

CENTRAL DELAWARE RIVERFRONT PLAN  
WORKING PAPER  
PHILADELPHIA CITY PLANNING COMMISSION



THE WORKING PORT  
FEBRUARY 2007



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**Report by**

Richard Redding, Director, Community Planning Division

John Haak, City Planner, Strategic Planning Division

One Parkway Building, 13th Floor

1515 Arch Street

Philadelphia, Pennsylvania 19102

[www.philaplanning.org](http://www.philaplanning.org)

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## EXECUTIVE SUMMARY

At the northern end of the Central Delaware Riverfront study area, more than 100 acres of former shipping and industrial land lies vacant or underutilized before encountering intact industrial, rail, and maritime activity around Allegheny Avenue. The Tioga Marine Terminal (PRPA) lies just upstream of Allegheny Avenue -- just outside the study area.

In the middle section of the study area, industrial and shipping-related uses have largely been replaced by recreation, entertainment (Sugar House casino site), residential, and commercial uses.

In the southern end of the study area, the conversions of waterfront land to retail (Pier 70), entertainment (Foxwoods casino site), and mixed-uses have split remaining areas of active maritime and transportation use. A small node of working port facilities exists between Penn's Landing and Washington Avenue. Below Snyder Avenue, the PRPA and private owners control a series of working, rail-served piers. Inland of Delaware Avenue, industrial activity remains along Oregon Avenue and Swanson Street. Other industrial acreage has been largely converted to auto-oriented retail uses.

### **Opportunities and Constraints**

*Opportunities:* Philadelphia offers several port advantages: a workforce skilled in handling high value cargo, facilities with capacity to handle additional traffic, proximity to markets and ground transportation, and a significant inventory of nearby logistics/warehouse space.

*Constraints:* Several challenges exist, however, to the future competitiveness of the Philadelphia ports: consolidation of the international shipping industry, the trend toward larger, containerized vessels that require deeper drafts and cannot pass below the Walt Whitman Bridge, an inefficient imbalance of imports over exports through Philadelphia, and competing land uses and highway/rail traffic conflicts around port facilities.

### **Recommendations and Next Steps**

#### *Preserve Major Areas of the Working Port*

A policy of protecting major working port facilities still leaves ample opportunity for mixed use and recreational development along the central riverfront. Multiple goals can be accommodated within the 7-mile-long central Delaware study area. The policy for the working port must be reflected in specific recommendations for land use, zoning, traffic management, highways and highway bridges, rail transport, and public access.

#### *Evaluate the need for small nodes of port activity*

Piers 38 and 40, at Washington Avenue/Christian Street, do not represent a major area of the working port and could be relocated. Land use alternatives should be considered for this area. Public use or mixed use may be more appropriate here.

#### *Consider the Conrail Yards at Lehigh Avenue as a future working port facility*

Land use alternatives should be explored for this major opportunity site, including a new maritime shipping terminal.

#### *Examine the possibility for recreational, scenic and interpretive public experiences at the working port*

## BACKGROUND

### **The Regional Port**

The entire Delaware River system, including facilities in Delaware, New Jersey, and Pennsylvania, ranks as the 5<sup>th</sup> largest US seaport due to the River's concentration of oil refineries and oil import terminals. About 2,700 vessels call on the Delaware River each year (Maritime Exchange).

The City of Philadelphia's portion of the Delaware River system includes navigable sections of both the Delaware and Schuylkill Rivers. More than 30 percent of the system's registered piers and wharves are located in the City of Philadelphia (US ACE, 1998).

Regarded by the Commonwealth as a "general cargo port", Philadelphia maritime facilities handle a variety of goods, predominantly for import to US and Canadian markets.

### **Port Management**

The Philadelphia Regional Port Authority (PRPA), a Commonwealth agency, owns the principal terminals and piers for handling containerized, bulk, and break-bulk cargo in Philadelphia. As many privately owned maritime sites in the City have been closed or converted to non-maritime use, PRPA has actively sought to improve and market its facilities. Private facilities remaining in Philadelphia primarily handle bulk materials.

PRPA inherited its facilities from the City in the late 1980s as part of a Commonwealth effort to sustain competitive port infrastructure in Philadelphia. PRPA facilities are leased to and operated by private firms. The PRPA estimates that its facilities currently support 5,000 jobs and handle more than 4 million tons of freight. Across the Delaware River, the publicly owned facilities of the South Jersey Port Corporation handle a comparable amount of material.

### **Trend in Volume of Freight**

The volume of maritime freight moving through the City of Philadelphia, although small in comparison to the ports of New York, Norfolk, Charleston, and Savannah, has been growing modestly as overall international trade continues to expand.

## EXISTING CONDITIONS

### North

At the northern end of the study area, extending upstream from PECO's Delaware Station, more than 100 acres of former shipping and industrial land lies vacant or underutilized before encountering intact industrial, rail, and maritime activity around Allegheny Avenue. The large amount of vacant land results from high redevelopment costs (e.g. potential brownfields, need for new infrastructure and pier removal), cautious ownership (CONRAIL), and real estate speculation (e.g. casinos). The Tioga Marine Terminal (PRPA) lies just upstream of Allegheny Avenue -- just outside the central riverfront study area.

### Middle

In the middle section of the Central Delaware study area, from Penn Treaty Park to Pier 34 South, industrial and shipping-related uses have largely been replaced by recreation, entertainment (Sugar House casino license awarded), residential, and commercial uses.

### South

In the southern end of the study area, from Pier 36 South/Penn's Landing Heliport to Oregon Avenue, the conversions of waterfront land to retail (Pier 70), casino (Foxwoods license awarded), and mixed use (Sheet Metal Workers, proposed) between Washington Avenue and Mifflin Street have split remaining areas of active maritime and transportation use. A small node of working port facilities at the northern end includes the Heliport, Pier 38-40 (PRPA), and the Coast Guard Station. From Pier 76 downstream of Snyder Ave., the PRPA and private owners control a series of working, rail-served piers. A new wood-product warehouse is proposed for land at the recently acquired Pier 76. The Packer Avenue Marine Terminal (PRPA) and other large, port-related sites are located just downstream of Oregon Avenue. Inland of Delaware Avenue, industrial activity remains along Oregon Avenue and Swanson Street. Other industrial acreage has been largely converted to auto-oriented retail uses.

### Philadelphia's Major Port Facilities

The map on page 12 shows the location of the City's major port facilities. Shown below are photographs and descriptions of the facilities located *within* the Central Delaware Riverfront Study Area.



#### **Piers 38 & 40 -- part of the Forest Products Distribution Center.**

Located in the vicinity of Washington Ave./Christian Street in Philadelphia's central waterfront district; handles newsprint, coated, wood pulp, other forest products; 12 acres, 3 berths, 35 foot, dry warehouses, rail services (PRPA).



#### **Piers 78 & 80 -- Forest Products Distribution Center.**

Located just below Snyder Ave. in South Philadelphia; handles newsprint, coated paper, wood pulp, lumber, other forest products; 39.8 acres, dry warehouses, 35 foot depth, 6 berths, "ro/ro" capability, 40 truck bays, rail services (PRPA).



**Pier 82 -- Fruit-handling Facility.**

Located in South Philadelphia between Snyder and Oregon Avenues; handles fruits and vegetables, other breakbulk, project; 18.4 acres, 2 berths, 32 foot depth; 24 reefer outlets, heated/chilled storage with humidification, loading platforms for 17 trucks, rail service (PRPA).



**Pier 84 -- Cocoa handling Facility.**

Located in South Philadelphia between Snyder and Oregon Avenues; handles cocoa beans and cocoa products; 23 acres, 2 berths, 32 foot depth, dry & heated storage, 40 loading platforms for trucks, rail service (PRPA).



**Pier 96 and Pier 98 Annex -- Auto-handling Facility.**

Located in South Philadelphia between Snyder and Oregon Avenues; 56 acres, 2 berths, 32 foot depth, auto-washing and service shed, rail service (PRPA).

The following photographs and descriptions show facilities located *outside of* the Central Delaware Riverfront Study Area.



**Packer Avenue Marine Terminal -- The Port's largest and most versatile facility.**

Located in South Philadelphia, Pennsylvania; handles containers, steel, meat, fruit, heavy lift/project; 112 acres, 6 berths, 40 foot depth; dry, heated and reefer warehouses; container cranes, heavy lift cranes, rail services (PRPA).



**Tioga Marine Terminal -- Multi-use terminal that can handle virtually any cargo.**

Located in Port Richmond; handles containers, fruit, project, breakbulk, automobiles; 116 acres, 2 berths, 40 foot depth, dry warehouse, 180 reefer outlets, container cranes, rail service (PRPA).



**Philadelphia Naval Shipyard.**

The shipyard has five dry docks and four deepwater piers available for business use. The Shipyard is the industrial heart of The Navy Yard, with updated buildings and infrastructure, direct rail and ship access. Existing buildings are suitable for heavy and light manufacturing, distribution, and related uses (PIDC).



**Hog Island Shipping Terminal.**

Located adjacent to Philadelphia International Airport, this terminal is predominantly used for oil and gas products.



**Sunoco Oil and the Lower Schuylkill.**

Predominantly used for oil and gas products. The two bridges are Girard point (lower) and Penrose (upper)



**Sunoco Oil and the Lower Schuylkill (northerly section).**

Predominantly used for oil and gas barges.

**MAJOR ISSUES**

A number of issues are pertinent to subsequent planning related to working port and industrial land use in the study area.

**Small Scale and Underutilization of Port Facilities**

- The working piers directly in the southern part of the study area (38-40, 78-84, 96) account for only about 25 percent of the jobs, revenues, and taxes supported by all PRPA facilities. There is underutilized capacity, especially in Piers 82 and 96.
- CONRAIL remains tight-lipped about its largely vacant Port Richmond Terminal, located in the study area at Lehigh Ave. (extended). PRPA shows no interest in acquiring this site for port purposes.

The relatively small scale, and seasonal or chronic underuse, of some of the port operations in the southern part of the study area suggests that the facilities could be relocated or consolidated closer to other, more active PRPA sites. At the north end of the study area, the Commonwealth's recent decision to award a casino license to a site *south* rather than north of Penn Treaty Park could prompt CONRAIL to lower its market expectations for reuse or redevelopment of the Port Richmond Terminal.

### **Transportation Conflicts**

- The advent of casino facilities will greatly increase already significant vehicle congestion and traffic conflicts with port and industrial-related truck and rail movements.
- Truck and rail movements do not mix well with transit, pedestrians, and bicycles.

Much like residents who move next to an airport and then complain about noise, some quarters of the Philadelphia community now live or shop near existing port and industrial activity and complain about trucks and trains.

### **Competition for Scarce Resources**

- The supply of waterfront land is limited.
- The supply of industrially-zoned land on or near the waterfront, with rail and highway infrastructure, is limited. Once lost, it rarely reverts to port/industrial.
- Market demand for residential, commercial, and recreation use along waterfronts is expected to increase.
- Public dollars are limited, but nearly all waterfront developments require subsidies, including port and industrial infrastructure *as well as* most residential, commercial, and recreation uses.

With the possible exception of regulated industries such as casinos, nearly all appropriate waterfront uses require significant public subsidy. (e.g. the private developer of the Dockside project received millions in DRPA funds to stabilize Pier 30). Prioritization of land use and funding decisions should be based on long term public interest.

### **Dredging**

One major response to the challenges faced by our port, now stalled by political disagreement between Pennsylvania and New Jersey, is to deepen and maintain the Delaware River channel from the current 40 feet to 45 feet. Deepening would occur up to the Benjamin Franklin Bridge. Pennsylvania interests strongly support this project, in part as a way to preserve and grow maritime jobs that might otherwise follow the larger container ships to ports of call with deeper channels. (e.g. New York is currently dredging to 50 feet)

### **Proposed Port Expansion (outside the central riverfront study area)**

“Southport”, a related response of utmost priority to the PRPA, would use dredge material from the deepening project to extend the Packer Avenue Terminal toward the Navy Yard. This would create more linear space to dock more/larger ships and provide additional land area to handle containers or other cargo.

Complicating factors for the development of Southport include delayed development of a new Food Distribution Center adjacent to the proposed Southport, delays in completing promised land transfers to the PRPA, and disagreements and delays over a new road needed to service the construction and operation of the new Food Distribution Center.

### **Citizen Input**

In the Central Delaware planning process, many citizens, workers and political leaders are demanding that port-related jobs be protected. These port advocates are fearful that a desire for recreation, public access and mixed use development along the river will result in a decrease in working port facilities and jobs. Philadelphia's working port played a key role in the history of this city and nation, and port employment is reflected in local culture and family tradition. Port employment has seen many downturns during the past 60 years, and people who feel a connection to the port are worried about additional decreases in port activity.

## OPPORTUNITIES AND CONSTRAINTS

Philadelphia is said to offer several port advantages: a workforce skilled in handling high value cargo, facilities with capacity to handle additional traffic, proximity to markets and ground transportation, and a significant inventory of nearby logistics/warehouse space.

Several challenges exist, however, to the future competitiveness of the Philadelphia ports: consolidation of the international shipping industry, the trend toward larger, containerized vessels that require deeper drafts and cannot pass below the Walt Whitman Bridge, an inefficient imbalance of imports over exports through Philadelphia, and competing land uses and highway/rail traffic conflicts around port facilities.

Based on discussions and findings to date, the following considerations could form the foundation for further development of port and industrial land ideas as part of the study.

### **New River City and Working Port**

New River City principles support the **continued use of and reinvestment in intact, functioning areas of working waterfront**, including waterfront sites from Pier 76 south and from the vicinity of Allegheny Avenue north. Investments could increase the capacity and efficiency of existing sites and operations. An overall increase in the acres available for storage and operations is desirable. The relocation of operations from isolated sites to more efficient, contiguous sites would also be consistent, but should result in a net increase in space available for port/industrial use.

### **Economic Impact**

General port activity supports the **flexibility, diversity, efficiency, and resiliency of the regional and national economies**. Port and industrial jobs offer relatively high wages and benefits. Maritime and industrial activity can have a positive fiscal impact due its low need for public services. Port and industrial facilities utilize expensive, existing, well-located transportation and utility infrastructure that is difficult to replace/relocate due to high cost and land use/transportation conflicts. Existing facilities represent orderly development and investment, and this should be respected in land use plans and zoning.

### **Environmental Impact**

Well-located and managed port facilities can help **reduce overall road congestion, pollution, and risks to human population**. Maintaining short distances between port/warehouse/end user, and the ability to move freight by energy-efficient rail, cuts back on vehicle miles and associated emissions. Port and industrial uses may also be appropriate on sites associated with flood plain, soil contamination, noise, smell, dust, emissions, and traffic. Port/industrial uses can themselves be effectively buffered from populated areas by low-density commercial uses, highways, rails, parks, and utilities.

### **Dredging and Delaware Avenue Extension to Navy Yard**

While the City is in support of deepening the Delaware River channel and extending Delaware Avenue to the Navy Yard, **there is no reason for Central Delaware recommendations to be dependent on the channel deepening and highway investments south of Oregon or Packer Avenues**. Whether a deepening of the channel occurs or not, the specialized maritime facilities north of the Walt Whitman bridge will still primarily handle smaller, specialized vessels. Whether

an extension of Delaware Avenue occurs or not, port and industrial truck traffic will still need to be routed quickly to and from the I-95 and I-76 complex around Oregon and Packer Avenues.

**Traffic Conflicts**

Measures to reduce conflicts with freight rail and trucks can include the **separation of land uses and traffic flows, and the limiting of further geographic intrusion** into port/industrial zones.

## RECOMMENDATIONS AND NEXT STEPS

### **Preserve Major Areas of the Working Port**

For sound planning reasons as well as a need to be responsive to public input, the Central Delaware Riverfront Plan should protect, preserve and reinforce the major areas of working port that exist today. Active working port facilities occupy less than 25% of the of the river frontage in the central Delaware study area; and Philadelphia's largest shipping terminals (Packer and Tioga) are outside the study area. A policy of protecting major working port facilities would still leave ample opportunity for mixed use and recreational development along the central riverfront. Multiple goals can be accommodated within the 7-mile-long central Delaware study area.

This policy will be reflected in specific recommendations for land use, zoning, traffic management, highways and highway bridges, rail transport and public access.

### **Evaluate the need for small nodes of port activity**

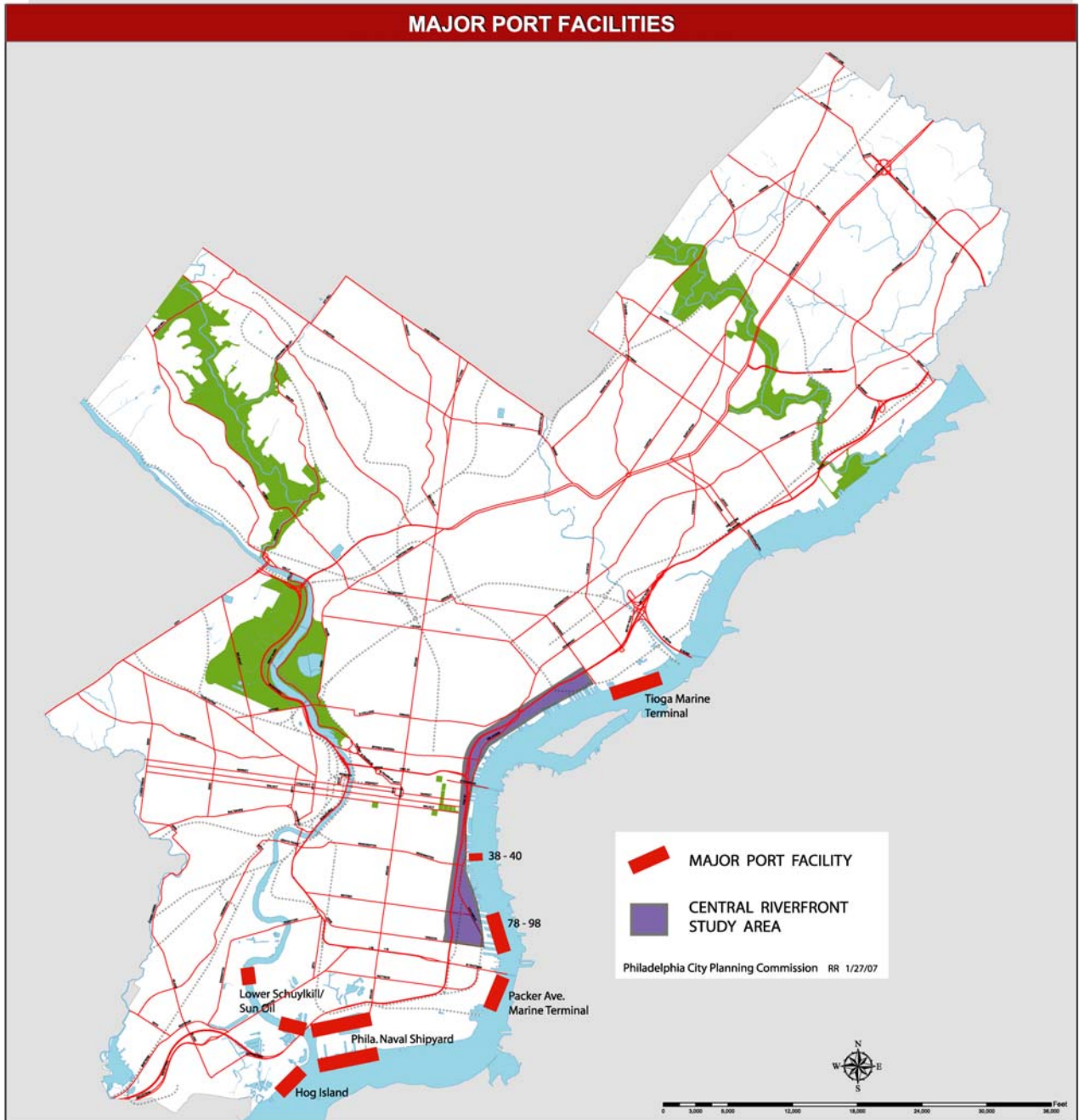
Piers 38 and 40, at Washington Avenue/ Christian Street, do not represent a major area of the working port. Land use alternatives should be considered for this area. Public use or mixed use may be more appropriate here.

### **Consider the Conrail Yards at Lehigh Avenue as a future working port facility**

Land use alternatives should be explored for this major opportunity site, including a new maritime shipping terminal. This site includes the former Cramp Shipyard. The area borders Port Richmond where many residents want more than upscale housing and shopping along the river; some community leaders are advocating riverfront development that relates to the blue collar traditions of Port Richmond.

### **Examine the possibility for recreational, scenic and interpretive public experiences at the working port**

For many citizens and tourists, a working port is a fascinating sight to behold. Large ships, tugboats, cranes and cargo movements provide an opportunity for scenic and interpretive experiences, including educational field trips for school students. Is it possible to have an observation post for the public where maritime shipping activities can be viewed? The observation post would need ample parking, transit access, safety and security. Many people enjoy being near the water, and this could be a wonderful and unique way to experience the Delaware River.



## RESOURCES

Website of the Philadelphia Regional Port Authority at <<http://www.philaport.com/>>.

Maptech.com – aerial photos