restoration Project*

<http://www.pecpa.org/ecological-restoration/bridesburg-ecological-restoration-project-0>

The Bridesburg Ecological Restoration Project site consists of two parcels located in Bridesburg, a historic Philadelphia neighborhood. The project was led by the Pennsylvania Environmental Council (PEC). The first site is an approximately 9-acre parcel owned by the City of Philadelphia and the second is an approximately 7.5-acre parcel owned by National Grid, locally known as the "Philly Coke site." The two parcels are ranked as high-priority restoration sites under PEC's Philadelphia North Delaware River Greenway Ecological Assessment and Prioritization Report. The preliminary design utilizes both parcels to create a restored riverfront, upland habitat areas and public recreation amenities. The amenities include a low-impact trail that could offer access to the Delaware River for local residents and East Coast Trail users, benches at vantage points along the trail, and a park, if the area permits. The project would also restore and enhance existing wetlands that benefit the community and create a habitat for wildlife

#### *Columbus Square Stormwater Planters*

<http://www.columbussquarepark.org/>

In May 2010, a series of stormwater planters were constructed by the Philadelphia Water Department along Columbus Square Park, located at 13th and Wharton Streets. This project is the first green street project in South Philadelphia. A green street is a designated city block that integrates green stormwater infrastructure. The stormwater planter is a specialized planter installed into the sidewalk and is designed to manage street and sidewalk runoff. The planter is lined with a permeable fabric, filled with gravel or stone, and topped off with soil, plants and sometimes trees. This green street is the first of many proposed projects that will begin to transform sidewalks and streets in the City.

*Green Public Open Space Program - Vacant Lands Analysis*

Not published

The Philadelphia Water Department (PWD) is reviewing and analyzing vacant lands in the Combined Sewer Overflow (CSO) sections of Philadelphia for stormwater management potential, which aligns well with Philadelphia Parks & Recreation's Green 2015 planning effort. The goal of this program is to identify parcels of vacant lands that are appropriate for stormwater management and which are adjacent to the public right-of-way. The goal is to also add new public open spaces to neighborhoods that currently lack access to green space.

*Herron Playground*

<http://www.phila.gov/findrec/RecCenterDetails.aspx?ID=761>

The Philadelphia Department of Recreation collaborated with the Philadelphia Water Department and the City's Capital Programs Office to design and construct a green playground at Herron Playground. The park boasts rain gardens, porous play surfaces, a basketball court that was reconstructed and resurfaced with porous asphalt and a subsurface infiltration system, which also manages stormwater runoff from parts of Earp and American Streets.

*Lardner's Point Park*

<http://www.dcnr.state.pa.us/sust-lands/studies/lardners-point-park.pdf>

Lardner's Point is a five-acre City-owned parcel along the river that was formerly used as a storage and landing site for the historic Lardner's Point pump station. The final design envisions a combination of green building amenities that will consist of a river overlook of the park, the restoration of the riparian buffer, new meadow plantings with native species, the restoration of the pier for fishing and sitting, the creation of new wetlands and marsh meadows, an incorporation of picnic areas, pedestrian paths and bike trails along the river, and interpretative signage. The focus of the signage would be on the historical and environmental elements incorporated into the park.

*Liberty Lands Park*

<http://www.nlna.org/committees/liberty-lands.html>

At Liberty Lands Park in Northern Liberties, stormwater runoff from the adjacent street and the park flows into a rain garden and is filtered into cisterns underneath the park. The benefits of this project include the reduction of stormwater runoff to the combined sewer system in a neighborhood that suffers from flooding and basement back-ups. The project also enhances an already active green open space that serves as a significant community amenity. Project partners include the Philadelphia Water Department, Northern Liberties Neighbors Association, Pennsylvania Horticultural Society and Pennsylvania Department of Environmental Protection.

*Pleasant Hill Park Plan*

<http://www.dcnr.state.pa.us/brc/keystone/comeos/1pleasanthillparkplanphila.pdf>

The Pleasant Hill Park Plan will transform an unused space in Northeast Philadelphia into a park with a constructed wetland that integrates open space, education and recreation, while restoring the historic fish hatchery. Access to the Delaware River will be improved as a result of the design. An environmental education center will also be added to the site. The hope is that children will fish in the ponds and/or play on the playground, protected by a tree-lined boulevard with a bioswale median and a riparian buffer to protect the park from floods while establishing habitats for many species.

*Race Street Pier*

<http://www.delawareriverwaterfrontcorp.com/index.php?pageID=59&image=59a>

Race Street Pier, also known as Pier 11, will be one of the first projects in the City to create and maintain a vibrant green public space under the new Civic Vision for the Central Delaware Riverfront. The goal is to develop a publicly accessible amenity for residents and tourists. Funding for this new park has been provided by the City of Philadelphia, Pennsylvania Department of Conservation and Natural Resources, William Penn Foundation, a Pew Charitable Trusts challenge grant, Pennsylvania Horticultural Society and Pennsylvania Department of Environmental Protection (Coastal Zone Management).

*River Greenway Design Guidelines*

<http://www.philaplanning.org/plans/gwaydesign.pdf>

The focus of the River Greenway Design Guidelines is on the public ribbon of land along the riverbank referred to as the City's "River Greenway." This greenway will benefit communities that have historically lined the river but that have never had direct access to it. In addition, the new paths of circulation along the river will support recreational experiences that will be among the best of their kind.

*Tidal Delaware River Water Trail*

<http://www.pecpa.org/tidaltrail>

The Tidal Delaware River Water Trail is a unique 56-mile water trail from Trenton/Morrisville to Marcus Hook. Water Trails are paths that have been verified and

mapped to provide users with access to the environment and to recreational opportunities along their way. The Pennsylvania Environmental Council and the Delaware River Waterfront Corporation are working in partnership on providing the user with this unique experience and to raise awareness of the Water Trail.

*Washington Avenue Green (Pier 53)*

<http://www.delawareriverwaterfrontcorp.com/index.php?pageID=64&image=64a>

As one of the City's first new green public spaces in decades, the former asphalt-clad land and in-land portion of Pier 53 has been transformed into a one-acre collection of gardens, "embryonic woodlands" and meadows. With a limited budget, Washington Avenue Green incorporates trees, dendritic decay gardens, two-foot-tall "sitting" walls for visitors, benches with a waterfront view, floating wetlands, a rain garden and a rubble meadow. This project was led by the Delaware River Waterfront Corporation.