City of Philadelphia
Pennsylvania

OFFICE OF THE CONTROLLER

Office of the City Controller

The Future of Philadelphia River Ports

September 2026

City Controller

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Ensuring transparency, accountability, and fiscal integrity in city government

Office of the City Controller

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Executive Summary

Why the Controller's Office Conducted the Review

The Port of Philadelphia (PhilaPort) is an independent public agency of the Commonwealth of Pennsylvania that operates three major port districts along the Delaware River: North Port, Central Port, and South Port. For more than 300 years, PhilaPort has served as a gateway for international commerce and a key driver of economic activity in the Philadelphia region. As competition among East Coast ports intensifies and global shipping trends continue to evolve, PhilaPort developed Destination 2040, a long-term strategic plan to modernize infrastructure, expand capacity, improve sustainability, and position the Port for future growth. The Controller's Office conducted this review to evaluate the opportunities and challenges presented by Destination 2040 and compare Philadelphia's long-term strategy with investments and best practices implemented by other major East Coast ports.

What the Controller's Office Found

- **South Port's Strategic Importance** - While improvements are planned across all three port districts, the largest increases in container handling capacity, future expansion opportunities, and projected economic activity are concentrated in South Port, making its successful development essential to achieving Destination 2040's long-term goals.
- **Growing Infrastructure Demands** - Container demand is projected to increase substantially by 2040. Accommodating larger vessels and future cargo growth will require continued investment in terminal capacity, transportation connections, and other infrastructure supporting port operations.
- **Lessons from Comparable East Coast Ports** - Successful long-term growth depends on coordinated investments in terminal capacity, transportation connectivity, navigation channels, diversified operations, and environmental sustainability.

What the Controller's Office Recommends

- **Prioritize South Port development** by initiating permitting, environmental review, and interagency coordination with state and federal agencies as early as possible to avoid delays and keep future phases of Destination 2040 on schedule.
- **Coordinate transportation improvements with terminal expansion** by continuing to improve roadway, rail, and marine access alongside terminal development to support future cargo growth and minimize infrastructure bottlenecks.
- **Improve Public Transparency** by developing annual progress reports, regular reporting on project milestones, and community engagement plans to improve transparency and accountability and provide stakeholders with timely updates on implementation and project status.
- **Regularly update Destination 2040** by formally reviewing and updating the strategic plan every three to five years to reflect changes in cargo volumes, shipping trends, infrastructure needs, environmental requirements, and market conditions.

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Introduction

Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

The Port of Philadelphia (PhilaPort) is an independent public agency of Pennsylvania that operates three major port districts along the Delaware River: Northern Port District, Central Port District, and Southern Port District.[1] Since its creation under the Philadelphia Regional Port Authority Act of 1989, PhilaPort has connected Philadelphia to global trade networks and served as a major driver of the regional economy. As of 2024, PhilaPort supports approximately 12,000 direct and indirect jobs, generates an estimated $1.5 billion in annual economic output, and contributes approximately $321 million in total tax impact.[2]

As cargo demand, vessel size, and competition continue to grow, PhilaPort developed Destination 2040, a long-term strategic plan to modernize infrastructure, grow trade capacity, improve sustainability, and solidify Philadelphia's position as a premier international port. The Controller's Office conducted this review to evaluate Destination 2040, assess its ability to address future opportunities and challenges, and compare PhilaPort's strategy with those of other East Coast ports. Based on this analysis, the Controller's Office identified opportunities to strengthen the implementation of Destination 2040, particularly as future investments are considered for South Port.

[1] Philadelphia Regional Port Authority (2024), p. 32
[2] Philadelphia Regional Port Authority (2024) pg. 17

Background

Philadelphia's ports have served as a major player in international commerce for over 300 years, dating back to the 1701 Philadelphia City Charter.[3] In the early part of the twentieth century, the city managed port operations under the Department of Wharves, Docks, and Ferries within the Commerce Department. In 1965, governance transferred to the non-profit Philadelphia Port Corporation (PPC), which was authorized to issue municipal bonds for capital improvements. By the late 1980s, however, PPC faced significant financial challenges. In response, the Commonwealth enacted the Philadelphia Regional Port Authority Act of 1989, establishing the Philadelphia Regional Port Authority, now known as PhilaPort, as an independent public agency responsible for managing, leasing, and owning port facilities. Since then, PhilaPort has modernized its facilities, expanded cargo capacity, and established long-term leases with private terminal operators. In 2016, a $300 million state bond investment funded even more extensive infrastructure upgrades, helping PhilaPort compete with other East Coast ports following the Panama Canal expansion.

Market Developments

Since the creation of the Philadelphia Regional Port Authority Act in 1989, the maritime shipping industry has undergone significant changes. From 1996 to 2022, the world's top 20 cargo container carriers increased their share of global shipping capacity from about 48 percent to nearly 91 percent through mergers and acquisitions.[4] As carriers consolidated, they began focusing their business at fewer ports capable of accommodating larger vessels and higher cargo volumes. Ports without sufficient infrastructure risk losing business to higher capacity competitors. The International Maritime Organization's goal to reach net-zero shipping emissions by 2050 is also reshaping the maritime industry by encouraging investment in cleaner equipment, alternative fuels, and lower-emission port operations.[5] The 2016 Panama Canal expansion, which allows significantly larger vessels to transit the waterway, has changed trade routes and increased competition among East Coast ports seeking to attract these larger vessels.[6]

PhilaPort – Current Operations

Despite growing competition, PhilaPort continues to serve as a major economic engine for Pennsylvania.

In 2023, PhilaPort handled approximately 6.9 million metric tons of cargo, and more than 1,100 vessel calls, which are the number of times a commercial vessel arrived at Philadelphia ports.[2]

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[3] *History of the Port of Philadelphia*. PhilaPort. (2023, March 24)
[4] UNCTAD, *Review of Maritime Transport 2022*, Chapter 6: Consolidation and Competition in Container Shipping.
[5] International Maritime Organization, *2023 IMO Strategy on Reduction of GHG Emissions from Ships*.
[6] Cutler, Z. (2025, September 12). *PhilaPort on pace for second consecutive record-breaking year, following record high trade volume in H1 2025*. Avison Young.

Primary goods, such as raw materials like timber, accounted for 42% of bulk cargo,[7] while perishable goods, including citrus, bananas, and meat products, represented more than 30% of imported products, highlighting Philadelphia's role in handling refrigerated cargo.[8] Philadelphia's three ports handle the movement of these goods with each district serving a distinct role in PhilaPort operations based on its infrastructure, available land, and the types of cargo they are designed to handle.

Northern Port District

Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

The North Port is situated along the Delaware River, covering 116 acres within the city's Port Richmond neighborhood. This district houses the Tioga Marine Terminal (TMT), Tioga Liquid Bulk Terminal (TLBT), and the PhilaPort corporate offices. The TMT is the primary hub for forest products, containers, steel, over-dimensional goods, palletized goods, project resources, and breakbulk, while the TLBT handles the receipt and distribution of liquid commodities such as ethanol, acetone, cumene, and paraffin wax.[9] The North Port is supported by extensive warehouse capacity and direct access to the Kinder Morgan tank farm across North Delaware Avenue. Kinder Morgan is an energy infrastructure company headquartered in Houston, Texas. In 2015, the company entered into a $568 million deal with the Aker Philadelphia Shipyard to acquire 4 tanker vessels that would be produced by Aker's subsidiary, Philly Tankers LLC.[10] In 2025, the company and PhilaPort entered into a 10-year lease agreement allowing the use of berths I and II for ship-docking.[11] This connection allows cargo to move seamlessly among ships, storage facilities, and inland distribution networks, reducing cargo handling time and transportation costs. The North Port also contains five warehouses and a smaller storage pier, identified as Tioga I through Tioga V, and Pier 179, respectively, that provide nearly 700,000 square feet of indoor storage space.

[7] Philadelphia Regional Port Authority (2024), p. 21
[8] Philadelphia Regional Port Authority (2024), p. 19
[9] Loyd, L. (2018, September 15). *Philadelphia port sees continued growth in imports*. Inquirer.com
[10] Shelly, J. (2015, August 11). *$568 million deal to build 4 massive ships in South Philly*. Philadelphia Magazine
[11] Resolutions. (n.d.).

Central Port District

Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

Located between the Walt Whitman Bridge and the Benjamin Franklin Bridge, the Central Port consists of various storage warehouses, yard space, and piers. Its layout differs from Philadelphia's other port districts in that it includes seven narrow finger piers that extend into the Delaware River. Three of these piers are dedicated to handling breakbulk cargo[12], making this district an important hub for this type of cargo. Cargo for these terminals includes newsprint, coated paper, wood pulp, other forest products, other break-bulk and semi-bulk products. Specifically, the Central Port includes:

- Pier 74 Annex:115,000 sq. ft. of storage warehouses, 10 truck bays and accommodation for 8 rail cars.
- Pier 78: 1 dry 208,000 sq. ft storage warehouse, 48 truck bays and accommodation for 59 rail cars (paired with Pier 80)
- Pier 80: 2 berths with roll-on/roll-off (Ro/Ro) ramps, 1 dry 456,000 sq. ft. storage warehouse

The Forest Products Center (located across Piers 74, 78, and 80) handles commodities that require covered storage and specialized handling.[13] This concentration of breakbulk and specialty cargo distinguishes the Central Port from PhilaPort's container and liquid bulk operations.

The district also includes three inactive piers (No. 96, 98, and 100). Operations at these piers were discontinued in 1963 due to inefficiency and deterioration but now offer underutilized facilities with opportunities for future redevelopment.[14]

[12] goods transported individually rather than in large shipping containers
[13] Philadelphia Regional Port Authority (2024), p. 28
[14] City of Philadelphia. (2019). *Army Piers redevelopment plan*.

Southern Port District

Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

South Port represents PhilaPort's largest port and its greatest opportunity for long-term growth. Located south of the Walt Whitman Bridge, the district has historically been used for automobile storage, container handling, and smaller volumes of breakbulk cargo. Unlike the more developed North and Central Port districts, South Port contains significant space for expansion, making it the primary focus of future infrastructure development.[15] The South Port currently contains:

- The Packer Avenue Marine Terminal (PAMT): used to handle containers with a smaller volume of breakbulk cargo and automobiles destined for other piers and distribution points.
- South Port: Covering 150+ acres that were once a part of the US Navy Yard, South Port was designed for the storage and processing of domestic automobiles that are transported via rail carriers.
- PhilaPort Distribution Center: New facility that will help provide storage for cargoes arriving at PhilaPort's Packer Avenue Marine Terminal and attract new international cargoes to the city.[16]
- Philadelphia Wholesale Produce Market: World's largest, fully-enclosed, fully-refrigerated, wholesale produce terminal amounting to the size of 686,000 square feet with the operating benefit of cold-chain protection for fresh fruits and vegetables.[17]
- Pier 122: vital berth for automobile import, export, and Ro/Ro cargo.[18]
- Pier 124: handles liquid bulk cargoes including ethanol. Unique location connecting to South Philadelphia rail facilities, I-95, and I-76 make the pier an excellent liquid bulk transfer point.[19]

[15] Philadelphia Regional Port Authority (2024), p. 25
[16] Philaport Distribution Center. PhilaPort. (2025, February 26).
[17] Philadelphia wholesale produce market. PhilaPort. (2023, March 21).
[18] Pier 122. PhilaPort. (2026, June 16).
[19] Pier 124. PhilaPort. (2026, June 16).

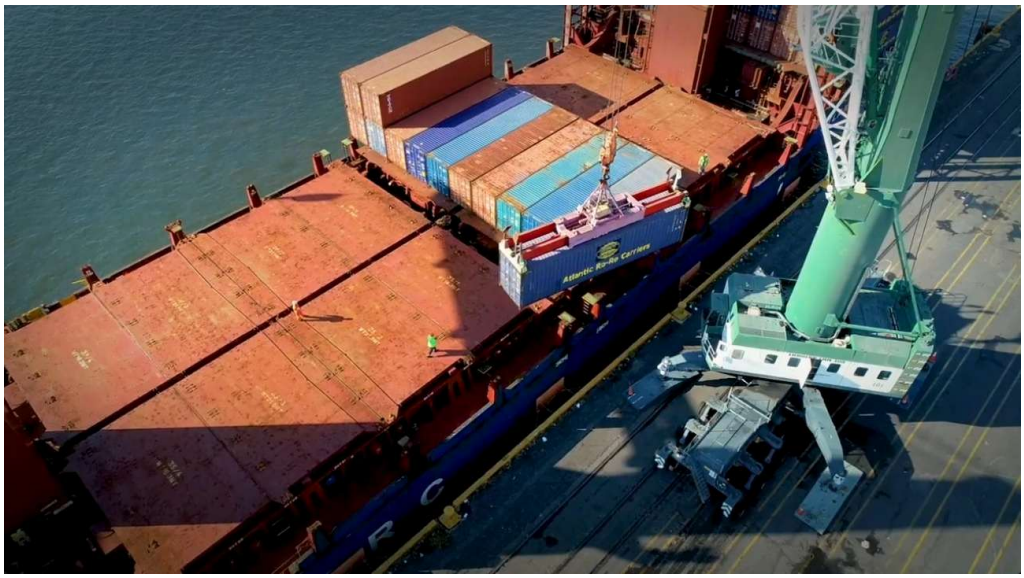
Each of the City's port districts is conveniently accessible to water channels, interstate roadways and rail lines. These characteristics are essential to Philadelphia's status as a major East Coast port competitor. Some goods come to Philadelphia through waterways and need transit to be carried out on road or railways for the remainder of their journeys. Philadelphia's geographic access to all forms of transit ensures that the ports will play a role in the transportation of goods to consumers.

PhilaPort - Future Plans

To meet future demand and remain competitive, PhilaPort, through its Destination 2040 Plan, proposes a series of capital investments and operational improvements across its three port districts. While each district provides distinct services, the combined investments are intended to position PhilaPort for long-term growth by expanding capacity, modernizing facilities, and strengthening its competitiveness. Future property acquisitions will support warehouse development, expand storage capacity, and improve the movement of goods throughout the district.

The Destination 2040 Plan organizes PhilaPort's modernization and expansion goals into two implementation phases. Phase I focuses on projects that can be implemented in the near term, specifically capital improvements that increase cargo and automobile handling capacity, improve operational efficiency, and strengthen transportation connections. Phase II outlines longer-term investments intended to expand capacity, diversify port operations, and position PhilaPort for future growth. Many of these initiatives require significant capital investment, environmental review, and regulatory approvals before construction can begin. The following sections summarize the major initiatives planned for each district during Phases I and II.

North Port



Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

Destination 2040 proposes several improvements to strengthen North Port's role in the regional freight network, including a new warehouse, a redesigned truck gate complex to improve traffic flow, and a dedicated maintenance and repair facility.[20] Together, these projects are intended to increase operational efficiency while supporting future cargo growth.

Phase I investments at the North Port focus on expanding breakbulk and container handling operations. Planned improvements include construction of a new 150,000 square foot warehouse, which, together with Tioga VI and the existing TMT warehouses, will increase indoor storage capacity to nearly one million square feet.[21]

Additional improvements include structural upgrades to TLBT Berth 1 to allow the dock to support heavier equipment and maintain both bulk barge services and conventional breakbulk vessels. PhilaPort also plans to install new container-handling equipment at TMT Berth 1, including up to two new electric ship-to-shore (STS) cranes to improve container handling efficiency and increase terminal capacity. These improvements will also strengthen North Port's role as a regional breakbulk hub while expanding its ability to accommodate projected container growth.

The Phase II plans for North Port focus on rehabilitating terminal buildings and marine infrastructure, including a general rehabilitation program at TMT. Phase II also includes two collaborative initiatives. First, PhilaPort will explore adding a liquefied natural gas (LNG) storage and fueling

[20] Philadelphia Regional Port Authority (2024), p. 32
[21] Philadelphia Regional Port Authority (2024), p. 41

facility at the TMT, along with an additional berth for LNG-fueled vessels. A feasibility study will be conducted to evaluate LNG vessel demand, infrastructure requirements, regulatory considerations, and market potential. PhilaPort is also pursuing a joint development partnership along the Bellwether District, housing logistics including low warehouses and trucking bays located close to the Packer Ave Marine Terminal, to support waterfront redevelopment and create new economic opportunities. [22]

Central Port

Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

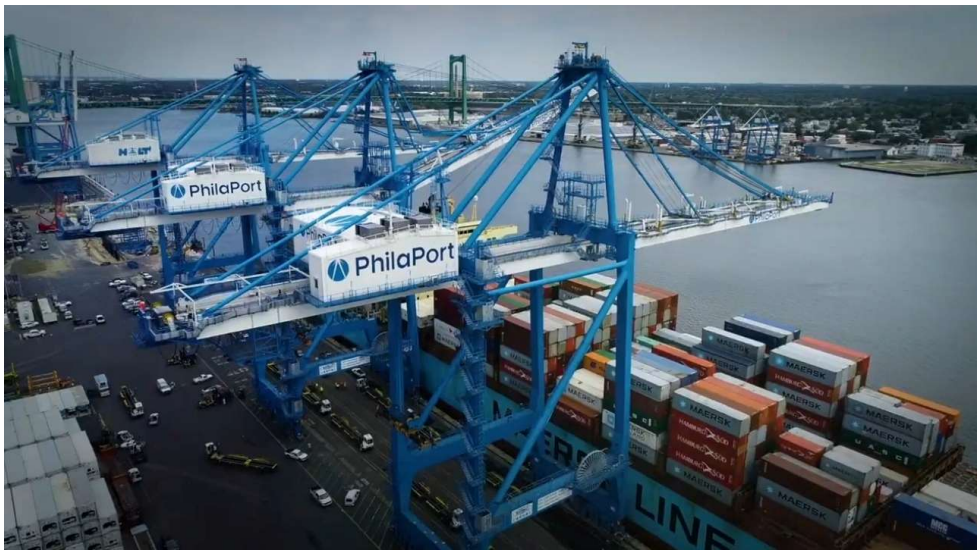
Investments during Phase I at Central Port focus on increasing storage capacity and expanding the district's specialized breakbulk operations. Planned improvements include construction of a 150,000 square foot warehouse at the Pier 80 Annex and expansions of existing warehouses at the Pier 74 Annex and Pier 84.[23] Together, these projects will add approximately 220,000 square feet of storage capacity to support growing volumes of forest products and reduce congestion in cocoa operations.[24]

PhilaPort is also pursuing the acquisition of the former Southwark Generating Station located between Piers 84 and 96, for potential future breakbulk operations, providing additional operational flexibility for future growth. These targeted investments are designed to maintain Central Port's specialized role in managing breakbulk and specialty cargo, while improving its capacity to meet future demand.

[22] Commonwealth of Pennsylvania. (n.d.). *Bellwether*
[23] Philadelphia Regional Port Authority (2024), p. 43
[24] Philadelphia Regional Port Authority (2024), p. 42

Phase II plans for the Central Port focus on restoring aging infrastructure while creating environmental mitigation credits (regulatory credits generated by environmental restoration projects that can offset the impacts of future waterfront development). PhilaPort plans to rehabilitate the Pier 78 Warehouse and redevelop Pier 96 as a sustainable redevelopment project. As part of this strategy, the unused Piers 98 and 100 could be demolished to create environmental mitigation credits[25] that would help offset future land reclamation and development projects within the South Port pier district.

South Port



Philadelphia Regional Port Authority. (2024). PhilaPort strategic plan: Destination 2040.

Phase I investments at South Port represent the foundation of Destination 2040's long-term growth strategy. Planned improvements focus on expanding container and automobile handling capacity while strengthening roadway, rail, and terminal infrastructure. Additional projects include phased container densification[26] at the PAMT, construction of the North Wharf, and a ten-acre land reclamation project to expand the South Port pier. The plan also includes construction of a bulkhead and industrial paving to support Ro/Ro operations, stabilize the shoreline, expand docking capacity through a second berth, and improve overall terminal efficiency.

To strengthen regional connectivity, PhilaPort is working with CSX Transportation and Norfolk Southern near the Greenwich Rail Yard to expand rail capacity and improve freight movement.[27] Together, these projects are designed to increase handling capacity, improve operational efficiency, and position South Port to accommodate projected growth in container traffic, making

[25] Tradeable units to legally offset unavoidable damage their construction projects cause to wetlands, streams, or endangered species habitats
[26] increasing the number of containers that can be stored within the existing terminal footprint
[27] Philadelphia Regional Port Authority (2024), p. 45

the timely completion of the Phase I investments critical to achieving the long-term objectives of Destination 2040.

Phase II plans for South Port focus on expanding container capacity beyond projected needs for 2040 while positioning PhilaPort to handle future carrier demand. The plans include a potential large-scale land reclamation project to create additional space for container operations, along with new berthing infrastructure and a second berth at South Port. PhilaPort also plans to acquire four electric ship-to-shore (STS) cranes, to accommodate higher cargo volumes.

To support continued automobile demand through 2040, PhilaPort plans to expand the Vehicle Processing Center (VPC) and acquire adjacent properties to increase the size of South Port. Additional Phase II projects include PAMT densification phases and a new fumigation and transload facility at the Conrail Loop.[28] Together, these projects would improve cargo handling efficiency and increase transfer speeds between marine, rail, and truck transportation.

What Other Ports Are Doing

As PhilaPort moves forward with its Destination 2040 Plan, we reviewed how other major east coast ports are investing in infrastructure, transportation connections, environmental sustainability, and capacity expansion. The following section highlights significant initiatives undertaken in these ports to position themselves in this highly competitive environment.

Boston, Massachusetts

Massachusetts Port Authority, or Massport, has long supported Boston's economy. Massport owns over 650 acres of land and water, including commercial properties, retail and restaurant space, hotels, and residential developments containing more than 1,750 residential units.[29] Massport also invests in community projects, including public art and open spaces, while incorporating environmental sustainability into its planning and operations. Massport is a major employer in the region, directly responsible for over 180,000 jobs.[30] The Port of Boston also remains one of the top seafood processing centers in the nation. Massport handles approximately 2.3 million metric tons of cargo annually. The Conley Terminal and Flynn Cruiseport support job opportunities and generate economic activity through cargo and passenger operations. Massport's 2025 Strategic

[28] *Densification* refers to maximizing storage capacity within an existing terminal footprint by stacking containers higher and using specialized equipment to narrow row spacing. *Fumigation* is required under international plant protection standards for many breakbulk products, such as forest products and other cargo shipped with wood packaging materials to prevent the spread of invasive pests. The *Conrail Loop* is a specialized waterfront rail track setup that allows freight trains to move cargo continuously without needing to stop, reverse, or manually uncouple locomotives.
[29] Massachusetts Port Authority (n.d.a)
[30] *Strategic plan*. Massport. (2025). p.4.

Plan outlines continued efforts to expand cargo activity, strengthen the regional economy, and support job growth.

In 2025, Boston's leading imports included approximately $3.38 billion in refined petroleum, $719 million in automobiles, $247 million in fish fillets, $224 million in wine, and $150 million in coconut oil.[31] Boston's 2025 leading exports amounted to $943 million total. Top exports include $217 million in scrap iron, $99.2 million in sulfate chemical wood pulp, $73.6 million in scrap aluminum, $50.8 million in mollusks, and $42.1 million in recovered paper. Boston's largest sources of imports were China and Vietnam, followed by France, Italy, and Germany. The largest export destinations were India, China, and Vietnam.[32]

As the only full-service container terminal in New England, Conley Terminal has undergone significant modernization to improve cargo handling capacity and accommodate larger vessels. Investments include new ship-to-shore (STS) cranes, dredging Boston Harbor to a depth of 47 feet and Conley Terminal's berth to 50 feet,[33] and constructing the Butler Freight Corridor, a dedicated truck route that keeps container trucks off residential roads and provides more direct access to highways.[34] These improvements have expanded Conley Terminal's connections to more than 40 international ports and positioned the terminal for continued growth. Although container volumes declined during the COVID-19 pandemic, Massport projects Conley Terminal will handle 200,000 containers annually by 2035.

Beyond cargo operations, Massport has invested in Flynn Cruiseport to expand capacity and support tourism-related economic activity. Cruise operations generate substantial economic activity in the tourism, retail, hospitality, and entertainment industries for Boston and the surrounding areas. To accommodate future growth, Massport has invested more than $100 million to modernize the terminal and improve passenger access after identifying passenger accessibility constraints that limited expansion.

Massport's 2025 Strategic Plan places emphasis on modernizing infrastructure, strengthening operations, and addressing the environmental impacts of the maritime trade industry. A central objective of the plan is achieving net-zero greenhouse emissions by 2031, coinciding with Massport's 75th anniversary. To achieve this goal, Massport plans to invest in renewable energy, sustainable ground transportation, and partnerships that reduce environmental impacts throughout its operations.[35] These initiatives demonstrate how infrastructure planning can support both economic growth and environmental sustainability.

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[31] The Observatory of Economic Complexity. (n.d.). *Boston, MA (USA): Subnational profile*.
[32] Massachusetts Port Authority. (2026a). *Conley Terminal fact sheet* (POB Conley fact sheet 2026).
[33] Massachusetts Port Authority. (2026b). *Massport strategic plan (draft)*. p.30.
[34] Massachusetts Port Authority. (n.d.b). *About the port*.
[35] Massachusetts Port Authority. (2026c). *Massport 2025 draft strategic plan stakeholder engagement virtual presentation* (February 2026). p.39.

Key Points to Consider:

- Boston's investment in dredging its harbor to accommodate larger vessels offers a useful comparison as Philadelphia evaluates whether to deepen the Delaware River's navigation channel to 50 feet.
- While the Conley Terminal container investments represent substantial growth for Boston, the projected volume would remain below the container volumes already handled by PhilaPort.
- Philadelphia has already expanded its cruise operations with the opening of a new cruise terminal, positioning the City to support longer-term growth.
- Boston's approach to greenhouse emissions highlights the value of incorporating measurable sustainability goals into PhilaPort's long-term capital planning.
- While Boston uses its Butler Freight corridor for transport inland, Philadelphia's reliance on commuter roads and highways can cause slow distribution or diverted neighborhood traffic.

Baltimore, Maryland

The Port of Baltimore consists of state-owned marine terminals operated by the Maryland Port Administration (MPA) and privately owned terminals. Together, these facilities create thousands of jobs and generate significant economic activity for the surrounding areas. MPA terminals handle containerized cargo, breakbulk cargo such as steel, and Ro/Ro cargo such as automobiles, while private terminals mostly handle bulk cargo.[36] In 2025, the Port of Baltimore handled more than one million twenty-foot equivalent units (TEUs), setting a new annual record. Its 50-foot-deep navigation channel allows the port to accommodate larger vessels, increasing cargo handling capacity and strengthening its competitive position among East Coast ports.[37]

The MPA has also developed a steady cruise business since the Cruise Maryland Terminal opened in 2006.[38] In 2023, the terminal served over 400,000 passengers through three international cruise lines.[39] Baltimore also extended its contract with one of these major cruise lines to continue operating from the terminal.[40] Cruises head to destinations like Bermuda, the Bahamas, the Caribbean, New England, and Canada. The terminal's close proximity to major highways, the

[36] Maryland Port Administration. (2024a). *The 2023 economic impact of the Port of Baltimore in Maryland*.
[37] MDOT Maryland Port Administration. (2026, January 29). *Governor Moore Announces New Port of Baltimore Records, Continuing Historic Recovery Following Key Bridge Collapse*
[38] Maryland Port Administration. (2024a). *The 2023 economic impact of the Port of Baltimore in Maryland*. p.1.
[39] Maryland Port Authority (2024b), p. 9
[40] Office of Governor Wes Moore. (2024, November 15). *Governor Moore applauds new five-year agreement between Carnival Cruise Line and Port of Baltimore*.

airport, and the Inner Harbor improves passenger access and encourages passenger spending in nearby businesses and attractions.

In 2025, the Port of Baltimore exported approximately $15.4 billion in goods and imported approximately $50.2 billion.[41] Coal remained the port's largest export by tonnage, totaling more than 26.3 million tons, followed by LNG at 5.9 million tons and wastepaper at approximately 617,000 tons. India was Baltimore's largest export destination.[42]

The port's top imports by tonnage were salt (1.44 million tons), wood and wood products (1.35 million tons), and automobiles (1.35 million tons).[43] Brazil was the largest source of imported cargo by tonnage.[44] By value, automobiles represented Baltimore's largest import at approximately $17.4 billion, while coal was the port's highest-value export at approximately $2.4 billion.[45]

Following the collapse of the Francis Scott Key Bridge in March 2024, Maryland began the process of rebuilding the bridge, with completion currently anticipated in 2030. The replacement is expected to provide approximately 230 feet of vertical navigational clearance, allowing larger vessels to reach the port, while adding protections against vessel collisions.[46] The Maryland Transportation Authority plans to construct six protection fenders around the bridge's piers and pylons.[47] The collapse emphasizes the importance of evaluating navigational safety, bridge protection systems, and infrastructure resilience near major shipping channels.

Baltimore continues to invest in projects that will expand its ability to reach new markets overseas while supporting long-term sustainability. Through its Dredged Material Management Program, the Maryland Port Administration relocates sediment dredged from navigation channels to maintain safe access for large vessels and support environmental restoration projects.[48] Through restoration projects on islands near the port, MPA is also working to restore and protect hundreds of acres of wildlife habitat.[49]

<u>Key Points to Consider</u>:

- As vessel sizes increase, Philadelphia should coordinate with bridge owners and transportation agencies to assess risks to critical infrastructure along the Delaware River.

[41] Maryland Port Administration. (2025) *Port of Baltimore: Foreign Commerce Statistical Report 2025. p.2.*
[42] Maryland Port Administration. (2025) *Port of Baltimore: Foreign Commerce Statistical Report 2025. p.10.*
[43] Maryland Port Administration. (2025) *Port of Baltimore: Foreign Commerce Statistical Report 2025. p.9.*
[44] Maryland Port Administration. (2025) *Port of Baltimore: Foreign Commerce Statistical Report 2025. p.10*
[45] Maryland Port Administration. (2025) *Port of Baltimore: Foreign Commerce Statistical Report 2025. p.10*
[46] Biddle (2025), p. 6
[47] Maryland Transportation Authority. (n.d.). *Design*.
[48] Maryland Dredged Material Management Program. (n.d.). *About*.
[49] MDOT Maryland Port Administration. (2026). *Port of Baltimore receives $8.26 million in federal funding for new berth at Seagirt Marine Terminal*.

- Baltimore's investments in sustainability demonstrate a commitment to maintaining critical maritime infrastructure while balancing environmental concerns.

New York and New Jersey

The Port of New York and New Jersey is one of the nation's largest container ports and the largest container port on the East Coast. Through its network of marine terminals, rail facilities, and roadway connections, the Port handles containers, dry and liquid bulk cargo, vehicles, and other Ro/Ro cargo.[50] Its continued investments in harbor deepening, bridge clearances, and intermodal transportation have strengthened its ability to efficiently move cargo throughout the region. The Port Authority has deepened the harbor to 50 feet, raised the Bayonne Bridge, and invested in roadway and intermodal rail improvements that allow cargo to move more efficiently between terminals and inland destinations.[51] Much of the Port Authority's maritime property supports container storage, warehousing, and rail operations.

In 2024, the Port of New York and New Jersey handled approximately $246 billion in international trade, making it one of the nation's largest gateways for imported and exported goods.[52] China was the port's largest trading partner by import volume, followed by India and Vietnam.[53]

By TEUs, the port's leading imports included furniture, plastics, nuclear reactors, boilers, and machinery. The top goods exported included vehicles and vehicle parts, wood pulp, and plastics.

Located in Bayonne, New Jersey, the Cape Liberty Cruise Port is one of the region's major passenger terminals and serves a substantial number of cruise passengers each year.[54] Its proximity to New York City, Newark Liberty International Airport, and major highway and rail networks makes it accessible to travelers and a popular tourist destination. The terminal illustrates how cruise operations can complement commercial cargo activity and generate substantial economic activity through tourism.

Since the Port of New York and New Jersey operates across two states, moving cargo efficiently between terminals across the Hudson River is important. One example is the Port's Marine Barge Program, which transports containers across New York Harbor by barge, reducing truck traffic, easing roadway congestion, and improving freight movement between New Jersey and New York terminals.[55]

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[50] Port Authority of New York and New Jersey. (n.d.). *Shippers: Capabilities*
[51] Port Authority of New York and New Jersey. (2019). *Port master plan 2050*.)
[52] Port Authority of New York and New Jersey. (2024). *Port of New York and New Jersey at a glance 2024* (p. 2).
[53] Port Authority of New York and New Jersey. (2024). *Port of New York and New Jersey at a glance 2024* (p. 2).
[54] Port Authority of New York and New Jersey. (n.d.-b). *Cruise terminals*.
[55] Port Authority of New York and New Jersey. (n.d.). *Barge*.

The Port Authority is also repositioning assets to support long-term growth. Through an agreement with New York City and New York State, the Port Authority transferred control of the Brooklyn Marine Terminal while assuming responsibility for the Howland Hook Marine Terminal on Staten Island.

The Port of New York and New Jersey's long-term strategy focuses on infrastructure modernization, environmental sustainability, technological advancement, and workforce development.[56] The strategy also includes strengthening community engagement and stronger relationships with neighborhoods and other stakeholders. Investments in transportation connectivity have allowed the Port to accommodate larger vessels while improving the movement of freight between marine terminals, rail, and highways.

Key Points to Consider:

- Realignment of port assets illustrates how a port authority can concentrate limited capital resources on facilities that offer the strongest opportunities for long-term cargo growth.[57]
- Connectivity investments provide useful examples for Philadelphia as it evaluates roadway, rail, and marine transportation improvements around South Port.

Virginia

The Virginia Port Authority (VPA) owns and operates four principal cargo facilities as part of the Port of Virginia: Norfolk International Terminals, Portsmouth Marine Terminal, Newport News Marine Terminal, and the Virginia Inland Port. The Port of Virginia now operates the deepest and widest commercial shipping channel on the U.S. East Coast and is one of the region's largest container ports. Through its Gateway Investment Program, the Port of Virginia is investing approximately $1.4 billion to expand channel capacity, rail infrastructure, and terminal operations to support long-term cargo growth.[58] The port encompasses 55 commercial marine facilities that handle containers, coal, agricultural products, petroleum, offshore wind components, and other specialized cargo.[59] Virginia has seen an increase in ultra-large container vessels (ULCVs), coal ships, cruise ships, and other specialty ships.[60] Port activity supports more than 729,000 jobs and contributes approximately $87.3 billion to Virginia's annual gross state product (GDP).[61]

The Port of Virginia handles a diverse mix of international cargo. The leading export was mineral fuel, mineral oils, and related products, totaling approximately 34.5 million short tons, followed

[56] Port Authority of New York and New Jersey. (2019). *Port master plan 2050* (p. 66).
[57] New York State Office of the Governor. (2024). *Governor Hochul, Mayor Adams, Port Authority announce plan to transform Red Hook's working waterfront*.
[58] Virginia Port Authority. (n.d.). *Gateway Investment Program*.
[59] Virginia Maritime Association. (n.d.). *Vessel operations*.
[60] Virginia Maritime Association. (n.d.). *Vessel operations*
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by[62] oil seeds and oleaginous fruits at 2.3 million short tons, and wood products at 2.3 million short tons.[63] India was the port's largest export destination.

Virginia's leading imports include salt, sulfur, earths, and stone (1.3 million short tons), nuclear reactors, boilers, and machinery (1.2 million short tons), and plastics (966,000 short tons).[64] China was the largest source of imported goods.

Construction of Norfolk Harbor's 55-foot-deep shipping channel represents one of the Gateway Investment Program's more significant projects. In addition to deepening the channel, widening key sections allows two-way traffic for ultra-large container vessels, improving efficiency and increasing long-term capacity.

The Port of Virginia continues to make significant investments to increase capacity, improve efficiency, and accommodate larger vessels. As part of its Gateway Investment Program, the Port is investing $650 million to renovate and reconfigure the North Berth at Norfolk International Terminal (NIT), including construction of a new ultra-large container vessel (ULCV) berth scheduled to be in operation by 2027.[65] The Port also placed four new Suez-class cranes into service at the NIT South Berth and Virginia International Gateway, improving each terminal's ability to serve ULCV. Together, these projects significantly increase cargo-handling capacity while improving operational efficiency.

The Gateway Investment Program also included redevelopment of the Portsmouth Marine Terminal into a deep-water heavy-lift facility.[66] While the terminal had mainly focused on container operations, the redeveloped terminal has diversified its capabilities to accommodate oversized and specialized cargo, allowing the Port to serve a broader range of industries.[67]

Virginia has also expanded its passenger cruise operations. In 2025, Norfolk began year-round cruise service from the Half Moone Cruise and Celebration Center, making it one of the East Coast's newest year-round cruise operations. In preparation for this year-round service, the City of Norfolk invested approximately $12 million in terminal renovations.[68] The expanded cruise program is expected to serve approximately 150,000 passengers per year, the highest annual volume in the city's history.[69]

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[62] Virginia Port Authority. (2025). *2025 trade overview* (p. 2).
[63] Virginia Port Authority. (2025). *2025 trade overview* (p. 2).
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[65] Virginia Port Authority. (2026). *Port nears completion of dredging project, preps to inaugurate new ULCV berth at NIT*.
[66] Port of Virginia. (2026). *Port nears completion of dredging project, preps to inaugurate new ULCV berth at NIT*.
[67] Hampton Roads Alliance. (2020). *Portsmouth Marine Terminal roadmap* (p. 1)
[68] VisitNorfolk. (n.d.). *Half Moone Cruise and Celebration Center*
[69] Carnival Cruise Line. (2025). *Virginia is for cruise lovers: Carnival Cruise Line starts year-round cruising from Norfolk*.

The Port of Virginia's long-term strategy combines channel improvements, terminal enhancements, rail investment, and technology upgrades to increase capacity and improve the movement of cargo across the entire freight network.[70]

Key Points to Consider:

- Virginia's investments in Norfolk Harbor illustrate how channel improvements can support larger vessels while reducing operational constraints. This is an important consideration for Philadelphia as it evaluates future dredging opportunities.
- Like Boston and Baltimore, Virginia's investment demonstrates how cruise operations can diversify port activity while supporting tourism and local economic development.
- Virginia's long-term strategy demonstrates the importance of coordinating waterside and landside improvements rather than expanding terminal capacity in isolation.

Charleston, South Carolina

The Port of Charleston comprises five terminals owned and operated by the South Carolina Port Authority (SCPA). With a 52-foot-deep harbor, Charleston has invested heavily in container capacity, rail connectivity, and terminal expansion, positioning itself as one of the nation's leading container ports.

In 2024, the Port of Charleston imported approximately $67.5 billion in goods and exported $1.2 billion.[71] Its leading imports are machinery parts, furniture, sporting goods, toys, and yarns and textiles.[72] Its primary exports consisted of chemicals, foods and agricultural products, and forest products. Charleston's largest imports come from Northeast Asia, Northern Europe, and Southeast Asia while its largest export regions are Southeast Asia, Northern Europe, and Northeast Asia, respectively. [73]

In FY2025, the Port handled approximately 2.6 million TEUs, 165,949 finished vehicles, and 702,998 tons of breakbulk cargo.[74] The South Carolina Ports Authority (SCPA) operates a network of specialized marine terminals designed to support containerized cargo, automobiles, breakbulk cargo, and passenger vessels. Together, these facilities provide Charleston with substantial cargo-handling capacity while supporting continued expansion.

[70] Virginia Port Authority. (n.d.). *The future*.
[71] South Carolina State Ports Authority. (n.d.). *Cargo value*
[72] South Carolina Ports Authority. (n.d.). *CHS commodities CY25*.
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The Wando Welch Terminal (WWT) is the largest container terminal in Charleston, handling approximately 80% of Charleston's container shipping volume.[75] With a capacity of 2.4 million TEUs, 15 STS cranes, and refrigerated storage for perishable cargo, the terminal is capable of accommodating multiple ultra-large container vessels simultaneously. The North Charleston Terminal (NCT) complements these operations with capacity of 500,000 TEUs and five STS cranes, accounting for approximately 20% of the port's container volume.[76] The SCPA also plans to expand the NCT by purchasing a 280-acre industrial site along the Cooper River. Although both terminals have significant cargo-handling capacity, neither is directly connected to the railways, which can delay shipping.

Charleston also maintains specialized facilities for other cargo types. The Columbus Street Terminal (CST) handles breakbulk cargo and Ro/Ro vehicles and benefits from direct rail access, allowing more efficient movement of finished vehicles.[77] To accommodate future growth, SCPA opened the Hugh K. Leatherman Terminal in 2021. The terminal currently includes one 1,400-foot berth, five STS cranes, and capacity for approximately 700,000 TEUs, with long-term plans to add two more berths and approximately 2.4 million TEUs. Like WWT, Leatherman is not directly connected to railways.

Additionally, Charleston supports the cruise industry through its Passenger Terminal, which operates as a port-of-call terminal rather than a homeport. In other words, passengers do not begin or end their cruises there. Port-of-call vessels stop temporarily, allowing passengers to visit Charleston while the ship refuels and restocks at the port. In fiscal year 2025, the SCPA handled nearly 160,000 passengers and generated approximately $8.5 million[78] in cruise revenue.

SCPA has established an ambitious long-term growth strategy to increase the Port of Charleston's container capacity to 10 million TEUs through coordinated investments in terminals, transportation infrastructure, and navigation improvements. Much of this expansion centers on the Hugh K. Leatherman Terminal, where two additional berths are planned, which would increase the terminal's capacity from 700,000 TEUs to 2.4 million TEUs by 2032.[79] SCPA also plans to develop the North Charleston Terminal (NCT) using the recently acquired 280-acre industrial site along the Cooper River. Upon completion, the expanded terminal is expected to provide capacity for approximately 5 million TEUs and 5,000 feet of berth space.[80] To increase vessel access to NCT, SCPA plans to work with the South Carolina Department of Transportation to raise the Don

[75] South Carolina Ports Authority. (n.d.). *Wando Welch Terminal*.
[76] South Carolina State Ports Authority. (n.d.). *North Charleston Terminal*
[77] South Carolina Ports Authority (2026, May 15). *SC Ports to expand ro-ro operations to North Charleston Terminal*.
[78] South Carolina State Ports Authority (2025b). *Report on Financial Statements and Required Supplementary Information*. p. 10
[79] South Carolina Port Authority (2025b). *2025 Annual Report*. p. 13
[80] South Carolina Port Authority (2025b). *2025 Annual Report*. p. 8

Holt Bridge, improving vessel access, while also working with the U.S. Army Corps of Engineers to deepen the river to 52 feet. Additionally, Ro/Ro operations are planned to expand to NCT by 2028.[81]

Key Points to Consider:

- Charleston's long-term strategy demonstrates the importance of coordinating terminal expansion with bridge, rail, roadway, and navigation improvements rather than as individual projects.

Lessons for PhilaPort

The review of comparable East Coast ports identified several practices that support long-term competitiveness. Although each port has different operational needs, successful long-term strategies share a common approach: channel deepening, intermodal transportation, terminal modernization, environmental sustainability, and diversified operations, including cruise and energy-related facilities. Many have also strengthened partnerships with public agencies and private industry. These practices closely align with the priorities identified in Destination 2040 and provide useful guidance as PhilaPort plans for the future development of South Port.

- **Infrastructure investments should be coordinated.** Charleston, Virginia, and New York and New Jersey demonstrate that expanding terminals, improving road and rail access, and deepening navigation channels are most effective when planned together as a comprehensive system. Expanding terminal capacity without improving the surrounding transportation network can limit the benefits of the investment.
- **Transportation connectivity improves efficiency.** Boston's Butler Freight Corridor, New York and New Jersey's marine barge system, and Virginia's rail improvements illustrate how efficient connections between terminals, highways, and rail networks improve cargo movement and reduce congestion.
- **Long-term planning should account for larger vessels.** Virginia, Baltimore, and Charleston continue to invest in deeper and wider navigation channels capable of accommodating larger container ships. As PhilaPort evaluates the feasibility of deepening the Delaware River channel to 50 feet, these ports demonstrate how channel improvements can strengthen long-term competitiveness.
- **Diversified operations improve resiliency.** Several ports have expanded beyond traditional container operations by investing in cruise terminals, energy infrastructure, and specialized cargo facilities. These investments create new economic opportunities while reducing reliance on a single cargo market.

[81] South Carolina Ports Authority (2026, August 28). *SC Ports announces first step to deepen channel to North Charleston Terminal*.

- **Environmental sustainability is becoming an increasingly important part of long-term planning.** The ports reviewed are incorporating environmental considerations into infrastructure investments through initiatives such as renewable energy, habitat restoration, emissions reduction, and other sustainability efforts. As PhilaPort implements Destination 2040, integrating environmental objectives into future capital projects can strengthen long-term competitiveness while supporting evolving industry and regulatory expectations.

Together, these lessons reinforce the importance of coordinating South Port's terminal expansion with roadway, rail, and marine access improvements. They also demonstrate that PhilaPort's long-term competitiveness will depend not only on adding capacity, but on ensuring that cargo can move efficiently through the entire transportation network.

Recommendations

- **Prioritize South Port development** by streamlining permitting, environmental reviews, and interagency coordination with state and federal agencies to avoid delays and keep Destination 2040 on schedule.
- **Coordinate transportation improvements with terminal expansion** by continuing to improve roadway, rail, and marine access alongside terminal development to support future cargo growth and minimize infrastructure bottlenecks.
- **Improve Public Transparency** by developing annual progress reports, regular reporting on project milestones, and community engagement plans to improve transparency and accountability and provide stakeholders with timely updates on implementation and project status.
- **Regularly update Destination 2040** by reviewing and updating the strategic plan every three to five years to reflect changes in cargo volumes, shipping trends, infrastructure needs, environmental requirements, and market conditions.

Conclusion

Destination 2040 provides a comprehensive framework for expanding PhilaPort's capacity, modernizing its facilities, strengthening transportation connections, and preparing for future changes in maritime commerce. The plan recognizes that maintaining competitiveness will require continued investment in infrastructure, transportation connectivity, and terminal capacity.

The comparison with other East Coast ports demonstrates that long-term success depends on more than expanding terminals. The nation's leading ports are investing in coordinated transportation networks, deeper navigation channels, environmental initiatives, and diversified operations to position themselves for future growth. Destination 2040 reflects many of these same priorities, but timely implementation will be critical.

South Port represents the greatest opportunity to expand PhilaPort's long-term capacity and strengthen Philadelphia's position within the East Coast port system. As competing ports continue to make significant investments, delaying implementation increases the risk that future cargo growth will be captured elsewhere. Implementing Destination 2040 will be essential if Philadelphia is to capitalize on its strategic location and remain competitive in the decades ahead.

Appendix

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