# **A River Reconnected**

The Challenges and Opportunities of Public Access to the Tidal Delaware River

July 2021





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Metropolitan Planning Organization for the Greater Philadelphia region, established by an Interstate Compact between the Commonwealth of Pennsylvania and the State of New Jersey. Members include Bucks, Chester, Delaware, Montgomery, and Philadelphia counties, plus the City of Chester, in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer counties, plus the cities of Camden and Trenton, in New Jersey.

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Front Cover Design by Kim Dean, DVRPC Left Picture: Delaware River Trail by Pier 68, Philadelphia Right Picture: Ethel Waters Park, Chester

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# **Executive Summary**

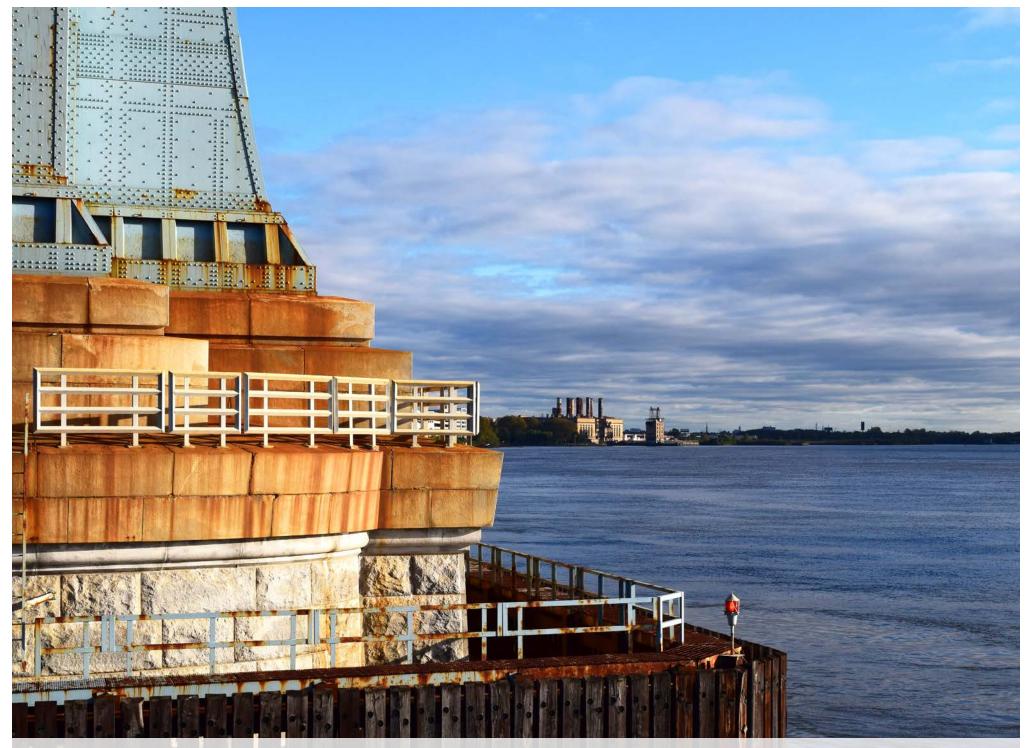
A River Reconnected is a planning study about the current state of public access along the Pennsylvania side of the tidal portions of the Delaware River and tributaries. By looking at past trends, current conditions, and future possibilities, this study provides basic information about the number and quality of public access areas, as well as tells the narrative of how access to the river is perceived throughout the region. It does not make any new site-specific suggestions or provide a timeline for project implementation but instead seeks to analyze gaps, identify barriers, and present recommendations for riverfront organizations, local municipalities, and waterfront communities to increase access in ways that fit best within the context of their own plans and visions.

This project was financed, in part, through a Federal Coastal Zone Management Grant, administered by the Pennsylvania Department of Environmental Protection (DEP).

The funding for this grant was provided by the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce. The views expressed herein are those of the author(s) and do not necessarily reflect those of the U.S. Department of Commerce, NOAA, DEP, or any of their subagencies.

The mission of the Pennsylvania Coastal Resources Management Program is to protect and enhance fragile natural resources, utilizing a comprehensive approach to managing complex resource needs in its two coastal areas. The Lake Erie Coastal Zone features beautiful Presque Isle State Park, Pennsylvania's only "seashore," and an international shipping hub with a unique maritime history in the City of Erie, which is enjoying an economic and cultural renaissance. At the opposite end of the state, the Delaware Estuary Coastal Zone (DECZ) has transformed from its industrial past into a showcase for urban trails and the world's largest freshwater port on the longest undammed river system on the Atlantic Coast.





Ben Franklin Bridge, Philadelphia

#### CHAPTER 1

# **The Nature of Access**

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A RIVER RECONNECTED

# **The Nature of Access**

"A river is more than an amenity, it is a treasure."

- Supreme Court Justice Oliver Wendell Holmes in New Jersey v. New York, et al., 283 U.S. 336 (1931) regarding the states of New Jersey and Pennsylvania's access to the water supply of the Delaware River



# **A Regional Treasure**

Public access to the Tidal Delaware River is as diverse and complicated as the river itself. Ranging widely in quality, accessibility, and availability, public access along the river not only reflects the region's status as a dynamic tidal ecosystem but also centuries of local decisions about land use, community development, and economic forces. Although the Delaware River Watershed (shown in Figure 1 on the right) stretches all the way to the State of New York, the Tidal Delaware system in Pennsylvania (shown in Figure 2 on Page 6) extends from Morrisville to Marcus Hook and includes tidal tributaries, marshlands, and coastal lakes which all serve crucial environmental and economic roles. Pennsylvania's Tidal Delaware system is contained entirely within the Delaware Estuary Coastal Zone (DECZ). The DECZ is the area subject to Pennsylvania's federally authorized Coastal Resources Management Program, administered by the Pennsylvania Department of Environmental Protection (DEP). One of several primary goals of the program is to provide public access opportunities along the Tidal Delaware River and its tributaries for both water and on-shore based activities like swimming, fishing, boating, walking, biking, sightseeing and picnicking.

Currently, in some places, the river travels for miles without any means to freely access the shoreline. In other places, the river is continuously accessible and visited by millions of people every year. This report will describe the nature of public access throughout this dynamic and diverse region, identify barriers to and benefits for increasing and improving public access, and conclude with a series of recommendations to improve and/ or expand access to the Tidal Delaware system. The analysis also includes a summary of the history of waterfront development and an overview of the evolving nature of land use, economic, and community development trends along the tidal waterfronts of Delaware, Philadelphia, and Bucks counties.

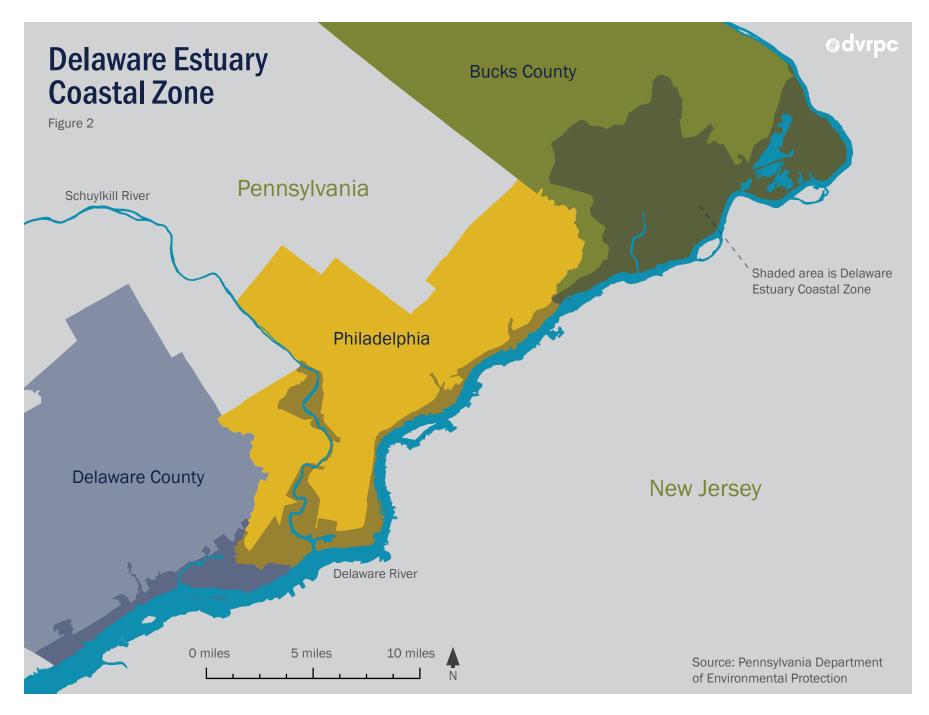
Although each DECZ county is unique in the nature of the issues they face and the processes they use to create and sustain public access, there are



Source: Delaware River Basin Commission

unifying concepts that are true for the entire region. These are explored and summarized, first in the context of barriers and benefits to access and then in the context of general and specific recommendations for organizations to use to support their own public access projects.

Included at the end of the report in the Appendices is a list of the 48 identified public access sites in the region. A detailed description of the size, location, and amenities of the site itself and notes of how to travel there by walking, biking, car, and transit are given for each site. This list is not intended to be exhaustive but to instead describe in detail the highest-profile and most accessible public access sites in the region.



### **Defining Public Access**

People and communities throughout the region have different perceptions and definitions of what public access means to them. From professionally designed parks and greenways to vacant lots and piers to roadways that end at the water's edge, there is a wide variety of locations which provide visitors the opportunity to experience where the land ends and the water begins. Generally speaking, however, public access broadly exists in two categories: formal and informal.

Formal access includes areas that have been intentionally designed for the general public to freely and directly approach the riverbank. This category is the primary focus of this report because it is the most prevalent form of public access along the river and generally provides the highest level of access for the greatest number of people.

Informal access includes areas that are both publicly and privately controlled and include some level of access to the waterfront but are not specifically designed or formally sanctioned for this purpose. Included in this category are vacant, neglected, or abandoned lots at the water's edge, riverside parking lots, utility lands, institutional facilities, roads that are directly adjacent to or end at the river, and instances where people have created their own version of public access in areas not formally designated for this purpose. Because of the circumstantial nature of these sites, they are mentioned where possible but are not covered comprehensively in this report.

With all these sites, concerns with pollution, tidal currents, river traffic, property rights, and dangerous infrastructure like railroads are valid, and so a site's inclusion in this report does not guarantee that the Delaware Valley Regional Planning Commission (DVRPC) takes responsibility for conditions and accessibility of that site.

# The History of the Waterfront

The story of public access along the Delaware begins thousands of years ago when the river was used extensively for fishing, traveling, hunting, trading, and cultural purposes by generations of Lenni Lenape people. With the arrival of European colonists in the early 1600s, this open accessibility began to change as the colonists started the process of subdividing the land for farms, fortresses, and towns. Over the next few hundred years, public access to the river steadily dwindled as private property came to dominate the water's edge. Early on, much of the waterfront was occupied by farms that were eventually displaced by factories, industrial complexes, and port facilities, all of which needed access to water for transport, cooling, and power generation.

The dominance of large-scale industry along the waterfront continued well into the 20th century. In fact, publications from the American Planning Association (APA) as recent as the 1950s explicitly instructed governments to prioritize industry, ports, and infrastructure along the riverfront. In these documents, the APA only mentions green space and public access as something that could be provided in the "increment" of space left over from more important industrial concerns. They close out their waterfront planning advice with the admission that public access is important but that "it cannot be underscored too forcefully that sites suitable and needed for industry should be protected."

In the 1970s and 1980s, a dramatic shift began to occur in waterfront land use due to the national trend of deindustrialization and the changing requirements of modern manufacturing and industry. The effects of this process are still playing out to this day, but many areas of the waterfront formerly occupied by industrial operations have already been converted to or have become available for other, non-industrial uses. At the same time, environmental regulations at the federal, state, and local levels have helped to reduce the amount of pollutants in the water and improve the health of the natural environment, making the waterfront a much more attractive place to live, work, and play. In almost all cases, both regionally and around the country, increasing and improving public access have become key components of ongoing efforts to reimagine and redevelop post-industrial waterfronts.

Despite this evolving landscape, redeveloping waterfronts with improved public access is not a foregone conclusion. In many areas there are still active manufacturing and port operations that require waterfront access. Preserving and protecting waterfront access for these facilities enables them to continue to operate and provide their services throughout the region. Where major manufacturing along the water was lost, the resulting impacts are often gaping holes in municipal tax budgets and a challenging landscape of abandoned machinery, difficult-to-repurpose buildings, pollution, and large-scale transportation infrastructure like interstates and train lines. And historic waterfront communities that were in the way of these industrial and transportation developments were either completely destroyed or remain to this day as remnants of the larger neighborhoods they had once been. These challenging conditions have proved daunting in the face of decades of concerted community organizing, professional planning, and political support for waterfront redevelopment.

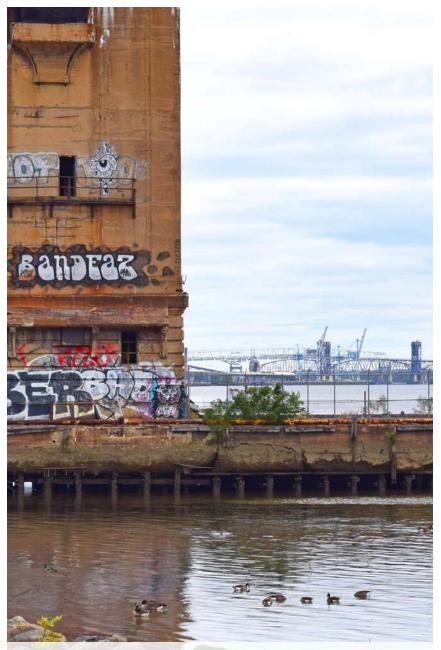
In this post-industrial environment, public access has emerged as a defining component and unifying thread of waterfront planning. Furthermore, with the myriad future risks of climate change and sea level rise, it is even more important that trends like increasing public access, remediating the natural edge of rivers, and diversifying land uses are encouraged. New planning philosophies are developing that seek to unify waterfront redevelopment around the three pillars of resilience, ecology, and public access, a far cry from APA's focus in the 1950s on industrial development. And today, all along the Delaware River and its tidal tributaries, municipalities and waterfront organizations are turning the page from one of disruption and fragmentation to one of *A River Reconnected*.



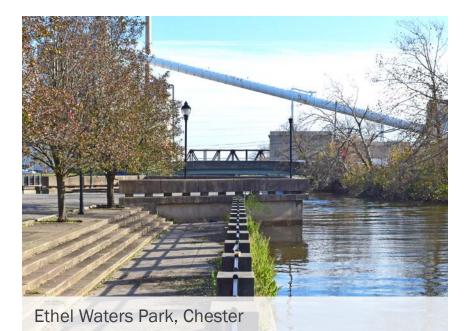
Glen Foerd on the Delaware, Philadelphia



Riverfront access area, Morrisville



Industrial infrastructure, Philadelphia



Fish Hatchery at Pleasant Hill Park, Philadelphia

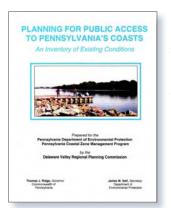
# **20 Years of DVRPC Planning**

This report is not the first time that DVRPC has looked at public access along the Tidal Delaware. In 1997 and again in 2012, reports were published that listed access sites and related information, as well as told the story of the riverfront. These reports provide an opportunity to compare and contrast how public access was perceived and interpreted over the past 20 years.

In 1997, DVRPC was asked to develop a report about public access to tidal coastal zones in Pennsylvania by the DEP's Coastal Resources Management Program. Titled *Planning for Public Access to Pennsylvania's Coasts: An Inventory of Existing Conditions*, this report provided comprehensive information about the regional demographics, waterfront land uses, and transportation options that impact public and private access.

Accessing the Tidal Delaware, released in April of 2012, was requested by Bucks County as part of the official DVRPC work program. This study sought to raise awareness about waterfront access by identifying multimodal transportation projects that could contribute to improved public access to the river. By doing this, the study hoped to foster the creation of partnerships between organizations in all three counties working to increase public access. This report also included sections for Recommendations and Challenges regarding public access, as well as case studies of successful waterfront access projects around the world.

Common themes from these plans to the present day include a widely expressed desire to increase and coordinate public access throughout the region, a recognition of the complexity of measuring and assessing public access, and the rather sobering conclusion that improving public access to the Tidal Delaware is a slow and laborious process. Due to differences in interpreting the size of the study area and in classifying public access sites, comparing trends relating to the number of specific public access sites over the past 20 years using these studies is difficult. Generally speaking, however, although there have been a series of high-quality renovations, it is clear that the number of public access sites in Delaware and Bucks counties has not significantly changed. In Philadelphia by contrast, both the number and quality of public access sites have dramatically increased in recent years.



Planning for Public Access to Pennsylvania's Coasts: An Inventory of Existing Conditions

Year: 1997

#### Accessing the Tidal Delaware

Year: 2012



A River Reconnected: The Challenges and Opportunities of Public Access to the Tidal Delaware River

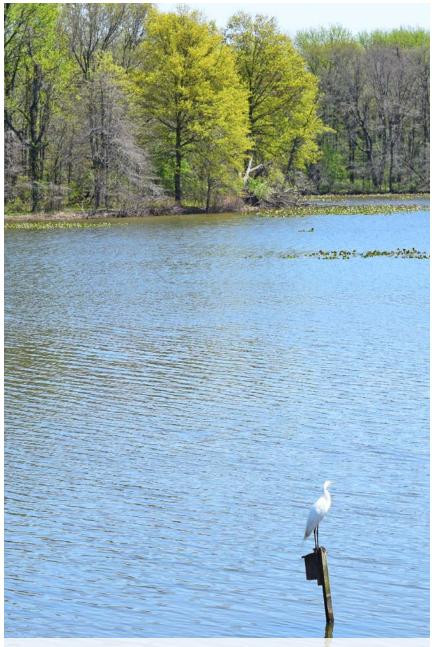
Year: 2021

CCESSING

DELAWARE



Pennypack on the Delaware, Philadelphia



John Heinz National Wildlife Refuge, Philadelphia

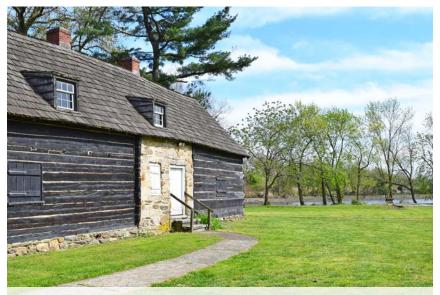


Chester Waterfront Trail, Chester

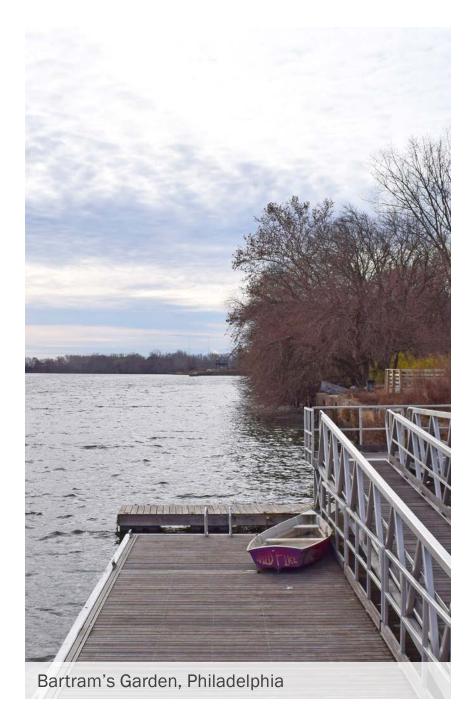


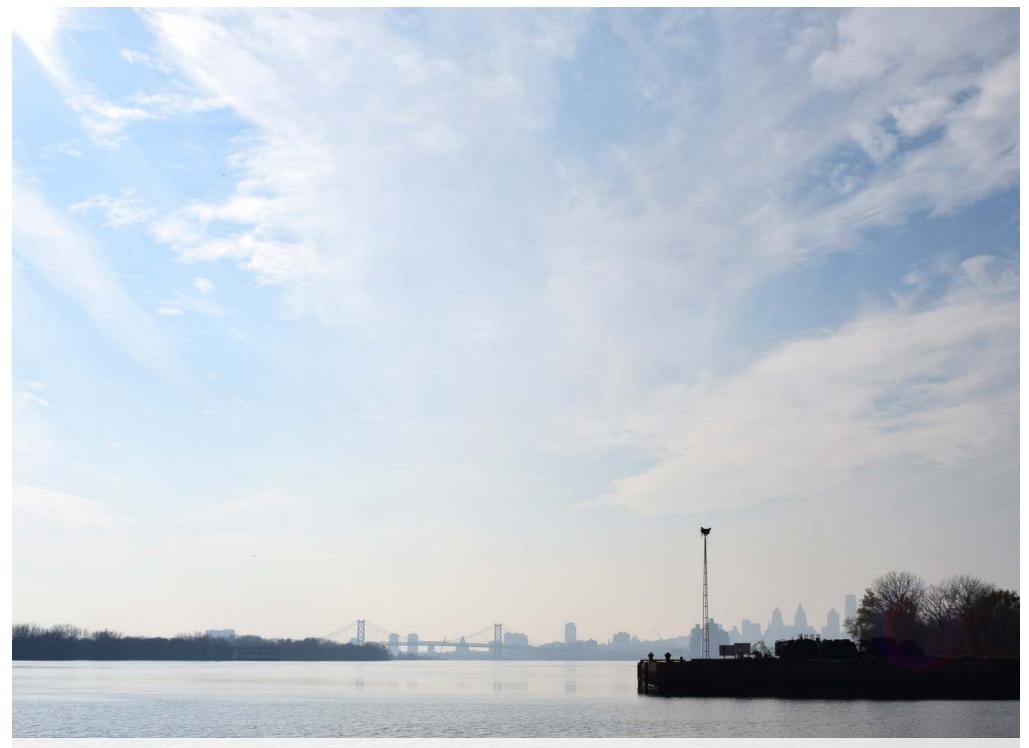


Delaware River waterfront, Morrisville



Morton Homestead, Prospect Park





View looking south from Pulaski Park, Philadelphia

#### CHAPTER 2

# **Riverfronts in Transition**

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# **Riverfronts in Transition**

Throughout the region, the story of public access to the Tidal Delaware River is the story of people and the communities they live in. All along the waterfront, the influence of hundreds of years of land use decisions, political and economic developments, and the habits of millions of people have all played a part in creating a system of public access that varies widely from place to place. Understanding this context and how the history of the riverfront communities led to present-day conditions is critical to shaping the future of public access along the river.

Although the history of communities along the Tidal Delaware truly begins with the Lenni Lenape people, public access did not become a policy issue until the introduction of restrictive land use practices by European colonists. As such, the histories of waterfront access in each of the three counties that are detailed in this chapter begin in the early 1600s, when the colonists first began to arrive.



# **Delaware County**

The Tidal Delaware waterfront in Delaware County runs from Marcus Hook to partway along the Philadelphia International Airport. Sections of Marcus Hook Creek, Stoney Creek, Chester Creek, Ridley Creek, Crum Creek, and Darby Creek are also tidally influenced. The municipalities with frontage along these tidal waterways include Marcus Hook, Trainer, Chester City, Eddystone, Ridley Township, Tinicum Township, Ridley Park, Prospect Park, Norwood, Folcroft, and Darby Township. In the present day, riverfront activities along the Delaware River in Delaware County are dominated by large-scale industrial uses and vacant land. However, a few well-established and well-known public access areas do exist within this larger land use context, as well as some more recently developed sites. Established public access areas include Market Square Memorial Park in Marcus Hook, Barry Bridge Park in Chester, and Governor Printz Park in Tinicum. One recently developed site in Tinicum is the renovated Lazaretto building, which has been adapted for municipal use.

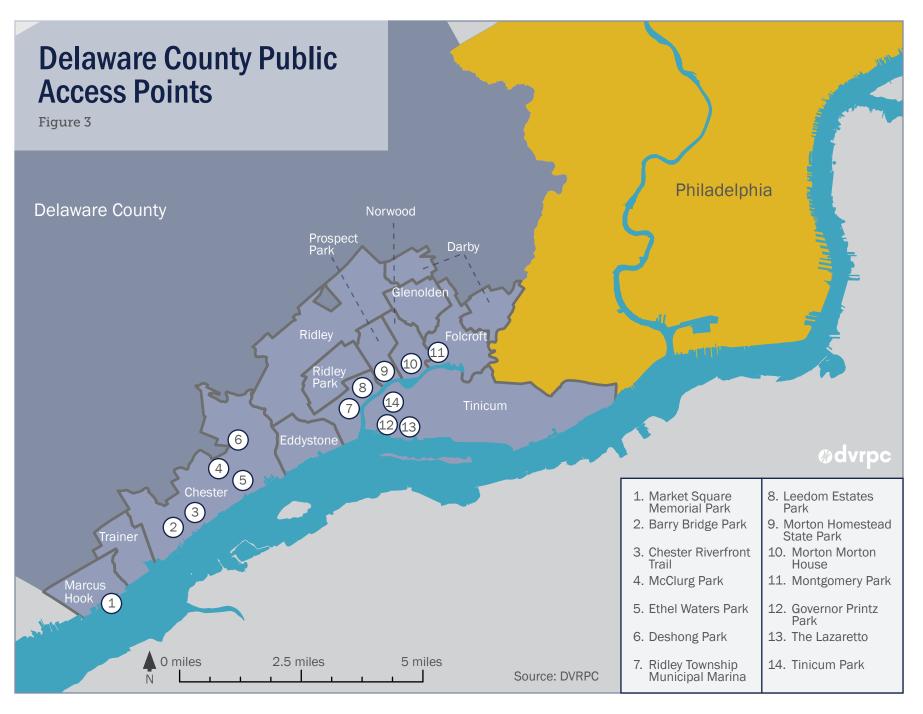
### History

For much of the first half of the 17th century, the center of European colonization along the Delaware River was focused in present-day Delaware County. In the 1640s, the Swedish governor for the region, Johan Printz, established the first European capital in Pennsylvania in what is now known as Tinicum Township. From this location, European settlements spread up and down the river, most prominently at Marcus Hook, Chester, and Tinicum. Between these early centers of commerce and culture, colonists established farms and traded with the local Native Americans as the regional governing authority moved from the Swedish, to the Dutch, to the English, and finally to the Americans.

In 1850, the county seat of Delaware County moved from Chester to Media in the middle of the county. Alongside this move, many landowners also moved in order to remain close to the center of government. This opened up land along the river for industrial developments, such as shipyards, locomotive factories, and eventually, oil refineries, the world's first synthetic fiber plant, and many more. By the time of World War I, the riverfront area was an industrial powerhouse dominated by large-scale factories surrounded by worker housing and connected by rail, water, and roadway infrastructure.



Governor Printz Park, Tinicum

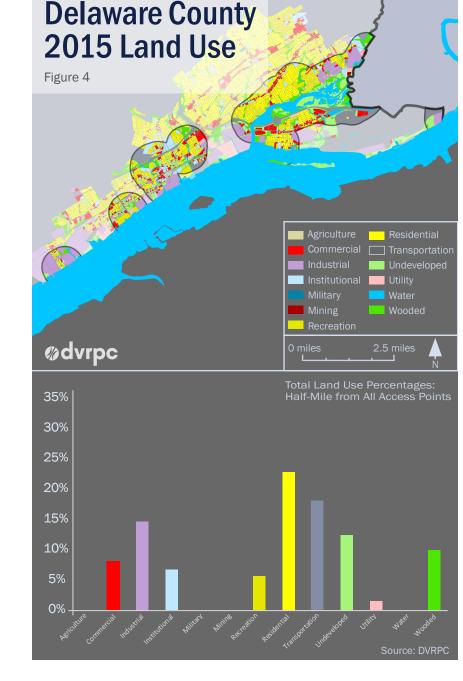


The industrial growth of the area continued throughout the first half of the 20th century with the addition of the Baldwin Locomotive Works, Sunoco Oil Refinery, and Boeing. By the middle of the 20th century, these factories continued to be a strong presence along the riverfront, but changing global economic conditions contributed to a slow and steady decline beginning in the 1960s. In the present day, several refineries, Boeing, the Kimberly-Clark plant, some port facilities, and several other large factories remain active, but holes have appeared in the industrial fabric where plants have closed and properties have been left vacant. Some of these vacant and underutilized sites have been taken over by newer uses, such as a soccer stadium, a casino, and a former power plant repurposed as Class A office space.

# Current Public Access and Surrounding Land Use

Current public access in Delaware County is shown on the map (Figure 3) at left. These public access areas are unevenly dispersed throughout the county with clusters in Chester and Marcus Hook in the south and around John Heinz National Wildlife Refuge and Tinicum in the north.

On Figure 4 at the right, land use data from 2015 for the Delaware County waterfront is shown. On this map, each access site is surrounded by a half-mile outline that highlights the land uses near the access sites. This information is then shown in the graph below the map, which displays the total land use percentages of the half-mile outline. According to this data, the most prevalent form of land use within a half-mile of existing public access sites is residential, followed closely by transportation and industrial. In Marcus Hook and Chester along the southwestern edge of the map, the access sites are predominantly surrounded by industrial land with some areas of residential and commercial use. Farther to the north, most of the area surrounding the John Heinz National Wildlife Refuge is residential. The same is true for the public access sites in Tinicum.



#### GOVERNOR PRINTZ PARK - TINICUM, PENNSYLVANIA

In 1643, Governor Johan Printz was appointed in control of the Swedish colony along the Delaware River. Given orders to turn a profit from the colony, and in order to solidify control over the trade routes along the river, he established several new forts in the area, including Fort New Gothenburg in Tinicum. Fort New Gothenburg became the center of Swedish colonization of the area, and Governor Printz built his private residence, the Printzhof, close to the fort. Together, these structures served as the first permanent European settlement in the Commonwealth of Pennsylvania and the first European center of government in the region. This Swedish authority was short lived, and the Dutch took control of the fort and the river by the mid-1650s. Archeological excavations in 1937 uncovered the foundations of the Printzhof within the present-day Governor Printz park, and currently a replicated historic Swedish village is being constructed at the park in order to provide park visitors with an interactive experience of early Swedish colonial life.



Governor Printz Park, Tinicum

### Waterfront Planning Context

Waterfront planning in Delaware County is most broadly reflected in several large-scale areawide studies, as well as in plans focusing on the City of Chester. The *Renaissance Program* plans were written by the Delaware County Planning Department and work to knit together the municipalities of the DECZ into a comprehensive planning framework focused on economic development. The *Delaware County, Pennsylvania Open Space, Recreation, and Greenway Plan,* published in 2015, links the area to the rest of the county through potential trail connections and open space development. The *Delaware River Conservation Plan,* published in 2014, explicitly calls for increasing green stormwater infrastructure; developing better access to the river; and constructing safety, pedestrian, and green infrastructure improvements to Route 291.

Apart from these areawide plans, many areas of the Delaware County waterfront have not prepared any recent plans. Two exceptions are the joint Ridley-Eddystone Multi-Municipal Comprehensive Plan and several plans for Chester City. Whereas the Ridley-Eddystone plan briefly touches upon waterfront access, the plans for Chester City extensively mention public access to the waterfront. The city's comprehensive plan, Vision 2020 The City of Chester: A City Beautiful Movement, published in 2012, lists waterfront access as priority number one in both its Natural Systems and Sustainability Section and Transportation Section. Supporting this plan is the Resilience Through Recreation: City of Chester 2018-2027 plan, published in 2018, focused on organizing the community around climate change resilience using parks and recreational programs and the Chester Waterfront Master Plan, published in 2020, which proposes a new waterfront neighborhood with extensive public access. All three of these plans explicitly call for greater access to, and more public amenities along, the Delaware River waterfront.

Plans from the past 20 years that contain information or goals about the waterfront in Delaware County are listed in the next section.

### Waterfront Plans



#### Renaissance Program

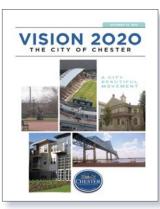
Source: Delaware County Council and the Delaware County Planning Department

Year: 2002-2003

Ridley-Eddystone Multi-Municipal Comprehensive Plan

Source: The Delaware County Planning Department

Year: 2011



RIDLEY-EDDYSTONE

MULTI-MUNICIPAL

#### Vision 2020 The City of Chester: A City Beautiful Movement

Source: The City of Chester

Year: 2012

The *Renaissance Program* was a series of five plans created for lower Delaware County that addressed economic development, housing, infrastructure, transportation, and public safety. Plans 1–3 covered municipalities along the Delaware River waterfront and specifically called for the improvement and expansion of existing waterfront parks like Market Square Memorial Park in Marcus Hook and Barry Bridge Park in Chester. Since each one of these plans covers multiple waterfront municipalities, they recommend embracing a spirit of local cooperation, joint problem solving, and sharing of resources.

The *Ridley-Eddystone Multi-Municipal Comprehensive Plan* covers a wide variety of housing, land use, transportation, recreation, and economic development goals and objectives for both Ridley and Eddystone. Pulling extensively from the *Renaissance Program* plans developed in 2002–2003, this plan specifically recommends two actions for increasing public access. The first is to work with the eventual purchaser of the Foamex property on E 2nd Street in Eddystone to establish a public access park at that location, and the second is to connect Sellers Avenue in Ridley to the Ridley Township Municipal Marina.

*Vision 2020 The City of Chester: A City Beautiful Movement* is the comprehensive plan for the City of Chester. The Vision Statement of this plan is, "The historic City of Chester is the first choice to live, work, and play; where people work together to create a vibrant and beautiful community," and the goals and actions focus on revitalizing the city through environmentally sustainable economic development. In terms of the waterfront, this plan introduces a large-scale and ambitious mixed-use development proposal in the areas north and south of the Commodore Barry Bridge, as well as a range of aesthetic, land use, and transportation recommendations to improve connectivity to the waterfront.

### **Chester Waterfront Master Plan**

Focusing on the area from Norris Street south to Highland Avenue and from the Delaware River inland to PA 291, the *Chester Waterfront Master Plan* is an ambitious proposal to create a new waterfront neighborhood that will be both a regional destination and a welcoming place for existing and new Chester residents. Five themes that guide this development are local and regional connectivity, embracing Chester's rich history and promising future, activating the waterfront for recreation and development, basing development on market realities, and promoting environmental sustainability.

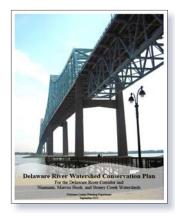
The plan extensively references elements of past waterfront plans for

Chester in developing a two-phased proposal that includes a range of uses, such as a publicly accessible waterfront park along the river, an indoor sports complex, an upscale hotel, and multifamily residential dwellings. The initial steps of this proposal involve renovating and improving PA 291, improving and expanding the Chester Riverwalk, and beginning to upgrade Engle Street into a Complete Street that connects existing neighborhoods to the waterfront. The ultimate objectives of this project are to bring growth, diversity, and something unique to both the City of Chester's and Delaware County's waterfront.

Image Source: NBBJ, Courtesy of the Riverfront Alliance of Delaware County



Rendering of proposed Chester waterfront, Chester Waterfront Master Plan



#### Delaware River Watershed Conservation Plan

Source: The Delaware County Planning Department

Year: 2014

River conservation plans are comprehensive management strategies for water, land, cultural, historic, and recreational resources in a watershed. This plan for the Delaware River watershed was prepared by the Delaware County Planning Department and includes a wide range of information on the current state of this watershed, as well as recommending the preservation, enhancement, and capitalization of open and natural areas along the water, including public access and recreational opportunities for the community.

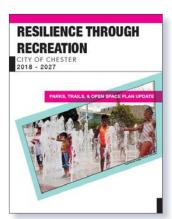


#### Delaware County, Pennsylvania Open Space, Recreation, and Greenway Plan

Source: The Delaware County Planning Department

Year: 2015

Written as a component to Delaware County's comprehensive plan, Delaware County, Pennsylvania Open Space, Recreation, and Greenway Plan serves as a guide and resource for countywide open space planning efforts. The broad goals of this plan are Conserve, Enhance, and Connect, and the plan itself includes many recommendations for how the county and municipalities can plan and implement a community open space and recreation program. Riverfront municipalities can use the resources in this plan to conserve, enhance, and connect public access sites along the Delaware River.



#### Resilience Through Recreation: City of Chester 2018-2027

Source: The City of Chester

Year: 2018

Taking a pragmatic approach to parks and recreation, the *Resilience Through Recreation: City of Chester 2018–2027* plan prioritizes balancing sustainability and equity to improve community parks in the City of Chester. Building off the *Vision 2020* plan, this plan prioritizes five core projects that can be accomplished on a 10-year implementation plan and will serve as models for the rest of the city. The first of these projects is titled "Our Waterfront: The Envy of Pennsylvania" and recommends a cohesive network of space along the riverfront accessible to the public. This would include creating a series of access points and riverfront trails from Harrah's Casino to Highland Avenue south of Commodore Barry Bridge.



#### Feasibility Study for Bicycle/ Pedestrian Improvements Highland Avenue/Norris Street

Source: The Pennsylvania Environmental Council (PEC)

Year: 2019

Focused on creating safe bicycle and pedestrian connections to the Chester Riverfront Trail along Highland Avenue and Norris Street, this project, commissioned by the Pennsylvania Environmental Council, will help link the rest of the city to the waterfront. Also included in this project are improvements of the intersection of Norris Street and Route 291. These improvements will also allow for the Chester Riverfront Trail to become an alternative route for the East Coast Greenway and to become part of the 911 Memorial Trail.



#### Chester Waterfront Master Plan

Source: The Riverfront Alliance of Delaware County

Year: 2020

The Riverfront Alliance of Delaware County is an organization made up of private-sector corporations and non-profit institutions which focuses on implementing programs and initiatives that fuel the development of all waterfront communities in Delaware County. In this plan, they focus on the Chester waterfront south of Norris Street and propose a multiblock mixed-use development centered on Engle Street. The entire waterfront edge of this development would be a publicly accessible park combining recreational space with environmental education elements. This proposal takes into account environmental, economic, and local conditions and was created after an extensive public outreach campaign. The multiphase implementation plan starts first with the waterfront park and then works to improve street connections to the other side of PA 291 in order to attract economic and residential development.

### **Ongoing and Future Projects**

The planning work for the Delaware County riverfront acknowledges that residents are proud of their waterfront and are generally in support of and engaged with creating more public access, but much of the waterfront has remained resistant to change even though several plans have been published calling for additional public access. However, several projects are seeking to reset this narrative, including a pier restoration project in Marcus Hook, the Feasibility Study for Bicycle/Pedestrian Improvements Highland Avenue/Norris Street published by PEC to work on better connecting the city to the waterfront, a recent trail construction at Eyre Park adjacent to Chester High School, and the construction of a replica Swedish historic village at Governor Printz Park. As well as these ongoing projects, several proposed future projects include a new greenway in Marcus Hook, an access trail next to Harrah's Casino, and some long-standing interest in turning part of the former Foamex site in Eddystone into a waterfront park. These plans and projects hold promise for the future of the waterfront, both in terms of public access and community revitalization, but much progress is still required before the full potential of the waterfront can be realized.



End of Norris Street, Chester

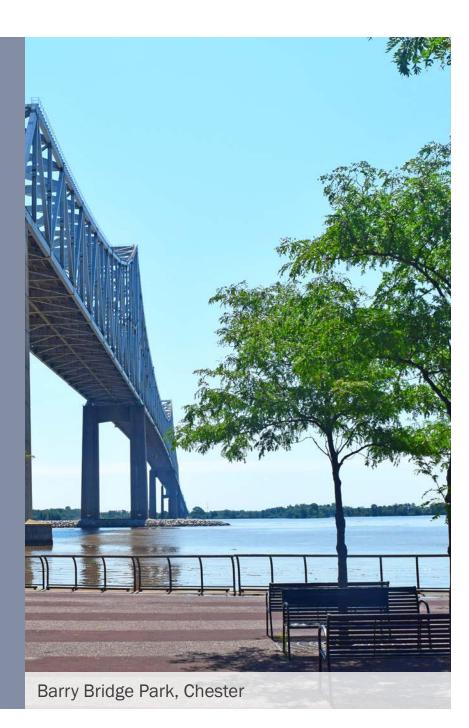


Subaru Stadium, Chester

### Barry Bridge Park

Renovated in 2004, Barry Bridge Park is the primary Delaware River waterfront access park for the City of Chester. Sitting at the foot of the Commodore Barry Bridge, the park is located adjacent to Subaru Stadium where the Philadelphia Union Major League Soccer team plays. It is also located along the over-one-mile-long Chester Riverfront Trail. There is a boat ramp and fishing area along the river, but overall the park is lacking in amenities and separated from downtown Chester by large swaths of vacant or underutilized land.

Despite these shortcomings, the park is recognized as an asset for the city and county and is an extensive focus of several trail projects, the recent *Resilience Through Recreation* plan, and the *Chester Waterfront Master Plan* by the Riverfront Alliance of Delaware County. For several years, it was also a central location of the "Riverfront Ramble," a community gathering and celebration of the Delaware County waterfront that included music, food, family entertainment, and fireworks. With ongoing projects to connect the park and the adjacent Chester Riverfront Trail to the rest of the community, this area has been identified as a high priority for increasing and improving access. From kids learning how to fish to senior citizens holding group exercises, Barry Bridge Park holds a deep connection to the Chester community. Building on this foundation is a successful recipe for making the park a jewel of public access for local community members and the wider region.

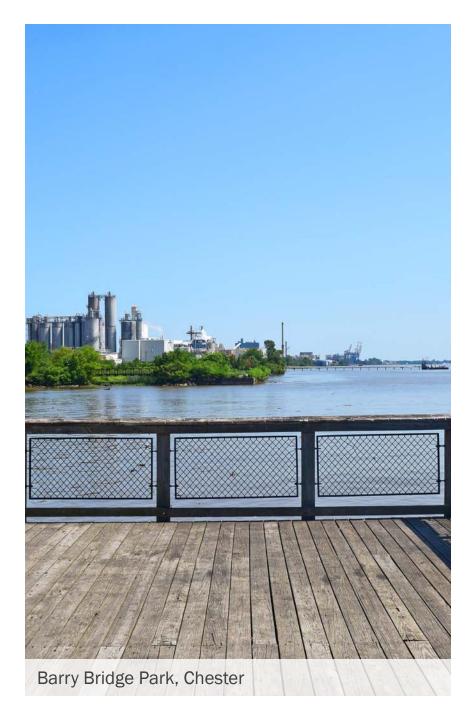




Access at Morton Morton House, Norwood



Market Square Memorial Park, Marcus Hook



# Philadelphia

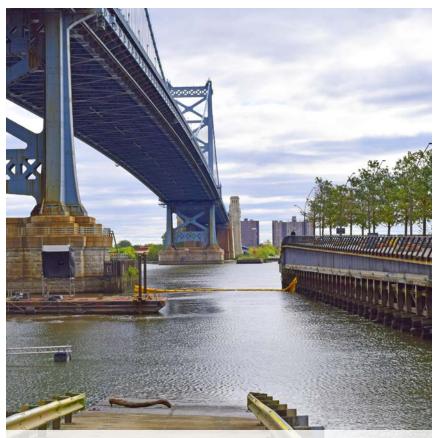
The Tidal Delaware River waterfront runs along the entire eastern edge of Philadelphia, while the Tidal Schuylkill River bisects the southwest corner of the city from south to north, running all the way to the Fairmount Dam. These two waterfronts traverse dozens of distinct neighborhoods and planning districts. They are also undergoing a generational change by transitioning away from primarily industrial and maritime use and so have been the subject of a great deal of planning activity in recent decades. A major goal of these plans is knitting the riverfronts back into their adjacent neighborhoods, and numerous projects have recently been completed or are under way in order to achieve this objective.

### History

In Philadelphia, as in Delaware County, much of the city's historical development grew along the waterfront owing to the importance of the river for trade, transportation, and communication. In the decades following the Declaration of Independence, the waterfront developed rapidly to the north and south of the original 17th-century settlement with industrial factories, warehouses, port facilities, and residential neighborhoods. To the south, industrial wharves were constructed to provide more area for port operations. Several of these wharves became entry points for successive waves of immigrants throughout the 1800s, resulting in neighborhoods in the surrounding area of African American, Irish, Italian, and Lebanese immigrants.

To the north, development focused less on port operations and more on industrial factories with planned worker housing. Dozens of industries, including shipbuilding, arms manufacturing, textile mills, and breweries proliferated throughout the River Ward neighborhoods of Fishtown, Kensington, Port Richmond, and Bridesburg. With the industrial demands of the Civil War, this area grew even more and was a major reason for the city of Philadelphia eventually becoming known as the "Workshop of the World."

At the turn of the 20th century, waterfront land use patterns that had developed over the past 150 years continued unabated. In the Center City area, a complex fabric of port operations, residential neighborhoods,



Delaware River waterfront, Philadelphia

#### WOOD STREET STEPS

Balancing economic development with public access has been a struggle for the river since the first western settlements. In the early days of Philadelphia, industrial and shipping businesses wanted to dominate the entire riverfront for their economic use, but William Penn wanted to preserve the high ground alongside the river for a public promenade and to implement his vision of a "Greene Countrie Towne." In order to encourage economic development, but also preserve his vision of Philadelphia, Penn's solution was to allow business interests to build up to the water's edge, but they had to allow the public convenient access to the river. This resulted in the construction of 8–12 staircases that served as crucial connections between the rapidly growing city and the river. The Wood Street Steps are the only ones remaining and illustrate how the city's relationship with the Delaware River has evolved and stayed the same over its long history.



Wood Street Steps, Philadelphia

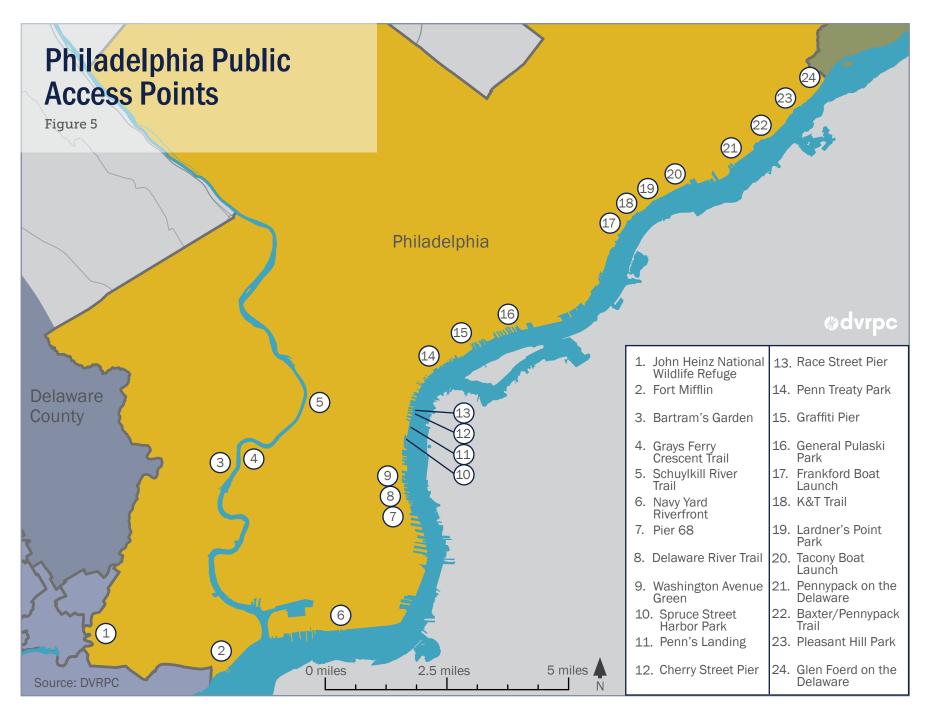
commercial stores, and historic neighborhoods became interwoven with modern city infrastructure. South of Center City, neighborhoods were mostly built out while the port continued to develop and grow. North of Center City, the industrial factories continued to expand in order to support the manufacturing demands of two world wars and a rapidly growing national economy.

Beginning in the late 19th century, three major developments had an immense impact on major sections of the Philadelphia waterfront. These were the relocation, expansion, and reuse of the Navy Yard, the development of Hog Island into the Philadelphia International Airport, and the construction of Interstate 95 (I-95) along the Delaware River.

The Navy Yard in Philadelphia was originally located on the Delaware River close to Federal Street. In 1871, more space and modern facilities were needed, and the Yard moved to its present-day location on League Island. Building upon the industrial shipping facilities already present on the Island, the Navy Yard eventually grew to encompass most of the island and became a major military and economic presence in the region.

Directly across the Schuylkill River from the Navy Yard, Hog Island was also originally used as a shipyard. In 1925, the Pennsylvania Air National Guard built an airport on a portion of the island. This airport grew substantially in size over the next 25 years as both a municipal airport and an Army Air Force base. After World War II, the airport was turned over to the City of Philadelphia and has continued to grow over the decades into one of the largest airports in the United States.

Perhaps by far the biggest overall change to the waterfront in Philadelphia was the construction of I-95. Starting in 1959, the interstate was built north to south and was mostly completed by 1979, more or less paralleling the river throughout its entire length in the city. Whereas before neighborhoods, industrial areas, and commercial buildings had existed uninterrupted from the riverfront inland, now eight lanes of high-speed traffic, and associated on- and off-ramps, stood in the way. Although the interstate provided



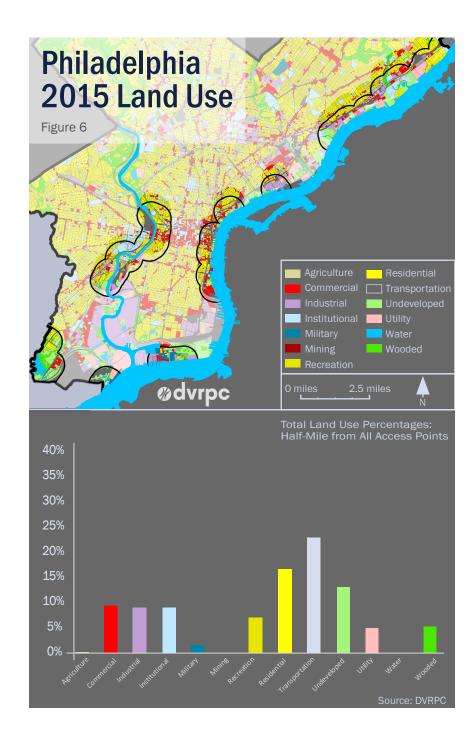
connections to areas outside of Philadelphia and the rest of the country, in the half-century since it was constructed it has become one of the most substantial barriers between the city and its riverfront.

At the turn of the 21st century, all three of these major waterfront developments entered a period of substantial change. The Navy Yard was closed in 1995 and is well on its way to transitioning from a military base to a mixed-use commercial, industrial, office, and potentially residential area with a publicly accessible riverfront greenway. The airport has been exploring expansion plans for the past decade, which might disrupt access to the river. The Pennsylvania Department of Transportation began a multibillion dollar, multi-decade renovation project for I-95 in 2009, which seeks to repair the road and integrate it more effectively into local neighborhoods. This is occurring alongside, and occasionally in partnership with, local community organizations, public-private non-profits, and private real estate developers who are working to reconnect neighborhoods to the river by building "connector streets," which use street improvements, landscaping, green stormwater infrastructure, public art, and park amenities to create attractive gateways under and over I-95. The city's signature waterfront project now underway – a "cap" over I-95 directly connecting the heart of Center City to a reimagined waterfront park space at Penn's Landing – is described in more detail on page 38.

# Current Public Access and Surrounding Land Use

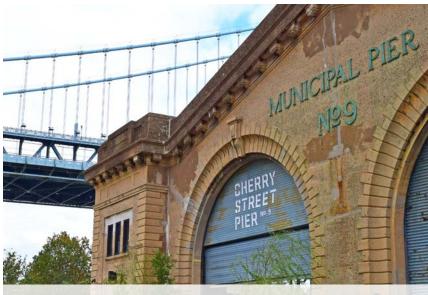
As shown in the map (Figure 5) on the left, current public access areas are spread evenly throughout Philadelphia. Although there is a cluster of public access areas around Center City, many sites exist spread out to the north and south.

Land use data for 2015 (shown in Figure 6) for Philadelphia shows that the land around access sites is a broad mix of uses with a preponderance of residential, industrial, and transportation uses. Looking at the map,





Penn Treaty Park, Philadelphia



Cherry Street Pier, Philadelphia

however, each area reveals a unique story. Most access sites in the south and southwest sections of the city are surrounded by large areas of industrial, transportation, vacant, and commercial uses. This is especially true of Fort Mifflin, the Navy Yard, and those sites south of Center City on both the Schuylkill and Delaware rivers. In the Center City area, public access sites are surrounded by a diverse mix of residential and commercial uses with some significant transportation corridors, such as I-95. North of Center City the industrial land uses return and the barrier of I-95 remains apparent as it cuts off the urban fabric from the river.

### Waterfront Planning Context

Numerous significant and high-profile waterfront planning efforts have occured in Philadelphia over the past 20 years. In fact, it may be one of the most heavily planned locations in the region. The Master Plan for the Central Delaware: Transforming Philadelphia's Waterfront, published by the Delaware River Waterfront Corporation (DRWC), is an ambitious waterfront plan calling for a fully accessible waterfront with public parks every halfmile supported by mixed-use developments and multimodal transportation options. The recently completed Riverfront North Partnership's Greenway Master Plan and the Philadelphia City Planning Commission's Phila2035 Citywide Vision and District Plans both encourage integration of the waterfront back into the urban fabric of the city. And finally, the Philadelphia Industrial Development Corporation's master plan for The Navy Yard, released in 2004 and updated in 2013, calls for office space, research labs, residential development, and expanded public access to the river. Taking all these plans into consideration, there is certainly no shortage of plans and visions to transform Philadelphia's once industrialized. inaccessible, and gritty waterfront into a modern mixed-use, live, work, and play community that incorporates access to the river as a guiding principle.

Plans from the past 20 years that contain information or goals about the waterfront in Philadelphia are listed in the next section.

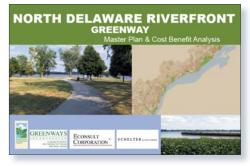
### Waterfront Plans



#### North Delaware Riverfront, Philadelphia: A Long-Term Vision for Renewal and Redevelopment

Source: The City of Philadelphia and the Philadelphia City Planning Commission

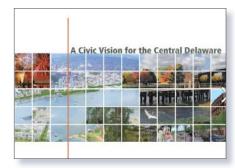
Year: 2001



#### North Delaware Riverfront Greenway: Master Plan and Cost Benefit Analysis

Source: The Pennsylvania Environmental Council

Year: 2005



# A Civic Vision for the Central Delaware

Source: PennPraxis and the Philadelphia City Planning Commission

Year: 2007

Released in 2001, *North Delaware Riverfront, Philadelphia: A Long-Term Vision for Renewal and Redevelopment* is a concept plan for new residential and mixed-use neighborhoods along the waterfront from Penn Treaty Park to Poquessing Creek. Anchored by an eight-mile-long riverfront park and by new urban centers at Bridesburg and Tacony, this plan projects that the area between I-95 and the Delaware River will be able to attract 10,000 residents and three million square feet of new office and commercial space. Key to this proposal is directly recognizing the challenging post-industrial landscape of this area and reframing it as a new riverfront community that links Philadelphia back to the waterfront.

Written to further explore the feasibility of a public riverfront greenway first suggested in the 2001 *North Delaware Riverfront, Philadelphia* plan, the *North Delaware Riverfront Greenway: Master Plan and Cost Benefit Analysis* analyzes implementing a public greenway from the Betsy Ross Bridge to Pleasant Hill Park. The master plan first suggests three alternative scenarios for this greenway that range from letting development happen "as is" to building a greenway with surrounding park and public access amenities. After a cost benefit analysis, the plan recommends the park and public greenway option, which their analysis projects would result in annual public benefits 10 times larger than the other two options.

The culmination of a year-long civic engagement process, A *Civic Vision for the Central Delaware* outlines the public vision for the waterfront and sets the stage for the master plan for the Central Delaware. This vision suggests possible options and future directions for the waterfront by building on the premise that successful waterfronts are the result of compelling vision, effective zoning and land use regulations, and strategic public investments. The key recommendations for this vision are ensuring public access to the waterfront, connecting the city to the river's edge, improving the quality of development, building on economic assets, and ensuring sound implementation with early action projects.



#### Master Plan for the Central Delaware: Transforming Philadelphia's Waterfront

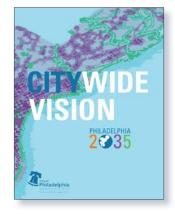
Source: Delaware River Waterfront Corporation

Year: 2011

The Master Plan for the Central Delaware: Transforming Philadelphia's Waterfront was published in 2011 after years of citizen engagement and planning work to guide public access and development along the Delaware River in Philadelphia. The goal of this plan is to transform a six-mile length of the waterfront into an authentic extension of the thriving city and vibrant neighborhoods immediately to the west. The principles guiding this plan are:

- Create a network of civic and public spaces that are distinctive public amenities as well as catalysts for private development
- Promote the development of new, low- to mid-rise, dense and walkable residential neighborhoods.
- Accommodate diverse land uses along the waterfront.
- Incorporate best practices in sustainability.
- Participate in creating a pedestrian-friendly and balanced transportation plan that supports the walkability of the waterfront and its strong connection to the city and the region.
- Create strong inclusionary opportunities for economic development for minority-owned, women-owned, and disadvantaged businesses.
- Create a plan that can be implemented in discrete increments over time.
- Create a truly Philadelphia waterfront.

*Phila2035 Citywide Vision and District Plans* is the comprehensive plan for the City of Philadelphia. Organized under the themes of Thrive, Connect, and Renew, each plan recommends specific actions that can be taken to guide neighborhoods and the city to the year 2035. Access to the waterfront throughout the city is extensively included in each of these plans and through the perspective of each of the overall themes.



# Phila2035 Citywide Vision and District Plans

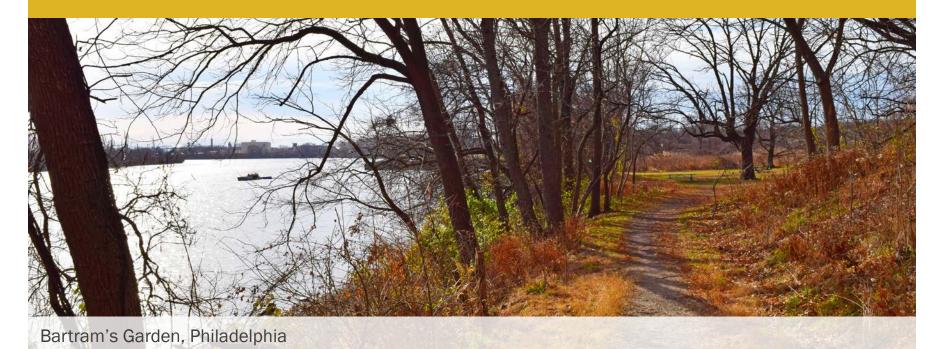
Source: The Philadelphia City Planning Commission

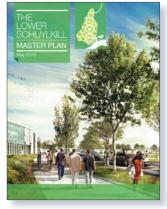
Year: 2011-2018

## Bartram's Garden

Established by John Bartram in 1728, Bartram's Garden was one of the most comprehensive horticultural sites in colonial America and is currently the oldest surviving botanical garden in North America. The City of Philadelphia took ownership of the park in 1891, and today the park is managed by the John Bartram Association. Over the past few years, the focus of Bartram's Garden has prioritized connecting the site back to the Schuylkill River and to the surrounding communities. Working to address negative perceptions of the cleanliness of the river and accessibility of the site, Bartram's Garden staff have established creative programs to bring more people to the garden and river. These programs include riverfront events in which the whole neighborhood is invited, a public paddling program that has grown over five seasons to accommodate 5,000 unique visitors in 2019, and holding conversations with local community leaders about the future of community use along the river.

As well as working to increase public awareness, Bartram's Garden is also in the middle of multiple projects that will increase access to the riverfront for communities far away from the garden itself. To the north, the Schuylkill River Development Corporation is working to connect the garden to the Schuylkill River Trail and to the south a trail to 61st Street is currently in design stages. Within Bartram's Garden itself, multiple projects are underway that prioritize intentionally creating a welcoming space for all types of access and people on the river.





#### The Lower Schuylkill Master Plan

Source: The Philadelphia Industrial Development Corporation, the Philadelphia Department of Commerce, and the Philadelphia City Planning Commission

Year: 2013

Encompassing from the southern edge of University City to the Delaware River, the *Lower Schuylkill Master Plan* envisions a reinvigorated industrial hub with extensive public access, commercial development, and environmental components. Core public access recommendations include completing the Schuylkill River Trail from Center City through Bartram's Garden to Passyunk Avenue and the creation of a new park just north of the Passyunk Avenue bridge.



#### The Navy Yard Master Plan 2013 Update

Source: The Philadelphia Industrial Development Corporation

Year: 2013

Originally published in 2004, the 2013 update of the *Navy Yard Master Plan* reinforces and updates the original plan to include recent development and propose expanding the commercial, industrial, and residential options in the Navy Yard. This plan reflects the growing demand for energy research space and laboratory facilities by proposing three new districts and revising the existing historic district. These developments are projected to attract 10,000 jobs over the next 15 years and will be supported by \$100 million in public infrastructure spending on new roads, utilities, and open spaces.



#### Greenway Master Plan

Source: Riverfront North Partnership Year: 2020 Building upon the 8 miles of trail completed from the 2005 North Delaware Riverfront Greenway: Master Plan and Cost Benefit Analysis, the Greenway Master Plan lays out the plan to create a lasting and resilient landscape that realizes Riverfront North Partnership's vision of a continuous system of trails and open space along the Delaware River waterfront in Northeast Philadelphia. The four high level goals of this master plan to create a distinctly Northeast Philadelphia landscape are:

- Improve Connectivity
- Support Functionality
- Nurture Environment
- Enhance Experience

# **Ongoing and Future Projects**

In response to planning efforts, a number of significant and innovative projects that increase access and activate the riverfront have been implemented in recent years, including the Schuylkill River Trail, Spruce Street Harbor Park, Race Street Pier, and Pier 70, to name a few. Collectively, these projects have begun to change the public perception of Philadelphia's tidal riverfronts.

The tidal Schuylkill River Trail is planned to extend from the Fairmount Dam to Passyunk Avenue, and existing gaps in the trail are currently being filled, including the construction of a suspension bridge from Christian Street to the beginning of the existing Crescent Trail segment, and the construction of a bridge from the Grays Ferry Crescent Trail to Bartram's Garden across the Schuylkill River. At the Navy Yard, the Philadelphia Industrial Development Corporation has opened up a new phase of development with the potential for increased waterfront access. Along the central Delaware, the DRWC has multiple ongoing projects: environmental marshland creation near Pier 68; constructing a multiuse trail along Christopher Columbus Boulevard; a \$225 million project to place a cap and new park over I-95 extending from Front Sreet to the river's edge, and from Walnut Street to Chestnut Street; and parks at Festival Pier and Graffiti Pier. DRWC is also working with several private developers to bring increased density and mixed-use projects to the riverfront with the potential to create active neighborhoods where there were once factories and parking lots. North of Graffiti Pier, the Riverfront North Partnership is establishing a waterfront trail from Pulaski Park all the way to Bensalem with multiple parks along the way, including a major new 10-acre waterfront park in Bridesburg.

The projects highlight the fact that tremendous progress has been made in reconnecting the City of Philadelphia to its tidal rivers. However, significant challenges remain in overcoming the legacy of heavy industrial use, highway construction, decades of general neglect, and community perceptions. about the dangerous and dirty nature of the river.



Graffiti Pier, Philadelphia



Vacant piers, Philadelphia

# The Park at Penn's Landing

With an anticipated opening in 2026, The Park at Penn's Landing is one of the biggest, most expensive, and most impactful public access projects along the Delaware River in years. Ever since the construction of I-95, there have been extensive efforts to reconnect the waterfront, particularly in the Penn's Landing area of Center City. After many decades of proposals, plans, and politics, the Pennsylvania Department of Transportation, the City of Philadelphia, and the DRWC are now moving forward with a \$225 million project to create a public park over the interstate at Penn's Landing.

This new park will extend from Chestnut Street to Walnut Street and will allow uninterrupted access from Front Street to the river's edge. Included in the plans are play areas, green spaces, a pavilion with a cafe, water features, and a promenade along the Delaware River. As this project begins to take shape, DRWC is not only committed to establishing a waterfront park, but also to establishing a "truly Philadelphian waterfront" where all members of the community feel welcomed.

Updates to this project can be found at <u>www.parkatpennslanding.com.</u>

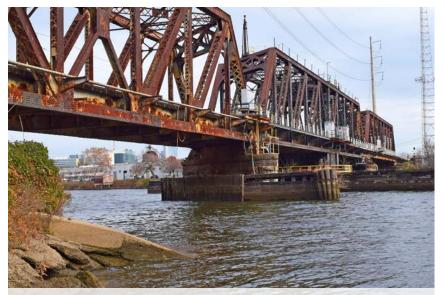
Image Source: ©Hargreaves Jones Associates/redsquare, Courtesy of the Delaware River Waterfront Corporation and the Pennsylvania Department of Transportation



Rendering of the new Park at Penn's Landing, Philadelphia



Schuylkill Banks Boardwalk, Philadelphia



Industrial infrastructure, Philadelphia



Grays Ferry Crescent Trail, Philadelphia

## East Coast Greenway

Stretching 3,000 miles from Maine to Florida, the East Coast Greenway is a developing pedestrian and biking trail connecting 15 states and Washington, DC; 450 communities; and millions of people. In Pennsylvania, the East Coast Greenway travels from Morrisville to Marcus Hook on mostly off-road trails that parallel the Delaware and Schuylkill rivers.

Throughout the coastal zone, the East Coast Greenway is one of the best ways for bikers and pedestrians to access specific sites along the river and travel between different access areas. Currently, certain sections of the trail require users to travel on vehicular roads, and work is underway to close these gaps.



John Heinz National Wildlife Refuge, Tinicum

Source: <u>www.greenway.org</u>



Image Source: East Coast Greenway Alliance



Schuylkill River Trail, Philadelphia

## Tidal Delaware Water Trail

The Tidal Delaware Water Trail is a 56-mile-long water trail on the Delaware River that provides opportunities for boating, paddling, fishing, bird watching, picnics, photography, geocaching, hiking, history, and culture. It is administered by the Independence Seaport Musuem and is a part of the Pennsylvania Water Trails network.

In the coastal zone region, the recreational, cultural, and historic opportunities of this trail are vast, but users of the water trail should always make sure to keep safety in mind as they pay attention to tidal currents, port activity, and weather conditions.





River activity in Bucks County, Bristol



Image Source: Independence Seaport Museum



Governor Printz Park, Tinicum

# **Bucks County**

The southern two-thirds of the Bucks County portion of the Tidal Delaware River is predominantly residential in land use with scattered commercial, industrial, institutional, and vacant areas, whereas the northern third is almost entirely industrial or natural in character along the water's edge. Stretching north from Philadelphia to the falls of the Delaware River at Morrisville, Bensalem Township, Bristol Township, Bristol Borough, Tullytown, Falls Township, and Morrisville all have frontage along the river. The tidally influenced water bodies in this area include Neshaminy Creek, Mill Creek, Scotts Creek, and Van Sciver Lake. In Bucks County, public access is centered on a series of community parks, historic mansions, and one large state park. Private access is much more common in Bucks than in other areas because of houses directly abutting the river.

# History

From the time the first European settlements in the area were established in 1624–1625 until the middle of the 19th century, the Bucks County waterfront area was mostly rural farmland with the occasional riverfront town or mansion used as a summer retreat by prominent regional families. Due to its location between Philadelphia and New York, it also served as a transportation route between Philadelphia and New York. The King's Highway was constructed in 1686, the first bridge across the river at Morrisville was constructed in 1804, and train tracks were laid along the route in 1834.

In 1827, the Delaware and Lehigh Canal was built from the anthracite coal mines in the interior of Pennsylvania to the navigable waters of the Delaware River. The coal that traveled along this canal was a major factor in helping to spur the industrial development of the Philadelphia region and of the United States. Over time, the industrial presence in Philadelphia began to spread north, starting with the Grundy Woolen Mill in 1876 in Bristol. The next 50 years saw the construction of multiple other plants up and down the river, including facilities for companies like Thiokol, 3M, and Rohm and Haas. With the start of World War I, shipbuilding and aircraft factories operated in the area. As industry continued to expand, worker housing was needed, and so more and more land was converted from agricultural uses to residential. The culmination of these trends was the construction of the



Riverfront access area, Morrisville

Fairless Iron Works in the 1950s on a 1,600-acre site in Falls Township. At the height of its operations, this plant employed 40,000 workers who lived nearby in Levittown-style subdivisions.

In the latter half of the 20th century, the pace of industrial development slowed and the scale of uses started to contract. This opened up more space for other waterfront priorities, such as historic preservation and recreation. The lands for Neshaminy State Park were donated to the state in 1956, and several historical commissions were created to protect the 18th-and 19th-century mansions that dot the riverfront. Contributing to this mix of uses was the completion of I-95 in the 1960s, which enabled travelers from Philadelphia and throughout the region to quickly access the area. In the present day, attention has turned to reconnecting the waterfront to the surrounding communities to take full advantage of the opportunities it presents. To this end, plans by the Bucks County Planning Commission, local municipalities, and state/regional agencies have made waterfront access a high priority.

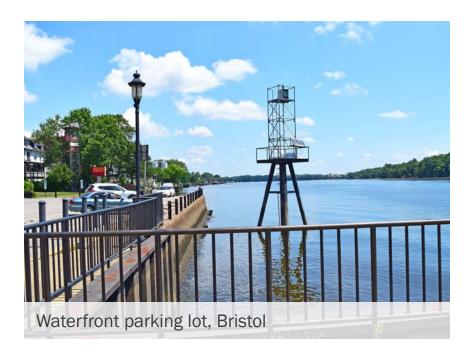
# Current Public Access and Surrounding Land Use

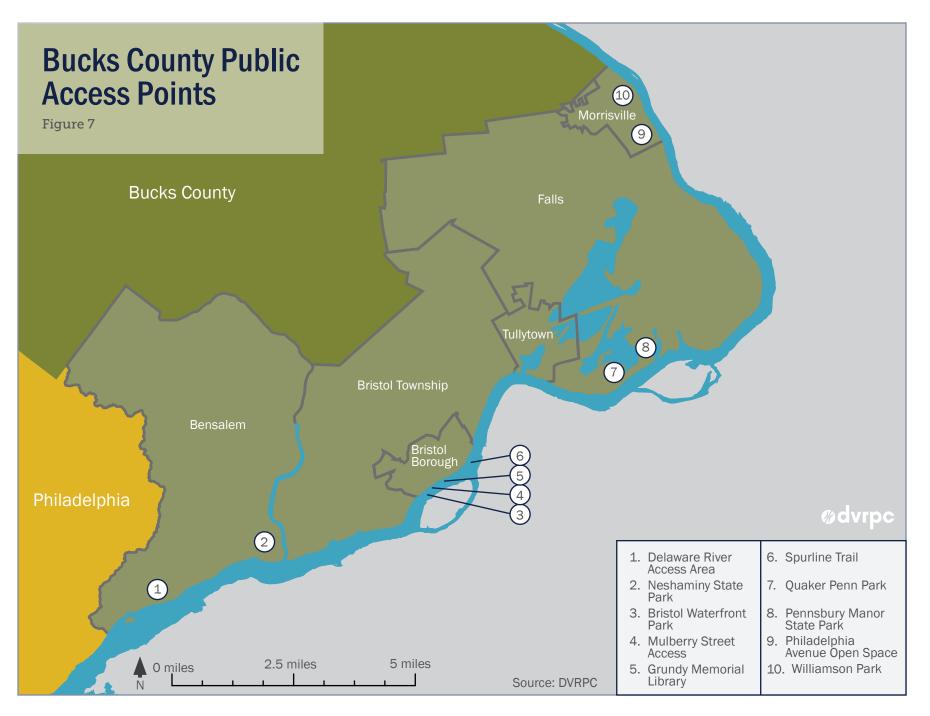
As shown in the map (Figure 7) on page 44, current public access areas are scattered throughout Bucks County. Outside of the extensive public access in Bristol Borough, public access exists in a few places in Bensalem Township, next to the Keystone Industrial Port Complex in Falls Township, and in Morrisville.

The land within a half-mile of public access sites in Bucks County is predominantly residential and natural in character, with significant wooded tracts (shown in Figure 8 on page 45). Industrial and transportation land uses are also common with commercial and recreational uses occuring in scattered areas. One other notable aspect of waterfront land use in Bucks County is the sizable vacant and wooded tracts associated with former landfills and industrial sites and the large industrial properties located between Bristol and Morrisville boroughs.



Riverfront levee and Williamson Park, Morrisville



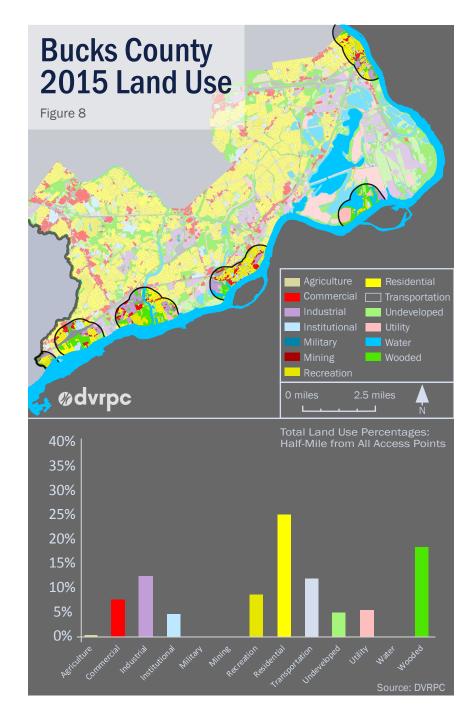


# Waterfront Planning Context

In 2005, the entire waterfront in Bucks County was addressed by the *Bucks County Waterfront Revitalization Plan* written by the Redevelopment Authority of the County of Bucks. The major themes in this plan include enlivening the river's edge by improving access, enhancing the waterfront economy by redeveloping underutilized lands, and reinforcing a sense of place and identity by highlighting key history and community assets. The plan also includes five opportunity areas where access and development should be prioritized. These opportunity areas are located between State Road and the Delaware River in Bensalem, at the Rohm and Haas property in Bristol Township, next to the Waterfront Park in downtown Bristol Borough, around Franklin Cove in Tullytown Borough, and just south of Morrisville Borough along the Delaware River and Pennsylvania Avenue.

Apart from the revitalization plan, each of the municipalities have their own comprehensive or open space plan. These plans were written from 2004 to 2011 and declare that waterfront access is a high municipal priority. Bensalem township has taken this process a significant step further with their *River Renaissance in New Bensalem* plan, which proposes building up a new waterfront community using permissive development regulations to connect the Bensalem community to the river.

Plans from the past 20 years that contain information or goals about the waterfront in Bucks County are listed in the next section.



## Bensalem Renaissance Plan

In 2015, the Bensalem Township Council approved the *River Renaissance in New Bensalem* redevelopment plan. This 675-acre project utilizes a land use overlay to spur development along the four-mile-long Bensalem waterfront by allowing additional uses not currently permitted by the zoning. Focusing on State Road between the Cornwells Heights and Eddington train stations, the eventual goal is to create a high-density town center with a mix of residential, commercial, industrial, and recreation uses, along with waterfront access. In announcing this project, the Bensalem Township government stated that the future of the community is in sustainable and smart growth along the waterfront. To accomplish this, the township is primarly relying on the overlay to serve as a catalyst for market forces to begin redeveloping the industrial parks that are currently located in the area into transit-orientated residential and commercial uses.





Above: A rendering showing the proposed uses and density for State Road.

Left: The overlay plan for the River Renaissance plan with new land uses, a filled-out street grid, and waterfront green space.

Image Source: Bensalem Township Government

## Waterfront Plans



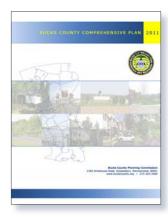
#### Bucks County Waterfront Revitalization Plan

Source: The Redevelopment Authority for the County of Bucks

Year: 2005

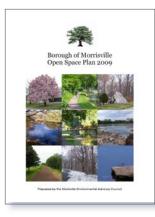
The Bucks County Waterfront Revitalization Plan is a large-scale, ambitious, and comprehensive plan for the Lower Bucks waterfont. Developed by Bucks County Government, Bensalem, Bristol, Bristol Borough, Falls Township, Tullytown, and Morrisville, this plan proposed a nearly continuous public riverwalk from Philadelphia to Morrisville, along with five opportunity areas where development and access would be prioritized. The six key themes of this plan are:

- Enlivening the river's edge by improving waterfront access
- Incorporating design with development to improve the attractiveness of the area and foster its renaissance
- Enhancing the economy by fostering redevelopment of underutilized lands and buildings
- · Expanding mobility and accessibility to and within the study area
- Fostering environmental sustainability of the Delaware River and its tributaries
- Reinforcing our sense of place and identity by reinforcing key community assets



# Bucks County Comprehensive Plan

Source: Bucks County Planning Commission Year: 2011 The Bucks County Comprehensive Plan presents a common vision for the future of the county. With long-term goals of sustainability and good stewardship, the plan offers specific recommendations, such as proposing that the entire Delaware River waterfront, except for the boroughs of Bristol and Morrisville, be turned into natural resource/conservation areas. More specific suggestions include advocating for municipal regulations to preserve riverfront access and views and supporting implementation of the Bucks County Waterfront Revitalization Plan.



#### Borough of Morrisville Open Space Plan 2009

Source: Morrisville Environmental Advisory Council

Year: 2009

The Borough of Morrisville Open Space Plan 2009 includes a background and history of Morrisville, an inventory of existing open space in the borough, goals and objectives for improving that open space, and specific projects and focus areas which will help increase the quantity and quality of open space in Morrisville. Preserve, protect, and restore the Delaware riverfront and provide public access is one of the goals and objectives. This plan highlights the potential for a low-impact trail along the waterfront to link to Falls Township to the south and for acquisition of waterfront properties to help preserve the natural environment and maintain the possibility of establishing more public access.

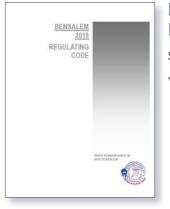


# Bensalem Greenway Master

Source: Pennsylvania Environmental Council and Bensalem Township

Year: 2012

This master plan builds on a 2008 feasibility study for a greenway from Philadelphia to Neshaminy State Park along State Road. This would be a part of the East Coast Greenway and would enable pedestrian and bike connections to public access along the waterfront.



# River Renaissance in New Bensalem

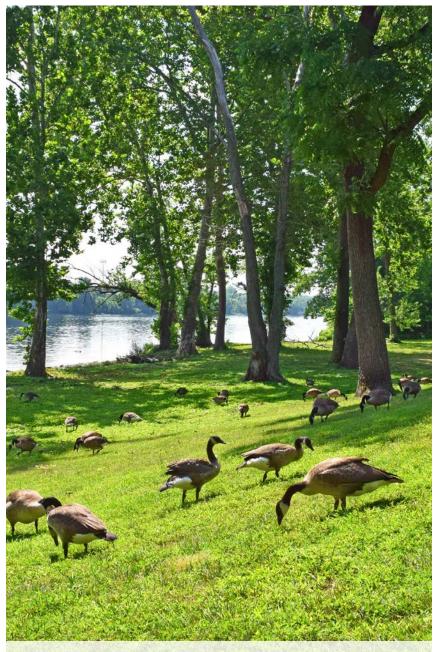
Source: Bensalem Township Year: 2015 *River Renaissance in New Bensalem* is a long-range waterfront development plan stretching from Street Road to Station Avenue along State Road, which proposes residences, stores, restaurants, office buildings, a marina, a technology center, and many other amenities. The strategy for this plan consists mostly of a land use zoning overlay that would encourage future development in line with the plan.

# **Ongoing and Future Projects**

Bensalem, Bristol Borough, and Morrisville have all made recent progress on their waterfront planning goals. In 2017, Bristol Borough constructed a boat dock in the downtown Waterfront Park to attract boating visitors to their downtown area. This boat dock contains spaces for 25-30 boats and has helped jump-start conversations about increasing the overall size and amenities at the Waterfront Park, including a potential future connection to the Delaware Canal State Park. Morrisville successfully protected part of their waterfront in 2010 with the Morrisville Riverfront Preserve project and is now looking at reinvigorating Williamson Park. Bensalem is conducting a large-scale rezoning and development initiative along their waterfront that seeks to reconnect the township to the Delaware River. Other public access projects include renovations at Quaker Penn Park, improved bike and pedestrian connections at the Delaware Canal State Park trailhead at the intersection of Trenton Avenue and Delmorr Avenue in Morrisville, and several projects that connected previously separated sections of the Delaware Canal Towpath trail into one continuous trail from Trenton to Bristol.

#### SCHUYLKILL RIVER FISHING COMPANY

The Schuylkill River Fishing Company, also known as The State in Schuylkill, was founded in 1732 and makes the claim that it is the oldest continuously operating social club in the Englishspeaking world. Originally located along the west bank of the Schuylkill River, it first moved downriver to Rambo's Rock, located along the riverfront across from Bartram's Garden, and then to Andalusia in Bucks County in 1887. Throughout its long history, several customs have developed, including the famous punch that George Washington and the Marquis de Lafayette are said to have enjoyed and the fact that members prepare their catch on specially made frying pans with five-foot-long handles. Members fish in the Delaware River from May to October.



Riverfront access area, Morrisville



Spurline Trail, Bristol



Williamson Park, Morrisville



## **Bristol Waterfront Docks**

Completed in the summer of 2017, the boat docks at Bristol Borough's waterfront park provide spaces for 25–30 boats to access downtown Bristol Borough. These facilities are the only riverfront docking between Trenton and Philadelphia that provides access to a downtown and have been named an "Outstanding Project" by the States Organization for Boating Access. The project was paid for with \$3 million raised from a mix of federal, state, local, and non-profit funding sources and took 16 years from concept to completion. Since these docks have opened, businesses in downtown Bristol Borough have reported more visitors arriving to the area through the docks, and conceptual plans have been released that propose to further revitalize the adjacent Waterfront Park.

The success of this project highlights that access from the river can be

just as important as access to the river. Providing space and amenities for people traveling along the river to access the shore serves to increase the use of the waterfront and can help support river use in general.



Bristol waterfront docks, Bristol

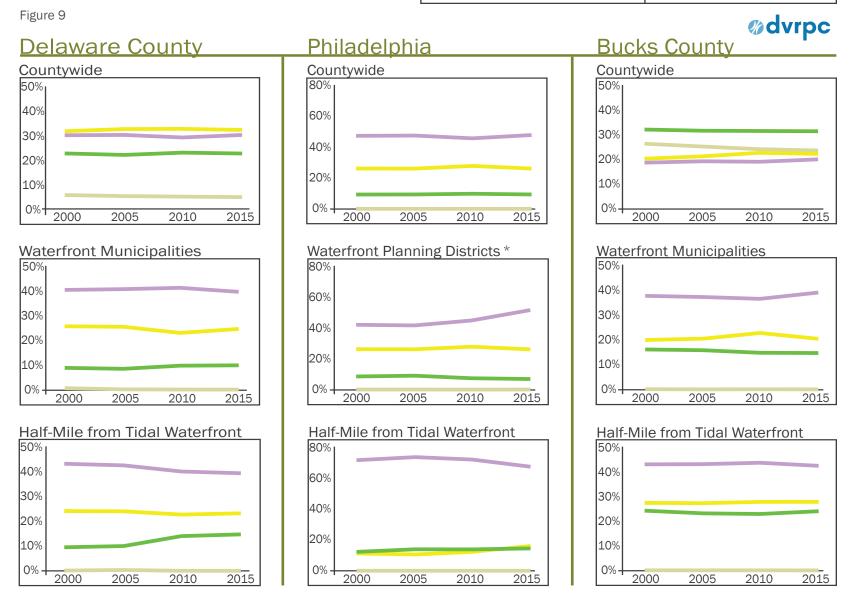
# Land Use Trends

Concluding this section about how the waterfront has been undergoing a gradual transition, data from DVRPC's land use surveys from 2000 to 2015 was collected and graphed to show these trends over the past two decades and see how they compare throughout the region. For the purpose of this analysis, land use is grouped into four major categories: agriculture, developed, residential, and wooded/vacant. Water was excluded from the analysis since it shows no change over the period of analysis.

The land use graphs are shown in Figure 9. The top graph in each column shows the percentages of land uses for all the land within the county, the middle graph shows the percentage of land uses for all waterfront municipalities by county, and the bottom graph shows the percentage of land uses for all land within a half-mile from the waterfront.

Referring to the graphs, several key trends emerge that provide context and nuance to the narratives described earlier in this report. Chief among these is that although each county exhibits different land use patterns at the county level, land areas relatively closer to the waterfront tend to be more developed than in the county as a whole. In this case, developed land includes commercial, industrial, and transportation uses. For example, the percentage of developed land along the waterfront in Delaware and Bucks counties is 10 to 20 percent higher than for each county as a whole, and in Philadelphia it is 20 to 30 percent higher.

The graphs also show that between 2000 and 2015 land use changed more in Bucks County as a whole than in municipalities and areas along the waterfront, whereas in Philadelphia and Delaware counties the case is reversed. This is largely a reflection of the suburban development still occurring in more inland areas of Bucks county and that Philadelphia and Delaware counties are generally more developed overall. The changes in land use along the waterfront in both Philadelphia and Delaware counties reflect decreases in developed industrial and transportation land and increases in vacant/wooded land. They underscore the gradual decline of industry along the waterfront and that it is not being replaced with other types of commercial and residential uses. **Fortunately, improving public access and reconnecting to the river does not require wholesale land use change. To the contrary, strategic park renovations, improved facilities, better urban design, and small new park spaces can transform a community's connection to the river and act as a catalyst for more comprehensive future land use transformation.** 



Agriculture Residential Developed Vacant/Wooded

\* Although the Philadelphia "Waterfront Planning Districts" graph is included, it is not as accurate as the other "Waterfront Municipalities" because these districts were created by the Philadelphia city government and are not aligned with the waterfront.

**15-Year Land Use Trends** 

Source: DVRPC Land Use GIS

Data, 2000-2015



Delaware River waterfront, Chester



Grays Ferry Crescent Trail, Philadelphia



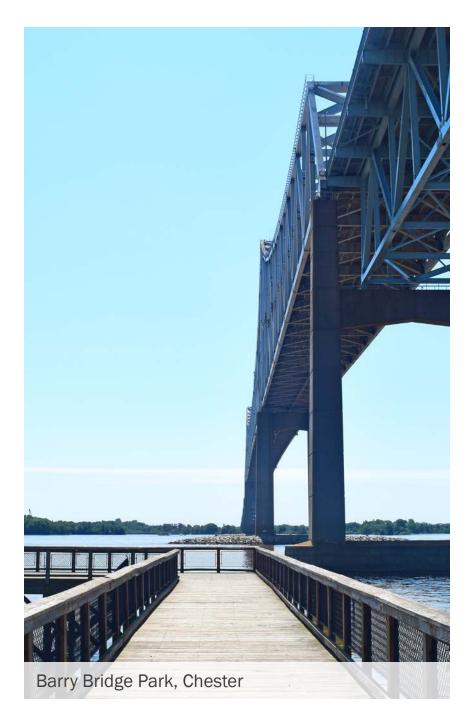
Delaware River access area, Bensalem

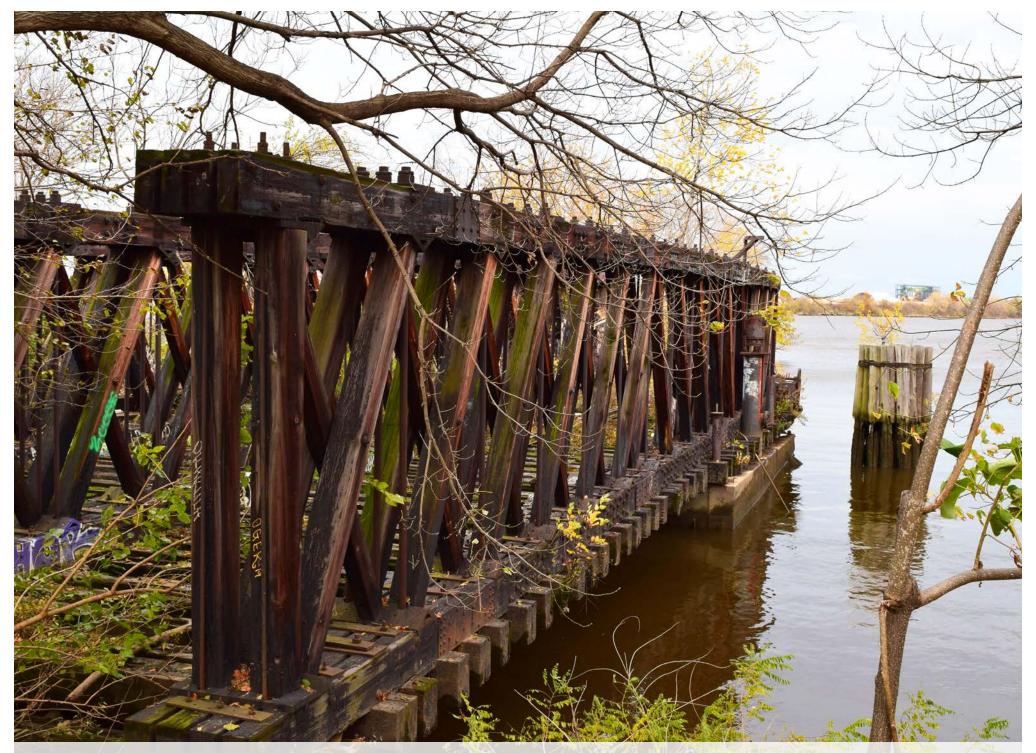


Bristol Waterfront Park, Bristol



K&T Trail, Philadelphia





Industrial infrastructure, Philadelphia

### CHAPTER 3

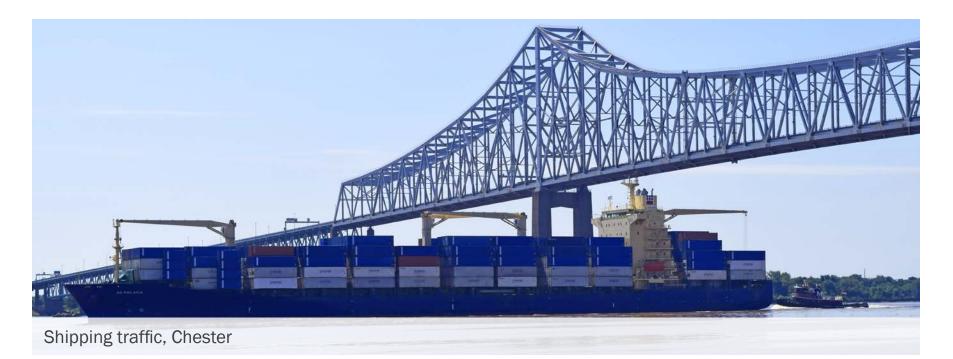
# **Barriers and Benefits**

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A RIVER RECONNECTED

# **Barriers and Benefits**

Although the counties, municipalities, and organizations of the Delaware Estuary all face a wide variety of different conditions in planning for, creating, and supporting public access, many of the barriers and benefits they encounter are remarkably consistent throughout the region.



# **Barriers**

The barriers to public access along the waterfront are substantial. Centuries of disrupting and restricting access to the river have had a diverse range of longlasting impacts throughout the region. At the same time, significant strides have been made in recent decades to overcome these barriers, although much remains to be done. Identifying and understanding these barriers (and opportunities to overcome them) is crucial to moving forward on increasing both the quantity and quality of public access sites and their use.

Although the images that might come to mind when thinking about barriers to access include physical constraints like rail lines, factories, or private land, it is important to remember that barriers can be just as much psychological as physical. If a community's or individual's perception of a particular access site or of the Delaware River overall is negative, that will influence their decision to go there just as much as any physical barrier. Furthermore, many physical barriers have a psychological component to them as well. For example, a large interstate, factory, or train line is clearly a physical barrier, but at the same time it creates the perception that the riverfront is an unattractive, dirty, and hostile place not meant for recreation and enjoyment by the general public, even when nearby public access points might exist.

# Perception

In many areas throughout southeastern Pennsylvania, the Tidal Delaware River and its tidal tributaries are commonly viewed as dirty, dangerous, or unwelcoming. The Pennsylvania Environmental Council (PEC) conducted focus groups in 2010 that confirmed these perceptions. Commonly expressed perceptions from the groups stated that the Delaware River was unique and held great potential but was largely inaccessible, not scenic due to the industrial uses, and dirty with trash and pollution. That is if it is considered much at all. In these groups, PEC found that 42 percent of experienced boaters and 56 percent of non-experienced boaters in the area simply have not thought about the river as a recreational option.

In Delaware and Bucks counties, municipalities and riverfront organizations cite a lack of awareness about the river; a general disinterest in accessing the river; and a perception that it is a fast, dangerous, and polluted environment. Compounding this perception problem is the availability of non-Delaware River waterfront access. Throughout Bucks and Delaware counties, residents who are looking for water recreational opportunities



Restricted access area, Philadelphia

typically seek out lakes and streams in the interior without considering the Delaware as a viable alternative, making it a struggle for riverfront organizations to translate a public desire for water-based recreational opportunities into activity on the Delaware River itself.

These perceptions also come up in interviews with groups in Philadelphia focused on the waterfront, but they have begun to change over the past decade due to projects like Spruce Street Harbor Park, Race Street Pier, Pier 68, the tidal Schuylkill River Trail and Schuylkill Banks Boardwalk, and Bartram's Garden. All these sites have made major strides toward reintroducing the river to the city and providing a place for all Philadelphians to feel comfortable along the water.

Despite these lingering perceptions in riverfront communities, many residents throughout Pennsylvania would like more opportunities to access and participate in water recreation. When the Pennsylvania Department of Conservation and Natural Resources surveyed statewide opinions about outdoor recreational opportunities in 2019, the number-one activity respondents would like to try was kayaking. Clearly, people want access to the water. If negative perceptions of the Tidal Delaware could be overcome – and if well-designed public access is provided – it has the potential to become a much greater recreation resource than is currently the case.

# Experiences of Exclusivity

Municipalities or riverfront organizations can spend millions of dollars creating a public access site with a wide range of amenities, but if local communities feel excluded from that access site then much of that effort will be wasted. This can be the case when new projects are developed with little communication or interaction with the local community. If residents feel that new, flashy, and expensive waterfront parks are being developed to attract new residents and are not being designed for the people who already live there, they may not feel a sense of community ownership over these new access sites. It is therefore important to have honest, early, and respectful communication with the community in the planning for new public access sites and amenities.

# Pollution

The sources of pollution along the Delaware River watershed are many. Runoff from farms, parking lots, lawns, and construction sites combines with pollution from industrial areas, spills from transporting hazardous waste, and sewage treatment overflows to create a potentially dangerous river environment. No portion of the Delaware River watershed is safe from these sources since the entire watershed is an interconnected system that can transport pollution hundreds of miles from the source.

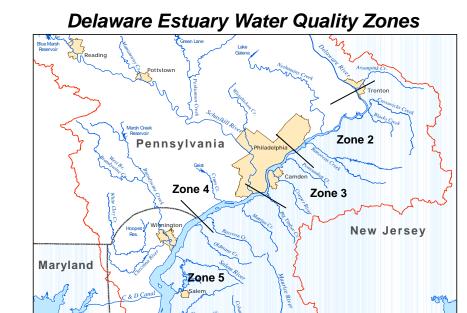


Abandoned waterfront steps, Philadelphia

For the past six decades, the Delaware River Basin Commission (DRBC) has monitored a range of water quality indicators in the river. These include dissolved oxygen, nutrients such as phosphorous and nitrogen, pH, salinity, and several industrial contaminants. According to their *2019 State of the Basin Report*, all indicators are between fair to very good and all are moving in a positive direction. This is a significant improvement from the 1970s, when the conditions in the river were so harmful to life that fish were unable to migrate north of the Ben Franklin Bridge because of the total lack of dissolved oxygen in the water.

Despite these improvements, there are still many people who have personally experienced pollution in the Delaware River and tributaries, and their individual memories and experiences play a key role in influencing community perceptions of a dirty and unhealthy Delaware River. Thankfully, numerous organizations up and down the Delaware River watershed are working to reduce or eliminate sources of pollution. As they continue to make significant strides through infrastructure projects, community education, governmental enforcement, and economic incentives, the number of people experiencing pollution will slowly decrease and hopefully community perceptions will continue to positively change.

In terms of pollution affecting water-based activities, the DRBC still designates Zone 3 (Philadelphia from the Pennypack Creek to the Navy Yard) and the upper portion of Zone 4 (Navy Yard to the Commodore Barry Bridge) for secondary contact recreation, such as boating and fishing, and not primary contact recreation like swimming. DRBC's *Water Resources Program for fiscal years 2022-2024* explained that primary contact recreation in Zone 3 and upper Zone 4 is not supported by water quality data and is not recommended for health and safety reasons.



Zone 6

Delaware

Bay

Delaware

Milford

Source: DRBC

Delaware River Basin Commission DELAWARE • NEW JERSEY PENNSYLVANIA • NEW YORK UNITED STATES OF AMERICA WWW.DRBC.NET

# Ship Traffic

Another aspect affecting perceptions of the river is its use as a major corridor for commercial ship traffic traveling to ports in both Pennsylvania and New Jersey. This contributes to the perception of the Delaware River as a busy and inhospitable place, meant for commerce, not recreation and play.

And indeed, this perception is not unfounded: for active users of the river, sharing that space with immensely large ocean-going vessels can be an intimidating and potentially dangerous situation. In many places the shipping channel, shown in Figure 10 along with the location of ports along the Delaware and Schuylkill Rivers, is very close to the waterfront, which also limits the activities that are possible in those spaces.

From 2003 to 2015, the amount of ships calling into the ports along both sides of the Delaware numbered between 1700 and 2600 per year. A majority of these ships traveled to the Packer Avenue Marine Terminal in South Philadelphia and the Gloucester Terminal in Gloucester Port City, New Jersey with other major ports located in Marcus Richmond Hook: Eddystone: and Paulsboro, New Jersey. Only a few hundred ships a year travel north of the Walt Whitman Bridge.

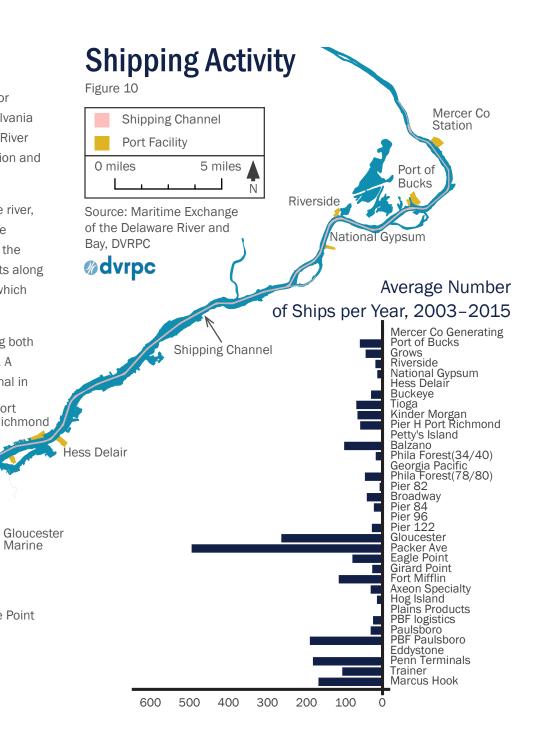
Source: DVRPC's Maritime Indicators Tool

Girard Point

Packer

Marine





# Traveling to Public Access

Getting to public access areas can be difficult. Whether by walking, biking, driving a car, or taking public transportation, each mode of travel poses challenges for people to get to the access sites. Walking and biking often require crossing or traveling along large-scale and fast-moving roadways designed primarily for vehicular traffic. Driving involves long travel times, congestion, poor wayfinding signs, and potentially limited parking. And taking public transit can be difficult due to changing schedules, inconvenient connections between trains and buses, potentially reduced service during late-night or weekend hours, and poor station location relative to the access site.

For public access areas that are not served by an easy or efficient transportation network, advocating for and working to establish this network can also require a significant amount of time and effort for local organizations and individuals.



Delaware River waterfront, Morrisville



I-95 along Center City waterfront, Philadelphia

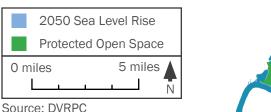
# **Climate Change**

Located where the water meets the land, waterfront access sites are directly vulnerable to several climate change impacts, such as sea level rise and increasing severity of coastal storms. By 2050, the central estimate for sea level rise along the Tidal Delaware River, shown in Figure 11 at right, is 1.4 feet. Although it is beyond the scope of this regional report to project the specific impacts sea level rise will have on each individual access site, the impacts will include increased storm-related flooding, "sunny day" tidal flooding, and shoreline erosion.

Rising sea levels will not only affect the height of the water in the river; they also have the potential to impact the location of the salt front. This is the location in the river where the salt water from the ocean mixes with fresh river water. Although it varies in location every year, it is normally located around Wilmington, Delaware. If this salt front moves upriver into the Pennsylvania coast, it will potentially impact activities possible at public access sites and the plant and animal communities that live there.

# 2050 Mid-Range Sea Level Rise

Figure 11



ource: DVRP

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Successfully managing these impacts will require proactively designing future public access sites to accommodate the highest-quality climate projections and engaging communities up and down the river to plan ahead and commit time and resources to understand and mitigate future climate impacts.

For more information on how sea level rise specifically will affect the entire area, DVRPC's <u>Coastal Effects of Climate Change in Southeastern PA</u> interactive online story map provides high-quality data for the DECZ.

## Land Uses

Perhaps the biggest barrier to access along the waterfront are certain land uses that currently exist adjacent to the water. As mentioned in Chapter 2, many areas along the waterfront are occupied by former and active industrial sites, port facilities, polluted lands, salvage operations, interstates, highways, rail lines, and utility infrastructure. Although these land uses provide important and undeniable benefits, they can create both physical and psychological barriers for public access by either completely cutting off access to the riverfront or by making adjacent areas unpleasant to visit due to noise; pollution; unattractiveness; and the lack of humanscaled, welcoming environments.

Moreover, changing these land use patterns is difficult. Former and vacant industrial areas may offer opportunities for public access, but repurposing these lands frequently entails mitigating pollution, untangling deed ownership disputes, negotiating with land speculators, overcoming opposition from adjacent active industrial operations, and potentially raising large amounts of money to acquire all or part of the land area outright. For active uses, often the only option is to wait for the possibility of future partnerships that might allow public access or for properties to transition to other uses and/or owners.



Vacant pier, Philadelphia

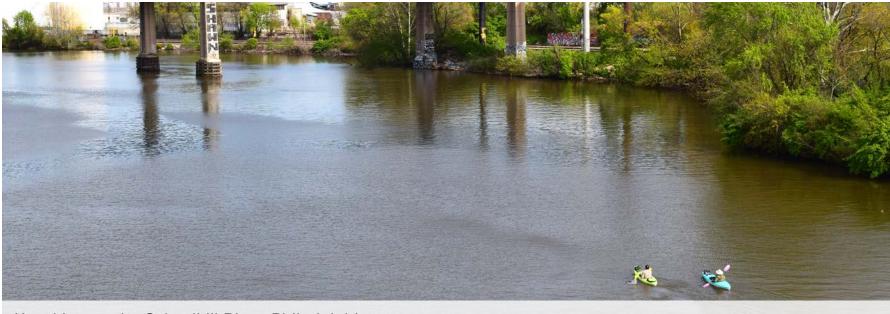


Delaware River waterfront, Marcus Hook

# **Benefits**

Although the barriers to access are substantial, so too are the benefits that public access creates. From building community to promoting economic development to reconnecting people to nature, the benefits of increasing public access to one of the most defining environmental aspects of our region are broad and reach far beyond the access sites themselves. The four benefits listed here came up repeatedly in conversations with municipalities and organizations who have experienced them while creating and supporting access along the Tidal Delaware River.

The benefits of public access projects are not always complementary. For example, creating an access point to the water that actively promotes health and wellness through sports and exercises may interfere with opportunities to effectively study wildlife. Likewise, economic development projects that include or improve public access may also have the unintended consequence of excluding local communities that have been deprived of such amenities for decades. Successfully navigating these tensions is important when planning and implementing future public access projects.



Kayaking on the Schuylkill River, Philadelphia

# **Supporting Healthy Communities**

Prior to European colonization, people fished, traveled, and traded every day along the river, and it was a defining feature of the community. Starting in the mid-1600s, the introduction of shipping ports, industry, interstates, railroads, and other barriers severed this connection. Reconnecting the river to the people who live near its banks creates new opportunities to build a shared sense of community and identity while also providing increased opportunities for physical activity that can measurably improve the personal health of those engaging in such activities. Moreover, well-designed public access sites increase community cohesion by creating spaces that encourage serendipitous social encounters, programmed events, volunteerism, and the establishment of recreational groups.

# Connecting to the Environment

The Delaware River and its watershed are a defining natural feature of the region. Millions of gallons of water traverse the area every day, traveling from upstate New York to the Atlantic Ocean. This water not only supports human communities; it is also the lifeblood of a vast interconnected ecosystem. From schoolchildren and university researchers studying the natural environment to residents and retired people enjoying the riverbanks, understanding and appreciating the role of the river in the natural environment is helped by physically connecting to the river itself.

To this end, many sites close to the water provide opportunities to immerse oneself in nature. Visitors to the river can watch birds, enjoy the peace and quiet, observe wildlife, and experience the active viewing that the water provides. Also available at many access sites are structured opportunities for students and members of the community to learn, engage in research, and volunteer to improve the health of the river

# **Enabling Economic Development**

Far from being something that stands in the way of waterfront development, public access can be a catalyst that enables it. In Pittsburgh, \$130 million invested into Three Rivers Park over a 15-year period resulted in \$2.6 billion in riverfront development and \$4.1 billion in total development along riverfront and adjacent areas. Property values close to the waterfront access increased more than twice as much as the rest of the city, and the public savings on reducing stormwater and pollution and increasing public health provided benefits throughout the region. In terms of direct benefits, the money spent on improving and increasing public access to the waterfront had a 20:1 return on investment.

## Access Creates More Access

Although the creation of public access sites is generally conducted by experienced and professional organizations, the driving force behind these efforts is often members of the community who show up to community meetings, communicate their opinions to local elected officials, and volunteer their time to see their goals become reality. When success is realized, these community members are driven by their experiences to do more of the same, thereby leading to the creation of more public access sites.

In other instances, the successful creation of a public access project in one community may increase the public demand for such projects in nearby communities. This has been evident with the development of riverfront trails in the Philadelphia region. Once a trail is built and the full community, environmental, and economic benefits of the project are revealed, nearby communities loudly begin to demand the extension of the trail into their neighborhoods. In this case, and with many others, those who experience an access site become effective ambassadors and advocates for improving public access elsewhere.



Chester Waterside Station, Chester



Neshaminy State Park, Bensalem



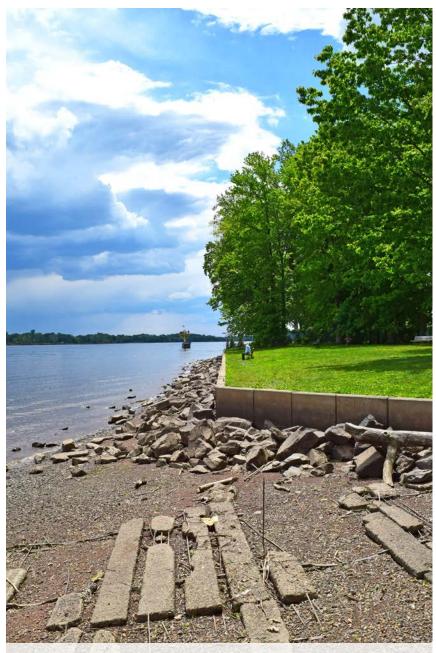
Pleasant Hill Park, Philadelphia



Graffiti Pier, Philadelphia



Morton Morton House, Norwood



Delaware River access area, Bensalem



Delaware River Trail, Philadelphia

CHAPTER 4

**Recommendations** 

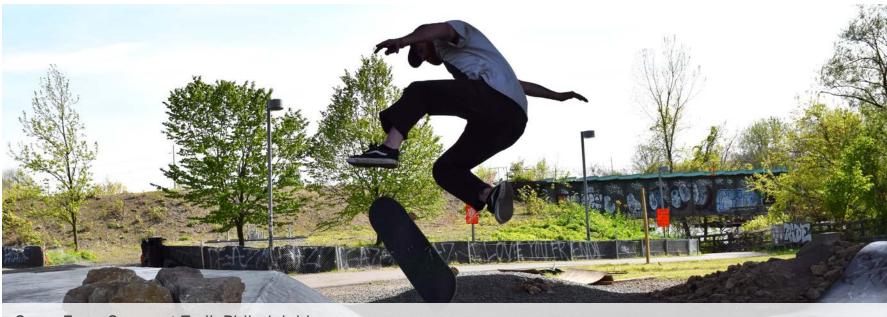
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# Recommendations

Recommendations for improving, creating, and expanding public access opportunities come from the best practices of organizations and municipalities throughout the Tidal Delaware River. Because of substantial regional variations, no one strategy or tightly prescribed implementation program is best for every situation, so these recommendations should not be viewed as requirements to check off but as tools that can be used as needed.

This section is organized into two parts: (1) a section highlighting general recommendations or broad "best practices" for organizations working on public access anywhere in the coastal zone; and (2) a list of discrete physical and place-based recommendations drawn from existing waterfront plans referenced in Chapter 2.



Grays Ferry Crescent Trail, Philadelphia

### **General Recommendations**

### Identify a Dedicated Champion

Having one person or one organization specifically committed to increasing public access in a given jurisdiction is one of the most impactful ways to increase access. Individuals or organizations that are being pulled in multiple different directions and with competing priorities will often not have the capacity for a sustained public access program.

The nature of this dedicated champion is necessarily highly dependent on the community itself and could range from a fully professional organization with staff, to a single municipal staff person, to a local volunteer. The important factor is that this champion be widely recognized as an advocate for public access, and be empowered to start and guide conversations about public access

# Plan and Implement from the Community Perspective

Understanding and responding to the needs of communities that live along the Delaware River should be paramount in planning and implementing public access projects. By centering public access projects around the needs of local communities, organizations and municipalities can ensure that public access projects are appropriate for the people who live nearby and thus more likely to be regularly used and adopted into the community.

Strategies that should be considered to accomplish this goal include involving community members from the very beginning of a project, empowering the community to have a significant voice in implementation, creating a welcoming and accessible environment for all community members to visit, and employing local community members in site management and maintenance.

### Do Not Look at Each Site In Isolation

In the same way that natural systems are interconnected, public access sites are best viewed as part of a larger system as well. By using land and water trails and greenways to physically connect waterfront parks and access sites to each other and to nearby neighborhoods, and by creating thematic connections through signage, branding, promotion and programming, the overall accessibility, visibility, and quality of the system is drastically improved.

### Create a Reason to go to the River

As riverfront communities are slowly reconnected to the waterfront, they will benefit from efforts to reestablish a level of interaction with the river. In many places, local residents do not have any opportunities to recognize the full potential of the waterfront, or have negative perceptions of what the river entails. Providing amenities and programming activities and events along the river that resonate with the local community can help reframe these perceptions and serve as a catalyst for future events. For example, relocating a popular and established local festival to a riverfront location can help showcase the riverfront in a familiar context for the community.

How successful these events will be over the long term depends on a much wider range of factors, but providing an initial reason to go to the river can help put this process on a solid foundation.

### Install Wayfinding Signage

Posting signs on roads, trails, and transit lines that are inland from the waterfront is an effective way to direct people to existing public access sites, as well as to advertise those sites. Wayfinding signage can be as simple as a road sign or more elaborate depending on who will be reading it, the amount of funding available, and the nature of the public access.

### Use Regulations to Create Opportunities

Local governments have a substantial amount of control over land use along the waterfront. Tools like zoning ordinances, development regulations, riparian buffers, or community benefit agreements can be implemented to secure more open space along the waterfront and enable public access to be prioritized in waterfront projects. These changes could promote increased community access by allowing for the creation of new riverfront plazas, greenways, footpaths, boat launches, esplanades, beaches, boathouses, docks, fishing piers, and picnic facilities.

Also under the authority of municipal governments are local streets and other public infrastructure. Extending the street grid to the waterfront, encouraging the use of public transportation, and prioritizing walkable communities along the river will all help increase opportunities for public access to flourish. Although conditions will vary by municipality, the themes can be applied universally. These include: creating a network of distinctive public spaces; promoting walkable, residential neighborhoods; accommodating diverse land uses along the waterfront; encouraging ecological enhancement; and crafting a plan that can be implemented incrementally.

### **Research and Implement Natural Edges**

Designing public access sites to protect, preserve, and enhance the natural environment should be a priority because it improves environmental sustainability and creates more attractive sites for the public to visit. Although certain places along the water's edge will need to take the form of concrete bulkheads, rip rap, and other hardened edges, most areas are better served by natural edges like marshes, wetlands, trees, and beaches.

Creating these sorts of waterfront edges at public access sites requires researching the natural context and planning for adequately managing their health moving forward. Because they need time to grow and develop, establishing these edges will usually take more time and effort than building a hardened shoreline. This can serve to increase their allure, however, as people are attracted to the constantly evolving environment. Once established, the increased natural resiliency, the opportunity to view a broad array of wildlife and vegetation, and the peaceful atmosphere of these sites will serve to create a high-quality public access experience.

### Design for Climate Change/Sea Level Rise

Climate change is already having an impact on the Tidal Delaware and will continue to do so. In addition to increased heat and more intense precipitation events, the coastal zone is also subject to sea level rise and storm surge associated with cyclonic weather systems. Public access sites should be designed with these factors in mind. Potential techniques include rehabilitating natural waterfront edges, planting vegetation that can survive in a hotter and potentially brackish environment, creating hard edges to protect vital infrastructure, and preparing and educating people who live in the region on the coming impacts of climate change.

### Compile Better Data on Waterfront Usage

Accurate and reliable data on how public access sites are used is hard to come by in the coastal region. This lack of data includes how many people are using specific sites, the types of activity at these sites, the dates of the year and times of day they are most active, how long people stay, the demographics of the people who are using the public access, how far people are traveling to each site, what methods of transportation they are using, and many others. Gathering this data can play a part in ensuring that access sites and amenities are appropriately designed and can help build a case for more investment in public access overall. Working to fill this lack of data should be a part of any public access program.

## **Specific Recommendations**

### **Delaware County Recommendations**

#### Chester Waterfront Master Plan (2020)

Improve the Chester Riverwalk and East Coast Greenway between Highland Avenue and Norris Street and improve the experience for pedestrians and cyclists along Highland Avenue and Norris Street.

Construct a waterfront park along the Delaware River between Subaru Stadium and the Wharf Building.

## Resilience Through Recreation: City of Chester 2018-2027 (2018)

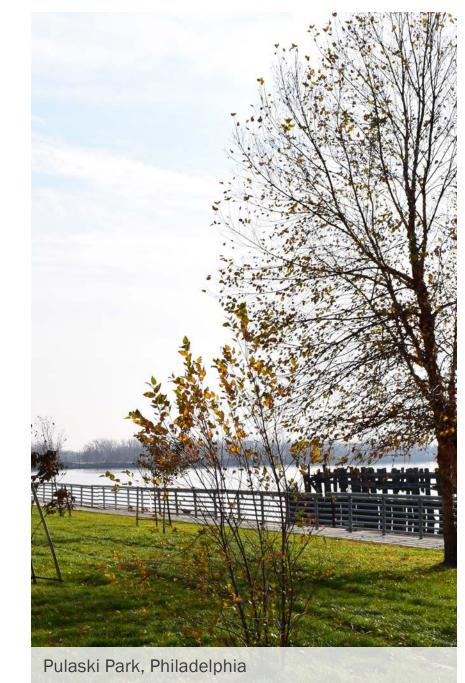
Reach out to landowners along Highland Avenue and Norris Street to gauge acquisition, as well as installation, of park amenities at waterfront ends of streets.

Reach out to Harrah's Casino to explore trail access along east edge of property along Ridley Creek and south edge of property along waterfront.

## Ridley-Eddystone Multi-Municipal Comprehensive Plan (2011)

Ridley should continue to make improvements to the Ridley Township Marina property, as recommended in the Delaware County Revitalization Action Plan (Planning Area 3). This includes the expansion of Sellers Avenue to the west of the marina to create new access to the facility.

Eddystone should continue to negotiate with Foamex and the eventual subsequent owner of the site (along E 2nd Street in Eddystone) to acquire waterfront open space on the Delaware River for the purpose of



developing a public park and/or marina. The borough should then develop a master plan for the property, as recommended in the Delaware County Revitalization Action Plan (Planning Area 3).

### Philadelphia Recommendations

#### Philadelphia Trail Plan (2018)

Construct Bartram's Garden to 61st Street Trail, with connection to future Passyunk Crescent Park and Passyunk Avenue.

#### Phila2035 Lower Southwest District Plan (2016)

Complete the Eastwick-Heinz Trail, Passyunk Point Trail, and the Fort Mifflin Trail (including a greenway along the 60th Street Track).

#### Phila2035 North Delaware District Plan (2016)

Complete the North Delaware Trail, a section of the East Coast Greenway, and connect it to adjacent neighborhoods and existing trails by constructing these segments:

- Kensington and Tacony 2 (K&T 2) from Magee Avenue to Princeton Avenue;
- Tacony Holmesburg Trail from Princeton Avenue to Rhawn Street; and
- State and Rhawn Pennypack Connector Sidepath.

Encourage the development of new public streets along the Delaware waterfront, including:

- Create a new street alignment parallel to the river, midway between New State Road and the waterfront, between Milnor Street and Levick Street.
- Create a new street alignment, parallel to the river, that serves as

a frontage road between developed parcels and the planned North Delaware Greenway Trail.

Continue to develop the North Delaware Greenway to create a continuous trail along, and preserve views to, the Delaware River from Lardner's Point Park to Pennypack Street.

#### Phila2035 South District Plan (2015)

Continue to build the Schuylkill River Trail by connecting from Christian Street to Grays Ferry Crescent and then to Bartram's Garden.

Establish wetland parks as recommended in *Master Plan for the Central Delaware: Transforming Philadelphia's Waterfront*, between Washington and Oregon avenues.

#### Phila2035 Riverwards District Plan (2015)

Complete the Delaware Avenue extension sidepath from Orthodox Street to Tacony Street and the Frankford Creek Greenway from both the Delaware River to Tacony Creek Park and from Wheatsheef Lane to Adams Avenue Connector.

Identify a site and create public waterfront parks in Bridesburg on the North Delaware Waterfront, perhaps adjacent to the intersections of Orthodox and Brill streets and the Delaware Avenue Extension.

#### Phila2035 Central District Plan (2013)

Complete the Delaware River Trail from Penn Street to Washington Avenue.

#### The Lower Schuylkill Master Plan (2013)

Extend Schuylkill Banks Trail to S 61st Street and Passyunk Avenue as part of "Bartram's Mile."

Create "Passyunk Crescent" Park on the northwest side of the Passyunk Bridge.

Build River Road (and attached greenway) from Grays Ferry Road to Island Avenue with sections along the river.

Extend Schuylkill Banks Trail to Fort Mifflin.

## Master Plan for the Central Delaware: Transforming Philadelphia's Waterfront (2011)

The master plan proposes parks located approximately every half-mile along the waterfront, at the ends of key streets, to provide amenities and add value to the adjacent neighborhoods and the city as a whole.

The master plan proposes 10 new parks along the six miles of waterfront at Mifflin Street, Dickinson Street, Washington Avenue, Penn's Landing Basin, Penn's Landing Park, Spring Garden Plaza, Germantown Avenue, Berks Street, Cumberland Street, and Lehigh Avenue; these will complement the existing public spaces at Race Street Pier, Penn Treaty Park, and Pulaski Park.

A multiuse trail for bicycles and pedestrians is proposed for the full length of the project area, with varied configurations across the waterfront.

In addition to serving as a continuous six-mile waterfront trail, the trail would connect the parks located every half-mile along the waterfront and provide access to the development sites.

### **Bucks County Recommendations**

#### River Renaissance in New Bensalem (2015)

Retain the visual character of the area, which derives from the natural infrastructure.

Develop green corridors to define and connect urbanized areas.

Develop naturalized waterfront area north of American Drive.

#### Morrisville Open Space Plan (2009)

Explore the possibility of a low impact riverfront trail along the waterfront which would link to Falls Township in the south.

#### Bucks County Waterfront Revitilazation Plan (2005)

Construct a public riverwalk along the Delaware River. This riverwalk would travel from Pen Ryn Estate to Neshaminy State Park, then through Bristol Township to Bristol Borough, then from Tullytown north to Quaker Penn Park, and then from Morrisville south to partway through Falls Township.

Transform US 13 into a safe, attractive route for motorized and nonmotorized transportation.

Investigate the possibility of transferring Neshaminy State Park to the county or to local control.

Restore and rewater the terminus of the Delaware Canal in Bristol Borough and Township.



Lardner's Point Park, Philadelphia



Riverfront greenway, Chester



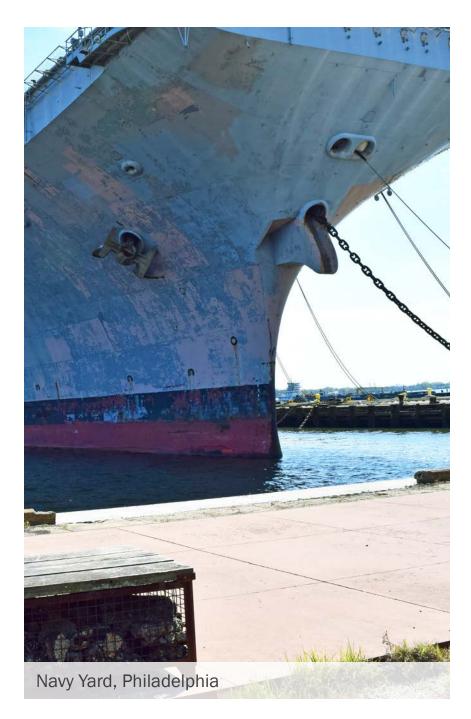
Neshaminy State Park, Bensalem



Market Square Memorial Park, Marcus Hook



Riverfront levee, Morrisville





Washington Avenue Green, Philadelphia

CHAPTER 5



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From Marcus Hook on the Delaware state border to Morrisville across from Trenton, New Jersey, the range of options for the public to access the Pennsylvania side of the Tidal Delaware River is broad. This diversity of options, from intimately scaled neighborhood parks to vast natural preserves, is the result of hundreds of years of history, culture, economics, and community. Describing the sites and their history, assessing the barriers and benefits of public access to the water, and making recommendations for improving this access has been the focus of this report.

Over the past few decades, the nature of waterfront planning and the reality of waterfront access has slowly evolved away from an exclusive and inaccessible mix of industrial factories and transportation infrastructure toward prioritizing and implementing a spectrum of commercial, environmental, recreational, residential, and public uses. Throughout the region, this trend has been playing out in different ways. In Delaware County, centuries of industrial focus have slowly started to provide openings for community planning around public access, mixed-use economic development, and connecting to a nationwide trail. In Philadelphia, a handful of public-private groups are creatively designing and building connections to the river that serve the entire city, as well as reflect local neighborhood considerations. In Bucks County, a measured strategy for comprehensive waterfront planning has laid the foundation to transform communities all along the river.

In the years to come, the many challenges of creating and improving waterfront access will remain. These include the existence of post-industrial landscapes, formidable budget realities, the ingrained perceptions of the water among the population, and the many complications of climate change. Despite these challenges, the future of waterfront planning and implementation looks bright. Communities all along the river have become an integral and engaged part of the waterfront planning process. By attending meetings, volunteering at numerous sites, engaging on social media, and, most importantly, visiting sites up and down the river in large numbers, private citizens have helped lead a change along the waterfronts. Their priorities are to not only reconnect their neighborhoods to the waterfront but to also connect their communities to a vast realm of history, culture, natural resources, and future possibilities along the water. Moving forward, although the specific future of access will depend on how each community interprets their past and prioritizes their present, the overall trend throughout the region leads toward a point where people and communities all along the waterfront are, once again, reconnected to the river.



### Acknowledgments

Many people and organizations helped throughout this project. Their work was crucial to ensuring the accuracy and effectiveness of this report. Steve Beckley, Delaware County Planning Department Anthony Belfield, Bensalem Township Joshua Chast, Delaware County Planning Department John Chaykowski, Bensalem Township William Cmorey, Bensalem Township Joseph DiGirolamo, Bensalem Township Jim Fries, Riverfront North Partnership Lisa Gaffney, Riverfront Alliance of Delaware County Mark Gatti, Delaware Valley Regional Planning Commission Paul Gordon, Bucks County Planning Commission Lizzie Hessek, Pennsylvania Environmental Council Shawn Megill Legendre, Delaware Valley Regional Planning Commission Howard Neukrug, The Water Center at Penn Daniel Paschall, East Coast Greenway Stephanie Phillips, Riverfront North Partnership Aseel Rasheed, Bartram's Garden Maitreyi Roy, Bartram's Garden Karl Russek, The Water Center at Penn

Heather Saeger, Schuylkill River Development Corporation
Patrick Starr, Pennsylvania Environmental Council
Anne Stauffer, Delaware County Planning Department
Jeremy Stoff, Bucks County Planning Commission
Joe Syrnick, Schuylkill River Development Corporation
Karen Thompson, Delaware River Waterfront Corporation
Lizzie Woods, Delaware River Waterfront Corporation
Recognition is also given to the participants of various public meetings who helped inform and give anecdotal details about how the river is viewed in their communities.
To all who helped,
Thank You



Pennypack on the Delaware, Philadelphia



## **Appendices**

A: Public Access in Delaware County B: Public Access in Philadelphia C: Public Access in Bucks County D: Works Referenced



**APPENDIX** A

## **Public Access in Delaware County**

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## **Marcus Hook Borough**

#### Table A-1: Public Access in Marcus Hook

Market Square Memorial Park						
<i>Location</i> : At the intersection of Market Street and Delaware Avenue in Marcus Hook Borough, Pennsylvania		Size: 7.9 Acres		Water Fronta	age: Delaware River	
Description: Market Square Memorial Park is the central waterfront public access point for Marcus Hook, Pennsylvania. With a rich history and extensive current uses, this park is a popular and frequently used part of the community. It contains picnic areas, benches, walkways, a fishing pier, and a pavilion, which are all used for a variety of passive and recreational activities.						
		Acc	cess			
×.		<i>6</i> 76				
Sidewalk access along Green, Market, and Church streets to W Delaware Street	Low-stress I neighborhoo	bike access along od streets*	Full access along neighbo streets	prhood	Bus Route 119 to the corner of Market and 10th streets with an approximately 10–12-minute walk Wilmington/Newark Line to Marcus Hook Station with an approximately 20-minute walk**	
					Source: DVRPC, 2020	

## **City of Chester**

Table A-2: Public Access in the City of Chester

Barry Bridge Park (continued on next page)								
<i>Location</i> : At the end of Flower Street and adjacent to Subaru Park	Size: 1.66 Acres	Water Frontage: Delaware River						
Description: Barry Bridge Park in Chester, Pennsylvania is currently mostly used for special events, nature viewing, and accessing the trail that runs along the river to the north and south. More active use of this park by the surrounding community is limited due to the lack of amenities, the confusion of park boundaries in relation to the large properties on either side, and the difficulty of access. More information about Barry Bridge Park can be found on page 26 of this report.								

		Acc	ess		
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×		\$ <sup>4</sup> 0			0-0-
Limited pedestrian access along Highland Avenue, Engle Street, Reaney Street, and Norris Street. (no sidewalks, but streets are low intensity)		ke access along d streets; waterfront trail access	Full access along neighborhood streets		Bus Route 113 stops at the intersection of Seaport Drive and Flower Street
					Source: DVRPC, 2020
Chester Riverfront Trail					
Location: The waterfront trail in Chester extends north from Highland Avenue, t Barry Bridge Park, to Norris Street.		Size:1.3 Miles		Water Front	age: Delaware River
Description: Bicycle and pedestrian pa	th along the ri	verfront in Chester City			
		Acc	ess		
×.		<i>6</i> 70	Ē		
Limited pedestrian access along Highland Avenue, Engle Street, Reaney Street, and Norris Street. (no sidewalks, but streets are low		ke access along d streets; waterfront trail cess	Full access along neighbo streets	orhood	Bus Route 113 stops along Seaport Drive from Highland Avenue to Flowe Street.
intensity)					Wilmington/Newark Line to Chester Transportation Center with a 30-minute walk to trail access at Norris Street
					Source: DVRPC, 2020
McClurg Park (continued on next page	age)				
Location: At the end of W 8th Street, where it Size: .1 Acre				Water Front	age: Chester Creek

McClurg Park (continued)							
Access							
×.							
Full access along neighborhood streets	Low-stress I neighborho	bike access along od streets Full access along neighborh streets		orhood	Bus routes 114 and 117 stop at the intersection of 9th Street and Sproul Street with a four-minute walk		
					Source: DVRPC, 2020		
Deshong Park							
<i>Location</i> : At the intersection of 9th Str Edgmont Avenue	reet and	Size: 23 Acres Water Fronta		age: Chester Creek			
Description: Historical estate and mar gallery declined in the 1970s and the to Widener University in 1984.							
		Ace	cess				
×.		<del>4</del> 8					
Full access along neighborhood streets	streets is a	along 12th and 9th medium–high-stress access along Edgmont is	Full access along neighborhood streets		Bus routes 109, 117, and 118 stop along Edgmont Avenue		
	Source: DVRPC, 202						
Ethel Waters Park (continued on next page)							
Location: At end of Commission Street approaches Chester Creek	Location: At end of Commission Street, where it Size: 1 Acre Water Frontage: Chester Creek						

Description: Completed in 1971 and dedicated to the famous African American singer and actress Ethel Waters in 1972, this small waterfront park contains an elevated waterfront bulkhead and benches.

Access

Ethel Waters Park (continued)									
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Full access along neighborhood streets	Low-stress bike access along neighborhood streets	Full access along neighborhood streets	Bus routes 113 and 119 stop at the intersection of W 2nd Street and Penn Street with a five-minute walk						
			Source: DVRPC, 2020						

## **Ridley Township**

#### Table A-3: Public Access in the City of Ridley

Leedom Estates Park							
<i>Location</i> : Behind the row of houses on the south side of Darby Road from Clymer Lane almost to Mackenzie Avenue		Size: 6 Acres		Water Frontage: Darby Creek			
Description: This community park contains several baseball fields, picnic areas, and green space.							
Access							
×.		<i>6</i> 76	A				
Sidewalk access on Clymer Lane and Rodney Road	Low-stress bike access along neighborhood streets		Full access along neighborhood streets		Bus Route 114 stops at Swarthmore Avenue and Chester Pike with 15-minute walk Wilmington/Newark Line stops at Ridley Park station with 20-minute walk		
					Source: DVRPC, 2020		

Ridley Township Municipal Marina								
Location: 401 Swarthmore Ave		Size: 10 Acres		Water Front	age: Darby Creek			
Description: Ridley Township Municipal Marina is a township-owned marina with a boat ramp, docking areas, and parking. In public ownership since 2002, this facility focuses on boat users with security fencing, maintenance amenities, a sewage pump-out station, and educational programs. Fees are charged at this location for services.								
		Acc	cess					
Ķ								
Sidewalk access along Swarthmore Avenue and Orchard Road	Low-stress k neighborhoo	pike access along od streets	Full access along neighborhood streets		Bus Route 114 stops at Swarthmore Avenue and Chester Pike with 15-minute walk Wilmington/Newark Line stops at Ridley Park station with a 20-minute walk			
Morton Homestead State Park					Source: DVRPC, 2020			
Location: 100 Lincoln Avenue, on nort Darby Creek, where Wanamaker Avenu crosses the creek		Size: 2.5 Acres		Water Front	age: Darby Creek			
Description: The Morton Homestead is Morton, a signer of the Declaration of		0		-	located on the site, and because Johr			
		Acc	cess					
×.		Ġ						
Sidewalk access along Wannamaker Avenue		along Wannamaker high-stress bike route	Full access along Wannamaker Avenue		Bus Route 114 stops at the intersection of Chester Pike and Lincoln Avenue with a 10-minute walk			
					Source: DVRPC, 2020			

Morton Morton House								
Location: 517 E Winona Avenue		Size: 3.5 Acres		Water Fronta	age: Darby Creek and Muckinipattis			
		Creek						
Description: This historic house was	Description: This historic house was built in 1750 by Morton Morton, a first cousin of John Morton and grandson of early Swedish settler Marten Martenson.							
Access								
Ŕ		<i>4</i> 6						
Full access along neighborhood streets	Low-stress k neighborhoo	bike access along od streets	Full access along neighbo streets	orhood	Bus Route 114 stops along Chester Pike Road with a 15–20 minute walk			
					Source: DVRPC, 2020			

## **Folcroft Borough**

#### Table A-5: Public Access in the City of Folcroft

Montgomergy Park							
<i>Location</i> : Entrance is along Taylor Drive in Folcroft.				Water Fronta Creek	Water Frontage: Darby Creek and Muckinipattis Creek		
Description: Neighborhood park with	oallfields, a pla	ayground, parking, and rest	trooms				
	Access						
×.		Ś					
Full access along neighborhood streets	Low-stress I neighborhoo	pike access along od streets	Full access along neighbo streets	orhood	Bus Route 115 stops at the intersection of Taylor Drive and Kent Road with a five-minute walk		
					Source: DVRPC, 2020		

## **Tinicum Township**

#### Table A-6: Public Access in the City of Tinicum

Governor Printz Park					
Location: At the intersection of Taylor A W 2nd Street	Avenue and	Size: 5 Acres		Water Front	age: Delaware River
Description: Recently renovated in the as providing extensive recreational use of the early Swedish colonists in the ar	es through pla				
		Acc	cess		
×		À			
Sidewalk access along Corinthian Avenue, Taylor Avenue, and Warwick Avenue to W 2nd Street		to medium–low-stress along neighborhood	Full access along neighborhood streets		Bus Route 37 stops at Industrial Highway and Wanamaker Avenue with a 10-minute walk
					Source: DVRPC, 202
The Lazaretto					
Location: Behind Tinicum Township Fir Station 48 (99 Wanamaker Avenue, Es Pennsylvania 19029)		Size: 2 Acres		Water Front	age: Delaware River
Description: From 1800 to 1895, the L as a private club, seaplane base, and waterfront location, the Lazaretto prov	marina until i	t was recently refurbished	and repurposed as the mu		
		Acc	cess		
×.		Ġ			
Sidewalk access along Wannamaker Avenue, Printz Avenue, and Lagrange Avenue to W 2nd Street		to medium–low-stress along neighborhood	Full access along neighbo streets	orhood	Bus Route 37 stops at Industrial Highway and Wanamaker Avenue with a 10-minute walk
					Source: DVRPC, 2020

Tinicum Park								
Location: Just north of I-95 along Wanamaker Avenue		Size: NA Wa		Water Fronta	age: Darby Creek			
Description: Access site to John Heinz	Description: Access site to John Heinz National Wildlife Refuge							
	Access							
×.		\$						
No pedestrian access outside park. Area can be accessed from walking trails located within John Heinz National Wildlife Refuge	Bike access Wannamake	limited to high-stress er Avenue	Full access from Wannam Avenue	naker	No transit access			
					Source: DVRPC, 2020			

\* Level of bike stress assessed using DVRPC's <u>Bicycle LTS and Connectivity Analysis</u> Map. \*\* All buses and trains mentioned are from Southeastern Pennsylvania Transportation Authority (SEPTA) unless otherwise identified.

**APPENDIX B** 

## **Public Access in Philadelphia**

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### **Lower Southwest**

### Table B-1: Public Access in the Lower Southwest Planning District

2					
Location: Adjacant to the Airport and I-95 Suthroughout Southwest Philadelphia and Tinicum Township		Size: 1200 Acres		Water Frontage: Darby Creek	
			ied in 1972 fo	or the purpose of preserving, restoring,	
	Acc	Cess			
	<i>d</i> 70 🚘				
stress bike i	route.*	Full access along neighborhood streets		Bus routes 37, 108, and 115 stop at 84th Street between Lindbergh Boulevard and Madison Place.	
	0			Eastwick Station on the Airport Line is 15-minute walk away.**	
				Source: DVRPC, 2020	
Location: Southwest Philadelphia, directlySize: 14 Acresadjacent to Philadelphia International AirportSize: 14 Acres			Water Front	age: Delaware River	
nis location in	clude tours, demonstration	ns, programs, and special e	events. Enviro	nmental interpretation also	
Access					
	ශ්රී	Ē			
		Full car access along Fort Road/Hog Island Road	t Miffflin	No transit access	
				Source: DVRPC, 2020	
	95 d Tinicum ife Refuge is A n as Tinicum I Neighborhoo stress bike n Access throu Lindbergh B bike route.	95       Size: 1200 Acres         d Tinicum       Size: 1200 Acres         fe Refuge is America's first urban natur       Acres         as Tinicum Marsh and promoting environed as transmissioned streets are in a low-stress bike route.*       Access through S 84th Street and Lindbergh Boulevard is a high-stress bike route.         ctly       Size: 14 Acres         Airport       Size: 14 Acres         ad decommissioned in 1954, this fort prisi location include tours, demonstration tland habitat, and wooded areas. It is a Acres         Access along Fort Mifflin Road/Hog Island Road is a medium-low-stress	95       Size: 1200 Acres         d Tinicum       Size: 1200 Acres         fe Refuge is America's first urban nature refuge and was establish as Tinicum Marsh and promoting environmental education.         Access         Neighborhood streets are in a low- stress bike route.*         Access through S 84th Street and Lindbergh Boulevard is a high-stress bike route.         Ctly       Size: 14 Acres         Airport       Size: 14 Acres         Airport       Size: 14 Acres         Airport       Access         d decommissioned in 1954, this fort protected the southern approxis location include tours, demonstrations, programs, and special et tland habitat, and wooded areas. It is a designated landmark on the Access         Access along Fort Mifflin Road/Hog Island Road is a medium-low-stress       Full car access along Fort Road/Hog Island Road	95 d Tinicum       Size: 1200 Acres       Water Front         16 Refuge is America's first urban nature refuge and was established in 1972 for a as Tinicum Marsh and promoting environmental education.       Access         Access         10 Neighborhood streets are in a low- stress bike route.*       Full access along neighborhood streets         Access through S 84th Street and Lindbergh Boulevard is a high-stress bike route.       Full access along neighborhood streets         ctly       Size: 14 Acres       Water Front         Airport       Size: 14 Acres       Water Front         Id decommissioned in 1954, this fort protected the southern approach to Philac is location include tours, demonstrations, programs, and special events. Enviro tland habitat, and wooded areas. It is a designated landmark on the National R Access         Access along Fort Mifflin Road/Hog Island Road is a medium-low-stress       Full car access along Fort Mifflin Road/Hog Island Road	

## **University Southwest**

#### Table B-2: Public Access in the University Southwest Planning District

Bartram's Garden					
Location: Southwest Philadelphia on the Schuylkill S River		Size: 45 Acres		Water Frontage: Schuylkill River	
Description: This location contains tidal wetlands, a reclaimed meadow, a botanic garden, community farm, and Bartram's original farm building, as well connections to the regional Schuylkill River Trail. More information about Bartram's Garden can be found on page 35 of this report.					
		Acc	Cess		
<u>ب</u>		Ċ <sup>7</sup> O	Ē		0-0
Sidewalk access from S 51st Street Sidewalk access along Lindbergh Boulevard but no sidewalks along Harley Avenue into Bartram's (but Harley is a low-intensity driveway, so pedestrian access is possible) Sidewalk access along S 56th Street	Harley Stree along a low- Access thro	along S 51st Street, et, and S 56th Street is stress bike route. ugh Grays Avenue and Boulevard is medium– n-stress.	Full access with parking a Street, Harley Street, and Street		Trolley Route 36 stops at 51st Street, 54th Street, Wheeler Street, and 56th Street.
					Source: DVRPC, 2020

## South Philadelphia (Schuylkill River Side)

Table B-3: Public Access along the Schuylkill River Side of the South Philadelphia Planning District

Grays Ferry Crescent Trail					
Location: Between S 34th Street and Wharton Size: 3,600 Feet Street along the Schuylkill River			Water Frontage: Schuylkill River		
Description: Dedicated in the summer of 2012, this trail segment is located along a curve in the Schuylkill River behind the former DuPont Marshall Labs. Those labs are now part of the University of Pennsylvania's Pennovation Center, and the Grays Ferry Crescent Trail contains lawn areas, benches, a skate park, fishing piers, and native meadows. Ongoing bridge construction projects will eventually connect this segment to the Schuylkill River Trail in the north and Bartram's Garden in the south.					
<u> </u>		Ġ <b>ŀ</b> Ŏ			
Full sidewalk access along neighborhood streets	bike routes	rimarily along low-stress with an occasional w-stress route	Full access along route w to no parking	ith limited	Bus routes 12 and 64 stop at the intersection of Grays Ferry Avenue and Grove Street
					Source: DVRPC, 2020

## **Central Philadelphia (Schuylkill River Side)**

Table B-4: Public Access along the Schuylkill River Side of the Central Philadelphia Planning District

Schuylkill River Trail (continued on next page)				
<i>Location</i> : Along the eastern side of the Schuylkill River from Fairmount Water Works to Christian Street	Size: 2 Miles	Water Frontage: Schuylkill River		
Description: With construction starting in 1996 and continuing to today, this trail is one of the most active and highly rated urban parks in the country. Formerly an industrial and abandoned area between train tracks and the river, the steady development of this trail and parks has greatly increased the city of Philadelphia's connection to the Schuylkill River.				
Access				

Schuylkill River Trail (continued)				
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Full sidewalk access along neighborhood streets	Access is primarily along low-stress bike routes with an occasional medium-low-stress route.	Full access along route with limited to no parking	Multiple bus routes serve stops along entire route 30th Street Station at the intersection of 30th Street and Market Street on the western side of the river provides connections to the local Market-Frankford Line, Regional Rail, Amtrak, and national bus services. Source: DVRPC, 2020	

### **Lower South**

 Table B-5: Public Access in the Lower South Planning District

Navy Yard Riverfront Greenway (continued on next page)				
<i>Location</i> : Admiral Peary Way from S 17th Street to edge of port complex	Size: 1 Mile	Water Frontage: Delaware River		
Description: This greenway is a bicycle and pedestrian trail along the riverfront that abuts active shipyards to the west and port facilities to the east.				
Access				

Navy Yard Riverfront Greenway (continued)				
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Full sidewalk access from S 17th Street, S 16th Street, S Broad Street, S 13th Street, S 11th Street, and League Island Boulevard	Access from within Navy Yard is low stress at S 17th Street, S 16th Street, S 13th Street, and S 11th Street Access from within Navy Yard is medium-high stress at S Broad Street and League Island Boulevard Access to the Navy Yard through S Broad Street is a medium-high- and high-stress bike route.	Full access along entire riverfront	The Navy Yard Bus stops along Flagship Avenue at S Broad Street, S 13th Street, and S 11th Street and connects to the Broad Street Subway Line at the NRG Station.	
			Source: DVRPC, 2020	

### South Philadelphia (Delaware River Side)

Table B-6: Public Access along the Delaware River Side of the South Philadelphia Planning District

Pier 68 (continued on next page)					
<i>Location</i> : At the end of Pier 70 Boulevard in South Philadelphia	Size: .5 Acres	Water Frontage: Delaware River			
Description: Used for fishing and as a gathering place, visitors can learn about the tidal ecology of the Delaware River and watch river traffic. This park is also the southern terminus of the completed section of the Delaware River Trail and so serves as a resting place and jumping off point for the rest of the trail. DRWC is currently working on a new plan for the area that could include a canoe and kayak launch, elevated boardwarks, and wetlands.					
Access					

Pier 68 (continued)							
×	\$ <sup>7</sup> 0						
Limited sidewalk access through parking lots along Pier 70 Boulevard. High-stress crosswalks exist across S Christopher Columbus Boulevard at the intersection with Pier 70 Boulevard	Bike access along S Christopher Columbus Boulevard and Pier 70 Boulevard is medium–high-stress bike route	Full access from Pier 70 Boulevard	Bus routes 7, 25, 29, and 64 stop next to Walmart parking lot Source: DVRPC, 2020				

Location: Along the Delaware River from Pier 70 Size: .65 Miles			Water Front	age: Delaware River		
Boulevard to Washington Avenue       Description: Bicycle and pedestrian trail along the riverfront						
		Acc	Cess			
×.		්ර				
Full sidewalk access to the Delaware River Trail along S Christopher Columbus Boulevard with crosswalks to Washington Avenue No access from Reed Street Limited sidewalk access through parking lots along Pier 70 Boulevard. High-stress crosswalks exist across S Christopher Columbus Boulevard at the intersection with Pier 70 Boulevard	along S Chri Boulevard is bike route Access from along a high No access f Bike access Columbus E	e Delaware River Trail stopher Columbus a medium-high-stress Washington Avenue is a-stress bike route rom Reed Street along S Christopher soulevard and Pier 70 a medium-high-stress	No car access at Washing No access from Reed Stro Full access from Pier 70 I	eet	Bus Route 25 stops at the intersection of S Christopher Columbus Boulevard and Washington Avenue Bus routes 7, 25, 29, and 64 stop next to Walmart parking lot	
					Source: DVRPC, 2020	

# **Central Philadelphia (Delaware River Side)**

Table B-7: Public Access along the Delaware River Side of the Central Philadelphia Planning District

Washington Avenue Green						
Location: Behind Sheetmetal Workers close to eastern end of Washington A		Size: .5 Acres		water Fronta	age: Delaware River	
Description: Formerly known as Pier 53, this pier allows visitors to connect with nature in a secluded location along the Delaware River Trail. It includes an elevated boardwalk over wetland habitats, a walking trail to see various riverine habitats, and an elevated viewing platform called the "Land Buoy." Historically, this pier was a major immigration entry port for Philadelphia.						
		Ac	cess			
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Full sidewalk access from the Delaware River Trail along S Christopher Columbus Boulevard with crosswalks across Washington Avenue	Trail along S Boulevard is bike route. A	the Delaware River Christopher Columbus a medium–high-stress access from Washington ong a high-stress bike	No car access		Bus Route 25 stops at the intersection of S Christopher Columbus Boulevard and Washington Avenue Bus Route 64 stops at the intersection of S Front Street and Washington Avenue with a five- minute walk.	
					Source: DVRPC, 2020	

	oprace offect harbor raik (continued on next page)					
<i>Location</i> : At eastern terminus of Spruce Street, along S Christopher Columbus Boulevard	Size: 1.5 Acres	Water Frontage: Delaware River				
Description: This very active park was named one of the best places to visit in Philadelphia. It contains hammocks, innovative lighting, beer gardens, food trucks, reservable spaces, a boardwalk, and a floating pier.						
	Access					

Spruce Street Harbor Park (continued)							
Ŕ		₫\$ O					
Full sidewalk access along S Christopher Columbus Boulevard, Dock Street, and Spruce Street	Access along S Christopher Columbus Boulevard is a medium- high-bike stress route Access through Spruce Street and Dock Street is a medium-low-bike stress route		Full access along all streets, limited to no parking				Bus Route 25 stops at the intersections of S Christopher Columbus Boulevard and Spruce and Dock streets
					Source: DVRPC, 2020		
Penn's Landing							
Location: Between Market Street and Street along Delaware River	Location: Between Market Street and Walnut Size: 12 Acres			Water Frontage: Delaware River			
Description: Named in honor of William variety of seasonal park attractions, a for many visitors coming from Philadel information about this project can be f	boardwalk wi phia and the	th extensive seating, and a wider region. DRWC is curr	a performance area, this pa	ark has been	long been an active destination		
		Acc	Cess				
×.		ĠĊ					
Full sidewalk access along S Christopher Columbus Boulevard and from Walnut Street, Chestnut Street, and Market Street through bridges over I-95		g S Christopher oulevard is a medium- ress route	Full access from S Christopher Columbus Boulevard with parking available on site		Bus Route 25 stops on S Christopher Columbus Boulevard under the Walnut Street, Chestnut Street, and Market Street bridges Bus routes 17, 21, and 42 stop on elevated Penn's Landing Road		
					Source: DVRPC, 2020		

Cherry Street Pier						
Location: At eastern end of Cherry Street the Delaware River			Size: 1 Acre Wate		age: Delaware River	
Description: Recently opened, this formerly city-owned industrial shipping pier has been repurposed by DRWC into indoor areas with gathering spaces, artists studios, and performance areas, as well as an outdoor area with riverfront seating, food trucks, and green planters. Continuously in use with interactive programing, happy hours, exhibitions, flea markets, and many other uses, this space is quickly becoming an important part of the waterfront.						
		Acc	cess			
<u>ب</u>		<i>6</i> 76				
Full sidewalk access along N Christopher Columbus Boulevard and Race Street	Columbus B high- to high Access alon	g N Christopher oulevard is medium– -stress bike route g Race Street is v-stress bike route	Full access but with limite parking	ed street	Bus Route 25 stops at the intersection of N Christopher Columbus Boulevard and Race Street	
					Source: DVRPC, 2020	

Race Street Pier						
Location: At eastern end of Race Stree Delaware River	et along the	Size: 1 Acre		Water Fronta	age: Delaware River	
	Description: Opened in May of 2011, Race Street Pier is the first project of DRWC's Master Plan for the Central Delaware. Containing walking paths, benches, tiered seating, shade trees, public art connections to the city under I-95 to Center City, and informational signage, this pier is a major destination along the waterfront.					
		Acc	cess			
<u>ب</u>		<i>4</i> 6	<b>A</b>			
Full sidewalk access along N Christopher Columbus Boulevard and Race Street	Columbus B high- to high Access along	g N Christopher oulevard is a medium– -stress bike route g Race Street is v-stress bike route	Full access but with limite parking	ed street	Bus Route 25 stops at the intersection of N Christopher Columbus Boulevard and Race Street	
					Source: DVRPC, 2020	

### **Riverwards**

### Table B-8: Public Access in Riverwards Planning District

Penn Treaty Park						
Location: The corner of East Columbia Avenue and Size: 7 Acres Beach Street, off N Delaware Avenue				Water Frontage: Delaware River		
Description: Opened in 1893, this par 1683. Currently this park contains per connected to the south to the Delawar dedicated to the treaty signing.	destrian and b	bike paths, a playground, b	enches, picnic areas, and o	direct access	to the Delaware River. It was recently	
		Acc	CESS			
×.		<del>67</del> 0				
Full sidewalk access along Beach Street, E Columbia Avenue, and N Delaware Avenue	low-stress b Access alon E Columbia	g Beach Street is on a ike network g N Delaware Avenue and Avenue is a medium– bike network	Full access along all streets		Bus Route 43 stops at the intersections of Beach Street, E Columbia Avenue, and N Delaware Avenue	
					Source: DVRPC, 2020	
Graffiti Pier						
Location: The corner of Beach Street a Cumberland Street	and East	Size: 6 Acres		Water Front	age: Delaware River	
Description: Abandoned by Conrail in the 1980s, this industrial railroad site has become a popular and informal access site to the Delaware River. Graffiti artists have turned the heavy concrete arches into large-scale canvases, and neighborhood residents frequently fish and swim in the area. The Philadelphia Police Department has shut down access to the site, but DRWC has obtained the area from Conrail and is in the process of turning it into a formal park that respects and acknowledges the industrial history and current art throughout the area.						
Acces						
Currently no access allowed						
					Source: DVRPC, 2020	

General Pulaski Park							
<i>Location</i> : Intersection of E Allegheny and N Delaware avenues, 3001 E Allegheny Avenue		Size: .5 Acres		Water Fronta	age: Delaware River		
	Description: Renovated in 2013, this small park contains parking, benches, and fishing areas. It provides views of industrial sites, as well as downtown Philadelphia. This park also connects to the Port Richmond Trail for easy access into the Port Richmond and Bridesburg neighborhoods						
	Access						
×.		<i>4</i> 6					
Full sidewalk access along E Allegheny Avenue and N Delaware Avenue	Avenue and Access und Avenue is a	cess along E Allegheny N Delaware Avenue er I-95 along E Allegheny medium–low- and gh-stress bike route	Full access along all stree	ets	Bus Route 60 stops at the intersection of E Allegheny Avenue and N Delaware Avenue		
					Source: DVRPC, 2020		

### **North Delaware**

### Table B-9: Public Access in North Delaware Planning District

Frankford Boat Launch (continued on next page)					
<i>Location</i> : At the end of Walbach Street on the southern side of the Wissinoming neighborhood, 5625 Tacony Street	Size: 11 Acres	Water Frontage: Delaware River			
Description: This site is a publicly accessible boat launch on the Delaware River with abundant parking, grassing areas, and a connection to the Kensington and Tacony (K&T) Trail that runs along the river to the north.					
Access					

Frankford Boat Launch (continued					
×.	¢76				
Sidewalk access to Wallbach Street from Tacony Street with crosswalks under I-95 at Fraley Street and Van Kirk Street Sidewalk trail access from the north along the Delaware River with the K&T Trail	Tacony Strea route Bike trail ac	allbach Street from et is a high-stress bike cess from the north elaware River with the	Full access along all streets		Bus Route 84 stops at the riverside of the intersection with Tacony and Carver streets and at both sides of the road at the intersection of Tacony Street and Fraley Street
					Source: DVRPC, 2020
Lardner's Point Park					
Location: At the end of Levick Street n Tacony Palmyra Bridge	ear the	Size: 4.3 Acres		Water Fronta	age: Delaware River
Description: An example of an environ pollution mitigation that replaced a or south. Also of interest, the historic Lar	ice rubble-stre	ewn shoreline as well as a	trail along the water's edge		
		Acc	cess		
×.		රේ			
Full access along the river from the north and south along the K&T Trail No access direct access from the city to Levick Street	north and so Bike access	along the river from the outh along the K&T Trail to Levick Street along a access route	Full access along all streets		Bus Route 84 stops at the intersection of Levick and Milnor streets
					Source: DVRPC, 2020
1/9T Trail (continued on payt page)	)				
K&T Trail (continued on next page)	Location: From Frankford Boat Launch to Magee Size: 1.2 Miles Street			Water Fronts	age: Delaware River
Location: From Frankford Boat Launch	to Magee	Size: 1.2 Miles		water monte	age. Delaware Nivel

Access

K&T Trail (continued)			
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Sidewalk access to Wallbach Street from Tacony Street with crosswalks under I-95 at Fraley Street and Van Kirk Street No sidewalk along Deverreaux Street (street is low intensity industrial, which allows for low-stress pedestrian access) No pedestrian access from Levick Street Informal sidewalk access to Magee Avenue from New State Road with crosswalks under I-95 at Magee Avenue and Unruh Avenue	Access to Wallbach Street from Tacony Street is a high-stress bike route Access to Devereaux Street from Tacony Street is a high-stress bike route Access to Levick Street from Milnor Street is a high-stress bike route. Access to Magee Avenue from New State Road is a high-stress bike route	Full access to Wallbach Street, Devereaux Street, Levick Street, and Magee Avenue (limited to no parking at Devereaux Street and Magee Avenue)	Bus Route 84 stops at the riverside of the intersection with Tacony and Carver streets, at both sides of the road at the intersection of Tacony Street and Fraley Street, at the intersection of Devereaux Street and Tacony Street, at the intersection of Levick Street and Milnor Street, and at the intersection of Magee Avenue and New State Road
			Source: DVRPC, 2020
Tacony Boat Launch (continued on	next page)		

<i>Location</i> : 5100 Princeton Avenue, located adjacent to Quaker City Yacht Club off Milnor Street	Size: 2.5 Acres	Water Frontage: Delaware River					
Description: Small boat launch in a quiet area with parking and fishing areas. There are concrete barriers across the entrance to this boat launch. Pedestrians and bicyclists can easily pass through, but vehicular traffic is restricted.							
Access							

次	d d		
Princeton Avenue is a low-intensity street, which allows for low-stress pedestrian access; sidewalk access to Princeton Avenue along riverside of Milnor Street with a crosswalk across Milnor Street at Princeton Avenue	Bike access along Milnor Street is a medium-low-stress route	Full access along all streets; no access into the boat launch area itself	Bus Route 84 stops at the intersections of State Road and Princeton Avenue, and State Road and Milnor Street
			Source: DVRPC, 202
Pennypack on the Delaware			
Location: Located behind the Curran-F Prison in the Holmesburg neighborhoo Northeast Philadelphia, 7801 State Ro	d of	Water Fr Creek	ontage: Delaware River and Pennypack
and natural trails that wind through th		orested and wetland sections that se	e Riverfront Greenway. It contains paved rve as habitats for vibrant populations of
	Acc	Cess	
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	Seasonal bike trail access from the	Full access along all streets	Bus Route 70 stops at Pennypack Path and State Road
Seasonal pedestrian access from the north along the Baxter Trail; sidewalk	north along the Baxter Trail; access		Path and State Road
	routes to Pennypack Path from State Road include high-stress routes		Trenton Line stops at Holmesburg Junction with a five-minute walk
north along the Baxter Trail; sidewalk access along Pennypack Path and State Road with pedestrian crossing	routes to Pennypack Path from State		Trenton Line stops at Holmesburg

weekends from 8:00 AM to 8:00 PM

Pennypack Street to Pennypack on the Delaware is open from May through September on the

### Baxter/Pennypack Trail (continued)

Description: Bicyle/pedestrian trail along the riverfront

Description: Bicyle/pedestrian trail alo	ng the riverm	ont			
		Acc	cess		
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Sidewalk pedestrian access from the south along Pennypack Path and State Road with pedestrian crossing at State Road and Rhawn Street Access from the north from Pennypack Street and along State Road to Linden Avenue	State Road route Access from	s thoroughfare along is a high-stress access n low-stress neighborhood g Linden Avenue portion	Full access along all streets with parking at Pennypack on the Delaware and Pleasant Hill Park		Bus Route 70 stops at Pennypack Path and State Road Bus Route 84 stops at the intersections of Pennypack Street and State Road, and Linden Avenue and State Road
					Source: DVRPC, 2020
Pleasant Hill Park					
Location: Along Delaware River at the i of Linden Avenue and N Delaware Aver		Size: 35 Acres		Water Front	age: Delaware River
Description: Pleasant Hill Park is a 35- a small dock, and a historic fish hatche and cultural attraction where people ca fencing, play areas, and a new picnic a	ery. The hatch an learn to fis	nery was established in 19 sh. Recent improvements to	04, and although it is no lo	nger an activ	e hatchery, it remains an architectural
		Acc	Cess		
Ŕ		<i>d</i> 70 🚘			
Sidewalk access from neighborhood streets on Delaware River side of State Road Pedestrian access across State Road and I-95 along Linden Avenue	neighborhoo Main access	access routes along od streets s thoroughfare along is a high-stress access	Full access along all streets		Bus Route 84 stops at the intersection of State Road and Linden Avenue with a five-minute walk along the Baxter Trail
					Source: DVRPC, 2020

Glen Foerd on the Delaware							
<i>Location</i> : 5001 Grant Avenue, at the intersection of State Road and Grant Avenue in Northeast Philadelphia				Water Frontage: Delaware River and Poquessing Creek			
Description: Glen Foerd on the Delaware is a historic mansion located where the Poquessing Creek flows into the Delaware River. Originally constructed in the mid-1800s and extensively renovated and enlarged in the 1890s and early 1900s, Glen Foerd is the only remaining estate on the Delaware River open to the public within Philadelphia city limits.							
Access							
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Sidewalk access to neighborhood on Delaware River side of State Road No pedestrian access across State Road	neighborhoo Main access	thoroughfare along s medium–high-stress	Full access along all stree	ets	Bus routes 19 and 84 stop at the intersection of State Road and Grant Avenue Trenton Line stops at Torresdale station with a 10-minute walk along limited pedestrian access areas		
					Source: DVRPC, 2020		

\* Level of bike stress assessed using DVRPC's <u>Bicycle LTS and Connectivity Analysis</u> Map. \*\* All buses and trains mentioned are from SEPTA unless otherwise identified.

**APPENDIX C** 

# **Public Access in Bucks County**

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# **Bensalem Township**

#### Table C-1: Public Access in Bensalem Township

Delaware River Access Area						
Location: At the river end of Herringbo	ne Lane	Size: 6 Acres		Water Frontage: Delaware River		
Description: This access area contains out of service	es. The boat launch ramp is currently					
		Aco	cess			
Ŕ		ର୍ବର				
Sidewalk access to neighborhood on Delaware River side of State Road No pedestrian access across State Road	neighborhoo thoroughfar	access routes along od streets; main access e along State Road is gh-stress access route*	Full access along all streets		Bus Route 133 stops at State Road and Herringbone Lane with a five- minute walk**	
					Source: DVRPC, 2020	
Neshaminy State Park						
Location: Along State Road between D Road and Neshaminy Creek	ounksferry	Size: 339 Acres		Water Frontage: Delaware River and Neshaminy Creek		
Description: With extensive walking tra this park had approximately 450,000				own Philadel	phia, it was estimated in 2002 that	
		Acc	cess			
R		æ				
No pedestrian access	Medium-high-stress bike access along State Road		Full access along all streets		Bus Route 133 stops at the intersection of State Road and Dunksferry Road with approximately 200 feet of grassy shoulder to walk along to get to the entrance Source: DVRPC, 2020	

# **Bristol Borough**

#### Table C-2: Public Access in Bristol Borough

Bristol Waterfront Park						
Location: Bristol Borough Waterfront from Market Size: 7.5 Acres Street to Mill Creek			Water Frontage: Delaware River and Mill Creek			
Description: This park is located in a serving as a useful place for commureport.						
		Ac	Cess			
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Full pedestrian access from neighborhood streets		n-high-stress bike access Radcliffe Street Full access along neighborhood streets		rhood Bus Route 128 stops along Mark Street, Mulberry Street, and Rad Street with walks ranging from or minute to 10 minutes		
					Source: DVRPC, 2020	
Mulberry Street Access						
Location: At the intersection of Mulberry Street Size: .1 Acres				Water Frontage: Delaware River		
Description: Small waterfront pocke	t park with gras	s lawn leading to the Dela	ware River			
		Ac	cess			
ź.		<i>d</i> o <b>F</b>				
Full pedestrian access from neighborhood streets	Low-stress neighborho	bike access along od streets	Full access along neighborhood streets but no parking		Bus Route 128 stops at the intersection of Mulberry Street and Radcliffe Street	
					Source: DVRPC, 2020	

Grundy Memorial Library					
Location: 680 Radcliffe Street, along RadcliffeSize: 2.5 AcresStreet From Penn Street to Washington StreetSize: 2.5 Acres				Water Frontage: Delaware River	
Description: The Grundy Memorial L walk and park area is privately owned			orary for the E	Bristol community. Its riverfront access	
		Ac	cess		
×.		<i>6</i> 76			
Full pedestrian access from neighborhood streets	Medium-hi along Radcl	gh-stress bike access iffe Street	e Street streets		Bus Route 128 stops at the intersection of Dorrance Street and Radcliffe Street
					Source: DVRPC, 2020
Spurline Trail					
Location: From the intersection of Radcliffe StreetSize: 3,000 Feetand Seabird Drive to the intersection of RadcliffeStreet and Pine Grove Street				Water Frontage: Delaware River	
Description: Waterfront trail that is p	part of the large	r Spurline Trail that travels	through downtown Bristol	Borough	
		Ac	cess		
<u>ب</u>		<i>d</i> o <b>A</b>			
Full pedestrian access from neighborhood streets	Low-stress neighborho	bike access along od streets	Full access along neighbo streets	orhood	Bus Route 128 stops along Radcliffe Street at Monroe Street and Seabird Drive
					Source: DVRPC, 2020

# **Falls Township**

#### Table C-3: Public Access in Falls Township

Quaker Penn Park					
Location: Along Pennsbury Memorial Road in Falls Size: 5 Acres Township			Water Frontage: Delaware River and Scott's Creek		
Description: Widely known for its pub baseball field, composting toilets, a it more attractive to local residents.	nd riverfront vie				ip that also contains open areas, a lights and security at the park to make
		Ac	cess		
R		<i>4</i> 6			
No pedestrian access		ennsbury Manor Road ntown Road is a high- route	Full access from Bordentown Road		No transit access
					Source: DVRPC, 2020
Pennsbury Manor State Park					
<i>Location</i> : Along Pennsbury Memoria Township	al Road in Falls	Size: 43 Acres		Water Front	age: Delaware River and Scott's Creek
Description: Pennsbury Manor is a public and private events, Pennsbur					ic education and research, as well as g the Delaware River.
		Ac	cess		
R		do 🛱			
No pedestrian access		ennsbury Manor Road ntown Road is a high- route	Full access from Bordento	own Road	No transit access
					Source: DVRPC, 2020

# **Morrisville Borough**

### Table C-4: Public Access in Morrisville

Philadelphia Avenue Open Space							
<i>Location</i> : At the intersection of E Phila Avenue and S Delmorr Avenue	delphia	elphia Size: 4 Acres		Water Frontage: Delaware River			
Description: Informal access site along	g the souther	n side of Morrisville's wate	rfront and adjacent to the N	Morrisville Riv	verfront Preserve		
Access							
×.		୍ୱର୍ଦ୍ଧ					
No sidewalk access, but connecting roads are low-stress neighborhood streets		stress bike access along hborhood streets Full access along neigh streets		orhood	Bus Route 127 stops along East Bridge Street with a walk time of 10 minutes		
					Source: DVRPC, 2020		
Williamson Park							
Location: Along N Delmorr Avenue from E FranklinSize: 35 AcresStreet to Bridge Street				Water Frontage: Delaware River			
Description: Williamson Park is a popular and historic park along the Delaware River in Morrisville. It offers a riverfront trail with scenic views of Trenton and the Delaware River, picnic and seating areas, baseball diamonds, tennis courts, basketball courts, and a playground. Although mostly protected behind a levee, it is vulnerable to flooding coming from upstream. Recent plans have been discussed to develop the park into a mixed-use area with hundreds of apartments, an ampitheather, a business district, and new riverfront access along a walking trail between Bridge Street and US Route 1.							
		Acc	CESS				
<u>ب</u>		<u>م</u> ف					
Sidewalk access from East Bridge Street, Corliss Avenue, Union Street, E Palmer Street, E Franklin Street, E Maple Avenue, and E Trenton Avenue with crosswalks across N Delmorr Avenue at E Bridge Street, Union Street, between Union and E Palmer streets, E Palmer Street, and E Trenton Avenue		N Delmorr Avenue and Full access along neet are both high-stress streets		orhood	Bus Route 127 stops along East Bridge Street and Pennsylvania Avenue parallel to Williamson Park with a walk time from five to 10 minutes Source: DVRPC, 2020		

\* Level of bike stress assessed using DVRPC's <u>Bicycle LTS and Connectivity Analysis</u> Map. \*\* All buses and trains mentioned are from SEPTA unless otherwise identified.

APPENDIX D

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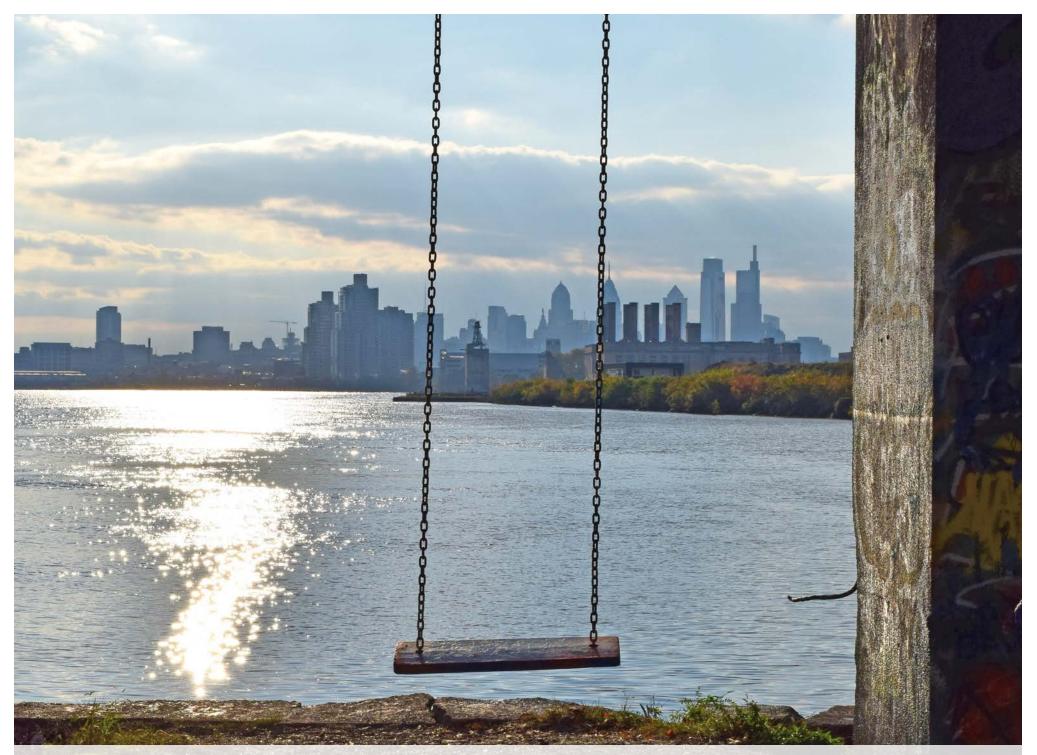
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Graffiti Pier, Philadelphia

# **A River Reconnected**

### THE CHALLENGES AND OPPORTUNITIES OF PUBLIC ACCESS TO THE TIDAL DELAWARE RIVER

#### Publication Number: 21016

#### Date Published: July 2021

Geographic Area Covered: Delaware Estuary Coastal Zone; tidal areas of the Delaware River, including tributaries like Darby Creek, the Schuylkill River, and Neshaminy Creek, Bucks County, Delaware County, Philadelphia,

Key Words: Darby Creek, Delaware River, Chester Creek, Land Use, Mill Creek, Muckinipattis Creek, Neshaminy Creek, Open Space, Pennypack Creek, Poquessing Creek, Public Access, Ridley Creek, Schuylkill River, Scott's Creek

#### Abstract:

Stretching from Morrisville to Marcus Hook, the coastal waterfront of Pennsylvania is a vast and dynamic system. Throughout this area, the level of public access to the waterfront varies tremendously from quiet and remote parks to urban trails visited by millions of people a year. *A River Reconnected* is a research study that describes in detail the historical trends, present-day projects, and future plans of this access. It also explores the barriers to access experienced throughout the region, highlights the benefits of improving and increasing access, and concludes with a series of recommendations that will help increase the quality and quantity of public access opportunities.

In describing many specific details regarding public access to the Tidal Delaware, this report also serves to explore how waterfront access priorities have shifted in the past few decades toward increasing public access. Although significant obstacles remain, present-day political, planning, and development trends are increasingly aligned on the importance of public access and reconnecting the river to the communities along its banks.

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