

## **2 Port Newark North**



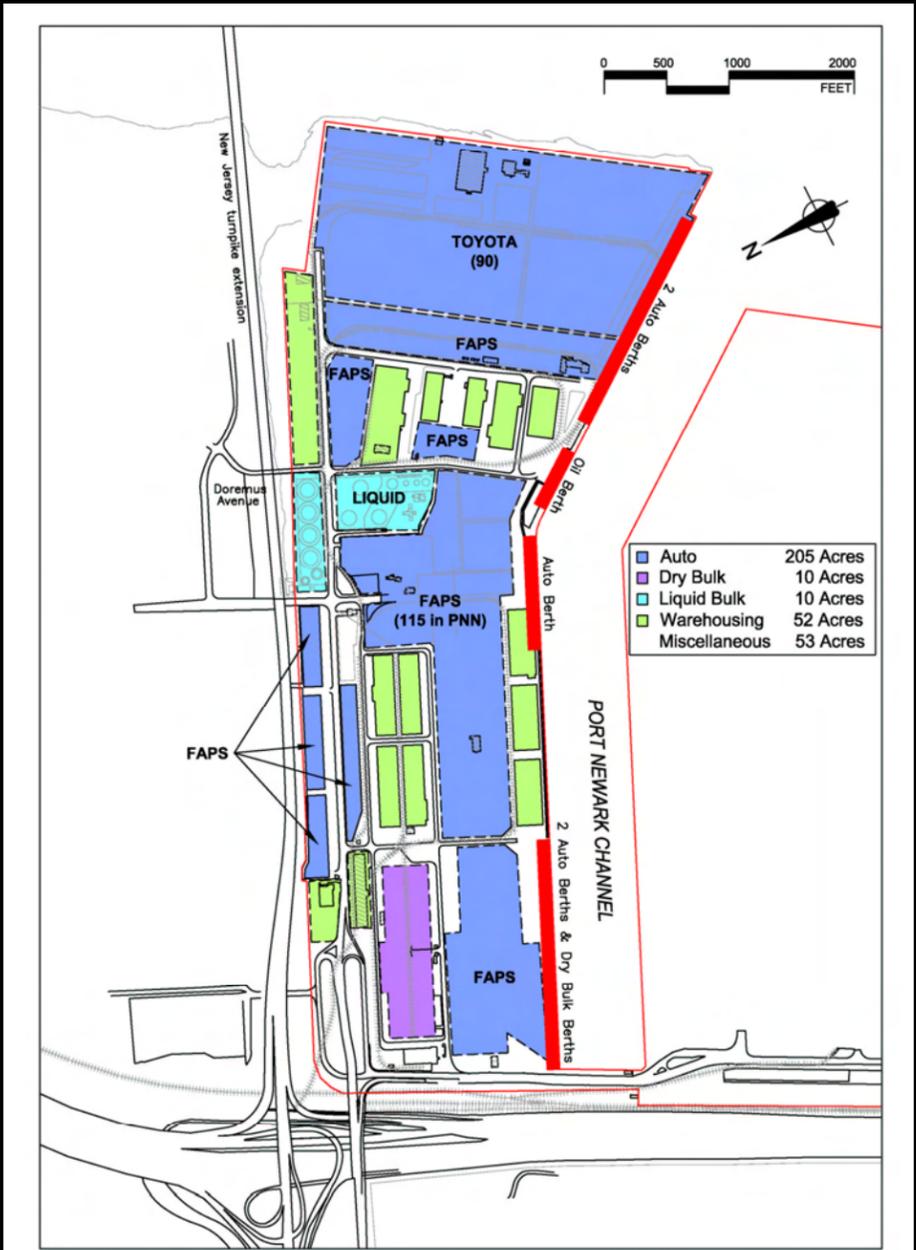


Fig 2.1 - Existing Layout

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

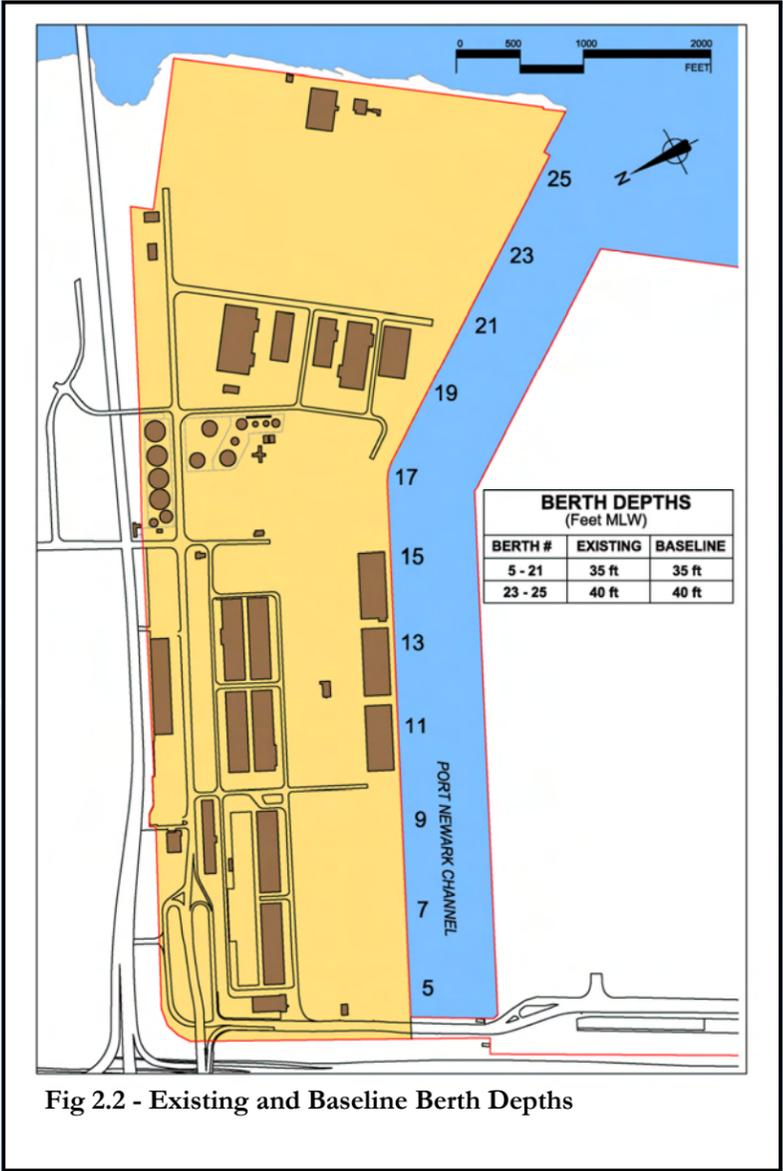
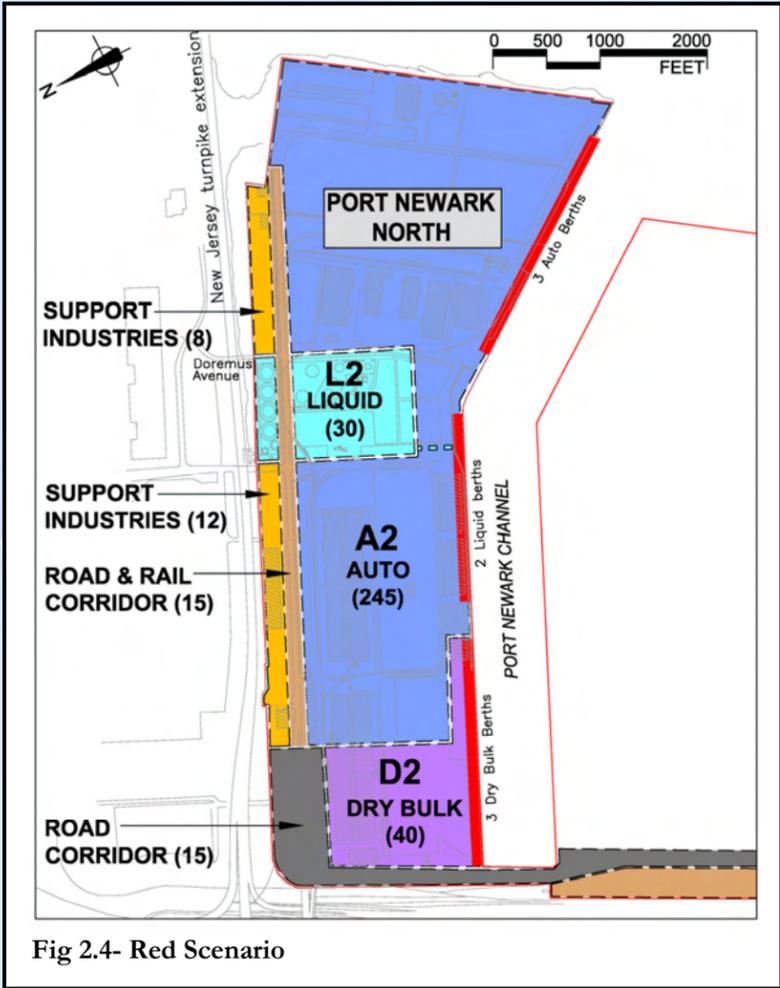
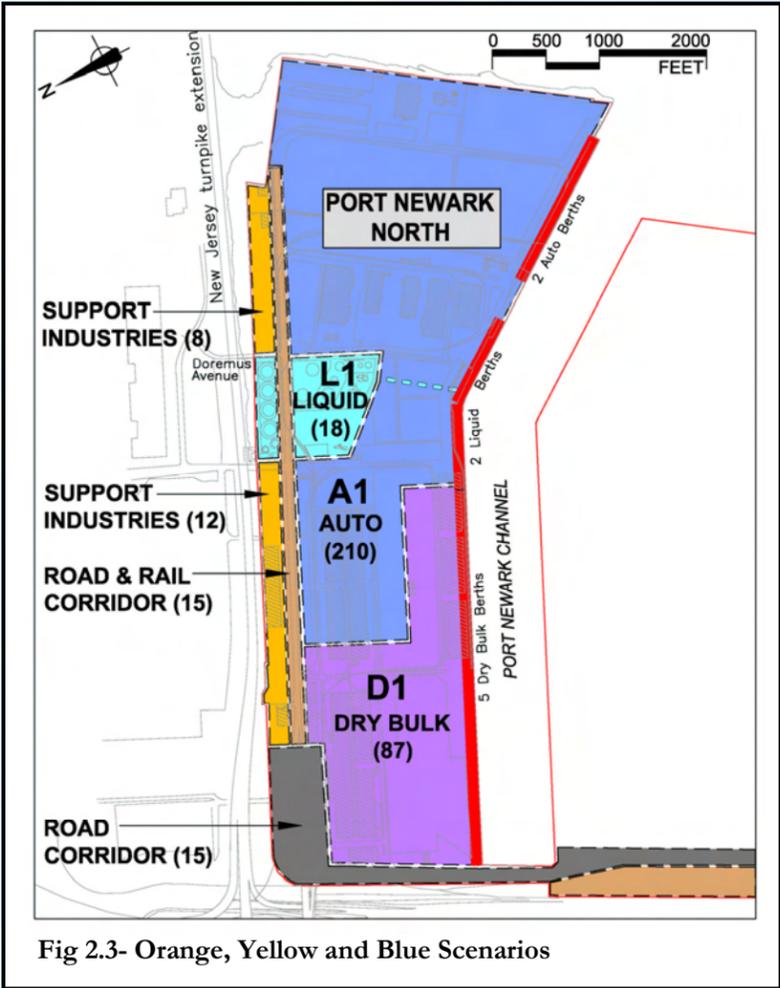


Fig 2.2 - Existing and Baseline Berth Depths



| Existing site area and berths |             |              |          |
|-------------------------------|-------------|--------------|----------|
| Terminal                      | Type        | Area (acres) | # berths |
| FAPS                          | Auto        | 115          | 3        |
| Toyota                        | Auto        | 90           | 2        |
| Port Newark Dry Bulk          | Dry Bulk    | 10           | 2        |
| Port Newark Liquid Bulk       | Liquid Bulk | 10           | 2        |

**Table 2.1**  
Ref: Chapter 5, Volume 1, CPIP.

| Existing terminal assessed capacity |                        |                     |
|-------------------------------------|------------------------|---------------------|
| FAPS                                | 175 <sup>1</sup> acres | 208,982 units/year  |
| Toyota                              | 90 acres               | 108,202 units/year  |
| Dry Bulk                            | 70 <sup>1</sup> acres  | 4,857,750 tons/year |
| Liquid Bulk                         | 20 <sup>1</sup> acres  | 5,699,760 tons/year |

**Table 2.2**  
Ref: Chapter 5, Volume 1, CPIP.  
<sup>1</sup> Total in Port Newark North and South

| Land allocation |        |      |                |      |             |      |             |   |            |                |                 |          |
|-----------------|--------|------|----------------|------|-------------|------|-------------|---|------------|----------------|-----------------|----------|
| Scenario        | Autos  |      | Dry Bulk Cargo |      | Liquid Bulk |      | Road & Rail | Warehousing & terminal support industries | Total area | Area made from |                 |          |
|                 | Option | Area | Option         | Area | Option      | Area |             |   |            | Existing       | Waterfront fill | Acquired |
| O, Y & B        | A1     | 210  | D1             | 87   | L1          | 18   | 45          | 20  | 380        | 380            | 0               | 0        |
| R               | A2     | 245  | D2             | 40   | L2          | 30   | 45          | 20  | 380        | 380            | 0               | 0        |

**Table 2.3**  
Ref: Chapter 7, Volume 1, CPIP.

| 2060 Site Options and provisions |             |              |          |                     |                     |
|----------------------------------|-------------|--------------|----------|---------------------|---------------------|
| Terminal                         | Type        | Area (acres) | # berths | Land capacity       | Berth capacity      |
| A1                               | Auto        | 210          | 2        | 399,000 units/year  | 399,000 units/year  |
| A2                               | Auto        | 245          | 3        | 465,500 units/year  | 737,000 units/year  |
| D1                               | Dry Bulk    | 87           | 5        | 6,220,500 tons/year | 7,556,000 tons/year |
| D2                               | Dry Bulk    | 40           | 3        | 2,860,000 tons/year | 3,820,000 tons/year |
| L1                               | Liquid Bulk | 18           | 2        | 5,130,000 tons/year | 6,494,000 tons/year |
| L2                               | Liquid Bulk | 30           | 2        | 8,550,000 tons/year | 6,494,000 tons/year |

**Table 2.4**  
Ref: Chapter 7, Volume 1, CPIP.

| Option evaluation |  |  |  |  |  |
|-------------------|--|--|--|--|--|
|-------------------|--|--|--|--|--|

| A1 | A2 | D1 | D2 | L1 | L2 | Criterion   |
|----|----|----|----|----|----|---|
| P2 | P2 | F1 | F1 | P1 | P1 | <b>Port Planning</b>  |
| P4 | E1 | E1 | E1 | P2 | P2 | <b>P1</b> Phasing, plan flexibility and relationship to existing land and berth use |
| E1 | E2 | E2 | E2 | P5 | P5 | <b>P2</b> Appropriateness of land shape for cargo handling                          |
| E2 | E3 | E4 | E4 | E1 | E1 | <b>P3</b> Ease of navigation to site along the main approach channels               |
| E3 | E4 | E5 | E5 | E2 | E2 | <b>P4</b> Space in the adjacent waterway for ship manoeuvring to the berth          |
| E4 | E5 | T1 | T1 | E4 | E4 | <b>P5</b> Effects of operations on neighbouring port operations                     |
| E5 | T1 | T4 | T4 | E5 | E5 | <b>Financial and Economic</b>   |
| T1 | T4 | T5 | T5 | T1 | T1 | <b>F1</b> Financial analysis – breakeven price                                      |
| T4 | T5 | T6 | T6 | T4 | T4 | <b>F2</b> Economic impact – job creation  |
| T5 | T6 | P1 | P1 | T5 | T5 | <b>F3</b> Economic impact – tax revenue created                                     |
| T6 | P1 | P2 | P2 | T6 | T6 | <b>Environmental Issues</b>   |
| P1 | P4 | E3 | E3 | P4 | P4 | <b>E1</b> Light   |
| T2 | T2 | T2 | T2 | F1 | F1 | <b>E2</b> Noise   |
| P3 | P3 | P3 | P3 | E3 | E3 | <b>E3</b> Dust and odors  |
| P5 | P5 | P4 | P4 | T2 | T2 | <b>E4</b> Traffic   |
| F1 | F1 | P5 | P5 | P3 | P3 | <b>E5</b> Wildlife habitat  |
| F2 | F2 | E6 | E6 | E6 | E6 | <b>E6</b> Waterfront access   |
| F3 | F3 | T3 | T3 | T3 | T3 | <b>Transportation Issues</b>  |
| E6 | E6 | F2 | F2 | F2 | F2 | <b>T1</b> Highway access  |
| T3 | T3 | F3 | F3 | F3 | F3 | <b>T2</b> Local highway congestion  |
|    |    |    |    |    |    | <b>T3</b> Local highway improvement cost  |
|    |    |    |    |    |    | <b>T4</b> Rail access   |
|    |    |    |    |    |    | <b>T5</b> Rail terminal on-site availability  |
|    |    |    |    |    |    | <b>T6</b> 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 2.5**  
Ref: Chapter 15, Volume 1, CPIP.

# Port Newark North Navigation

## 1. Access Channels

Access to Port Newark 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. Access is then by the Kill van Kull and the Newark Bay Channel, both of whose present depth of 45ft is planned to be deepened to 50 ft.

## 2. Restrictions

Port Newark North is affected by the air draft limitations of Bayonne Bridge which spans the Kill van Kull Channel. The limitations are applicable to container ships only, and as no container berths are proposed for Port Newark channel, this is not considered problematic.

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

There are height restrictions at the inner end of Port Newark Channel which could limit the size of ship and type of unloading operations.

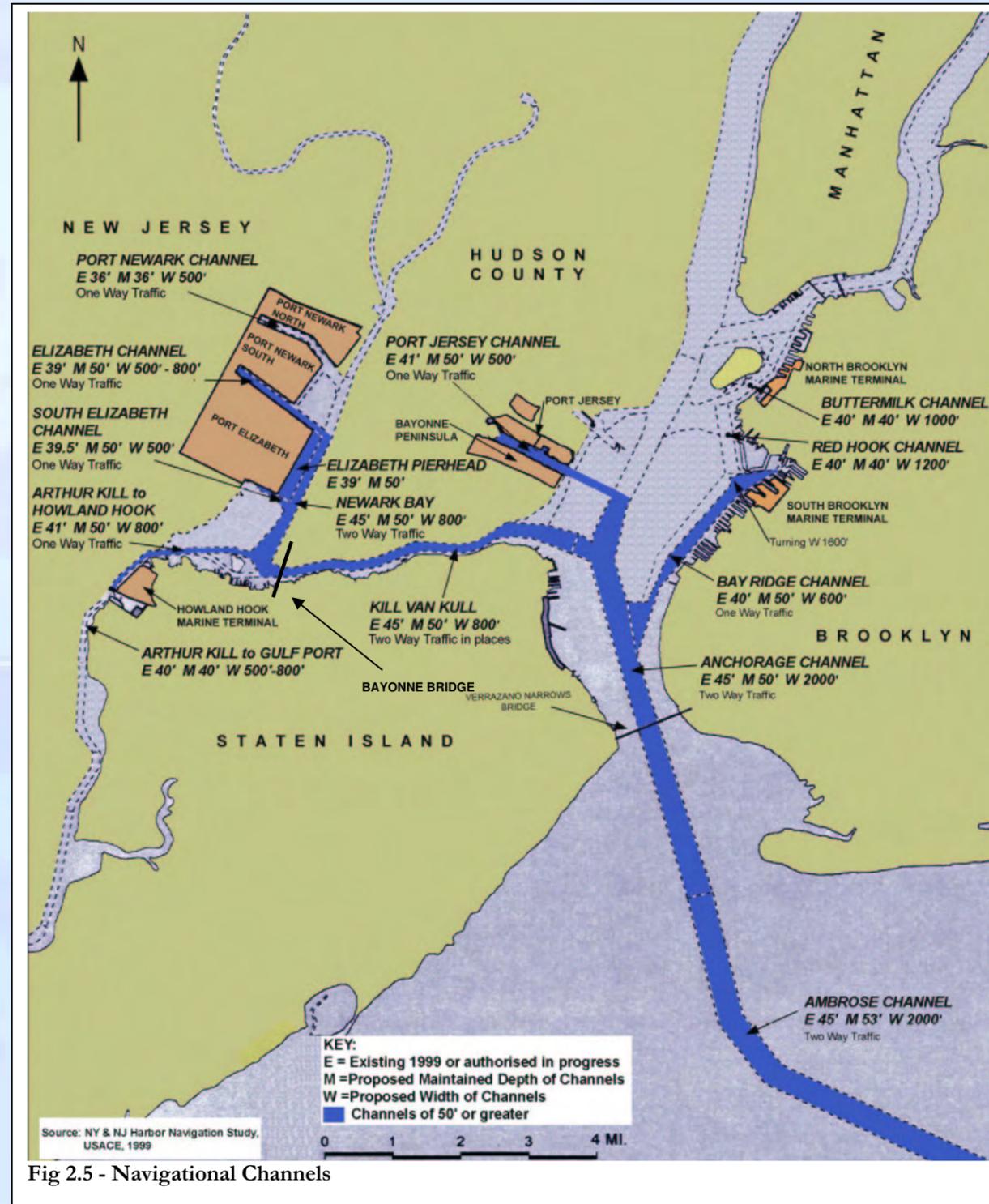


Fig 2.5 - Navigational Channels

### Approach channel depths

| Channel name  | Existing, or in progress, depth (ft MLW) | Future maintained depth (ft MLW) |
|---------------|--|----------------------------------|
| Ambrose       | 45                                       | 53                               |
| Anchorage     | 45                                       | 50                               |
| Kill van Kull | 45                                       | 50                               |
| Newark Bay    | 45                                       | 50                               |
| Port Newark   | 36                                       | Not recommended for deepening    |

Table 2.6

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

### Berthing channel width

| Channel name        | Overall width (ft) | Dredged width (ft) |
|---------------------|--------------------|--------------------|
| Port Newark Channel | 655                | 500                |

Table 2.7

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

### Port Newark North

Port Newark Channel's present and future planned depth is 36ft. The existing and currently planned depths at the berths are shown on page 2.1.

# Port Newark North Financial & Economic

| Infrastructure capital cost |             |             |             |             |             |             |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                             | A1          | A2          | D1          | D2          | L1          | L2          |
| Site clearance              | 5.5         | 7.0         | 4.5         | 4.5         | 1.6         | 4.0         |
| Berths                      | 0.0         | 0.0         | 18.9        | 11.3        | 18.0        | 9.4         |
| Paving                      | 0.0         | 0.0         | 0.8         | 0.7         | 0.2         | 0.5         |
| Buildings                   | 0.0         | 0.0         | 0.0         | 0.0         | 5.4         | 8.7         |
| Other                       | 1.9         | 2.4         | 2.4         | 1.6         | 1.2         | 1.5         |
| Contingency & design        | 3.7         | 4.7         | 13.6        | 9.0         | 13.2        | 12.0        |
| <b>Total \$m</b>            | <b>11.1</b> | <b>14.2</b> | <b>39.8</b> | <b>27.1</b> | <b>39.7</b> | <b>36.1</b> |

**Table 2.8**  
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 |
| 9  | A2      | Port Newark North | 76,000                      | 130                      |
| 10   | A1      | Port Newark North | 9,500                       | 263                      |

**Table 2.9**  
Ref : Chapter 11, Volume 1, CPIP.  
Costs are quoted at 2003 constant US dollars.

| Economic impact               |       |       |        |
|-------------------------------|-------|-------|--------|
|                               | Unit  | A1    | A2     |
| Additional units              |       | 9,500 | 76,000 |
| Employment                    |       |       |        |
| Direct                        | jobs  | 10    | 81     |
| In other industries           | jobs  | 14    | 115    |
| Gross State Product           | (\$m) | 1.5   | 12.2   |
| Income                        | (\$m) | 0.9   | 7.4    |
| Federal taxes                 | (\$m) | 0.2   | 1.5    |
| State taxes                   | (\$m) | 0.1   | 0.5    |
| Local taxes                   | (\$m) | 0.1   | 0.7    |
| <b>Rank (from 11 options)</b> |       | 9     | 10     |

**Table 2.12**  
Ref : Chapter 11, Volume 1, CPIP.  
Costs are quoted at 2003 constant US dollars.

| Financial ranking of dry bulk terminal Options |         |                   |                             |                          |
|--|---------|-------------------|-----------------------------|--------------------------|
| Rank (from 3 options)                          | Project |                   | Additional capacity (units) | Breakeven price per unit |
| 1  | D1      | Port Newark North | 5,510,000                   | 8                        |
| 2  | D2      | Port Newark North | 2,140,000                   | 9                        |
| 3  | D4      | South Brooklyn    | 3,580,000                   | 11                       |

**Table 2.10**  
Ref : Chapter 11, Volume 1, CPIP.  
Costs are quoted at 2003 constant US dollars.

| Financial ranking of liquid bulk terminal Options |         |                   |                             |                          |
|---|---------|-------------------|-----------------------------|--------------------------|
| Rank (from 4 options)                             | Project |                   | Additional capacity (units) | Breakeven price per unit |
| 1   | L4      | Port Newark South | -1,050,000                  | -1                       |
| 2   | L2      | Port Newark North | 3,640,000                   | 8                        |
| 3   | L1      | Port Newark North | 2,280,000                   | 9                        |
| 4   | L3      | Port Newark South | 2,850,000                   | 10                       |

**Table 2.11**  
Ref : Chapter 11, Volume 1, CPIP.  
Costs are quoted at 2003 constant US dollars.

| Overall ranking of auto terminal Options |                             |                |               |
|--|-----------------------------|----------------|---------------|
| Terminal Option                          | Additional capacity (units) | Financial rank | Economic rank |
| A15 Port Newark South                    | 522,000                     | 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             |
| <b>A2 Port Newark North</b>              | <b>76,000</b>               | <b>9</b>       | <b>10</b>     |
| <b>A1 Port Newark North</b>              | <b>9,500</b>                | <b>10</b>      | <b>9</b>      |
| A8 Port Jersey                           | -                           | 11             | 11            |

**Table 2.13**  
Ref : Chapter 11, Volume 1, CPIP.

No wetland usage has been identified in the proposed Options for Port Newark North



**Fig 2.6 – CPIP Federal Wetlands**

Source: CPIP-EIS Consultant (ESEC)

Note: The wetlands shown at Port Newark South are no longer present based on the results of a site visit.