PROJECT UPDATE
Swanson Dock West (SDW) Remediation

Port of Melbourne Operations Pty Ltd

August 2022

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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.

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Session agenda

1. Welcome and housekeeping
2. Purpose of Information Session
3. Port Objective and investment obligations
4. Project overview
5. Questions and discussion
6. Next steps
7. Session close

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Housekeeping

Keep your microphones muted during the presentation.

Feel free to ask questions in the chat and we'll do our best to answer them during the open Q&A.

Open Q&A will be held at the end of the presentation.

This information session will be recorded.

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Purpose

The purpose of today's session is to:

- Outline the key aspects of this major remediation project;
- Detail the options considered for construction staging;
- Inform you how PoM proposes to recover this investment; and
- Provide the opportunity for feedback.

Specifically, this engagement seeks to:

- **Inform** and explain the need for the project;
- **Inform** you about the scope of the project;
- **Seek your views** on the impact to you of the timing and option considerations for the project;
- **Enable** you to ask questions or **seek** further information to inform any formal written feedback you wish to provide

Disclaimer

This presentation is for information only is intended as general information only and is intended to be current as at or around July 2022. The information is in summary form and does not purport to be complete. PoM does not warrant the accuracy, adequacy or completeness of any information provided, or as to the suitability of any information contained in this presentation for any purpose. PoM will not be liable to any third party using or relying on any information contained in this document for any purpose. Proceeding with Stage 1 of the project remains subject to PoM board approval, which is subject to completion of this phase of the project.

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The Port Objective and PoM's investment obligations

Port Objective

> *Port Lessee acknowledges that Port Lessor's objective (**Port Objective**) in granting this Lease is that, throughout the Term, the Port be managed, operated, maintained and developed so as to be a major seaborne trade gateway to the benefit of the economy of the State.*

PoM's stewardship obligations

PoM has stewardship obligations under the Port Lease granted by the state including to:

- Achieve the Port Objective;
- Manage, operate and maintain the Port in accordance with Good Operating Practice;
- Ensure the Port is capable of providing access to shipping, including being able to reasonably accommodate vessel of the size and type reasonably required to meet the trade requirements of the Port from time to time;
- Develop the Port land and infrastructure to:
    - Cater for actual and reasonably anticipated growth in, and demand for, port services;
    - Provide quality and efficiency standards expected of a major port; and
    - Maintain the Port's leading position among major Australian ports in terms of its quality, efficiency and effectiveness.

Port Management Act (PMA), s48

In considering feedback PoM will have regard to the objectives of the Port Management Act, including:

- To promote efficient use of, and investment in, the provision of prescribed services for the long-term interests of users and Victorian consumers.

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Project Background

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PROJECT IN FOCUS | Swanson Dock West (SDW) Remediation

SUMMARY | The project is designed to address asset deterioration of SDW.

What is driving the need for this investment?

Project need

- Swanson Dock West (SDW) is a critical International Container Terminal (ICT) of the port and comprises 944m of container handling berths, which was constructed in several stages between the 1960s and 1980s.
- Sections of SDW are close to or beyond the typical design life of 30 years, which was the standard design life utilised at the time.
- Crane rail deflection surveys and core-hole inspections of the landside timber piles were carried out in 2016-17 on SDW Berth 1 and 2 and subsequently in 2019.
- Results indicated that top sections of the timber piles have significantly deteriorated.
- Based on the 2019 condition inspection assessment, remediation is required to avoid any further deterioration of the wharf asset.
- Without asset intervention, over a longer period of time, the risk of structural failure will likely require a downgrading of wharf load capacity to mitigate risk. This will impact DPWA's ability to operate as intended.
- PoM is required under the Port Lease and Port Concession Deed to maintain port infrastructure in accordance with good operating practice, including to specified load standards and port load.

SDW Remediation Project Compliance Obligations

Port Lease

- Clause 8.2(a) - manage, operate and maintain the port in accordance with Good Operating Practice.

Port Concession Deed

- Clause 11 - maintain, repair and replace Port Assets in accordance with Good Operating Practice, including maintaining minimum wharf load requirements as per the Port Load Chart;
- Schedule 8 - maintain minimum remaining service life

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PROJECT IN FOCUS | Swanson Dock West (SDW) Remediation

SUMMARY | Project Overview

Relevant Trades:	**CONTAINERS**
Approximate Duration:	2022 – 2027
Precinct:	Swanson Dock West

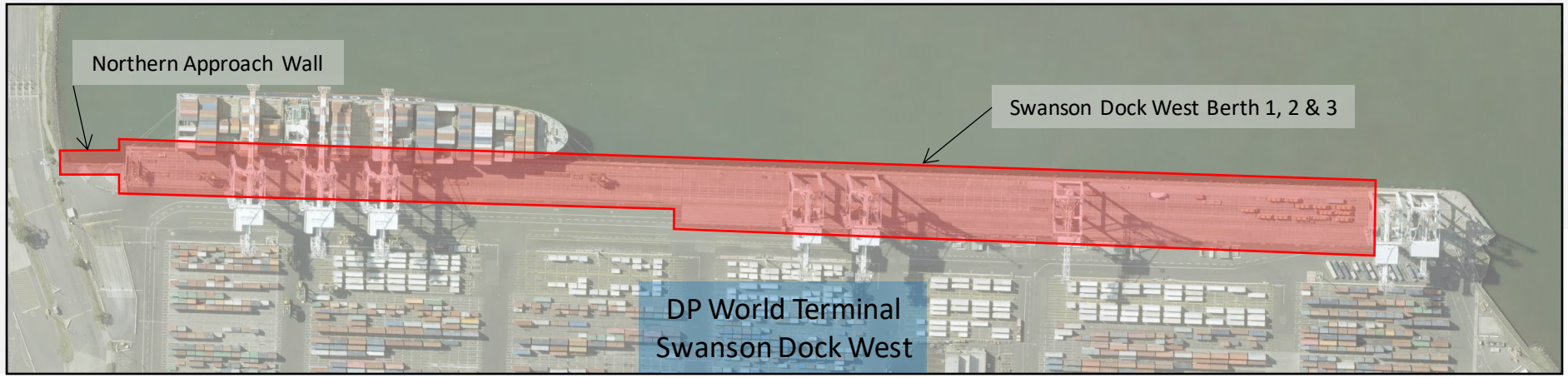
The Swanson Dock West (SDW) berth structures are being remediated so they can continue to handle container vessels for the next 50 years. SDW container terminal is intended to continue to deliver a significant portion of the Port's container handling capacity.

PROJECT OBJECTIVES

- **Ensure the condition of the existing infrastructure is capable of meeting minimum service requirements:** To ensure the condition of the existing Swanson Dock wharf structures are capable of meeting clause 11 and schedule 8 of the Port Concession Deed (PCD), minimum Port Load Chart requirements and extend the operational service life of the berths for the duration of the Port Lease.

PROJECT SCOPE

Wharf Remediation	▪ Installation of new piles, including associated deck demolition and re-construction works ▪ Remediation of existing piles ▪ Seaside & Landside Crane Rail replacement at Berth 1, 2 & 3 ▪ Fender beam remediation and Berth 3 transverse beam remediation ▪ Deck remediation (soffit & top) ▪ Cathodic protection on exposed re-enforced concrete elements (fender & transverse beams and soffit) ▪ Services (utilities) including remediation of drainage through sheet pile wall
Retaining Wall and Pile Remediation	▪ Remediation (patching and encapsulation) of sheetpile wall at Berths 1, 2 & 3 ▪ Remediation of Northern approach wall ▪ Replacement of protective jackets on seaward piles
Bollard upgrades	▪ Replacement of existing 50 tonne bollards with 100 tonne bollards ▪ Installation of 4 x 150 tonne bollards at Berth 1 to maintain DPW's ability to accommodate vessels of up to 337m LOA on Berth 2 during the works



PROJECT IN FOCUS | Swanson Dock West (SDW) Remediation

SCOPE | What investment solution best meets this need?

Options analysis and Recommended Option

PoM considered a range of construction staging options taking into consideration PoM's regulatory and contractual obligations, DPWA operations and shipping impacts with the key options outlined in the table below.

The **preferred option ($281M - $308M)** was arrived at in consultation and engagement with DPWA. Similar to the SDE Remediation project it balances the need to undertake the remediation works as quickly and safely as possible whilst targeting for DPWA to be reasonably able to maintain a two berth operation during construction (from the current three berths).

Whilst not the lowest in cost, it is considered the most prudent and efficient in balancing the need for remediation with the needs of DPWA and Port users.

Construction Staging Options	Indicative Cost ($M)*	Tariff Impact[1]	Construction Duration (Years)[2]	Advantages	Disadvantages
Option1: One Stage - occupy full (944m) quay line	219 - 232	Approx. 0.2% increase post TAL	3	▪ Shortest construction period ▪ Allows multiple work fronts ▪ Lowest construction costs ▪ Unfettered access	▪ DPW operations cease to operate as vessels cannot berth during construction period. ▪ Insufficient capacity in the port to be able to lose more than 1 berth during construction.
Option 2: Three Stages (with early works) restricted 2 berth operation	281 - 308	Approx. 0.3% increase post TAL	4-5	▪ Maintains ability to berth up to a 1x337m vessels ▪ Provides a consistent and reliable two berth operation including the ability to berth 2 x 300m^3 vessels simultaneously. ▪ Allows the continued processing of containers at Swanson Dock West.	▪ Construction duration is longer and increased construction costs relative to Option 1 but less than option 3 ▪ DPW restricted to a two berth operation from the current three ▪ Due to structural load limits and current berthing restrictions related to vessels > 300m LOA, increased number of vessels > than 300m LOA calling at SDW will require VTS exemptions to berth safely.
Option 3: Seven Stage – Prioritised 2 berth operation	427 - 465	Approx. 0.4% increase post TAL	7-9	▪ Maintains ability to berth up to a 1x337m vessels ▪ Berth availability is maximized throughout the works ▪ Provides a consistent and reliable two berth operation including the ability to berth 2 x 300m vessels simultaneously, some of the time during construction (approx. 70%-80% of time). ▪ Provides a two berth operation including the ability to berth 1 x 337m vessel plus a 300m vessel for the majority of the works duration (approx. 50% of time). ▪ Disruptions are minimized with shorter stages in the crossover zones	▪ Longest construction duration and highest costs; ▪ Smaller construction work zones create safety issues ▪ Vessel operation will still be impacted when working in crossover zones between B1/B2 (CH281-CH370) and B2/B3 (CH603-CH692)

[1] Tariff impacts are shown as the difference in the annual growth rate of tariffs post TAL (2037 to 2066) under the identified option relative to the tariff growth rate that would occur if the SDW remediation project had not occurred. All options have no impact on tariffs during the TAL period.

[2] Indicative costs based on other projects and desktop analysis. Subject to change based on construction market feedback

3 Staging delineation to be further refined in consultation with DPWA and Ports Victoria to maintain a 2 x 300m operation during the project.

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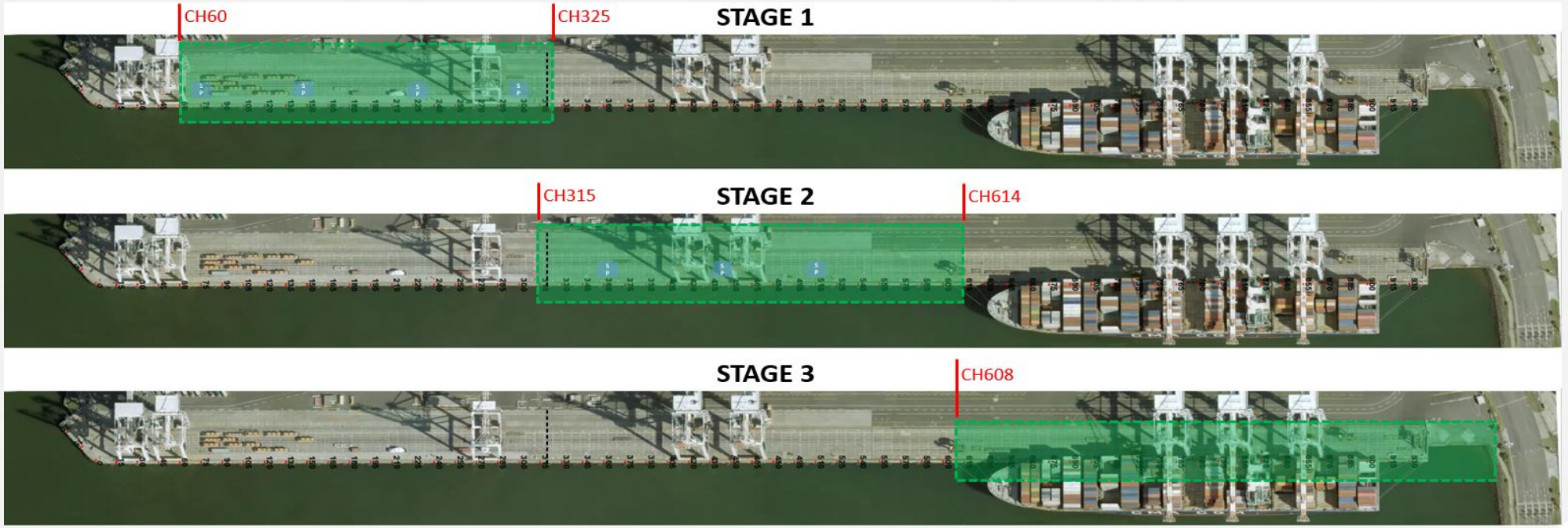
Recommended Option | Three Stage construction staging program

- In collaboration with DPWA over the last 12-15 months; a three-stage delivery program has been developed to minimise operational/shipping impacts as low as reasonably possible with preparations underway to commence Stage 1. Stage 2 and Stage 3 will be subject to further consultation with DPWA prior to finalising.
- Three stage construction program will enable DPWA to maintain a two berth operation for the duration of the works.
  - Commencing in Berth 1 with a planned start of Q1 CY 2023
  - Occupy a full berth providing the most efficient approach in terms of schedule and impacts to DPWA
  - Upon completion of Berth 1, works will continue into Berth 2 and subsequently Berth 3
  - Overall project duration is currently forecasted for circa 5 years.
  - Operations are informed by the success of SDE remediation project
  - The staging allows future optionality for the possible future extension of the Swanson Dock swing basin as noted in our Port Development Strategy.



Remediation period
~18-24 months
~15-18 months
~12-15 months

PROJECT IN FOCUS | Swanson Dock West (SDW) Remediation

Bollard Upgrades

Mooring Analysis has identified requirement to upgrade existing bollards

- Mooring Analysis indicates that mooring line loads at excessive wind speeds will exceed the design capacity limits of existing 50t bollards.
- At SDW, the prevailing Westerly/South Westerly winds push vessels off the berth; consequently, the mooring bollards are subjected to higher design wind speeds and greater mooring line loads in extreme wind weather events.
- With the increase in ship sizes, the risk of vessels pushing off the berth has increased in likelihood since FY20, with over 200 vessels calling at Swanson Dock beyond 300m LOA since FY20 compared to zero vessels pre FY20.
- Vessels greater that 300m LOA are required to utilise 150t bollards for bow and stern lines under extreme wind conditions. Under such extreme conditions the existing 50t bollards currently lack adequate capacity for spring and breasting lines.
- PoM considered three options to ensure mooring capability is adequate. The preferred choice is replacing 50t bollards with 100t and installing 4 x 150t bollards in Berth 1.
- Installing 4 x 150t bollards (circa 2024) at Berth 1 enables DPWA to maintain the ability to berth vessels up to an LOA of 337m at Berth 2, while PoM occupies Berth 3 for stage 3 works.

Vessel	Current arrangement (50t + 150t in Berth 3 only)			100t bollard upgrade only (100t + 150t in Berth 3 only)			100t & 150t bollard upgrade (100t + 150t in Berth 2 & 3)		
(LOA)	Berth 1	Berth 2	Berth 3	Berth 1	Berth 2	Berth 3	Berth 1	Berth 2	Berth 3
139									
281	(1)	(1)	(1)						
300			(1)			(2)		(2)	(2)
312			(1)			(2)		(2)	(2)
324			(1)			(2)		(2)	(2)
336			(2)(3)			(2)		(2)	(2)

	Bollard design capacity not exceeded at design wind speed (59 knots)
	Acceptable under certain conditions, refer note (1) and (2)
	Vessel mooring exceeds bollard capacity in most conditions

(1) Mooring analysis indicates that mooring line loads at 59 knot design wind speed exceed capacity of existing 50t bollards

(2) Vessels may only berth in particular arrangements where 150t bollards can be utilised with bow and/or stern lines

(3) Spring lines risk overloading existing 50t bollards

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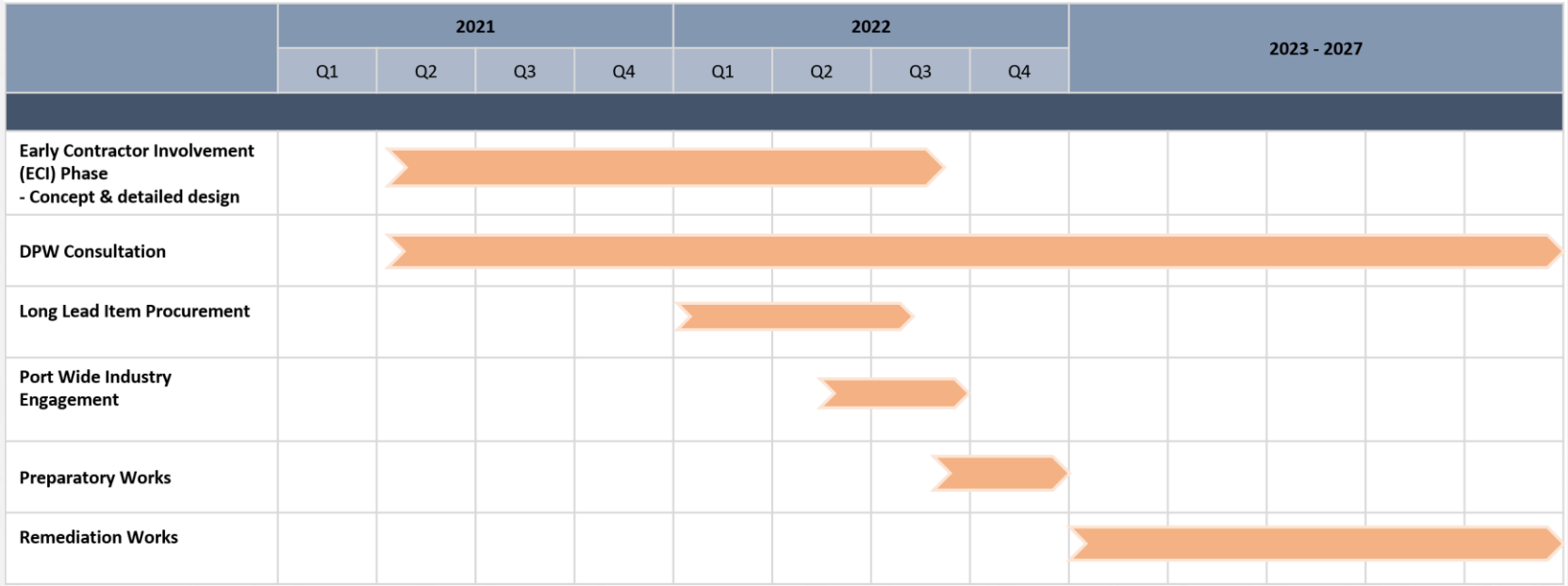
SUMMARY | Timing of construction has been planned in consultation with DPWA

Engineering analysis and consultation with DPWA has informed the need to undertake the wharf remediation works as soon as possible to avoid the risks of structural deterioration and avoid the need to downgrade wharf load capacity impacting DPWA's ability to operate as intended.

Project Timing

- The 2019 condition inspection identified the wharf requiring remediation within a 1 to 5 year period.
- Remediation needs to commence as soon as possible so that the project can be delivered to address the project objectives.
- Following continued engagement with DPWA during 2021 and early 2022 on the program, scope and proposed timing, DPWA has advised of a strong preference for the remediation works to commence as soon as possible
- Based on prevailing construction market conditions; remediation works are planned to commence in Q1 CY2023. Delay in commencement is expected to increase the cost.
- Wharf remediation works will commence with Stage 1



PROJECT IN FOCUS | Swanson Dock West (SDW) Remediation

FUNDING | How will PoM recover the costs of the investment?

PoM is proposing to recover the investment in SDW from Prescribed Services Tariffs, which are subject to ESC compliance assessment.

Investments in Prescribed Services can be recovered via:

- The **Prescribed Services Tariffs** in the Reference Tariff Schedule (RTS) – all Port Users are subject to the same tariffs for the same service (as defined in the RTS)
- **Negotiated contracts** with Port Users for Prescribed Services – tariffs under these contracts reflect commercial negotiations and therefore may differ from the Reference Tariff Schedule

PoM considers that Prescribed Services Tariffs are the appropriate mechanism for recovery for this investment, on the basis that:

- The expenditure will be included in PoM's Regulatory Asset Base and be recoverable under the Pricing Order. However, tariffs will be unaffected for the duration of the Tariff Adjustment Limit period (at least until 2032 but likely until 2037).
- Is consistent with the approach for the SDE remediation works completed previously

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Feedback

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Q&A session

Clarification

- Do you have any questions about the need for the remediation?
- Do you have any questions about the staging options considered?
- Do you have any questions about the proposed bollards installation and the potential impact on port users?
- Do you have any questions about the impact of the project on the tariff?

Feedback

- How will the proposed staging approach impact on you or other port users?
- Are there any other impacts you would like us to consider?
- Any other questions or comments?

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Next steps

PoM's Development and Procurement

- Board to make an investment decision to proceed with Stage 1 having regard to feedback from port users and stakeholders
- PoM is undertaking design optimisation and value engineering
- The pricing, schedule and construction approach will be finalised, pending stakeholder engagement activities.
- Procurement of long lead items has commenced with piles delivered in July 2022.
- Preparatory works (i.e. site access and establishment) are to commence in September 2022

Comments and Feedback

- Please take five minutes to complete the survey following the information session – link will be shared in the chat.
- We invite you to submit written responses and feedback about the project by 16 September 2022 to:
  - Email: community@portofmelbourne.com
  - Postal address: GPO Box 2149, Melbourne VIC 3001, Australia
- PoM will respond to feedback received.
- A stakeholder engagement report will be publicly available in coming months.
- If you require further information, please email community@portofmelbourne.com or contact +61 1300 857 662.

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THANK YOU

Level 19, 839 Collins St
Melbourne VIC 3000
+61 1300 857 662
community@portofmelbourne.com

@PortofMelbourne

PortofMelbourne.com

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