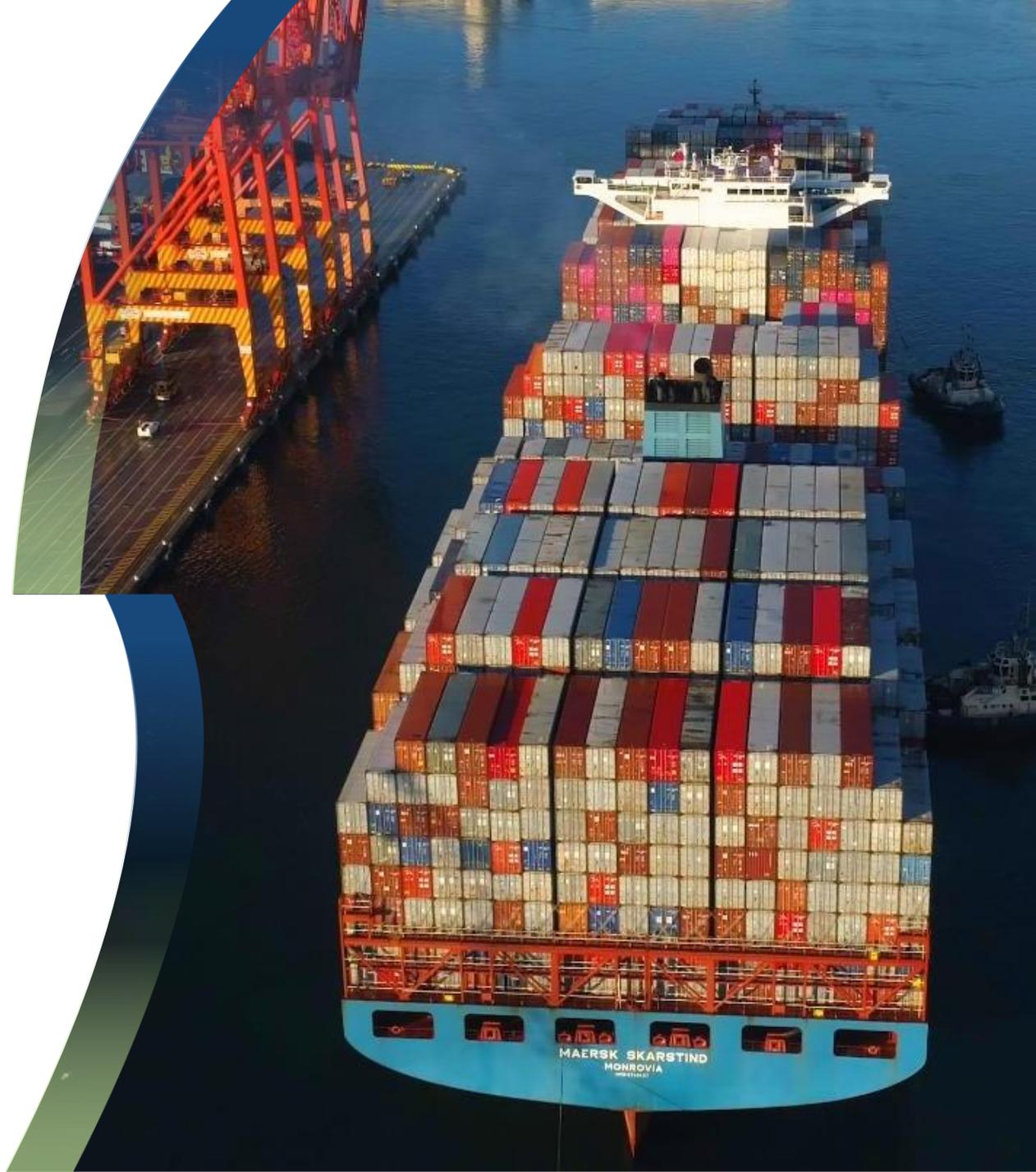


Port Capacity Enhancement Program

Stage two engagement program

June 2024

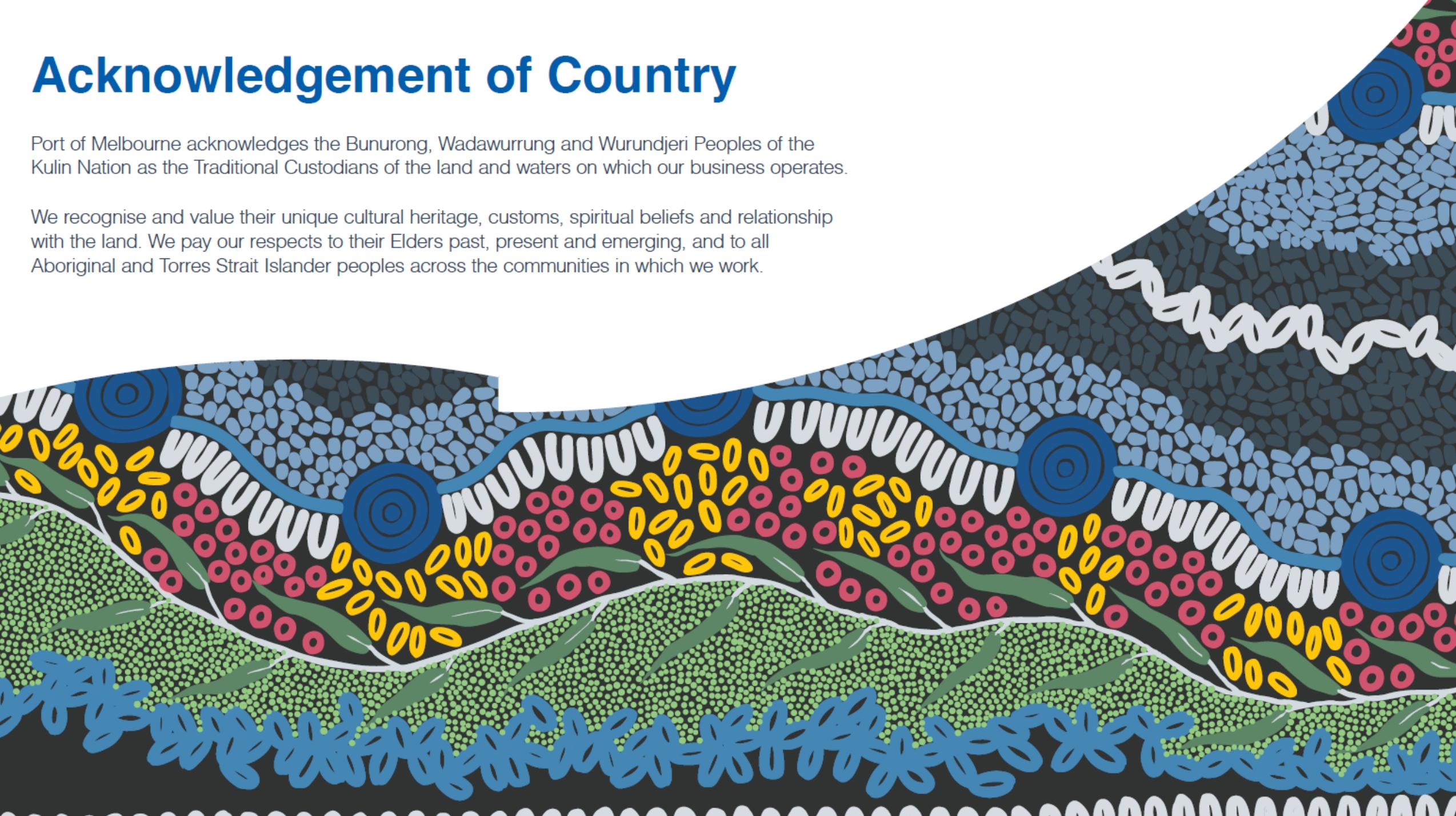
Port of Melbourne



Acknowledgement of Country

Port of Melbourne acknowledges the Bunurong, Wadawurrung and Wurundjeri Peoples of the Kulin Nation as the Traditional Custodians of the land and waters on which our business operates.

We recognise and value their unique cultural heritage, customs, spiritual beliefs and relationship with the land. We pay our respects to their Elders past, present and emerging, and to all Aboriginal and Torres Strait Islander peoples across the communities in which we work.



Welcome – Stage Two engagement program

The **purpose** of the Stage Two engagement program is to:

Secure information from our stakeholders that contributes to our understanding regarding the costs and benefits to the Victorian economy, in delivering a fourth international container terminal at Webb Dock North.

The **objective** of the Stage Two engagement program is to:

1. **Test and confirm the costs and benefits** as they appear in the draft CBA, **associated with Webb Dock North**; and
2. Hear about options for capacity improvements, provided by stakeholders.

Purpose of today's briefing session

Do you need any more information to understand the PCEP Draft Cost Benefit Analysis, to contribute and complete a submission?

PCEP Draft Cost Benefit Analysis five key findings

<p>1. The base case scenario is insufficient to meet forecast trade demand</p>	<p>2. Proceeding with PCEP would create net benefits to Victoria</p>	<p>3. Option 1 has greater net benefits than Option 2</p>	<p>4. Not proceeding with PCEP would have significant impacts on the supply chain and ultimately customers</p>	<p>5. Delivering PCEP at an appropriate time can be beneficial to Victoria</p>
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What we'll cover today



Background

Caryn Anderson
EGM Strategy
& Planning
Port of Melbourne



Draft Cost Benefit Analysis

Name: Eamon McGinn
Parnter
Deloitte



Key highlights



Engagement program

James Garriock
Executive Director
Insync

Background

Since the commencement of the Port Lease in 2016, PoM has conducted planning and engagement activities to inform the selection and development of preferred options for accommodating future growth in container trade.

This aligns with PoM's obligations under the Port Lease to manage and develop the port responsibly.

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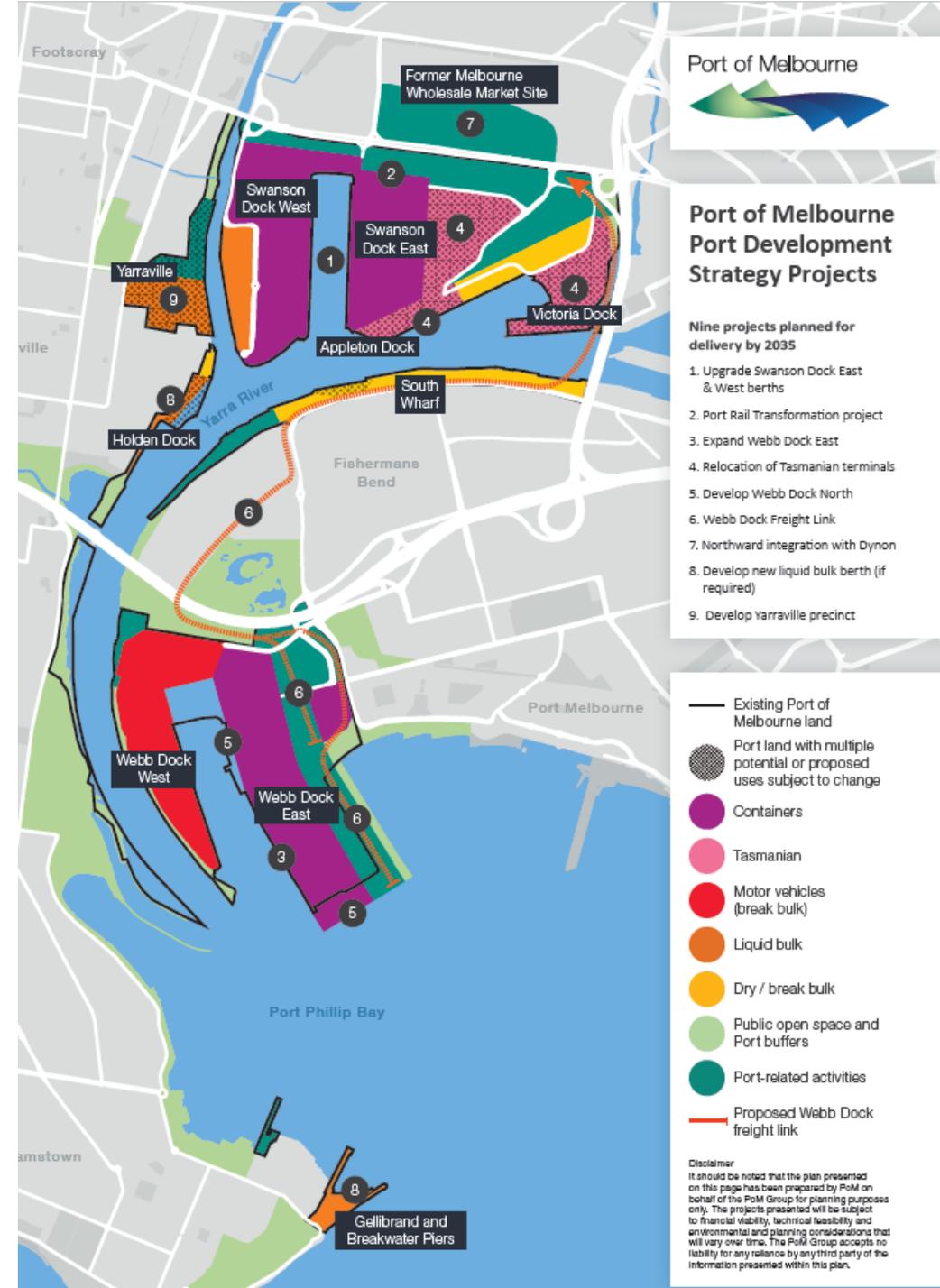
Caryn Anderson
Executive General Manager
Strategy and Planning

Port Development Strategy

After extensive stakeholder engagement, expert advice, and internal analysis, the Port Development Strategy 2050 was formalised and released in 2020.

The strategy identified **Webb Dock North** as the preferred location for delivering additional container capacity and includes **relocation of Tasmanian Trades**.

Port Capacity Enhancement Program



Port Capacity Enhancement Program

Developing Webb Dock North international container terminal and securing the long-term future for the Tasmanian trades.

Port of Melbourne



Cost Benefit Analysis - Process

To further validate the conclusion in the PDS 2050, PoM engaged Deloitte Access Economics to develop a Cost Benefit Analysis to confirm that the next major expansion of the port as described in the PDS 2050 would deliver greater economic benefits to the Victorian Economy, in comparison to other options.

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Three major activities prior to inform development of a draft Cost Benefit Analysis

1

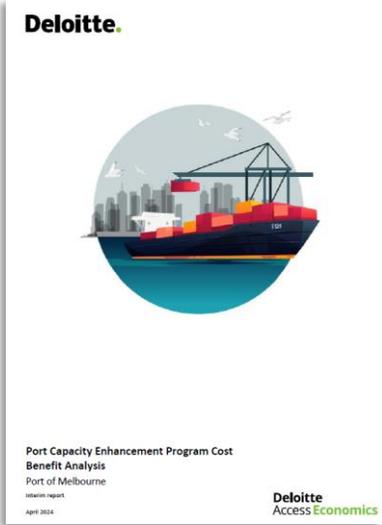
Develop and engage on the major inputs for a Cost Benefit Analysis

2

Develop the base case and options for analysis

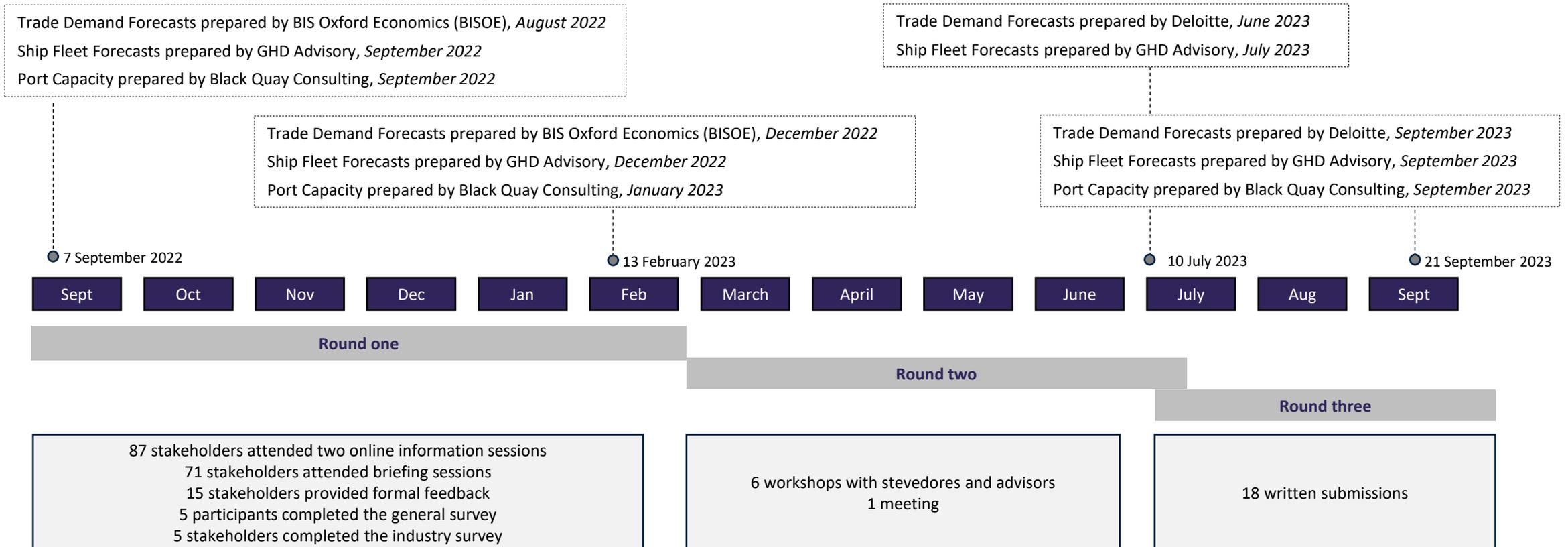
3

Conduct the economic analysis



1 Develop and engage on the major inputs for a Cost Benefit Analysis

Stage one engagement program – September 2022 to September 2023



2 Develop the base case and options for analysis

Base Case

Under the ‘**base case**’ it has been assumed that **Port activities would continue without significant capital expenditure by PoM**, however this is assumed **to include expenditure by stevedores**, which enhances stevedore capacity and productivity.

Webb Dock North

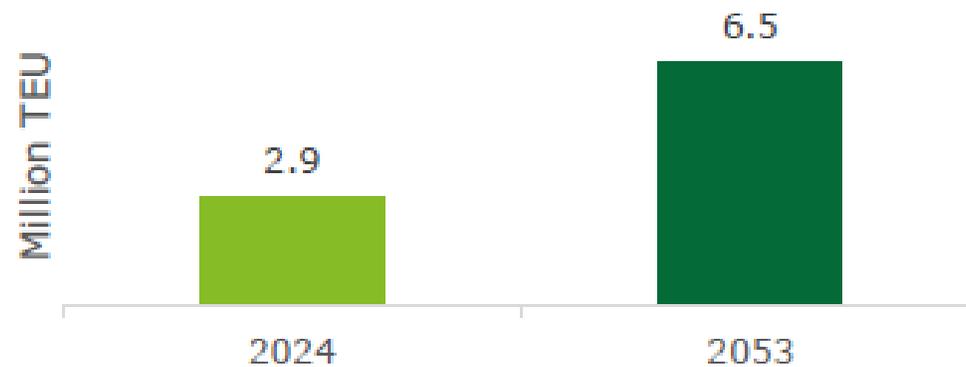
Under **Option 1** it has been assumed that a **two-berth container terminal would be built in Webb Dock North** and **TTOs would relocate to Victoria Dock** and an off-port logistics site. CAPEX for Option 1 would begin in 2027.

Webb Dock West

Under **Option 2** it has been assumed that a **two-berth container terminal would be built in Webb Dock West** and **TTOs would move to Webb Dock West temporarily**, prior to returning to the Eastern side of Webb Dock, **automotive trades would move upriver to the SAV** (Swanson, Appleton, Victoria Docks) precinct. CAPEX for Option 2 would begin in 2024.

3 Conduct the economic analysis

Containerised trade at the Port of Melbourne is forecast to more than double within the next thirty years. Without a substantive change in capacity, based on the assumptions modelled in this report, the Port will be unable to accommodate the anticipated demand.





PCEP Cost Benefit Analysis: Draft Report Summary

Port of Melbourne
June 2024

Context and approach

Context

PoM commissioned Deloitte to undertake a cost benefit analysis (CBA) to analyse the Port Capacity Enhancement Program (PCEP) from the point of view of the Victorian community

- The objectives of PCEP are to increase the Port's future container capacity to accommodate expected trade growth and improve the Port's ability to handle larger vessels.
- Deloitte has undertaken a CBA of potential options for PCEP, which compared two PCEP options against a base case.
- Several key studies are taken as direct inputs to the cost benefit analysis, including Black Quay capacity estimates, GHD vessel forecasts, and PoM capex estimates and timing.
- Under the base case, capacity constraints are forecast to first arise at the Port **starting in 2037** and the Port is forecast to reach capacity on a sustained basis **starting 2041**.
- Vessel congestion is forecast for **one year in 2037**, and then **three years starting 2041**, and displacement of trade **starting 2044**.

CBA approach

The CBA focuses on the impacts to the whole of Victoria.

1 Determine key assumptions

Define the base case and program case, and the assumptions underpinning the modelling (Section 5.2)

Scenarios:

Base case
Program case

Assumptions:

Time horizon
Reference group
Discount rate

2 Identify the expected economic benefits and costs of the project

Catalogue the cost and benefits associated with the policy options, and the logic for calculating the benefits/costs

Costs and benefits:

Benefit 1
Benefit 2
Cost 1
Cost 2

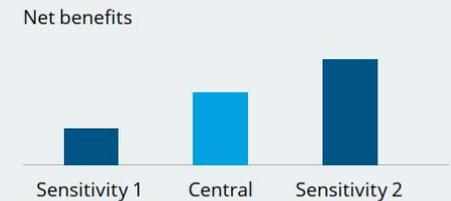
3 Estimate economic benefits and its net present economic value

Draws on research, and other data sources to quantify select benefits and costs over time



4 Identify the expected economic benefits and costs of the project

Understand the distribution of benefits and costs by stakeholder, and how changes to key assumptions (e.g. level of additionality) could affect results



Key principles applied in a CBA include:

- Impacts must only be counted once (no double counting)
- Only direct effects are included (no second round or multiplier effects)
- Transfers, taxes or subsidies are excluded
- All effects are measured relative to the base case in incremental terms
- Victorian imports/exports and external port capacity are assumed to be exogenous
- All figures are in real terms using 2023 present value (PV) in \$AUD

Context

What the CBA is:

- The CBA focuses on the impacts from the perspective of the Victorian community as a whole - in line with Victorian Department of Treasury and Finance guidelines.
- The analysis considers social, economic and environmental costs and benefits.
- Benefits in the CBA are compared against a base case which assumes a mostly unchanged Port: no changes to tenant locations, continued investment by stevedores in operational efficiency focussed on productivity improvements to extend current capacity.

What the CBA is not:

- The CBA is not a commercial assessment of PCEP for PoM.
- The selected options analysed in the CBA are not final and are subject to further design, refinement or change. Changes would alter underlying CAPEX assumptions.
- The CBA is not the sole determinant of whether PCEP is implemented or the timing of the expansion if it goes ahead.
- The CBA does not reflect or select a specific investment decision by PoM.

Base case and options

Base case

The base case is the scenario against which the costs and benefits are compared.

- Capacity constraints are forecast to first arise at the Port in 2037 (for one year) and the Port is forecast to reach capacity on a sustained basis from 2041, which would result in vessel congestion for a period of three years from 2041, and displacement of trade from 2044.
- Displacement of containers would commence in 2044, rising to 1.92 million TEU by 2053 as shown in the chart on the right.

Chart 3.1 Base Case Displacement of Container Trade

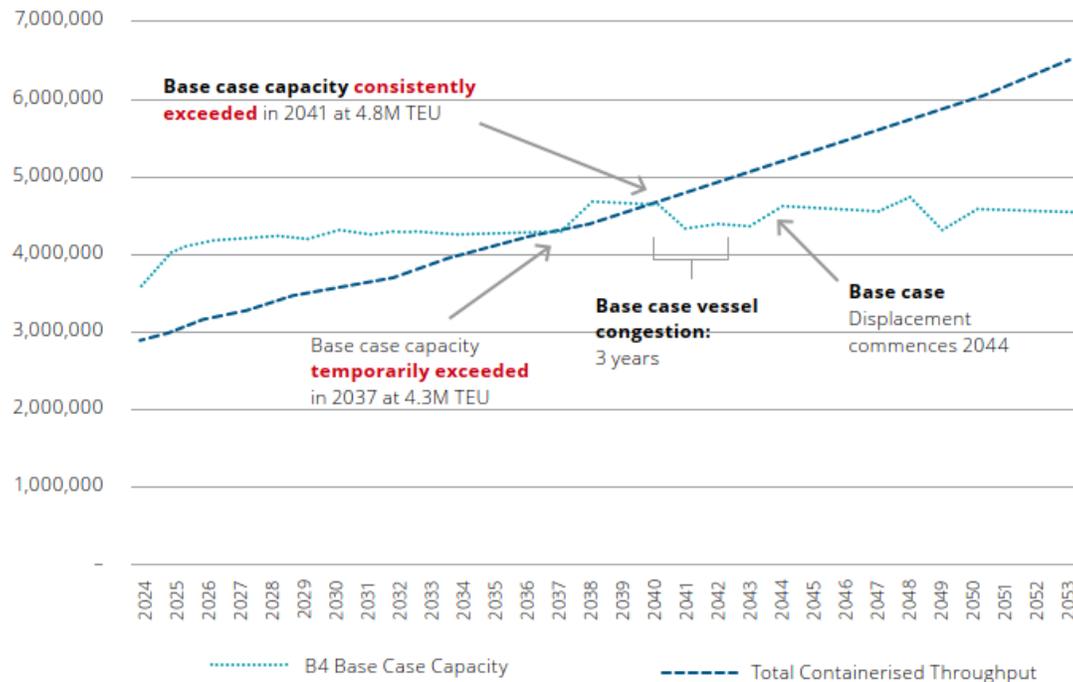
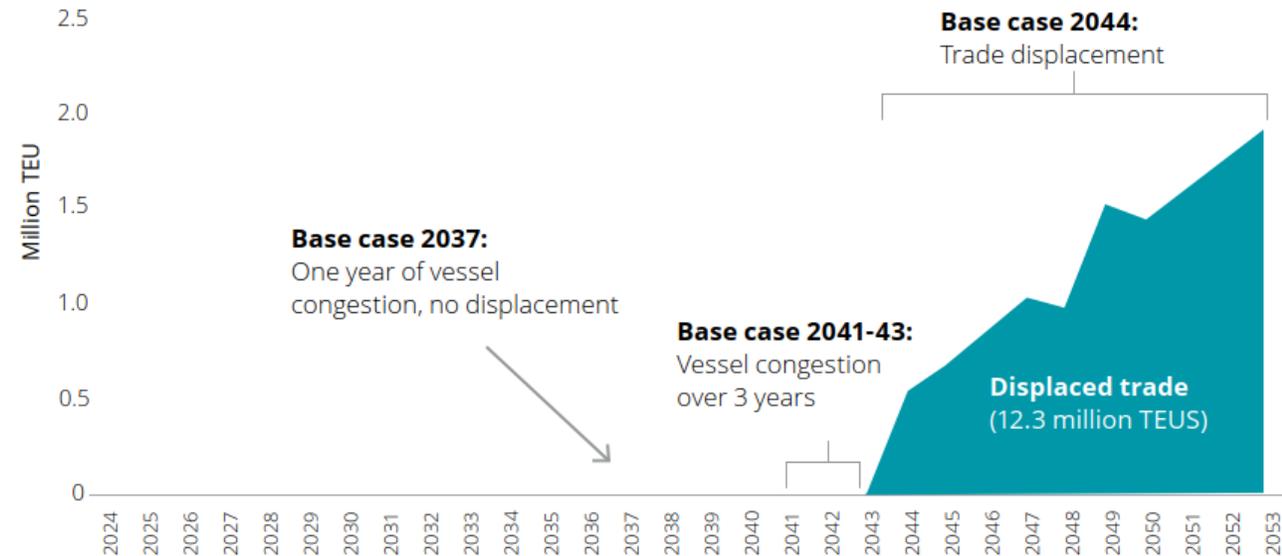


Chart 3.2 Base Case Displacement of Container Trade



Option 1 (Webb Dock North)

Provides for a two-berth container terminal developed on the area north of the existing VICT terminal, on the eastern side of Webb Dock.

- The dock would accommodate 2 x 14,000 TEU vessels with LOA of 366m. Additional stevedore investments in cranes and straddles (as per base case) would remain for existing terminals, and continued productivity improvements. The terminal would be active in 2037 (construction is assumed to commence in 2027).
- Option 1 would involve TTOs moving from Webb Dock to Victoria Dock with off-port logistics. It has been assumed PrixCar moves off-port. Qube would re-locate further north in the SAV precinct, and Auto trades would remain in Webb Dock. Proposed design options are indicative and may be subject to change.
- PoM could continue to meet demand until 2051, thereafter, additional capacity would be required to avoid displacement of container trade.

Chart 4.1 Projected Capacity and Total Container Throughput

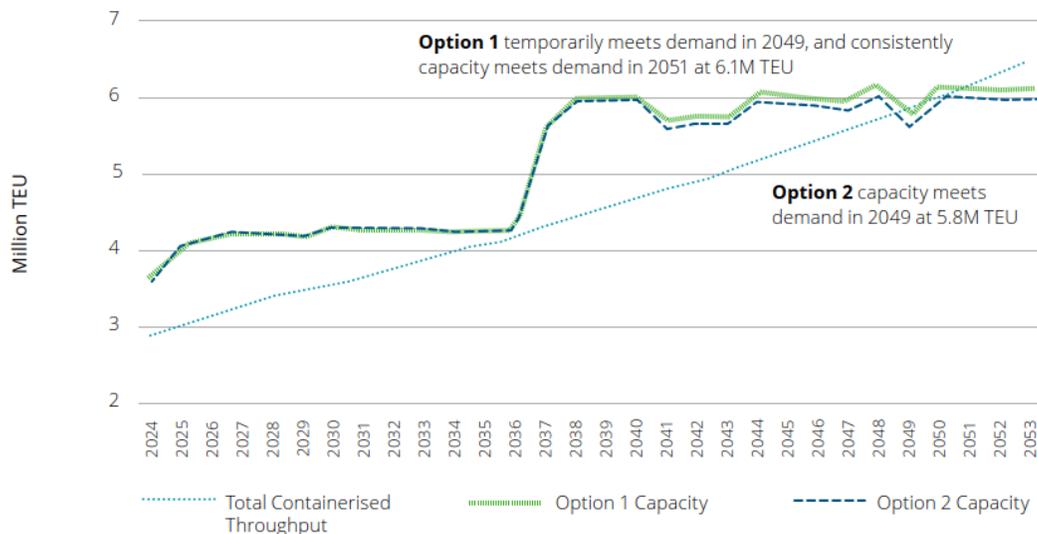
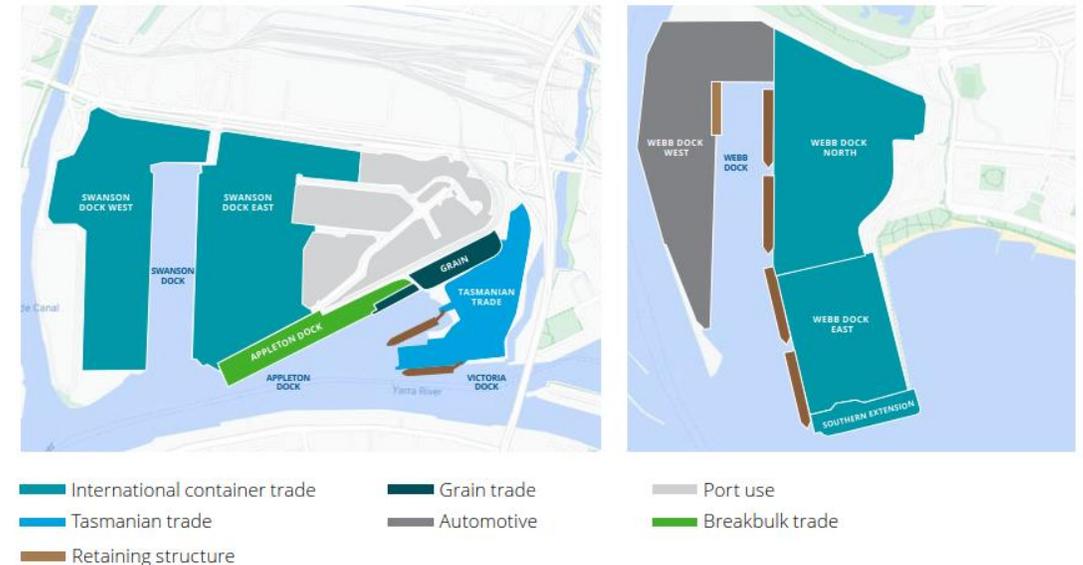


Figure 4.1 Option 1, tenant locations



Option 2 (Webb Dock West)

Provide for a two-berth container terminal developed on the western side of Webb Dock.

- The dock would accommodate 2 x 14,000 TEU vessels with LOA 366m. Additional stevedore investments in cranes and straddles (as per base case) would remain for existing terminals, and continued productivity improvements. The terminal would become active in 2037 (construction is assumed to commence in 2024).
- Option 2 would involve TTOs remaining at Webb Dock and auto trade moving to Victoria Dock and Appleton Dock sharing the space with break bulk. As in Option 1, PrixCar is assumed to move off-port and Qube will re-locate further north in the SAV precinct. The designs are indicative and subject to change.
- Option 2 would accommodate total containerised throughput until 2049 with a maximum of 5.8 million TEU.

Chart 4.1 Projected Capacity and Total Container Throughput

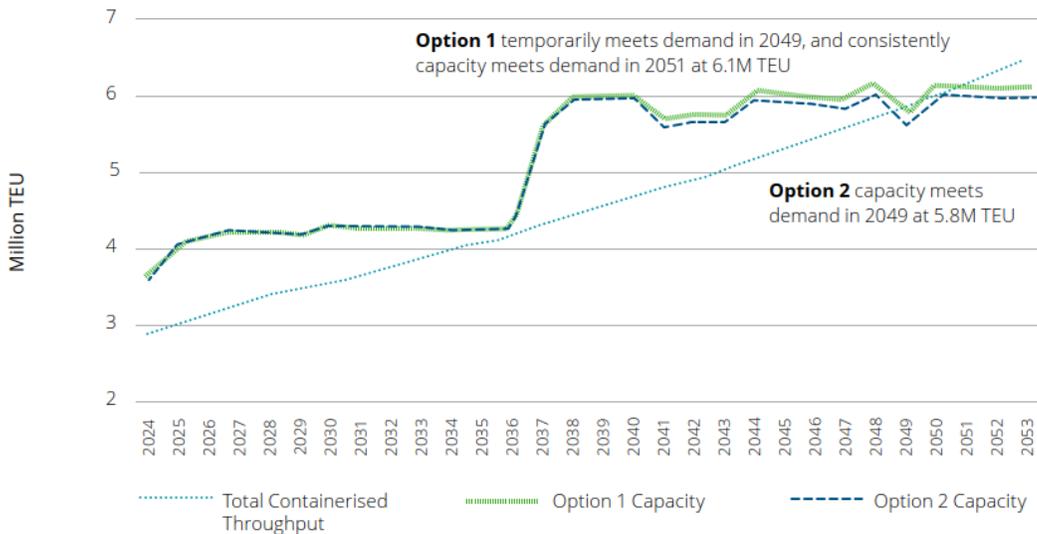


Figure 4.2 Option 2, tenant locations

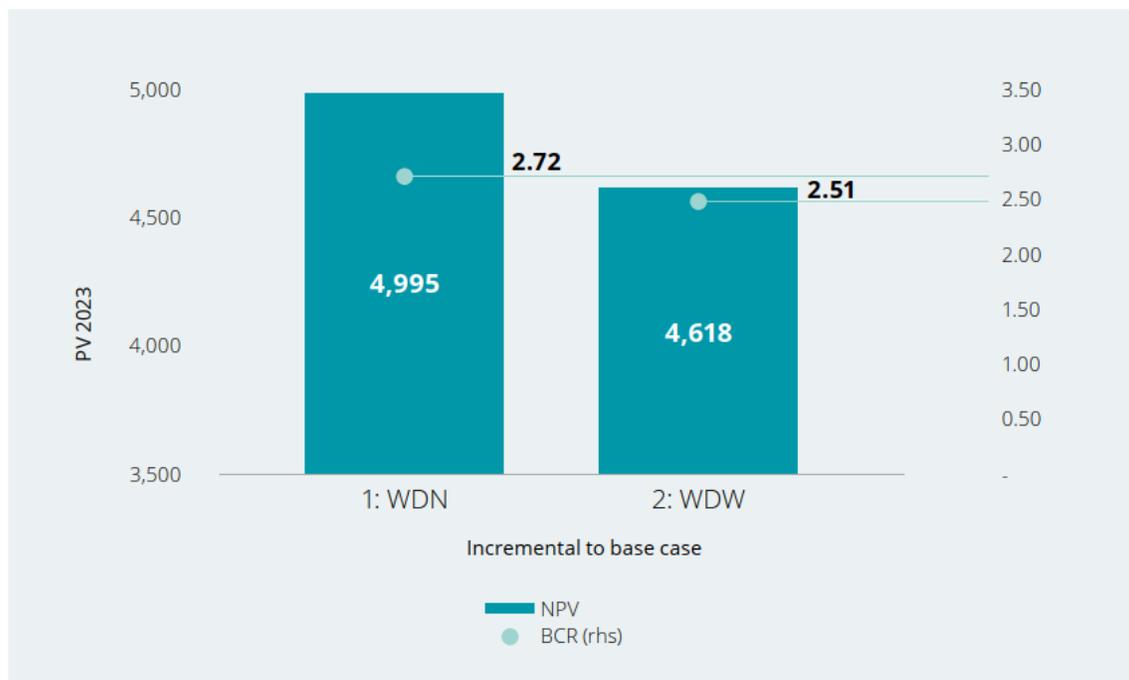


Core CBA results and findings

CBA results

The results of the CBA show that there is a net benefit to the State by delivering PCEP.

Chart 5.1 CBA Results – Incremental to the base case (\$PV, millions)



Source: Deloitte Access Economics

Note: Chart is truncated so should not be used to observe proportionality

	Op 1: WDN	Op 2: WDW
Costs		
Capital expenditure by PoM and tenants (CAPEX)	2,384	2,744
Structural maintenance and renewal	160	173
Tasmanian trade near-port logistics truck movements to and from PoM	179	-
PrixCar off-port relocation supply chain costs	90	89
Tasmanian trade vessel steaming costs from relocation up-river	45	-
Automotive trade vessel steaming costs from relocation up-river	-	11
Container vessel costs (calling at PoM)	49	46
Benefits		
On-port direct economic activity from capacity uplift (net of OPEX)		
Port of Melbourne	561	444
Terminal Operators	121	116
Residual land value of new container terminals	133	110
Avoided land bridging VOC and externalities of displaced container trade		
Road	2,626	2,484
Rail	53	50
Avoided vessel congestion cost	644	880
Cargo owner savings from avoided land bridging (road and rail)	2,572	2,432
Cargo owner savings from economies of scale of larger vessels at PoM	1,112	1,105
Residual value of new equipment and wharf	81	62
Total		
Costs	2,907	3,064
Benefits	7,902	7,682
NPV	4,995	4,618
BCR	2.72	2.51

Key findings

There are five key findings resulting from the CBA modelling.

01 **The base case scenario is insufficient to meet forecast trade demand**

Under the base case, stevedores are forecast to make investments which would increase the operational capacity and productivity of the Port. However, while this could meet demand in the short term, ultimately, capacity would still be reached sooner than when it would be reached under both options. As such, continuing a 'business as usual' scenario with investment undertaken by stevedores is insufficient to meet the trade demands of the next 30 years.

02 **Proceeding with PCEP would create net benefits to Victoria**

As additional capacity is delivered at the Port, there are several benefits to be gained by the Victorian economy, which would be greater than the benefits of the base case. Under PCEP, there would be greater economic activity at the Port, reduced overall supply chain costs due to avoided land bridging and vessel congestion, and larger ships accommodated at the Port, meaning economies of scale are experienced. As such, proceeding with PCEP would benefit the Victorian economy.

03 **Option 1 (WDN ICT) has greater net benefits than Option 2 (WDW ICT)**

While both options have net benefits, Option 1 (WDN ICT) has greater benefits relative to the base case. There is increased capacity compared to Option 2, which would result in greater benefits to be gained by the Victorian economy, through benefits to the Port, stevedores, and consumers. Option 1 also allows for greater optionality to expand capacity in the future, and has a lower CAPEX compared to Option 2.

04 **Not proceeding with PCEP could have significant impacts on the supply chain and ultimately consumers**

Without proceeding with PCEP, the Port would reach capacity earlier resulting in significant disruptions to the supply chain. As vessels are assumed to be diverted to Port Botany, containers would need to be transported by rail and road to Victoria. This would result in increased vehicle operating costs, road damage and negative externalities which is significantly more expensive than the vessel operating costs associated with arriving at PoM. Consumers and exporters in Victoria would face higher supply chain costs putting pressure on households and export business margins.

05 **Delivering PCEP at an appropriate time can be beneficial to Victoria**

There is a window of opportunity for when capacity uplift of the Port should be delivered (according to trade demand forecasts and capacity estimates). The analysis suggests there is a six-year⁴ window in which PCEP could be delivered and yield a strong net benefit to the Victorian economy.

Key points for stakeholders

Key points for Cargo Owners, Importers and Exporters

PCEP would be expected to improve the Port's ability to handle larger vessels with a capacity of up to 14,000 twenty-foot equivalent units with a length overall of 366m.

Congestion

- Port congestion surcharges have been assumed to be imposed if the Port reaches capacity, over the first three years of vessel congestion.
- Following the vessel congestion period of three years, containers above capacity are assumed to be displaced to Port Botany, at which point the container surcharge is assumed to cease.

Land-bridging

- The land-bridging cost between Sydney and Melbourne is calculated for road and rail modes. Most of the forecast displaced trade is assumed to be transported by road.

Key points relating to Shipping Lines

Congestion

- Port congestion surcharges have been assumed to be imposed if the Port reaches capacity, over the first three years of vessel congestion.
- The CBA assumes that costs incurred by shipping lines are passed onto the Victorian consumer.

Capacity

- It is assumed that the Port experiences congestion after capacity is reached.
- Following the vessel congestion period of three years, containers above capacity are assumed to be displaced to Port Botany, at which point the container surcharge is assumed to cease.

Key points for Tenants & Stevedores

Timing

- There is a six-year window in which delivering PCEP would yield a positive net benefit to the Victorian economy. Implementing PCEP later (3 years after) 2037 could reduce the infrastructure expenditure in present value terms.

Investment

- The CBA assumes that stevedores will make ongoing investments as needed to achieve the base case capacity forecast.

Tenant relocation

- The CBA assumes that under PCEP, certain tenants may be impacted by costs associated with relocation. There are no tenant relocations under the base case.

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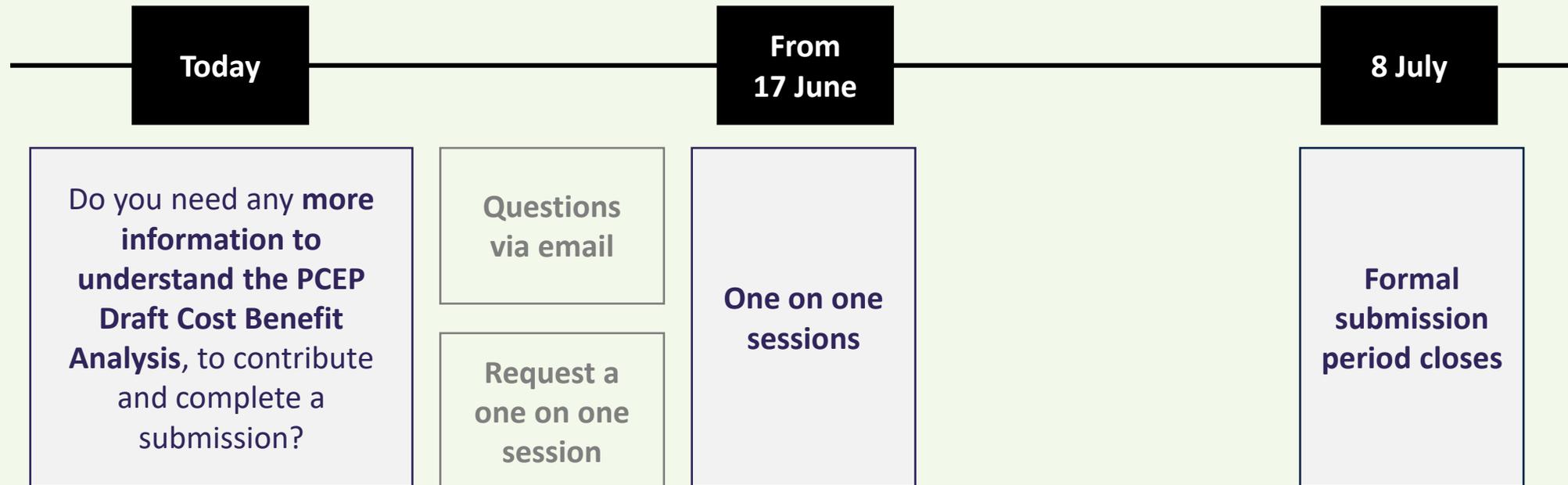
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Next steps

Engagement facilitated by Insync

Next steps – engagement



Engagement – consider the below for discussion and submissions



What are your reactions and thoughts on the draft cost benefit analysis?



Is there anything that would improve to the accuracy of a final Cost Benefit Analysis?



In the context of benefits and impacts to the Victorian economy, is there anything that is not in the draft Cost Benefit Analysis, that should be in the (final) Cost Benefit Analysis?



Do you have any anticipated or developed business decisions that may directly help or affect Webb Dock North being implemented.



How would you like to be engaged with about PCEP in the future.

Discussion

Thank you

portdev@portofmelbourne.com

Webpage:

www.portofmelbourne.com/facilities-development/port-capacity-enhancement-program/

Port of Melbourne

