

Diamond State Port Corporation Draft Strategic Master Plan



May 16, 2016

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Prepared for:

Diamond State Port Corporation

Prepared by:

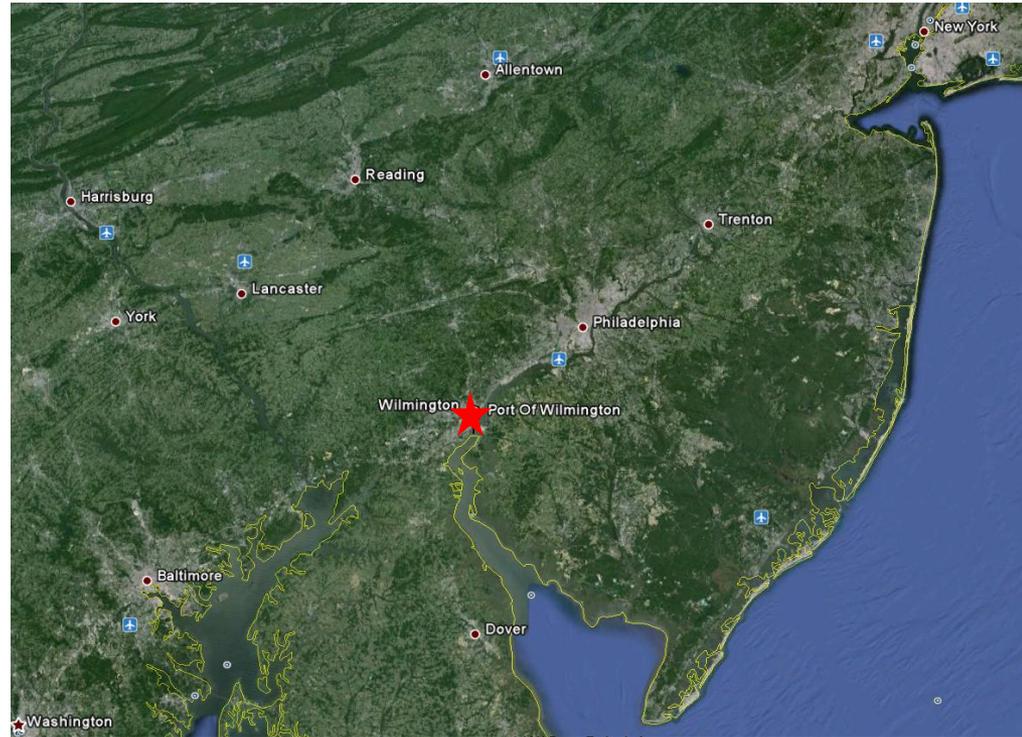
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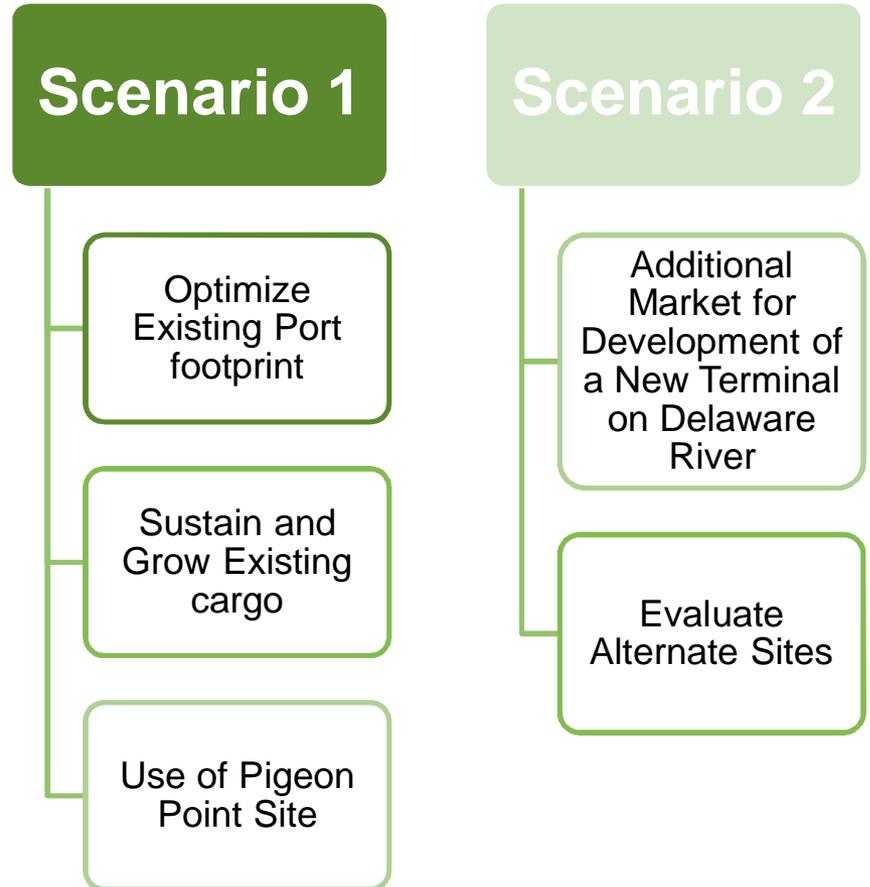
Diamond State Port Corporation Objectives

- Governor **Markell's** commitment to grow jobs that are tied directly to the condition of our roads, bridges, ports, buses and rail....
- Business Retention and Growth
- Consolidation of resources and coordination with other state initiatives.
- Increase of public and private investments specifically for port development.
- Pursuit of federal and state funding for dredging and rail infrastructure improvements.
- Alternative port between New York and Boston to help relieve congestion.

“To contribute to Delaware's economic vitality by sustaining and Promoting the Port of Wilmington as a competitive and viable full service, multi-modal operation by providing for the efficient, economical, and safe handling of cargo.”

Objectives of the Assignment

- Guide DSPC to its desired pattern of growth and development
- Identify and incorporate changing business trends
- Assess two scenarios
- Scenarios are not mutually exclusive



Presentation Outline

Port Background

Planning Process

Market Demand Review

Existing Capacity Analysis

Scenario 1 Findings

- Opportunities & Constraints
- Alt 1
- Alt 1A

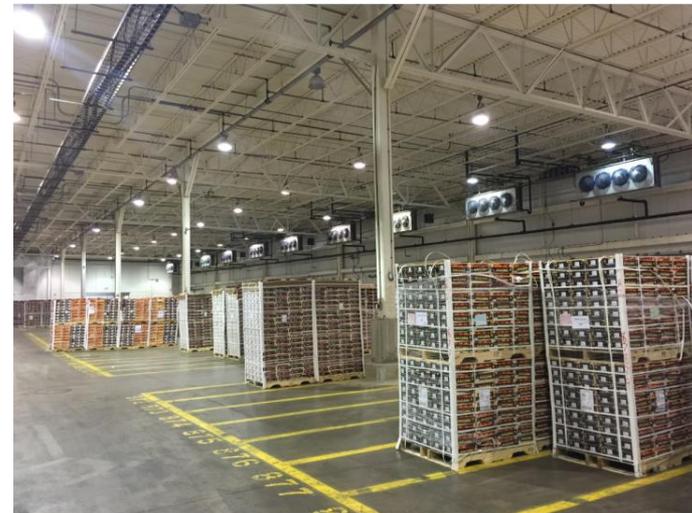
New Terminal Sites

- Alt 2B
- Alt 2C
- Alt 3
- Alt 4

Dredge Management Strategy

Rail Connectivity Strategy

Key Findings/Recommendations



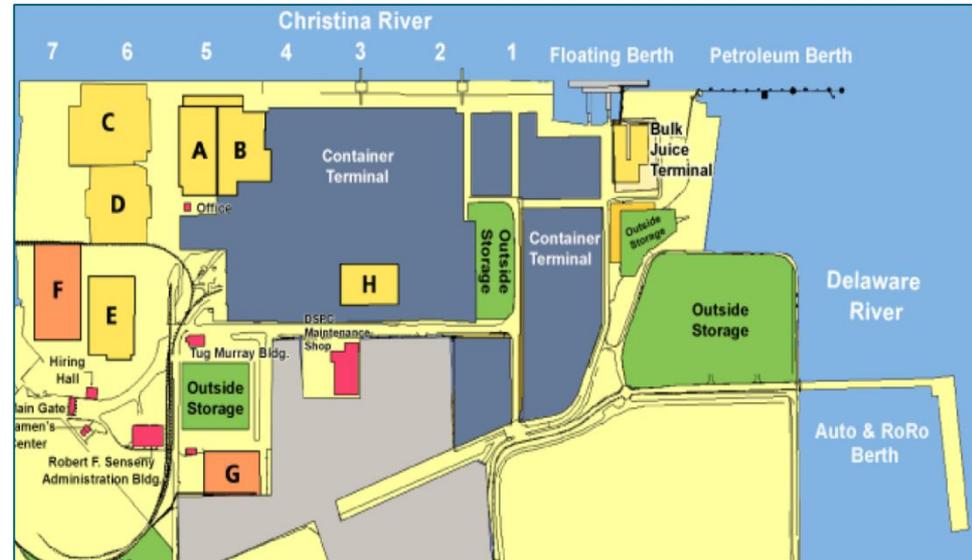
Port of Wilmington Background

- Opened in 1923
- The State established the Diamond State Port Corporation (DSPC) by legislative act
- DSPC is a Public Instrumentality of the State of Delaware with the power to conduct its own business affairs
- DSPC purchased the Port in 1995 from the City of Wilmington



Existing Port Infrastructure

- 308 acres at the confluence of the Christina and Delaware Rivers
- First major port on Delaware River – 63.4 miles/4hrs from Atlantic
- Seven ship berths for general cargo, one petroleum berth, one floating berth for bulk juice and one multipurpose Autoberth
- 800,000 sf. cold storage in 6 warehouses, one of the largest in US
- 250,000 sf. dry warehouse space with covered rail service
- Foreign Trade Zone (FTZ)



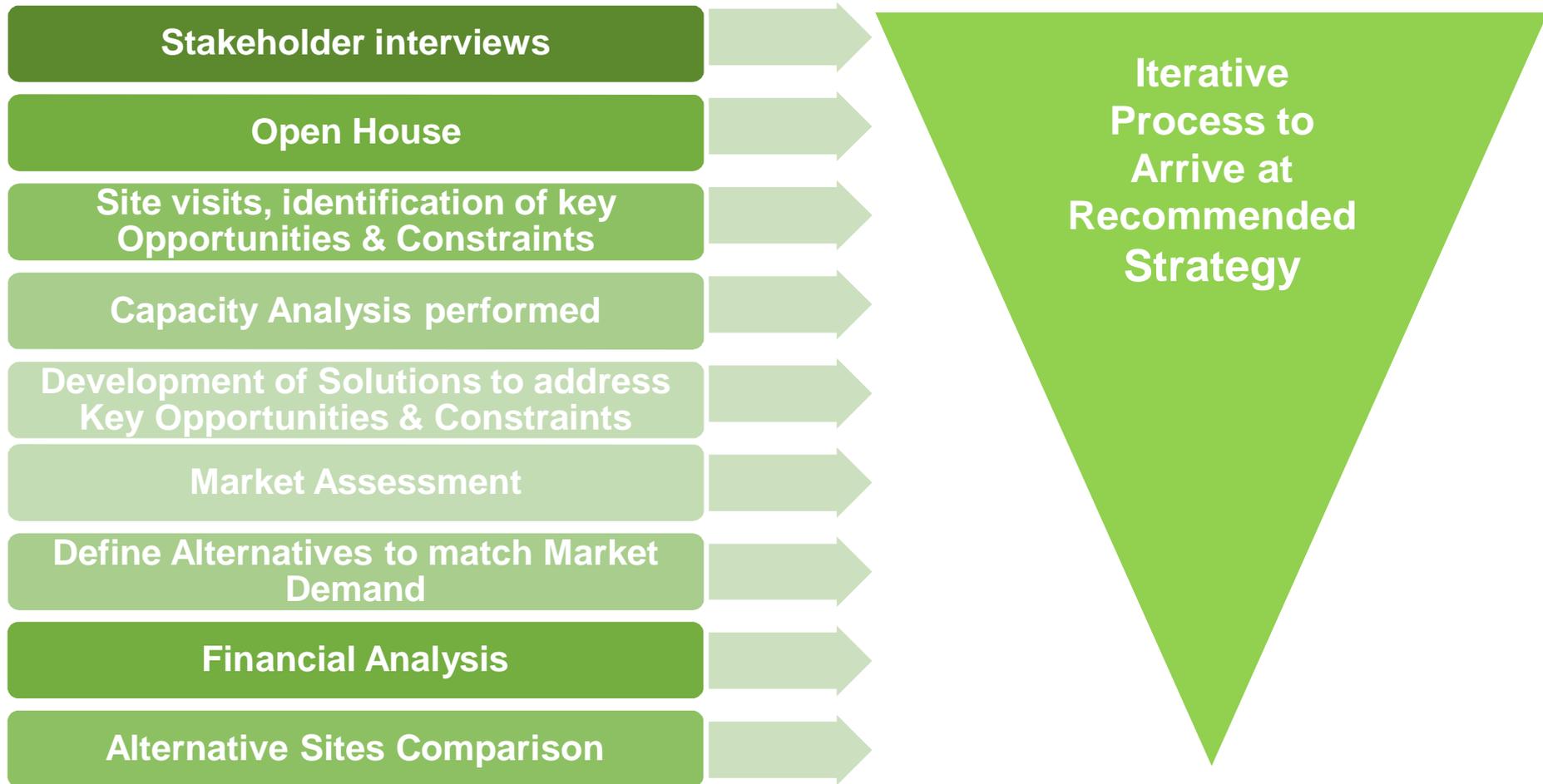
Berth	Depth	Cargo Users
1-2	38'	Chiquita, Bulk, General Refrigerated Cargoes
2-3	38'	Dole, Bulk, General Refrigerated Cargoes
4	38'	Bulk, General Refrigerated Cargoes
5	35'	General Refrigerated Cargoes
6	35'	Refrigerated Cargoes, Clementines
7	35'	General Refrigerated Cargoes (Chilean pallets), Bulk
Floating	38'	Citrosuco bulk juice tankers
Petroleum	38'	Magellan tankers and barges
Autoberth	38'	Autos and other RO-RO, Breakbulk (primarily steel)

Port of Wilmington Business Metrics & Economic Impact

- 435 vessels / 6.8 million tons of cargo handled in FY2015
- National leader in key import/export commodities
- Landlord, terminal & warehouse operator and direct employer
- Diverse cargo portfolio
- Economic Impact (FY2015 cargo):
 - 5,600 family sustaining regional jobs
 - \$417 million annual business revenue
 - \$391 million annual personal income
 - \$39 million regional annual tax revenue
- Busiest terminal on the Delaware River



Strategic Master Planning Process



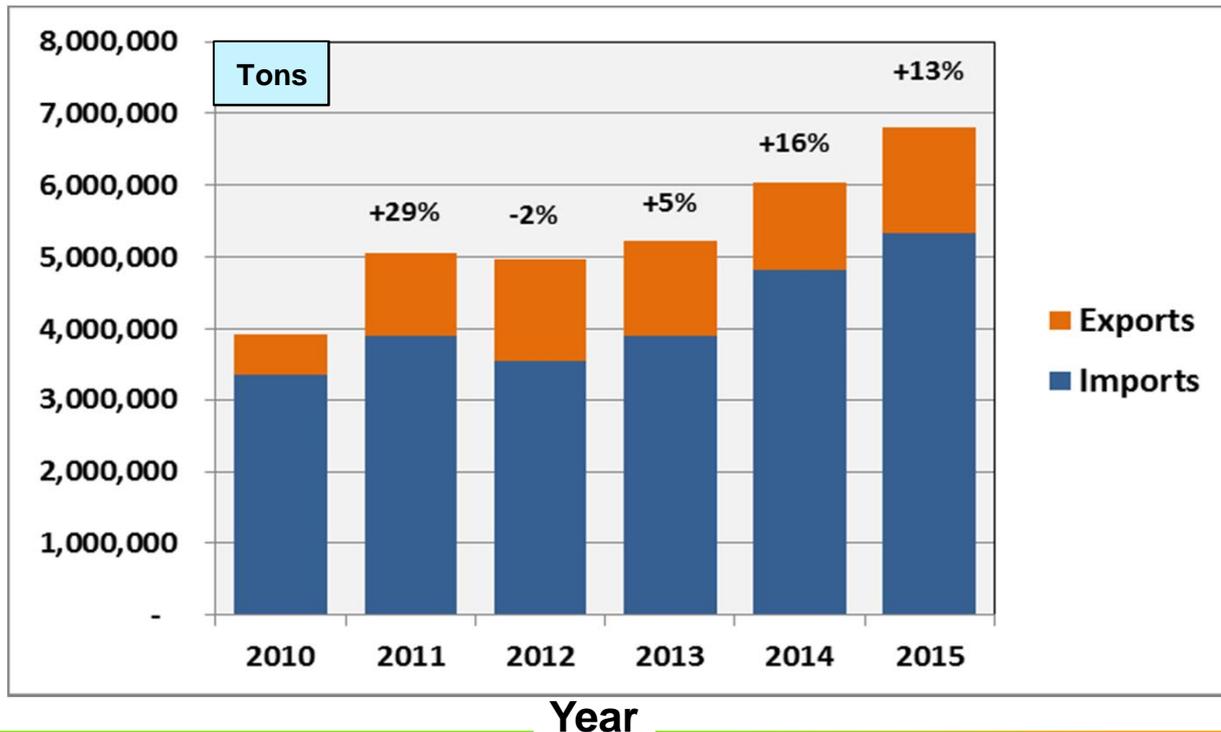
Public Outreach

- Stakeholder Interviews
- Open House (115+ attendees)
 - Residents
 - Elected officials
 - Port operators/users
 - Government agencies
 - Community organizations and members of the press.
 - Delaware Secretary of State, Jeffrey W. Bullock, and New Castle County Executive Thomas P. Gordon
 - Representatives from WILMAPCO, New Castle City Council, Wilmington City Councils and Congressman John Carney's office



Historical Cargo Growth

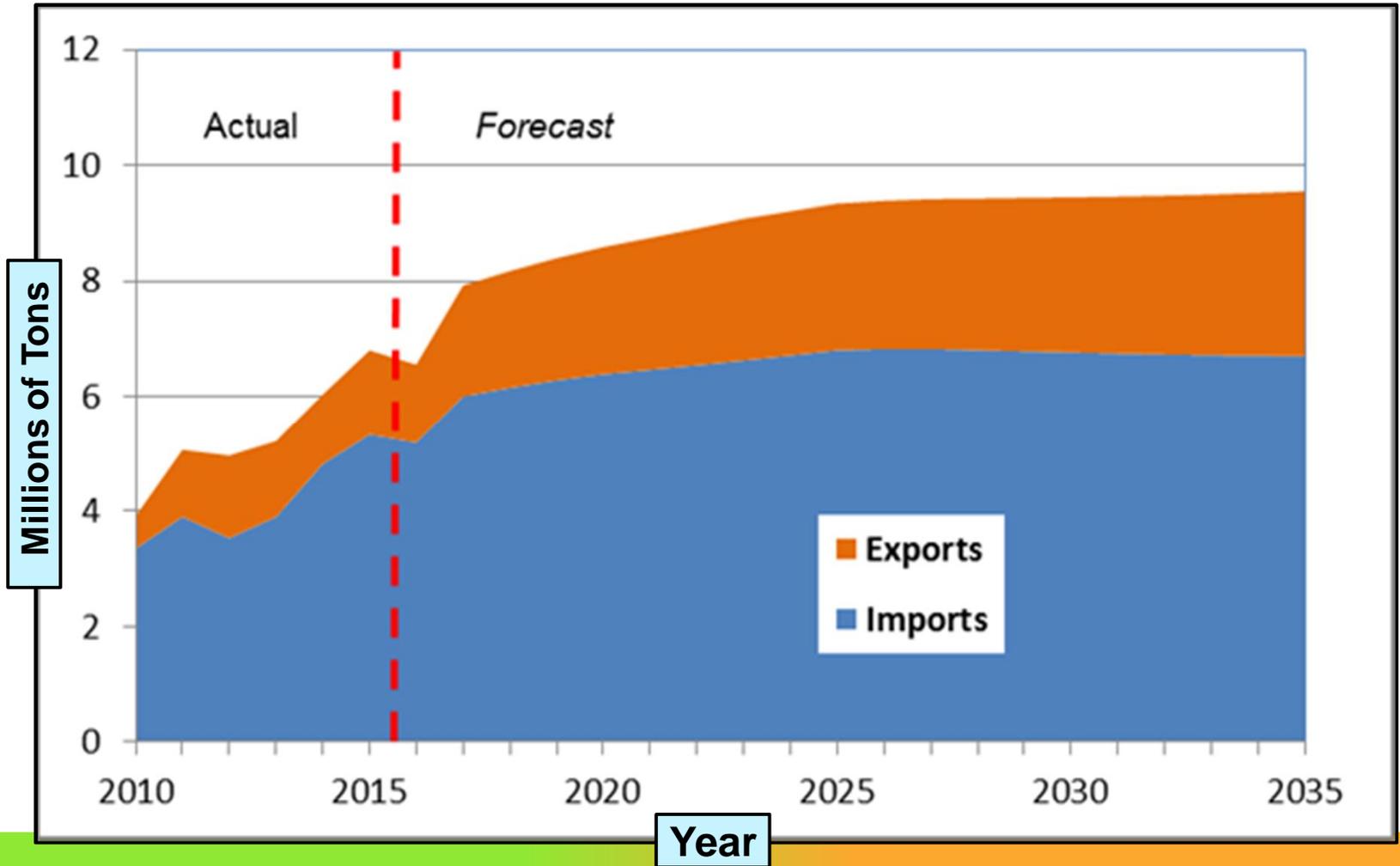
- 6.8 million tons in 2015
- 5% of East Coast ports' international waterborne trade volume
- Primarily import destination
- Exports growing faster than imports
- Heavy seasonal fluctuations
- Over last 5 years – growth is 75%



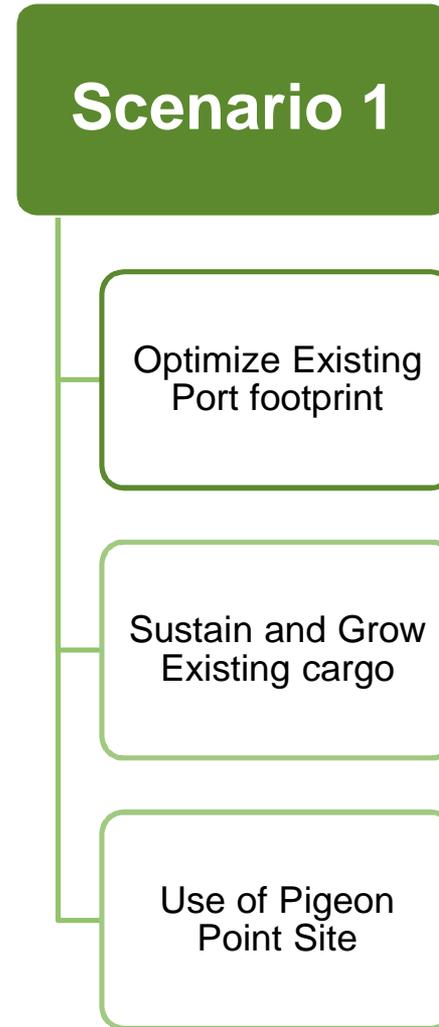
Market Demand Review

	History '10 - '15	5-Years '15 - '20	10-Years '15 - '25	20-Years '15 - '35
Imports	9.7%	3.7%	2.5%	1.1%
Exports	20.9%	8.5%	5.6%	3.4%
Total	11.7%	4.8%	3.2%	1.7%

Compound annual volume growth rates



Scenario 1 Findings



Opportunities

- Location along the Delaware river
- Growing niche port
- Well established cold storage and refrigerated cargo and auto market
- Pigeon Point Landfill site use
- Availability of Wilmington Harbor South

Constraints

- Existing main gate congestion
- Rail crossings
- Aging cold storage warehouses
- Low utilization and material condition of floating berth
- Limited use of Berth 7
- Petroleum berth siltation
- Dredge material management site
- Lack of double stack rail
- Limited Port land for expansion
- Christina River Channel/Berth Depth



Alt 1 – State of Good Repair & Commitments to Existing Customers



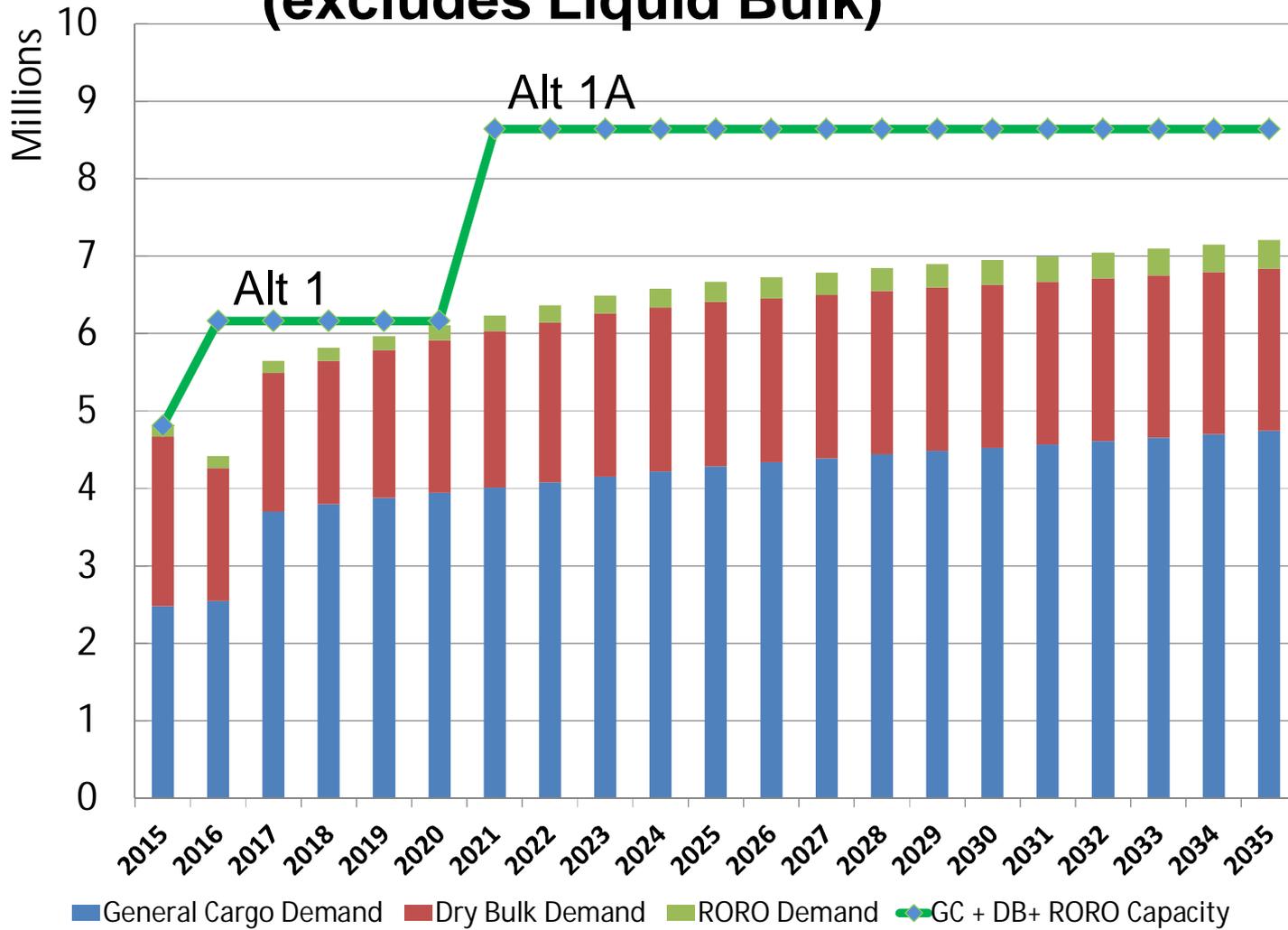
Alternative 1 (in \$2016 Thousands)		
Current Funded Commitments		
Equipment	\$	15,711
Other Tasks	\$	27,459
	Subtotal	\$ 43,170
Unfunded Additional Commitments	\$	4,700
Expansion Opportunity		
Internal Gate	\$	463
Site Improvements	\$	9,415
Maintenance Bldg Relocation	\$	9,620
Cold Storage Warehouse		
Demolition of Warehouse B/C/D	\$	7,268
Reconstruction of Cold Storage	\$	80,777
New Main Gate		
Demolition of Existing Gate/Bldgs	\$	1,297
Site Improvements	\$	4,656
New Gate	\$	4,128
New Building	\$	5,043
Engineering, Construction Management	\$	10,919
	Unfunded Subtotal	\$ 138,286
	Total	\$ 181,456

Alt 1A – Capacity Addition to Meet 2035 Base Market Demand

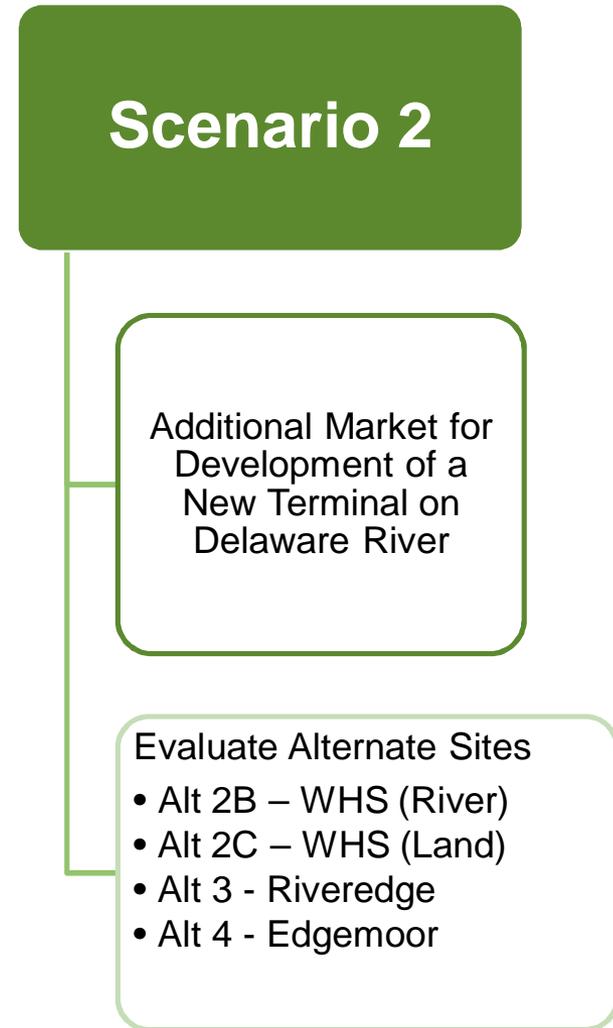


Alternative 1A (in \$2016 Thousands)	
Extend Berth/Crane Rail through Floating Berth	
Demolition	\$ 788
New Berth Structure	\$ 28,475
Upland Fill, Site Improvements	\$ 12,964
Mods to Juice Unloading Facility	\$ 1,147
2 Cranes, RTG & Other Yard EQ.	\$ 39,810
Upland 10 Acre Multi-Purpose Storage	\$ 15,275
Construct RO-RO Storage on Pigeon Point Parcel	
Property Acquisition	-
Gate	\$ 579
Site Improvements	\$ 37,417
Engineering, Construction Management	\$ 8,431
Total	\$ 144,886

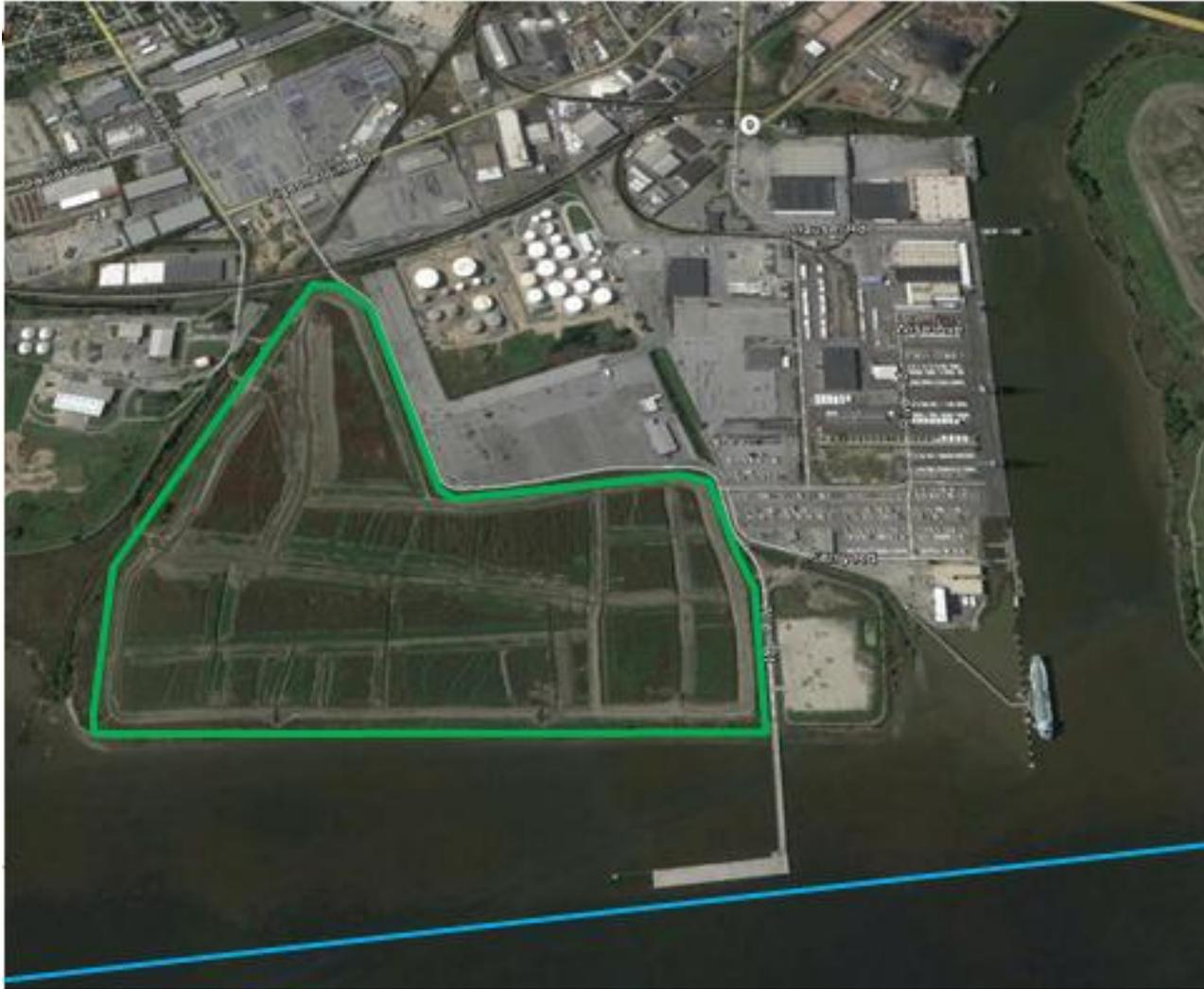
Scenario 1: Capacity vs. Base Demand (excludes Liquid Bulk)



Scenario 2 Findings



Alt 2 - Wilmington Harbor South Site



Alt 2B - Wilmington Harbor South (River) to capture additional demand



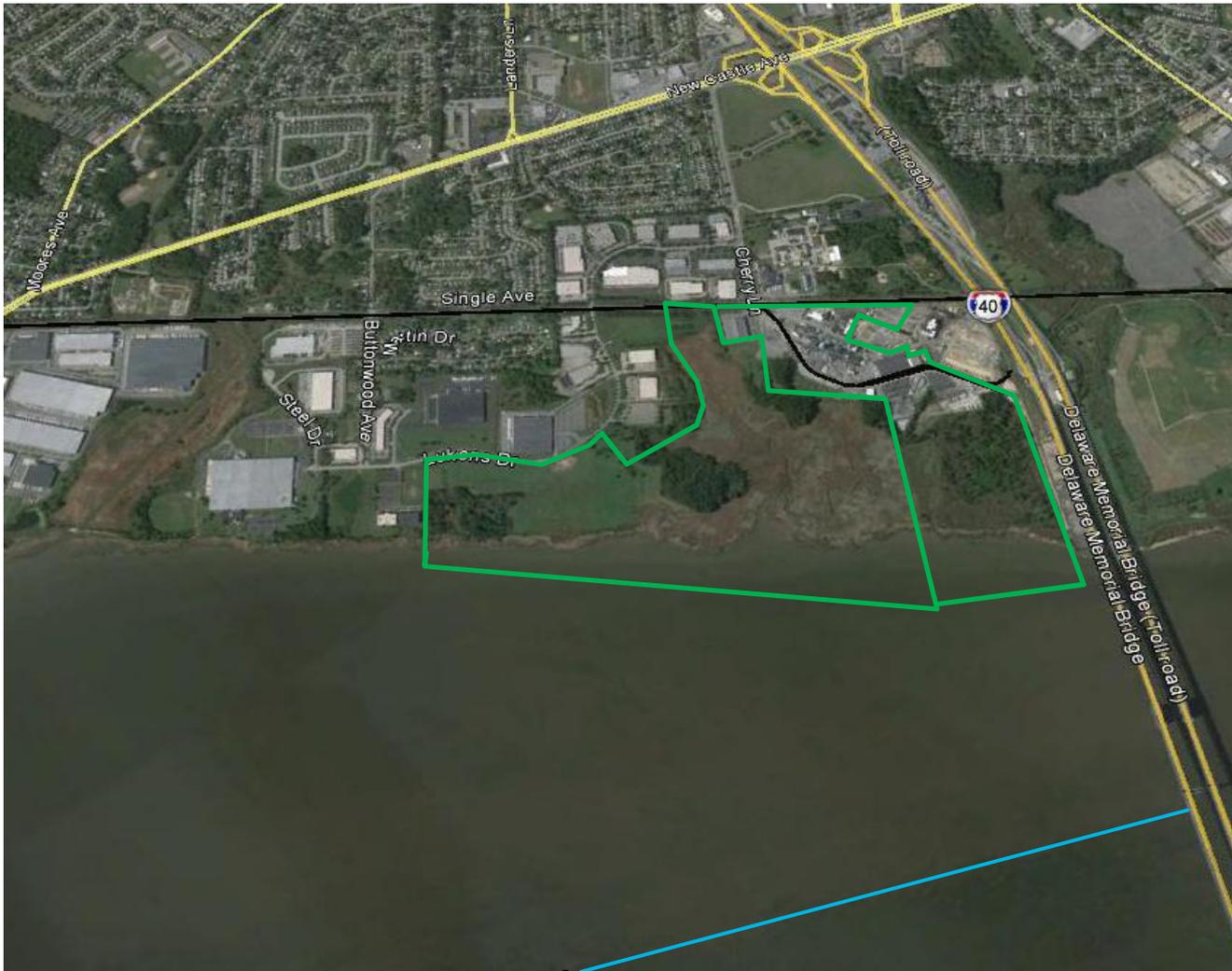
Land Use/Acquisition Challenges	No Land Use issues for a Container Terminal Acquisition of the USACE WHS disposal site
Likely Environmental Permitting	NEPA EA anticipated for federal (USACE) permit issuance.
Legislative Action	None
Dredge Management	Low dredge load—secure alternate site to meet DMP.
Time to Implement Including Construction	Total time to implement = 5-6 years
Expansion Opportunity	Additional berths to South
Operation	Conventional – 85 acre terminal
Rail Access	NS Adjacent To Site No Access to Double Stack
Operational Impact to existing Customers	Significant impacts on existing users of the Port (alternate access to Pigeon Point Road)
Highway Access	Terminal Avenue – 4 lanes (Pigeon Point Road – 2 lanes)

Alt 2C - Wilmington Harbor South (Land) to capture additional demand



Land Use/Acquisition Challenges	No Land Use issues for a Container Terminal Acquisition of the USACE WHS disposal site
Likely Environmental Permitting	NEPA EA anticipated for federal (USACE) permit issuance.
Legislative Action	None
Dredge Management	Moderate dredge load—secure alternate site to meet DMP.
Time to Implement Including Construction	Total time to implement = 5-6 years
Expansion Opportunity	Additional berths to South
Operation	Conventional – 85 acre terminal
Rail Access	NS Adjacent To Site No Access to Double Stack
Operational Impact to existing Customers	Significant impacts on existing users of the Port (alternate access to Pigeon Point Road)
Highway Access	Terminal Avenue – 4 lanes (Pigeon Point Road – 2 lanes)

Alt 3 - Riveredge Site



Alt 3 – Riveredge to capture additional demand



Graphic provided by PFRA

Land Use/Acquisition Challenges	No Land Use issues for a Container Terminal Acquisition of a dredge disposal site
Likely Environmental Permitting	NEPA EIS anticipated for federal (USACE) permit issuance.
Legislative Action	Federalization of channel
Dredge Management	Heavy dredge load
Time to Implement Including Construction	Total time to implement = 7+ years
Expansion Opportunity	Additional berths to North
Operation	Fully Automated – 55 acre Terminal
Rail Access	NS Adjacent To Site No Access to Double Stack
Operational Impact to existing Customers	Additional Rail Traffic on Terminal Avenue
Highway Access	Rail Crossing Cherry Lane - Residential New Castle Avenue – I-295

Alt 4 - Edgemoor Site



Alt 4 – Edgemoor to capture additional demand



Land Use/Acquisition Challenges	No Land Use issues for a Container Terminal Acquisition of Private Property
Likely Environmental Permitting	NEPA EA anticipated for federal (USACE) permit issuance.
Legislative Action	None
Dredge Management	Moderate dredge load
Time to Implement Including Construction	Total time to implement = 4+ years
Expansion Opportunity	Expansion requires additional land acquisition
Operation	Conventional – 85 acre terminal
Rail Access	NS Adjacent To Site No Access to Double Stack
Operational Impact to existing Customers	None
Highway Access	Immediate access to I-495 at Exit 4

Comparison of Cost Estimates for Alternative Sites

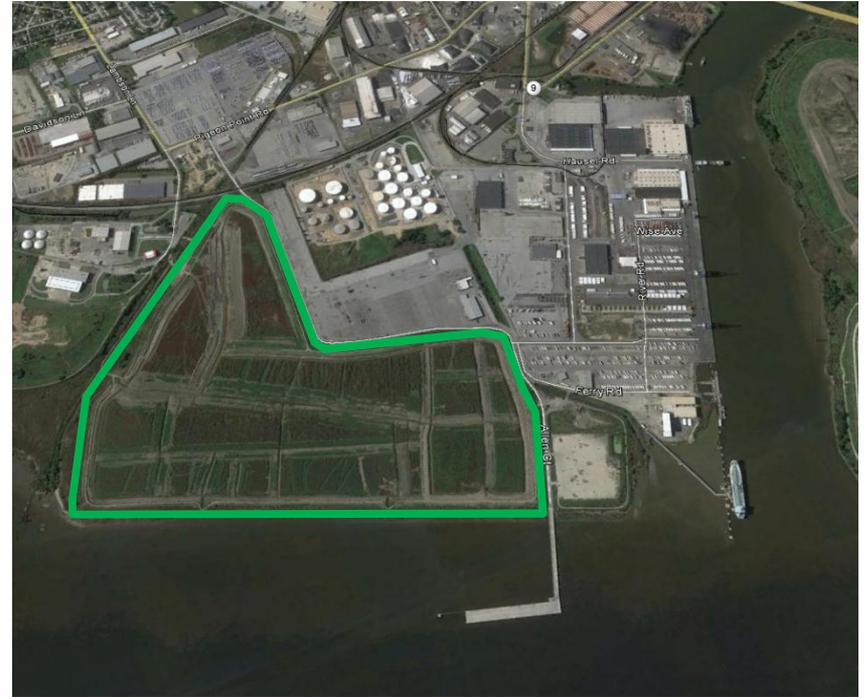
Alternative Cost Comparison (in \$2016 Millions)				
Key Item	Alternative 2B	Alternative 2C	Alternative 3	Alternative 4
	WHS River	WHS Land	Riveredge	Edgemoor
Property Acquisition	-	-	-	-
Berth/Yard/Buildings				
Dredging	-	\$ 33.3	\$ 87.3	\$ 18.5
Berth Structure	\$ 674.8	\$ 118.1	\$ 118.1	\$ 118.1
Yard/Earthwork	\$ 103.7	\$ 56.8	\$ 157.1	\$ 16.7
Buildings	\$ 2.3	\$ 2.3	\$ 10.2	\$ 10.2
Demolition	-	-	-	\$ 28.2
Civil Infrastructure	\$ 76.0	\$ 94.7	\$ 103.1	\$ 110.0
Internal Access Road/Gate/Rail				
Access Rd/Infrastructure	-	-	\$ 87.2	-
Gate	\$ 2.2	\$ 2.2	\$ 4.1	\$ 4.1
Rail	\$ 3.6	\$ 3.6	\$ 4.9	\$ 1.8
Permitting/Design/CM	\$ 80.6	\$ 31.8	\$ 50.0	\$ 32.1
Infrastructure Subtotal	\$ 943.1	\$ 342.8	\$ 622.0	\$ 339.8
Equipment				
Reefer & Scales	\$ 31.6	\$ 31.6	\$ 31.6	\$ 31.6
Cranes/Yard Eq.	\$ 119.4	\$ 119.4	\$ 228.8	\$ 119.4
Alternative Total	\$ 1,094.1	\$ 493.8	\$ * 882.4	\$ ** 490.8

* For similar facility, PFRA provided an ROM Estimate of \$645 million

** For an alternate version of this site, PCI/EDIS provided an ROM Estimate of \$200M, not including Yard Equipment

WHS – Full or Partial Take Over

- Lands are Federally owned and actively utilized by the USACE
- Vitally important to maintain navigation for the Port of Wilmington
- Alternative Dredge Material Management site(s) must be on-line for USACE to consider
- Several Viable DMMP Alternatives to WHS Identified
- Cost share of initial construction of new site - 75% Federal and 25% local



Double-Stack Rail Options

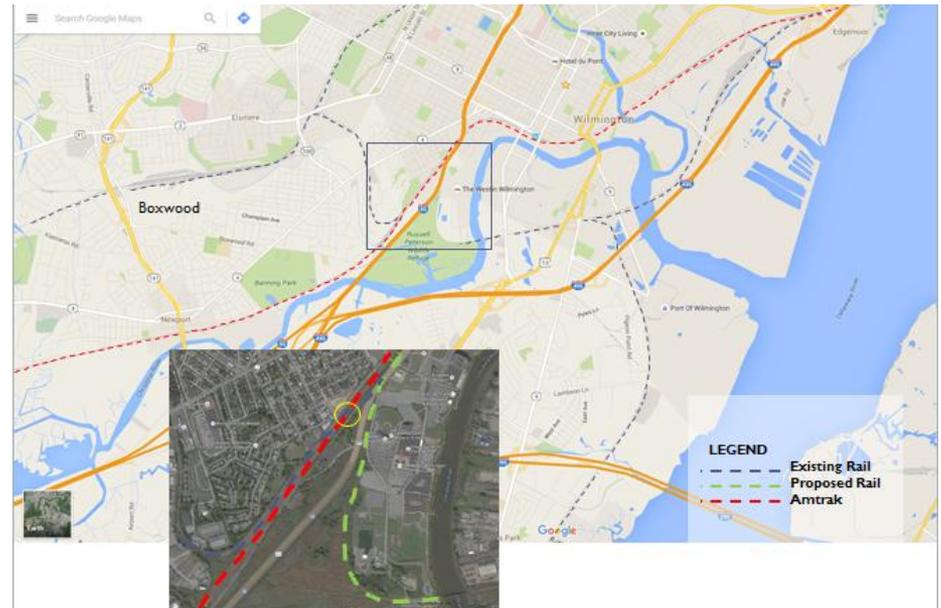
- Class 1 Railroads

- CSXT Double-Stack Cleared to Philadelphia – 5-10 years
- NS Operations and Restricted Clearance on Amtrak's Northeast Corridor

- Broken Link Challenges

- Restore Link
- New Link
- Fillet and Top – Boxwood
- Drayage

- Funding Opportunities



Key Findings / Recommendations

- The Port handles a wide variety of commodity types, sharing the Port's infrastructure
- The Port will be near capacity with addition of expansion opportunity, with 70% berth utilization in peak season
- \$138 million of unfunded capital improvements are necessary over next 5-10 years to bring facility into a State of Good Repair and meet current commitments
- Base Demand is expected to grow 4.8% annually for next five years, 1.7% long-term

Key Findings / Recommendations

- \$145 million needed to increase the capacity of the Port to meet base demand
- Wilmington Harbor South Dredge Material Management Site is a strategic asset that should be secured for future Port expansion opportunities
- Existing Rail connectivity has clearance limitations – build support for enhancing freight movement to support additional cargo opportunities
- Three sites have been evaluated to inform the Port should additional cargo opportunities emerge

Questions & Answers