



PORT of
vancouver

Vancouver Fraser Port Authority

Creating opportunities for port growth
The dredging challenge

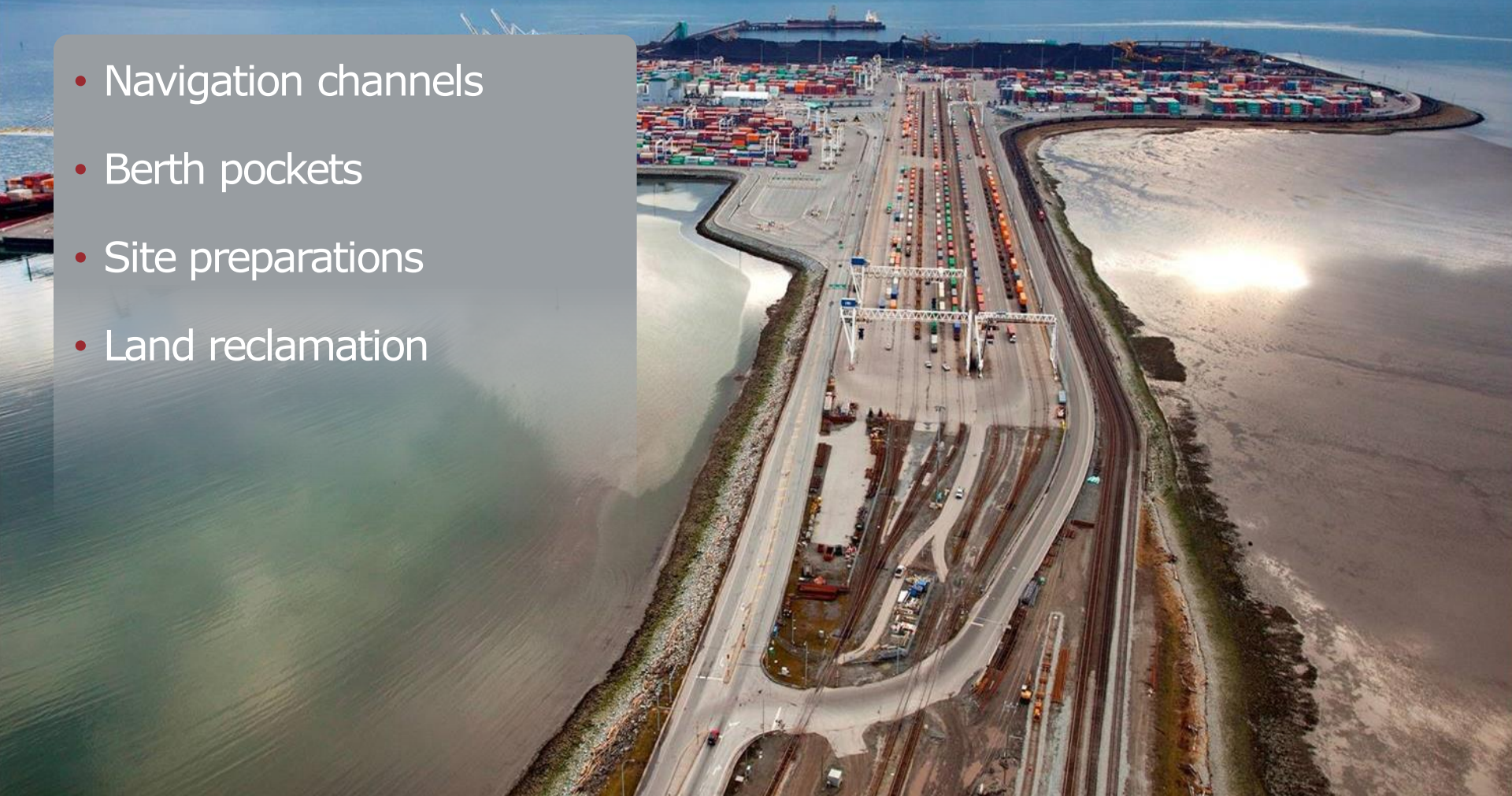
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Director Marine Operations &
Security, Harbour Master

May 30, 2016

Port growth – the dredging challenge

- Navigation channels
- Berth pockets
- Site preparations
- Land reclamation



Two white and blue patrol boats from the Port of Vancouver are shown on the water. The boat in the foreground is labeled 'PORT AUTHORITY' and 'VFP 5 VANCOUVER'. The boat behind it is labeled 'PORT METRO vancouver'. Both boats have 'Canada' written on their sides. A red banner is overlaid on the top right of the image.

Vancouver Fraser Port Authority

- Non shareholder, financially self-sufficient corporation established by the Government of Canada
- Accountable to federal Minister of Transportation



Canada Marine Act: Purpose - Mandate

- Focus on national trade objectives
- Community consideration
- Safety and environmental protection



Our mission and vision

Mission

- To enable Canada's trade objectives, ensuring safety, environmental protection and consideration for local communities.

Vision

- To be the world's most sustainable port.

Operations and security

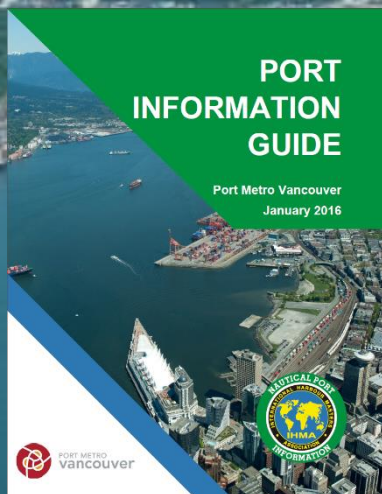
- 24/7 Operations Centre
 - marine safety and environmental protection
 - supply chain efficiency and reliability
 - port security
 - emergency management



Rules and regulations

PORT INFORMATION GUIDE

Port Metro Vancouver
January 2016



Rules and regulations?



Compliance monitoring - Marine

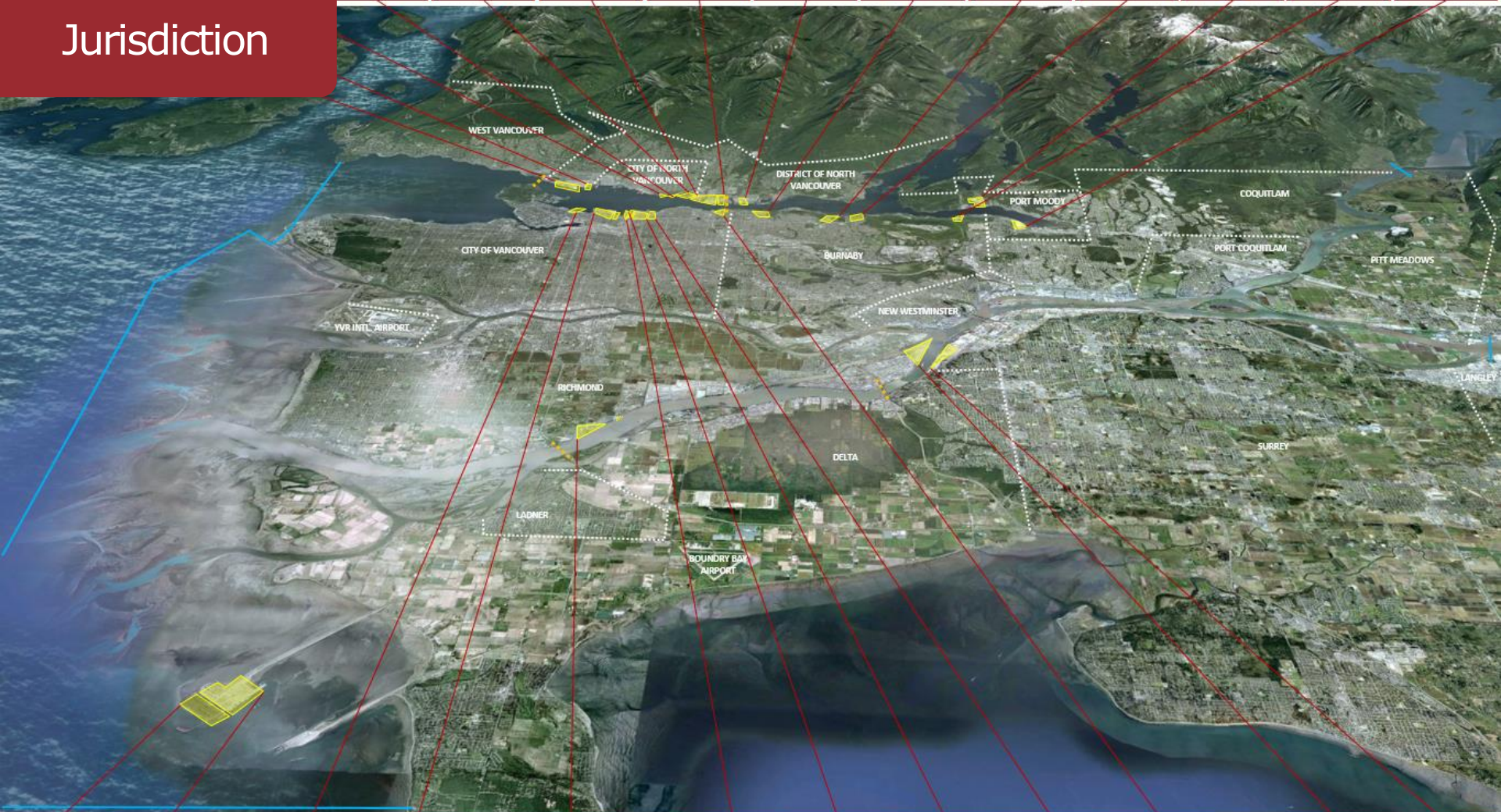


Compliance monitoring - Land

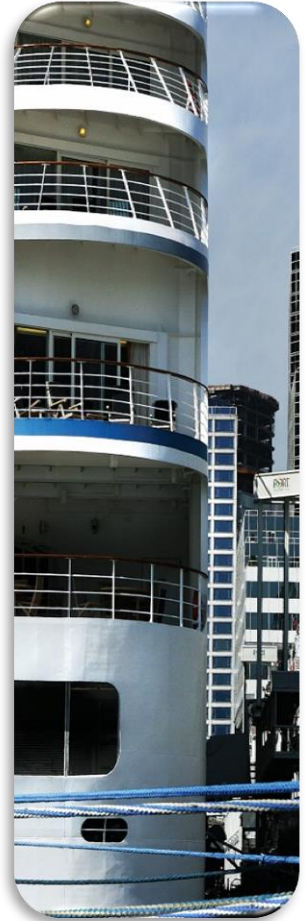




Jurisdiction



Our five business sectors



Bulk

- 19 terminals
- Principle cargo includes coal, grain, sulphur and potash
- Dry and liquid bulk cargoes account for approximately 68% of the port's annual tonnage

Breakbulk

- Two terminals (Burrard Inlet and Fraser River)
- Cargo is loaded directly in or off the holds of a ship piece by piece
- Principle cargo includes lumber, woodpulp, logs and steel



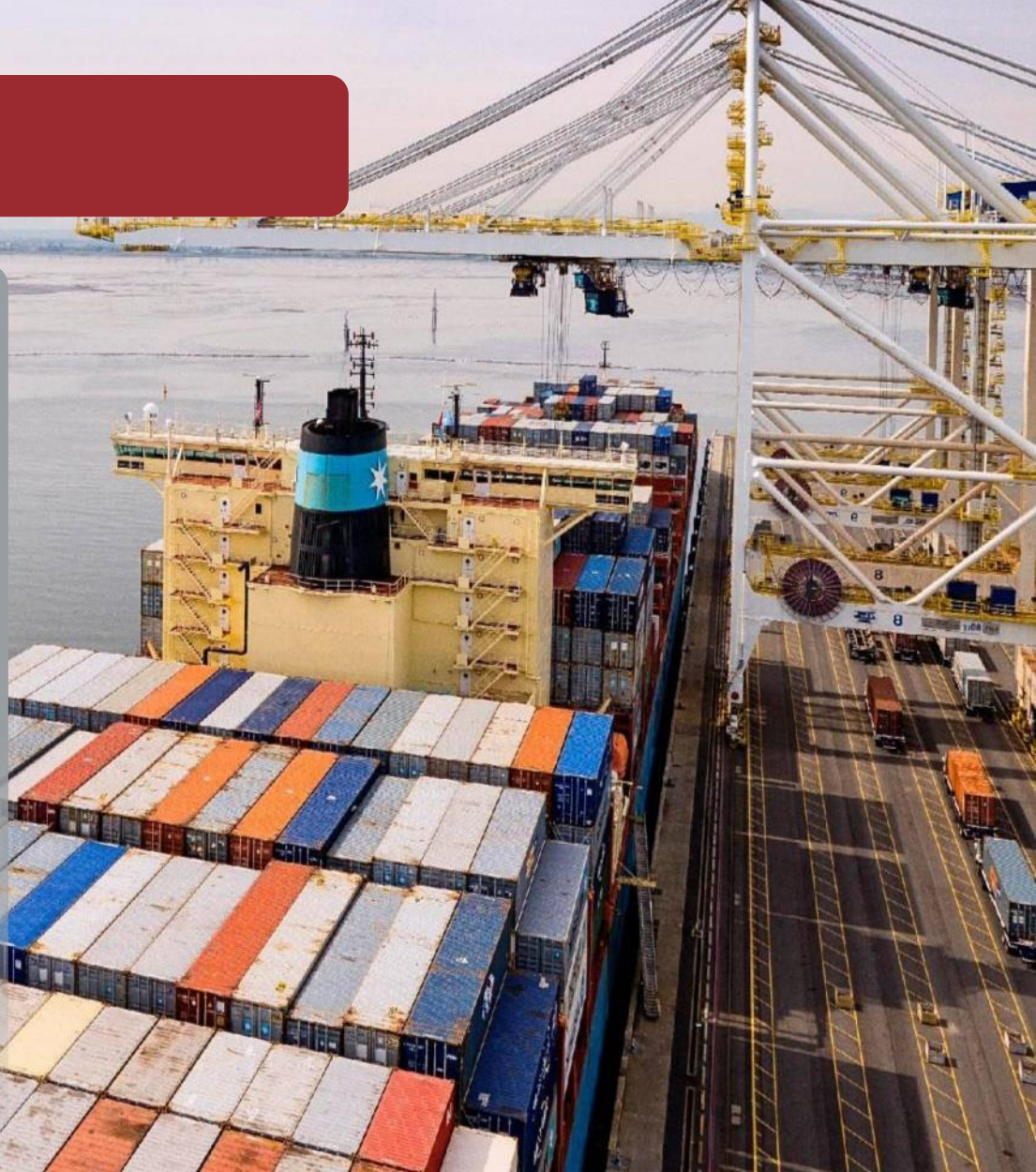
Automobile

- Two auto terminals operated by WWL
- Automobile volumes increased 9% in 2015
- 384,500 units handled in 2015
- Receive nearly 100% Asian manufactured imports destined for Canada



Container

- Four container terminals
- Extensive on-dock rail facilities
- Container handling capacity is 3.7 million TEUs
- 3.1 million TEUs handled in 2015
- Commodities include household goods, produce, machinery, Beverages, Other wood products.



Cruise

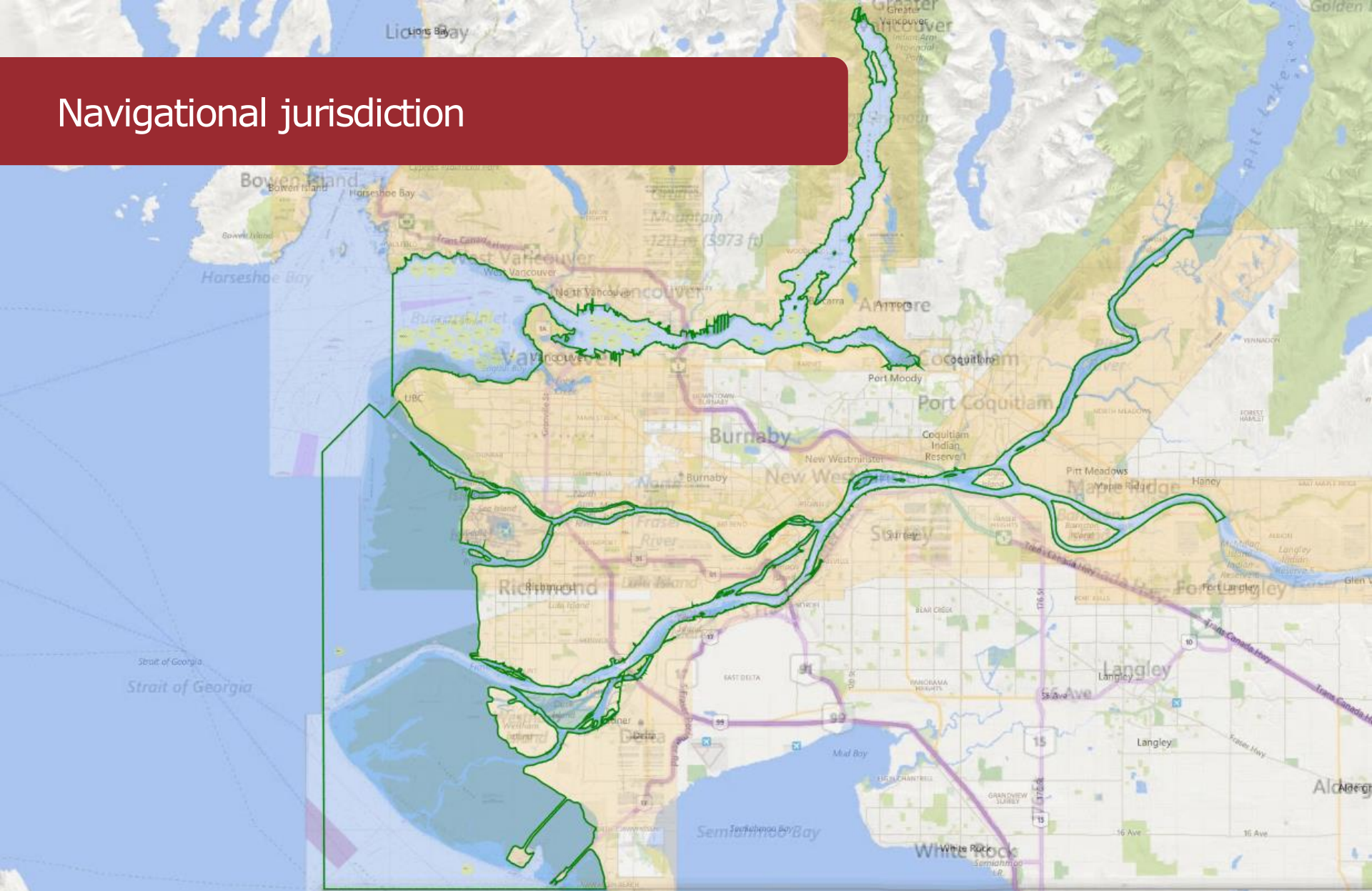
- Homeport for the Vancouver-Alaska Cruise
- 805,435 passengers in 2015 at one cruise terminal
- 228 sailings
- First port in Canada to implement shore power for cruise ships



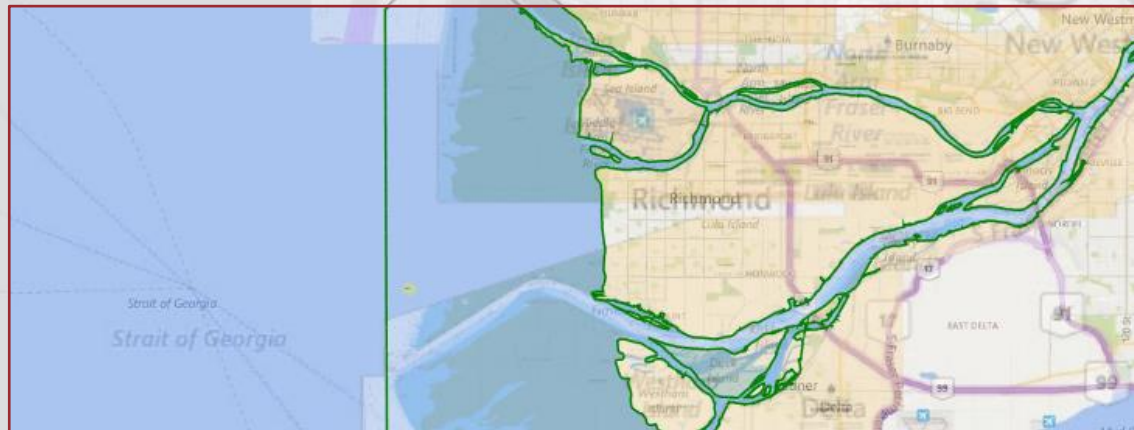
Dredging operations – Navigation channels



Navigational jurisdiction



Fraser River



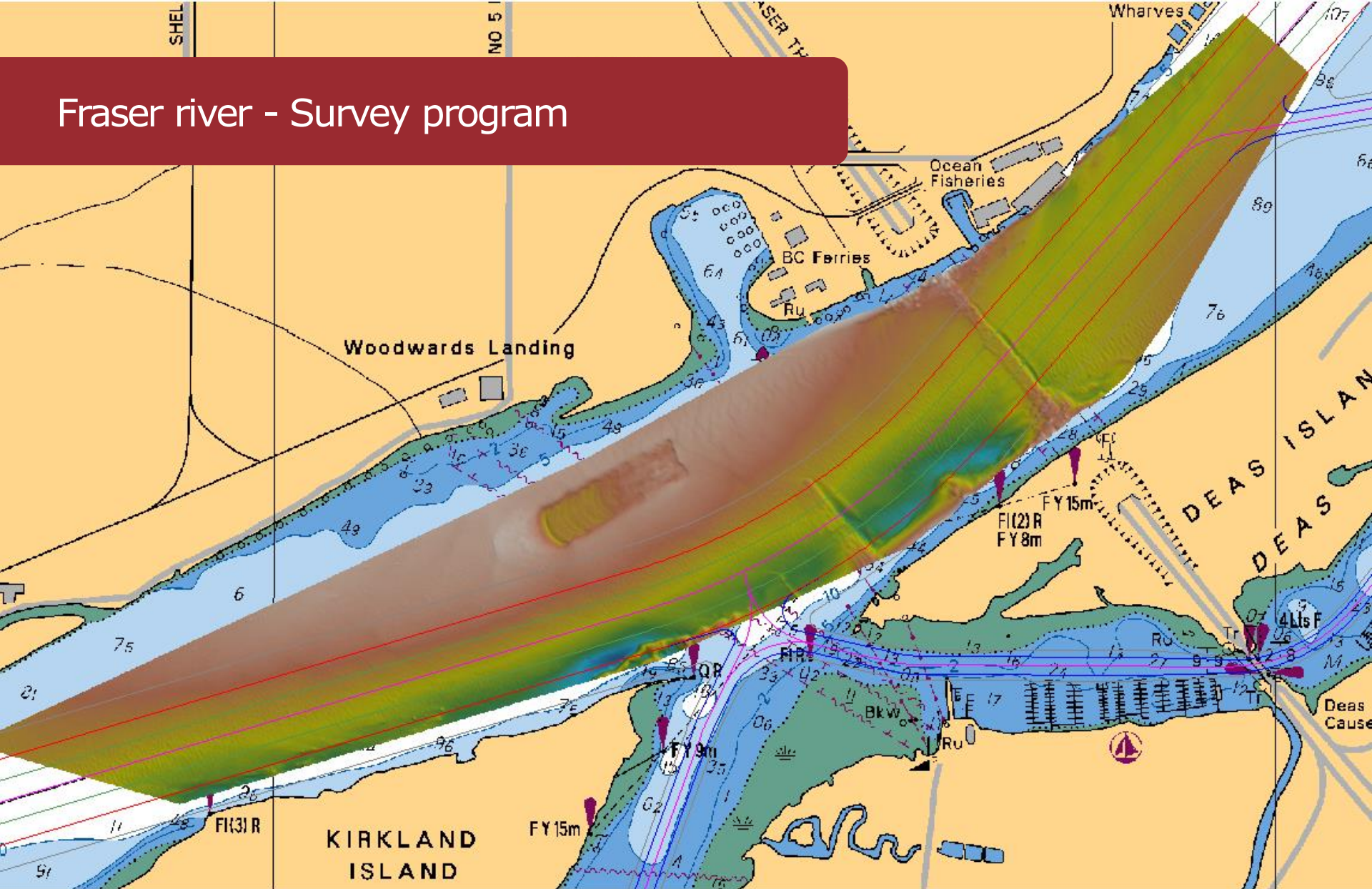
Fraser river – Channel maintenance dredging



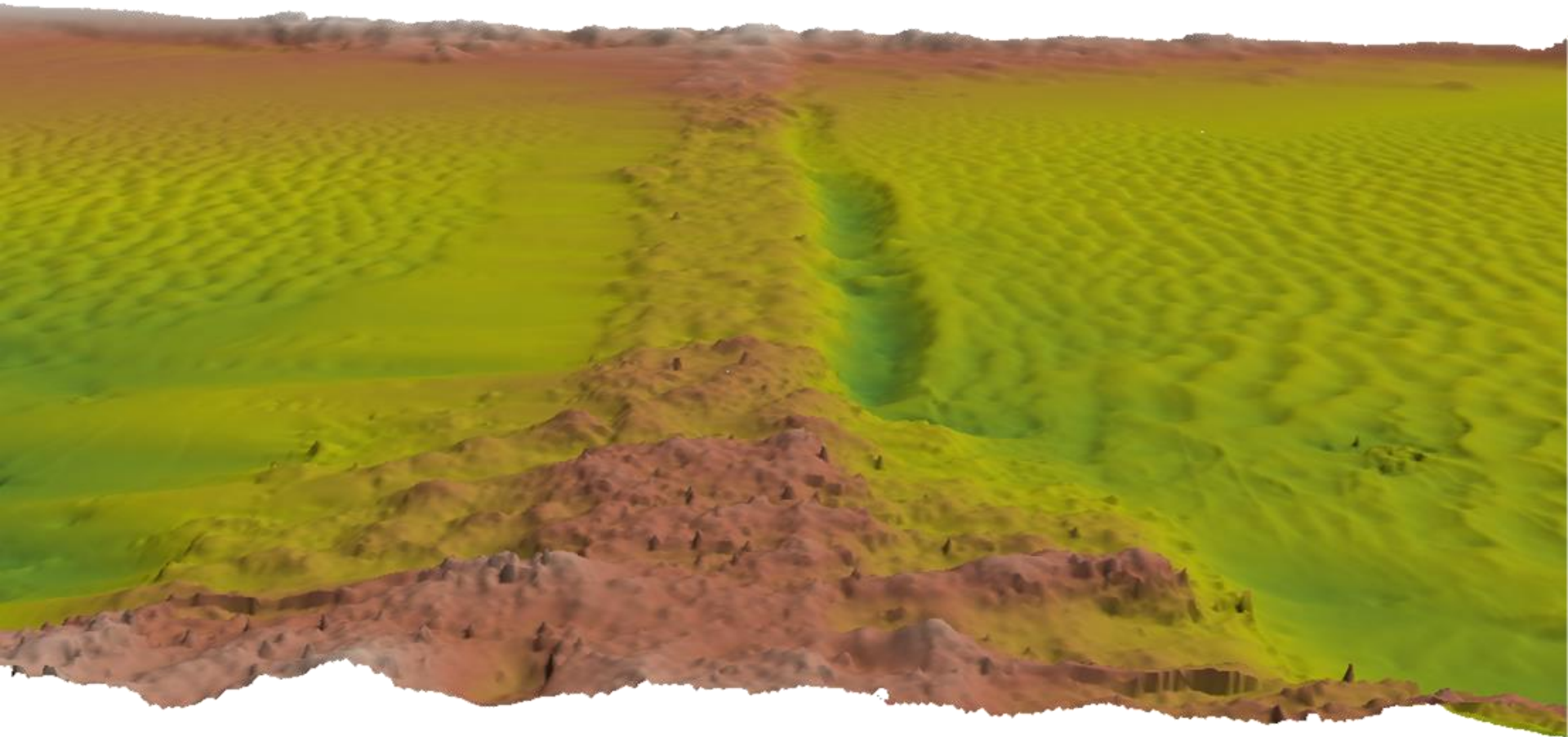
Monitoring channel conditions



Fraser river - Survey program



Fraser river - Survey program



Inner harbour - Draft restrictions



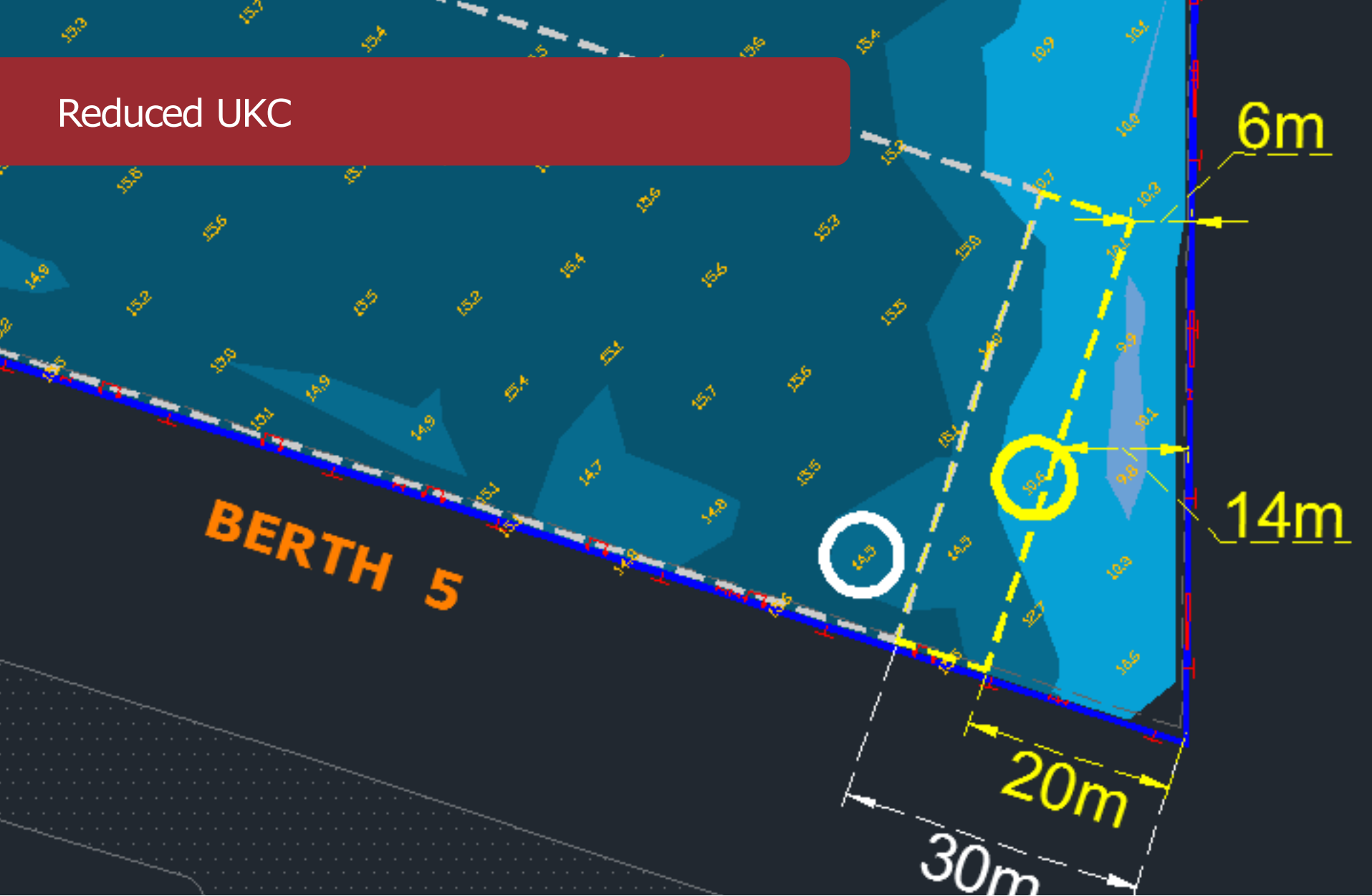
Dredging operations – Berth pockets



Larger vessels



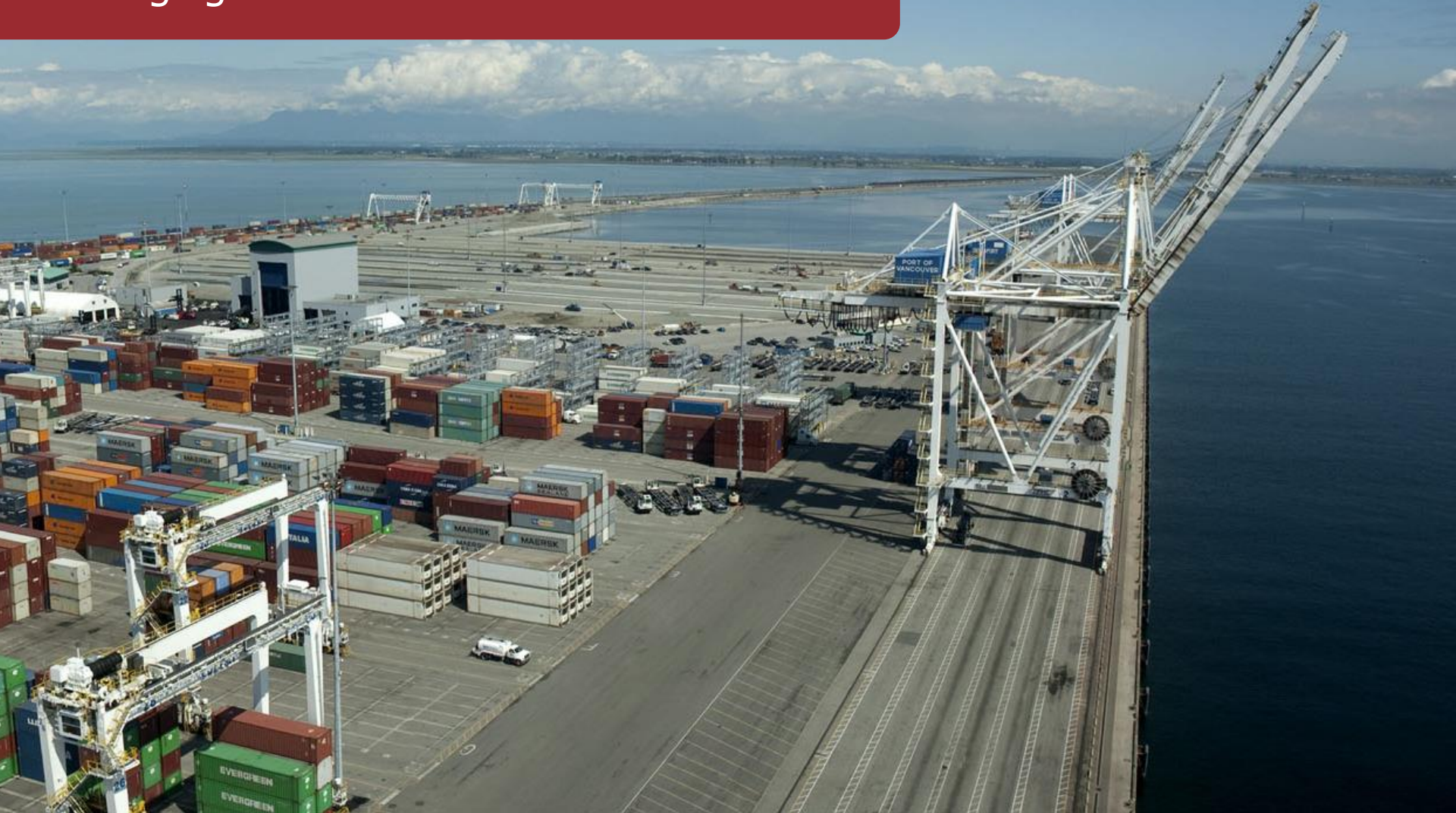
Reduced UKC



Dredging operations – Site preparation



Dredging – Land reclamation

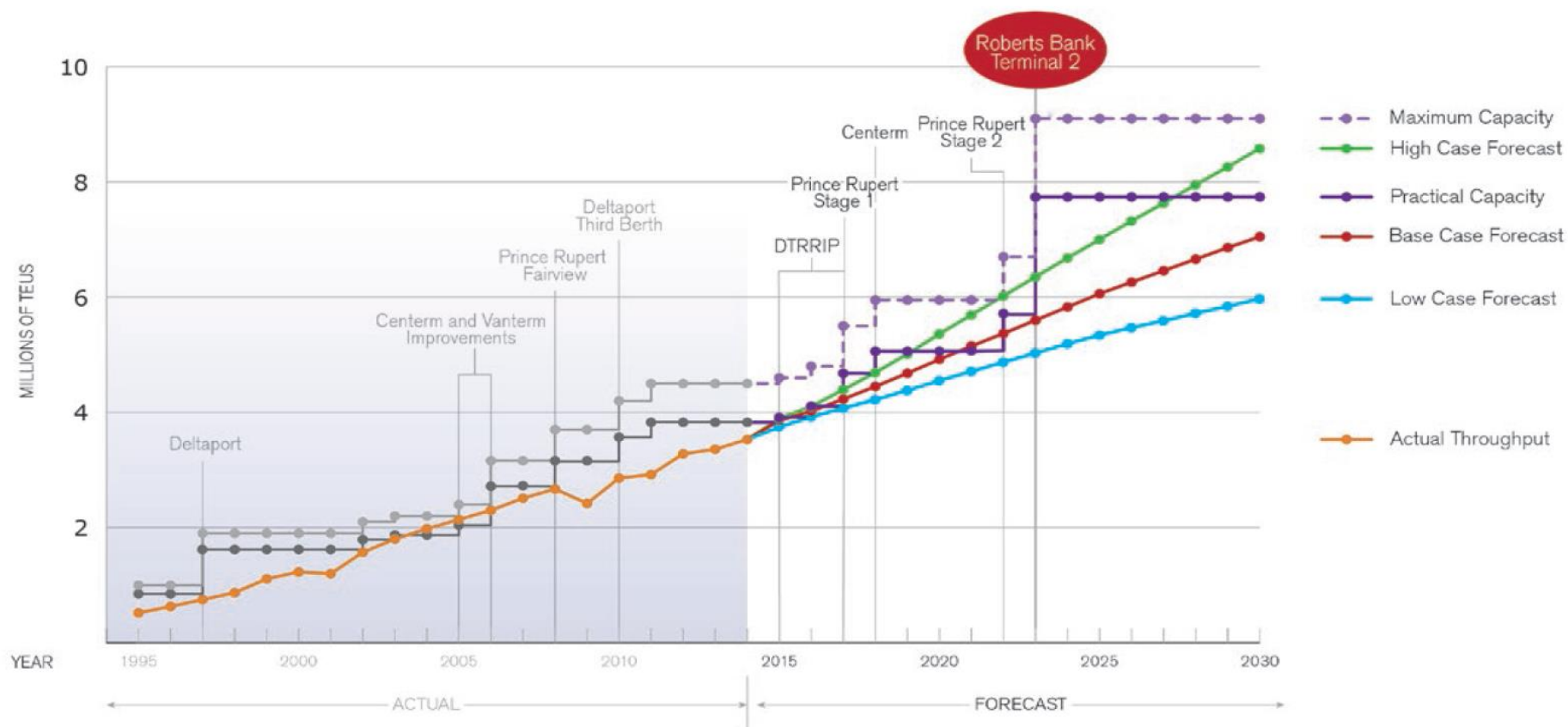


Containers - handling capacity

- 3.7 million TEUs



Containers - Historical and forecasted demand



Centerm terminal expansion project



The map illustrates the Roberts Bank area, highlighting the proposed three-berth container terminal and other infrastructure. The terminal is located on the western side of the bank, adjacent to the inter-causeway area. The map also shows the expanded tug basin, the BC Ferries terminal, and the location of Tsawwassen First Nation. The proposed terminal is outlined in yellow, and the inter-causeway area is labeled. The map includes labels for Delta, Tsawwassen First Nation, and Roberts Bank. The proposed terminal is labeled 'ROBERTS BANK TERMINAL 2'. The expanded tug basin is labeled 'EXPANDED TUG BASIN'. The BC Ferries terminal is labeled 'BC FERRIES TERMINAL'. The inter-causeway area is labeled 'Inter-causeway Area'. The map also shows the location of Tsawwassen First Nation and Delta. The proposed terminal is located on the western side of the bank, adjacent to the inter-causeway area. The map includes labels for Delta, Tsawwassen First Nation, and Roberts Bank. The proposed terminal is labeled 'ROBERTS BANK TERMINAL 2'. The expanded tug basin is labeled 'EXPANDED TUG BASIN'. The BC Ferries terminal is labeled 'BC FERRIES TERMINAL'. The inter-causeway area is labeled 'Inter-causeway Area'. The map also shows the location of Tsawwassen First Nation and Delta.

Roberts Bank terminal 2 project

- Proposed three-berth container terminal at Roberts Bank
- Could provide capacity of 2.4 million TEU per year
- Target completion 2024

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Environmental Impact Statement

- Four years of study

77 environmental studies

35,000⁺

Hours of fieldwork

100⁺ professional scientists

Roberts Bank terminal 2 project

Existing Roberts
Bank Terminals

Proposed
Roberts Bank
Terminal 2

Safety of operations – Protection of the Environment – Supply chain efficiency





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Thank you