

5 Port Jersey



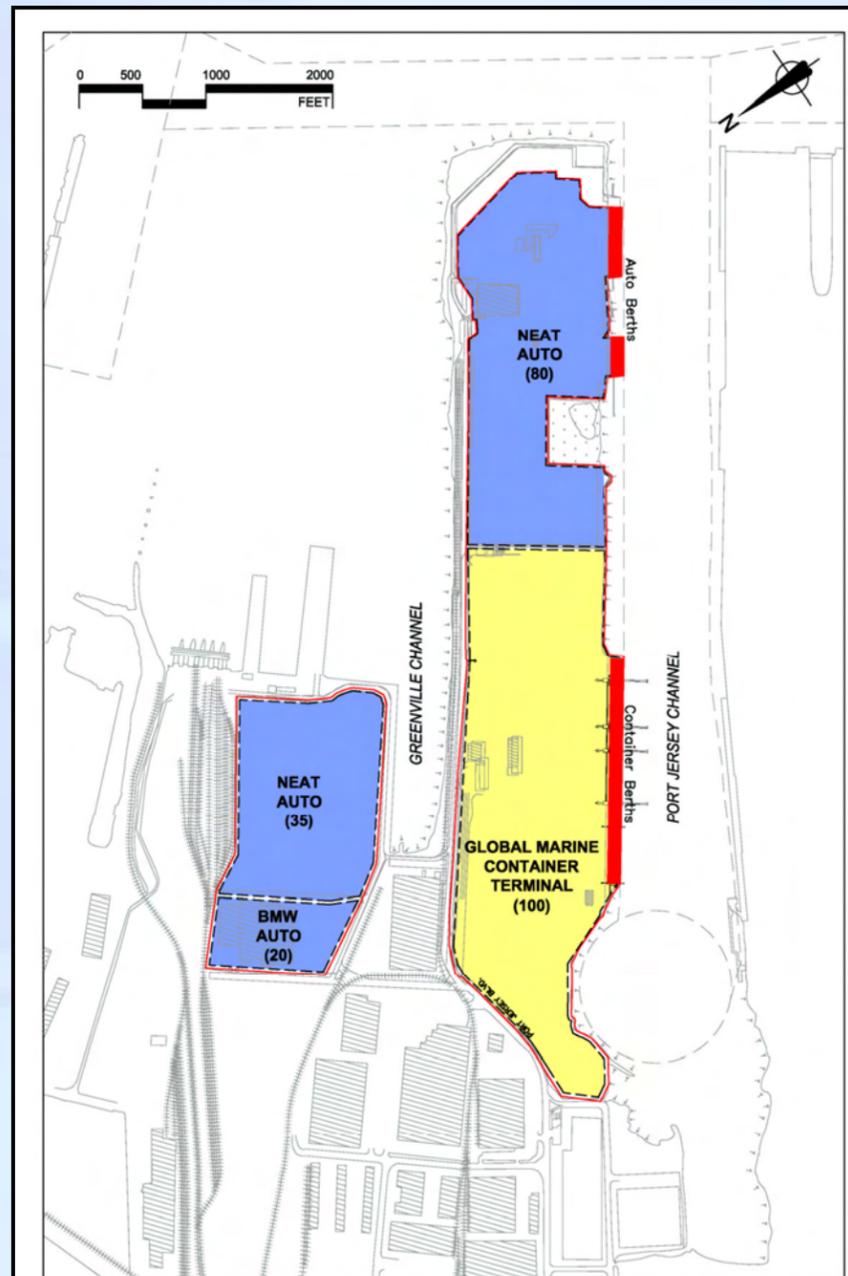


Fig 5.1 - Existing Layout

- Container Terminal
- Auto Terminal
- Off Terminal Warehousing & Support
- Dry Bulk
- Liquid Bulk
- General Cargo

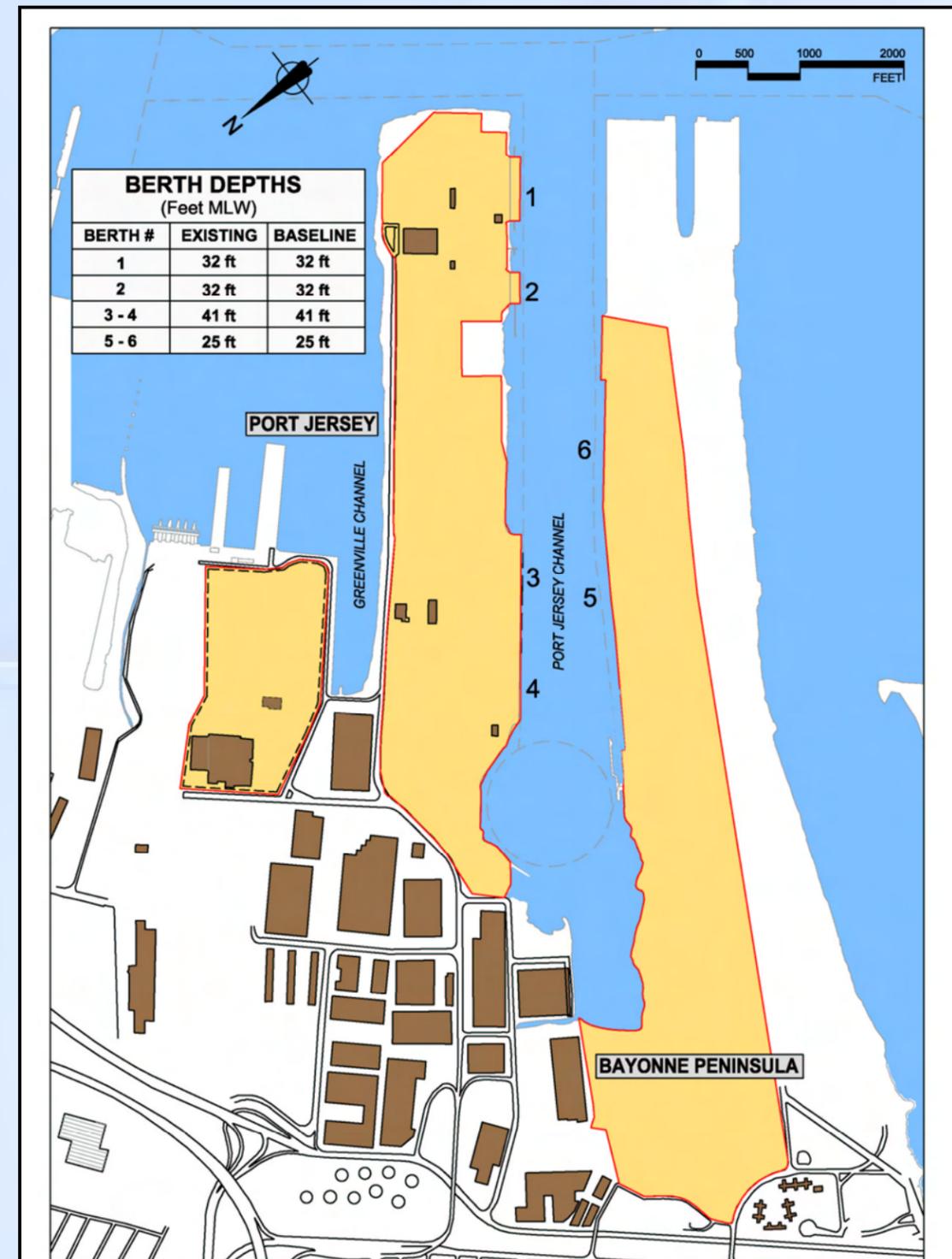


Fig 5.2 - Existing and Baseline Berth Depths

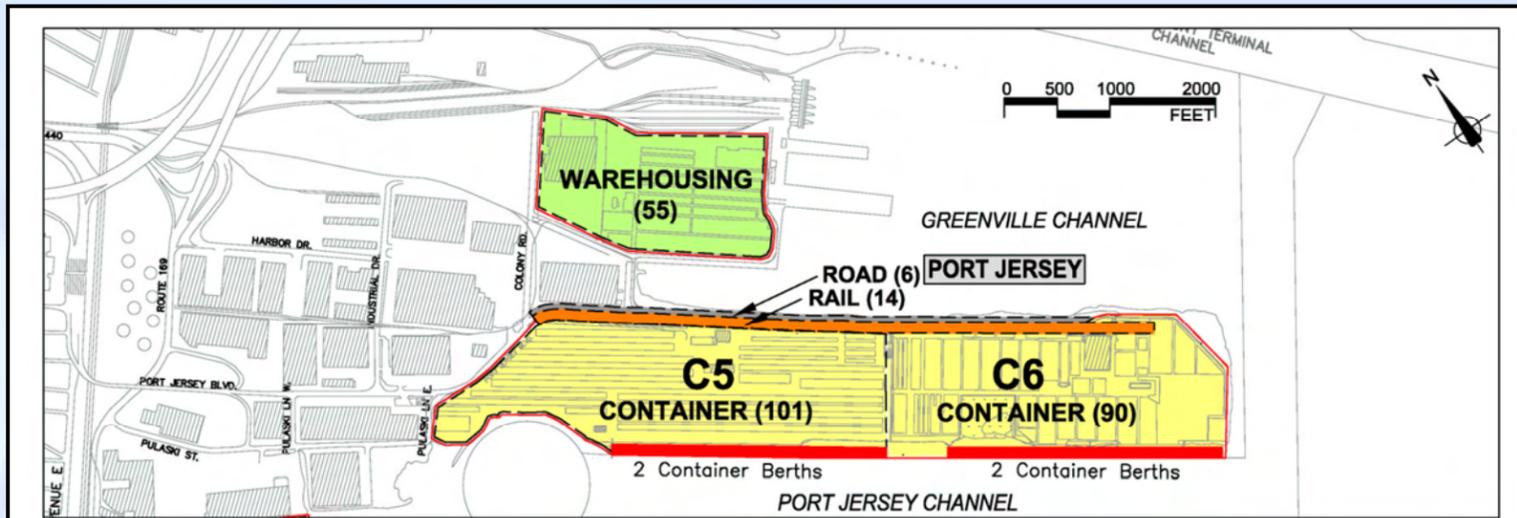


Fig 5.3 - Orange Scenario

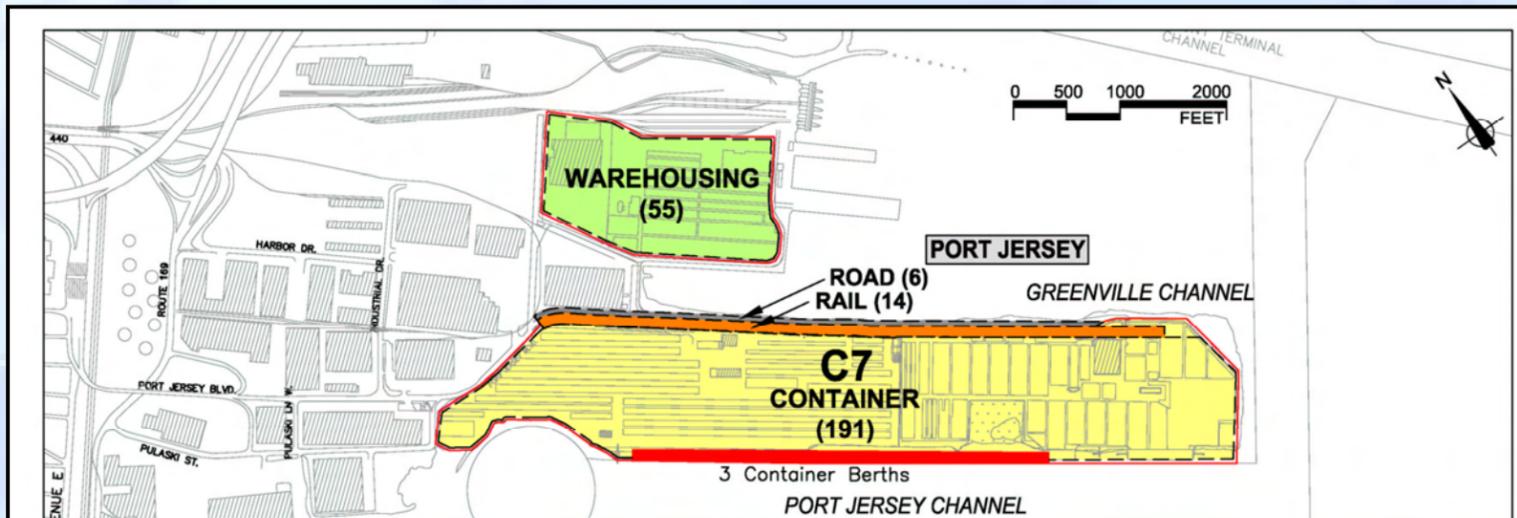


Fig 5.4 - Red Scenario

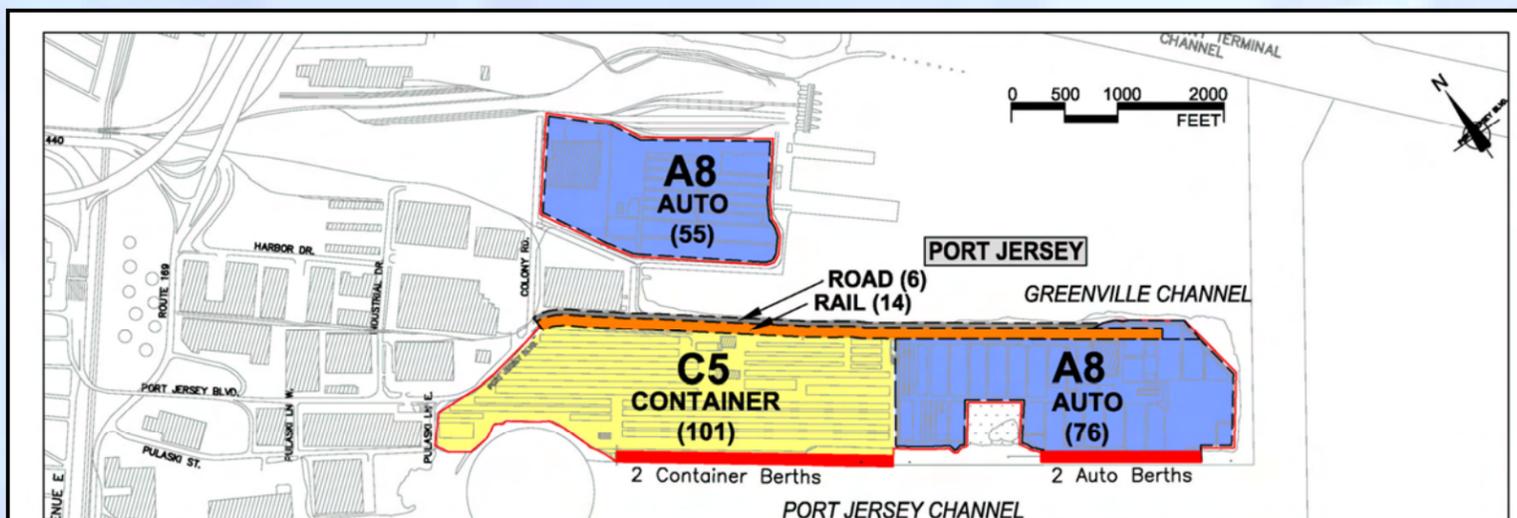


Fig 5.5 - Yellow and Blue Scenarios

Existing site area and berths			
Terminal	Type	Area (acres)	# berths
Global	Container	100	2
NEAT/BMW	Auto	135	2

Table 5.1
Ref: Chapter 5, Volume 1, CPIP.

Existing terminal assessed capacity		
Global	100 acres	651,100 TEU/year
NEAT/BMW	135 acres	257,000 unit/year

Table 5.2
Ref: Chapter 5, Volume 1, CPIP.

Land allocation										
Scenario	Containers		Autos		Road & Rail	Warehousing & terminal support industries	Total area	Area made from		
	Option	Area	Option	Area				Existing	Waterfront fill	Acquired
Orange	C5 C6	101 90			20	55	266	246	20	0
Red	C7	191			20	55	266	246	20	0
Yellow & Blue	C5	101	A8	131	20		252	246	6	0

Table 5.3
Ref: Chapter 7, Volume 1, CPIP.

2060 Site Options and provisions					
Terminal	Type	Area (acres)	# Berths	Land capacity	Berth capacity
C5	Container	101	2	858,500 TEU/year	1,110,000 TEU/year
C6	Container	90	2	765,000 TEU/year	1,110,000 TEU/year
C7	Container	191	3	1,623,500 TEU/year	2,096,100 TEU/year
A8	Auto	131	2	248,900 units/year	391,000 units/year

Table 5.4
Ref: Chapter 7, Volume 1, CPIP.

Option evaluation			
-------------------	--	--	--

C7	C6	C5	A8	Criterion
P2	P5	P1	P1	Port Planning
P5	F2	P5	P5	P1 Phasing, plan flexibility and relationship to existing land and berth use
F2	F3	P3	E1	P2 Appropriateness of land shape for cargo handling
F3	P3	F2	E2	P3 Ease of navigation to site along the main approach channels
P3	F1	F3	E3	P4 Space in the adjacent waterway for ship manoeuvring to the berth
F1	E1	E1	T6	P5 Effects of operations on neighbouring port operations
E1	E2	E2	P3	Financial and Economic
E2	E3	E3	P4	F1 Financial analysis – breakeven price
E3	E4	E4	E4	F2 Economic impact – job creation
E4	E6	E5	E5	F3 Economic impact – tax revenue created
E6	T1	E6	E6	Environmental Issues
T1	T4	T1	T1	E1 Light
T4	P1	T4	T4	E2 Noise
P1	P2	P2	P2	E3 Dust and odors
P4	P4	P4	F2	E4 Traffic
E5	E5	F1	F3	E5 Wildlife habitat
T2	T2	T2	T2	E6 Waterfront access
T3	T3	T3	T3	Transportation Issues
T5	T5	T5	T5	T1 Highway access
T6	T6	T6	F1	T2 Local highway congestion
				T3 Local highway improvement cost
				T4 Rail access
				T5 Rail terminal on-site availability
				T6 Rail terminal on-site cost

Key

- F1 Relatively good evaluation under financial criterion F1
- E1 Indifferent evaluation under environmental criterion E1
- P3 Poor Evaluation under planning criterion P3
- Criterion is not applicable

Table 5.5
Ref: Chapter 15, Volume 1, CPIP.

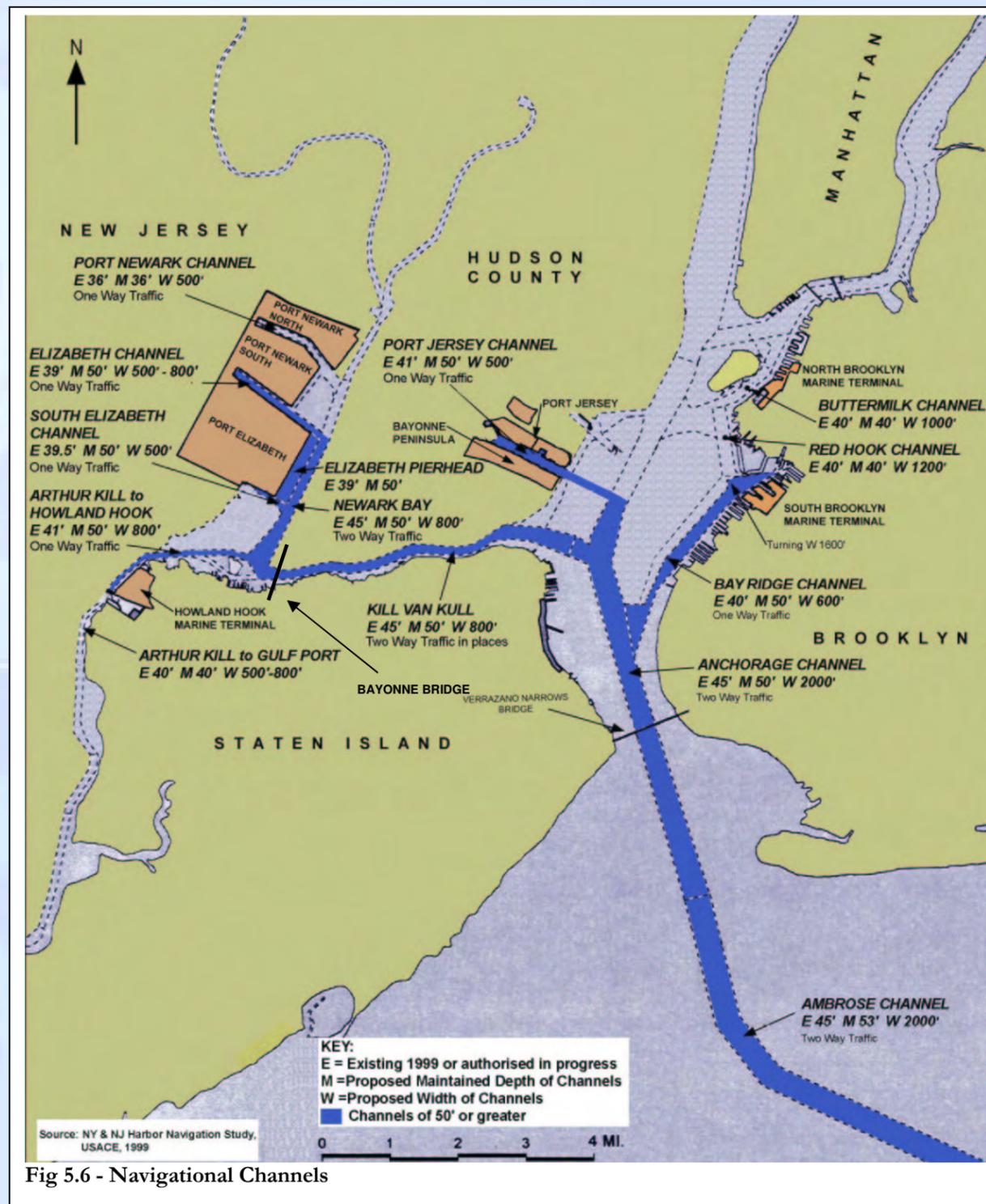
1. Access Channels

Access to Port Jersey is by the Upper New York Bay stretch of the Anchorage Channel whose present depth of 45 ft is planned to be deepened to 50 ft. The route also uses the open sea part of the Port Jersey Channel, which links the berthing channel with the Anchorage Channel.

2. Restrictions

Port Jersey is not affected by the air draft limitations of Bayonne Bridge which spans the Kill van Kull Channel.

The air draft at Verrazano Narrows Bridge is more than adequate for the foreseeable future.



Approach channel depths		
Channel Name	Existing, or in progress, depth (ft MLW)	Future maintained depth (ft MLW)
Ambrose	45	53
Anchorage	45	50
Port Jersey	41	50

Table 5.6
 Ref: Chapters 5 & 6, Volume 1, CPIP.

Berthing channel width		
Channel name	Overall width (ft)	Dredged width (ft)
Port Jersey Channel	620 - 830	500

Table 5.7
 Ref: Chapters 5 & 6, Volume 1, CPIP.

Port Jersey

Port Jersey Channel's present depth of 41 ft is planned to be deepened to 50 ft. The existing and currently planned depths at the berths are shown on page 5.1

The width of the Port Jersey Channel is not ideal for a double-sided access channel for large container ships. However, with care, and hence an increase in berthing maneuvering time, access is considered acceptable. Please see Section 6.3.2 of Volume 1 for further details.

Infrastructure capital cost				
	C5	C6	C7	A8
Site clearance	0.0	17.6	15.9	0.0
Berths	29.2	63.5	65.9	5.4
Paving	3.1	18.1	21.1	0.0
Buildings	7.8	10.0	17.8	0.0
Other	9.0	15.1	24.1	2.1
Contingency & design	24.5	62.2	72.4	3.7
Total \$m	73.6	186.5	217.2	11.2

Table 5.8
Ref : Chapter 11, Volume 1, CPIP.
Costs are quoted at 2003 constant US dollars.

Economic impact					
	Unit	C5	C6	C7	A8
Additional units		200,430	765,000	965,430	0
Employment					
Direct	jobs	711	2,713	3,424	0
In other industries	jobs	931	3,554	4,486	0
Gross State Product	(\$m)	90.3	344.5	434.8	0
Income	(\$m)	54.6	208.6	263.2	0
Federal taxes	(\$m)	11.5	44.0	55.5	0
State taxes	(\$m)	3.7	14.0	17.6	0
Local taxes	(\$m)	5.3	20.3	25.6	0
Rank		14	10	6	11

Table 5.11
Ref : Chapter 11, Volume 1, CPIP.
Costs are quoted at 2003 constant US dollars.

Overall ranking of terminal Options			
Terminal Option	Additional capacity (units) (000 TEU)	Financial rank	Economic rank
Container Terminals			
C3 Port Elizabeth	1,777	3	2
C4 Port Elizabeth	1,209	4	4
C13 Port Elizabeth	912	2	7
C9 Bayonne	1,275	6	3
C2 Port Newark South	1,025	5	5
C12 Port Elizabeth	672	1	11
C14 South Brooklyn	2,210	12	1
C8 Bayonne	850	8	8
C7 Port Jersey	965	11	6
C1 Port Newark South	345	7	12
C6 Port Jersey	765	10	10
C10 Howland Hook	843	13	9
C11 Howland Hook	282	9	13
C5 Port Jersey	200	14	14
Automobile Terminals	Unit		
A15 Port Newark South	522,500	3	1
A4 Port Newark South	399,000	2	2
A13 Port Newark South	247,000	1	4
A9 Bayonne	285,000	5	3
A14 Port Newark South	228,000	4	5
A11 South Brooklyn	95,000	6	7
A12 South Brooklyn	152,000	7	6
A10 Bayonne	95,000	8	8
A2 Port Newark North	76,000	9	10
A1 Port Newark North	9,500	10	9
A8 Port Jersey	-	11	11

Table 5.12
Ref : Chapter 11, Volume 1, CPIP.

Financial ranking of container terminal Options				
Rank (from 14 options)	Project		Additional capacity (000 TEU)	Breakeven price per unit
10	C6	Port Jersey	765	168
11	C7	Port Jersey	965	174
14	C5	Port Jersey	200	213

Table 5.9
Ref : Chapter 11, Volume 1, CPIP.
Costs are quoted at 2003 constant US dollars.

Financial ranking of auto terminal Options				
Rank (from 11 options)	Project		Additional capacity (units)	Breakeven price per unit
11	A8	Port Jersey	0	(1)

Table 5.10
Ref : Chapter 11, Volume 1, CPIP.
Costs are quoted at 2003 constant US dollars.
(1) Project does not deliver any new capacity, and therefore zero revenue, therefore calculation of breakeven price is invalid



Estimated wetland usage in Options	
Option	Estimated wetland area (acres)
C5	1
C6	7
C7	7
A8	1

Table 5.13
Ref: Chapter 12, Volume 1, CPIP.