NWSA Infrastructure Update
NWSA Trend Toward Fewer, Larger Ships

NWSA Ship Size Trend

<table>
<thead>
<tr>
<th>Year</th>
<th>Sum of 0-6000</th>
<th>Sum of 6000-9000</th>
<th>Sum of 9000+</th>
<th>Int'l TEU Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>537</td>
<td>403</td>
<td>6</td>
<td>2.78</td>
</tr>
<tr>
<td>2013</td>
<td>528</td>
<td>393</td>
<td>13</td>
<td>2.64</td>
</tr>
<tr>
<td>2014</td>
<td>463</td>
<td>357</td>
<td>42</td>
<td>2.56</td>
</tr>
<tr>
<td>2015</td>
<td>410</td>
<td>340</td>
<td>72</td>
<td>2.76</td>
</tr>
<tr>
<td>2016</td>
<td>241</td>
<td>381</td>
<td>139</td>
<td>2.86</td>
</tr>
</tbody>
</table>
CMA CGM Benjamin Franklin
18,000 TEU

COSCO Tianjin
10,000 TEU

CMA CGM Benjamin Franklin
18,000 TEU
Being big ship ready means…

• Deeper water
• Bigger cranes and stronger docks
• Longer berths
• Large terminals
Big Ships Need Deep Channels and Berths

Navigation Channel
Pilots require 10% under keel

- 8,000 TEUs
- 10,000 TEUs
- 14,000-18,000+ TEUs
- 20,000 TEUs

Current berth depth 50′
West Waterway
Deepening -57’ MLLW

East Waterway
Deepening -57’ MLLW

T-5
T-18
T-30
T-46
Feasibility Study and Deepening Project Timeline

Earliest Completion: West Waterway 2024, East Waterway 2031

*Federal authorization and appropriations needed for project to move forward
Tacoma General Central Peninsula Modernization
General Central Peninsula
Phase 2 - Pier 4 Reconfiguration
with new Ship to Shore Cranes
General Central Peninsula
Phase 2 - Pier 4 Reconfiguration

July 2017
Upon Completion
Terminal 5 Modernization, Seattle Harbor
Dock Strengthening
Berth Deepening
Power Upgrades
Mitigation

Noise
- operational noise monitoring plan
- broadband alarms on cargo handling equipment

Traffic
- rail safety/quiet zone
- gate queue management plan
- additional lane on overpass
- monitoring of truck traffic/terminal use
- signalization of Spokane St corridor
- closure of 5-way intersection
- bike and pedestrian access

Air
- shore power utilization plan
- annual emissions tracking

Energy
- lighting and lighting controls