

Port of Melbourne



# 2050 Port Development Strategy

## Discussion Paper



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# Introduction

## Planning for the future of our major trade gateway

The Port of Melbourne (the Port) is a major business gateway for Victoria and south-eastern Australia. It is Australia's largest container, automotive and general cargo Port and operates 24 hours a day, 365 days a year. The Port handles Victorian imports and exports, a number of Tasmanian trades, and trade servicing South Australia and southern New South Wales. The Port's location in central Melbourne is a major contributor to the city, being the preferred location for national distribution centres.

Freight movements are essential to businesses and our economy. Ensuring that commercial vessels have easy access to the Port, that cargo is efficiently handled at the Port and that freight is easily transported on land helps to reduce the costs of doing business in Victoria. The manufacturing, retail, food, agriculture and mining industries rely heavily on the Port and its transport connections – and in turn, our day-to-day lives depend on the Port running well. Simply put, the better the Port works, the better Victoria works.

As our population grows and national and international trade increases, the demand for access to Melbourne's Port continues to grow.

The Port will face a range of complex opportunities and challenges when it comes to its capacity and operations, connectivity with road and rail networks and interactions with surrounding land. The Port is located in the heart of Melbourne, among growing communities, vital industrial precincts and transport corridors, within the busy and popular Port Phillip Bay.

As the Port Licence Holder, Port of Melbourne Operations Pty Ltd (PoM) operates the Port on behalf of the PoM Group, and has a strong future vision for this critical economic asset. It is important that we plan well to ensure the Port continues to run efficiently, meet growth and trade demands and operate responsibly. We believe that there is significant opportunity to expand the Port's capacity by making better use of existing assets and maximising the efficiency of Port operations through considered, targeted investment. We also know that the Port will need to grow in a way that is integrated with the surrounding community and acknowledge the complexity of this challenge.

## A Port Development Strategy to guide investment and growth

To set out a roadmap for the future of the Port, PoM is developing a long-term strategy for Port growth and development. The 2050 Port Development Strategy (PDS) will set out our high-level plans and approach for developing the capacity and efficiency of the Port over the next 30 years, and provides the strategic framework for individual Port Sector Strategies and Project Delivery Plans. The PDS will consider:

- **local and international trade needs** – the types and amount of cargo that will move through the Port
- **vessel numbers, types and sizes** – the number and kinds of ships that will need access to the Port and its services
- **landside transport needs** – the road and rail infrastructure needed to efficiently move goods to, from and within the Port
- **operational needs** – the facilities, services and technology needed to make sure Port operations are safe and efficient
- **land use and surrounding communities** – how the Port can grow in partnership with local communities.

To inform the plan we will:

- analyse growth trends and forecasts for trade, vessels and landside transport
- consider broader planning factors that will inform growth and development needs
- seek input from the communities surrounding the Port, industry stakeholders and local government
- work with the Victorian Government and other statutory stakeholders to ensure the PDS is integrated with relevant plans and strategies, including those of other ports around Victoria and the development of Station Pier.

The *Port Management Act 1995 (Vic)* (the Act) also requires Port operators to develop and maintain Port Development Strategies. We will ensure the PDS development, implementation and maintenance process meets the requirements of the Act, using the Victorian Government's Port Development Strategy Ministerial Guidelines as a framework.

## Our strengths





# 2050 Port Development Strategy

Key strategies and plans relevant to the PDS



## What is this Discussion Paper about?

PoM wants community and stakeholder input to help shape the PDS and we also want to ensure the future of this critical asset is planned with industry, community and stakeholder needs in mind. The Port's operations are complex and we want to give you the information you need to be able to contribute to the process.


This Discussion Paper highlights the key considerations for the PDS, identifies important challenges and opportunities and poses some key questions for community and stakeholders to consider. The feedback you provide will form part of the information we will assess in developing the PDS.

This Discussion Paper covers:

- the key factors and drivers likely to guide decision-making around the nature, timing and scale of growth and investment required at the Port
- the challenges and opportunities for consideration in planning for the Port's future
- the process for developing the PDS
- how your views can help to inform the PDS.

This paper does not provide proposed solutions or identify the kinds of activities PoM may undertake to grow and develop the Port. Detailed Sector Strategies and implementation plans will be developed under the PDS, as needed.

# THE PORT OF MELBOURNE IS: AUSTRALIA'S LARGEST GENERAL CARGO PORT

LOCATED IN THE  OF MELBOURNE  
COVERING 505 HECTARES  
OPERATING  
24 HOURS A DAY,  
365 DAYS A YEAR

THE GATEWAY FOR MOVING GOODS

## INTO & OUT OF

SOUTH-EASTERN AUSTRALIA

CONTRIBUTING 15,900 JOBS &  
**\$4,300,000,000**  
TO THE VICTORIAN ECONOMY

LAST YEAR:

# 3,200

COMMERCIAL VESSEL VISITS

TRANSPORTING

# 72 x THE MCG

WORTH OF CONTAINERS

+

# 360,000 CARS

ROLLED OFF SHIPS  
INTO VICTORIA

# How the many aspects of the Port are planned and managed

The Port covers a land area of around 505 hectares and PoM is responsible for the ongoing maintenance and development of 52km of shipping channels within Port Phillip Bay and Yarra River. The Port's facilities include:

- 30 commercial berths and wharves
- terminal and trade-handling facilities
- connections to surrounding road and rail networks.

PoM works in partnership with a number of other private businesses and public agencies to manage, operate and maintain the Port. Following the lease of the Port in 2016, the roles and responsibilities of Port-related operators and the Victorian Government have changed.

**Port of Melbourne Operations (PoM):** PoM is the private operator of the Port and is responsible for planning, operating and maintaining Port land and shipping channels. This means making sure the Port has the capacity and capability needed to handle cargo and that facilities and infrastructure are developed and maintained as needed.

**Victorian Ports Corporation (Melbourne) (VPCM):** A government-owned entity, VPCM's responsibilities include the management of commercial shipping and shipping channel navigation in Port Phillip Bay, waterside emergency and marine pollution response, and the planning, management and operation of Station Pier as Victoria's premier cruise and passenger shipping facility. The Harbour Master also sits within VPCM and is responsible for safe navigation in the Port's waters through Vessel Traffic Services (VTS), as well as emergency management, health and safety.

**Shipping lines:** A large number of international and domestic shipping lines provide regular services between Melbourne and the rest of the world. Key international destinations include Asia, Europe, Middle East, North and South America, New Zealand and the Pacific Islands.

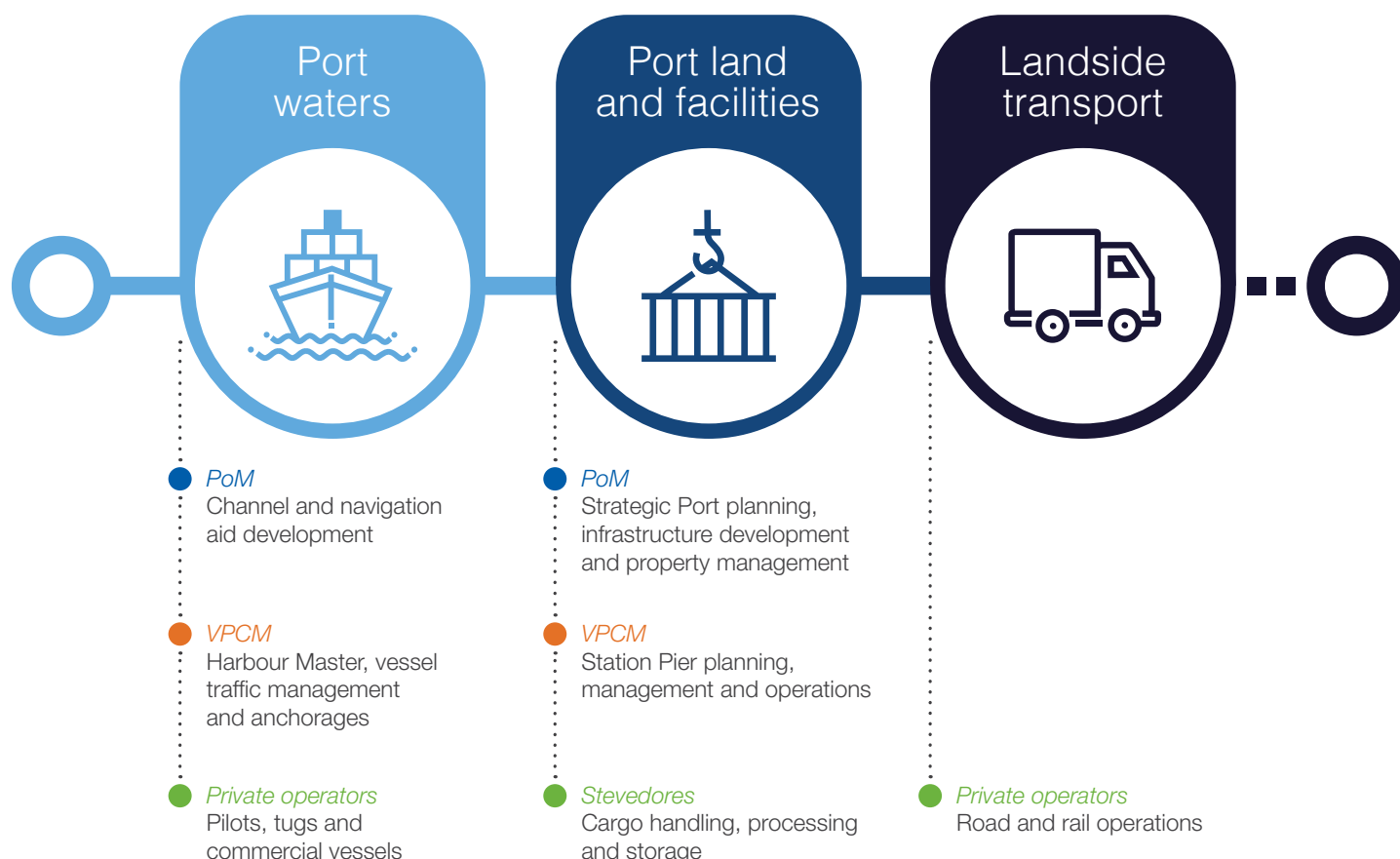
**Pilotage and towage services:** All vessels greater than 35m in length require assistance from marine pilots within Port waters. Pilots are very experienced navigators and ship handlers who are employed by shipmasters to guide commercial vessels through dangerous or congested waters. Tugs are powerful vessels that help manoeuvre large commercial vessels within the Port. A number of private operators provide these services.

**Stevedores:** Private stevedores service visiting vessels in the Port, unload and store cargo until it is collected and load cargo onto trucks and trains for onward transport.

**Road and rail transport:** A range of private companies transport cargo to and from the Port by rail and road. These companies use a range of specialist transport equipment, such as container trucks, car carriers, road tankers and grain trains to connect the Port to importers and exporters.



Station Pier planning, management and operation rest with VPCM, which should be consulted for information on Station Pier development plans.





# Port of Melbourne regulation

PoM operates under a regulatory framework that outlines how fees (also known as tariffs) are set for the use of Port facilities and assets. The regulatory framework is overseen by the Essential Services Commission (ESC), outlines how charges known as 'Prescribed Services' are set, and is based on agreed rules that are designed to deliver efficient cost recovery of the required Port facilities and assets. These Prescribed Services include wharfage fees, berth hire fees and channel fees, but exclude leasing of space and facilities. The regulatory framework also requires annual increases of Prescribed Service fees to be no more than CPI through to at least 2032.

## A Leasing of space and facilities

### Non-prescribed

PoM negotiates rental agreements for access to land and facilities directly with tenants. Many leases are long term, providing certainty for tenants.

## B Wharfage fees

### Prescribed

The wharf is a Common User area for loading and unloading cargo. Wharfage fees are charged per unit of quantity, volume or weight for all cargoes, including empty containers, loaded or unloaded from or between vessels.

## C Berth hire fees

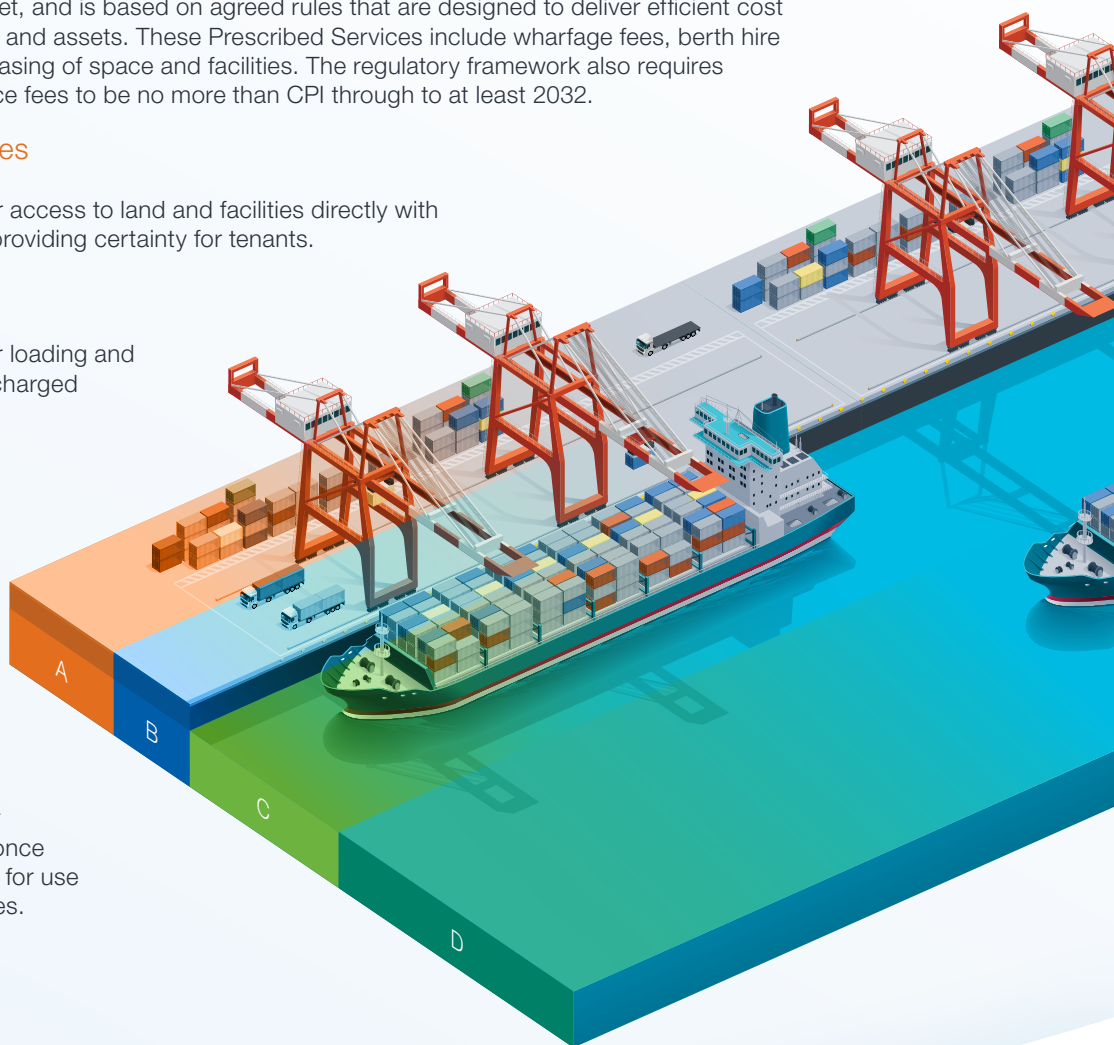
### Prescribed

The berth is where vessels are secured at the waterfront edge. Berth hire for Common User berths is a time-based fee.

## D Channel fees

### Prescribed

The channel provides Port access for commercial vessels. Fees are levied once per ship visit, on a gross tonne basis, for use of the channel and associated services.



## Our development vision

By working together we can plan for and develop Port capacity and supply chain efficiencies that enhance the competitive position of Victoria and liveability of greater Melbourne.

## Who we are

Port of Melbourne Operations Pty Ltd (PoM) was awarded a 50-year lease of the Port of Melbourne by the Victorian Government in September 2016. PoM is responsible for the strategic planning, development and management of the Port and is owned by the Port of Melbourne Group (PoM Group), which is made up of large, well-established Australian and global infrastructure investors and managers. Together, we bring decades of local and global experience and expertise to the Port.





# The key factors for consideration





In planning for future Port capacity, it is important to acknowledge that there is a high degree of uncertainty about future conditions. This is due to the wide range of factors that impact on a commercial Port's operations. This section presents important information about the Port's growth and development so far, and the key challenges and opportunities we need to consider in planning for the Port of 2050.

These are:

- the Port's urban location, its land and facilities
- trade demand and the Port's role as a trade gateway for Australia's south-east
- the critical role the Port plays in our economy
- safe, reliable and adequate shipping channels that cater to the changing number and size of vessels visiting the Port
- transporting freight to and from the Port
- surrounding land uses and our environmental responsibilities.







## The evolution of our trade gateway

1835

Melbourne is settled and Hobsons Bay is first used for Port-related activities.

1851

Victoria separates from New South Wales to become a self-governing colony.

1877

Formation of the Melbourne Harbour Trust, the precursor to the Port of Melbourne.

1887

Coode Canal delivered to provide direct commercial vessel access to Queen's Wharf (across the river from the current Crown Casino building).

1893

Victoria Dock delivered to provide more capacity to handle break bulk trades.

1941

Port Phillip Heads deepened to allow larger commercial vessels to visit the Port.

1969

Swanson Dock opened to provide dedicated container terminal capacity.

1970s  
& 1980s

Webb Dock developed to handle a range of container, Tasmanian and automotive trades.



## The Port's urban location, its land and facilities

Melbourne has grown around the Port – our earliest international and trading gateway. Where some other states have moved their industrial areas and ports away from capital city centres, Melbourne has continued to develop and evolve closely around these economic hubs. Through the Port, our exports are distributed around the world and imports are received for our daily needs.

Over more than 150 years, the Port has grown in line with trade and vessel needs and has also adapted in response to the city's broader infrastructure and planning needs. The Port Phillip Heads were deepened to 14.6m in 1941 to cater for larger ships. The arrival of containerised trade during the 1960s was a significant change for the Port and prompted further development, including the construction of Swanson Dock in 1969.

Major developments such as construction of the Spencer Street Bridge in 1929 and the Bolte Bridge in 1999 affected the way ships could access various docks, spurring new and changed Port facilities.

More recently, the need to cater for larger ships resulted in the Channel Deepening Project in 2009, which has provided long-term capacity in our shipping channels.

Today, the Port stretches from Williamstown in the west around the Bay to Port Melbourne in the east, covering a land area of around 505 hectares and 52km of shipping channels within Port Phillip Bay and the Yarra River.

The Port operates 30 commercial berths and handles the full range of Port trades – containers, liquid bulk, dry bulk and break bulk, including motor vehicles. It is Victoria's only container Port and handles approximately 36% of Australia's container trade.

A facility that operates 24 hours a day, the Port is a busy, highly coordinated string of operations. Each trade type has different requirements, from the kinds of vessels that carry the cargo, to handling and storage at the Port, and onward transport by road, rail or pipeline.

The Port is much more than a place for ships to load and unload cargo. New cars arriving at the Port, for example, are inspected and have a number of parts fitted while at the Port, which requires purpose-built facilities.

The Port needs to ensure it has the facilities, equipment, technology and supporting infrastructure to meet these different needs, while remaining agile and responsive to fluctuating demands – such as seasonal demands for different trades, like agricultural produce.

In addition to maximising the use of the land within the Port's boundaries, much of the surrounding industrial land in Dynon, Yarraville, Newport, Fishermans Bend and Williamstown is used to support companies' Port operations. This includes freight logistics and storage, empty container storage and maintenance, and liquid bulk storage and distribution.

Easy and efficient access between the Port and these facilities is an important part of the supply chain that helps keep Melbourne and Victoria moving. Though outside the Port's area of operational responsibility, it's important that our planning considers customer needs and integration with surrounding land, road, rail and pipeline connections.

As we plan for the future, we need to assess how to make the best use of Port land and existing assets to meet trade needs and ensure the Port's facilities continue to operate efficiently and safely. We also need to consider how the Port will adapt to changes in surrounding land uses and the city's broader infrastructure needs and development, such as road and public transport projects, housing and commercial developments and the growth of new industry.

1997

Port of Melbourne first handles one million TEU of containers in a single year.

2009

Channel Deepening Project delivered, allowing 14m draught vessels to visit under all tidal conditions.

2016

50-year lease of the Port of Melbourne commenced following a robust sale process.

2017

Port Capacity Project delivered, expanding the container handling capacity to 4.5 million TEU.

# Our import and export trade types and facilities

Here are the different cargo types handled at our various docks and Port facilities.

- **Containers** are currently the largest trade at the Port. Refrigerated or non-refrigerated containers hold food and other everyday items including clothes, beauty and medical products, appliances, wine, beef, furniture and paper. Swanson Dock and Webb Dock cater for containers, with Webb Dock recently upgraded to provide highly automated handling facilities, increasing throughput capability.
- **Break bulk** has the second largest Port footprint for cargo transported in units, pallets, bundles or barrels – like cement, sugar and fertiliser. Break bulk also includes vehicles. New, purpose-built automotive terminal and pre-delivery inspection facilities at Webb Dock handle high volumes, along with general facilities at Appleton Dock and Victoria Dock.
- **Liquid bulk** berths are currently located at Holden Dock (Yarraville), Gellibrand Pier (Williamstown) and Maribyrnong (Coode Island). Liquid bulk includes crude oil, petroleum products and hazardous chemicals.
- There are two **Tasmanian** trade facilities at Webb Dock. These facilities handle a mixture of containers and break bulk.
- The remainder of the Port consists of a mixture of **dry and break bulk** trades and **Port-related facilities** such as freight logistics, empty containers, rail terminals and customs. Dry bulk is transported in large quantities without packaging and includes items like grain, wood chips, canola and alumina. This cargo is loaded directly into the ship's hold.

# Port and surrounding land uses key



# Transport and distribution infrastructure key



## Key considerations

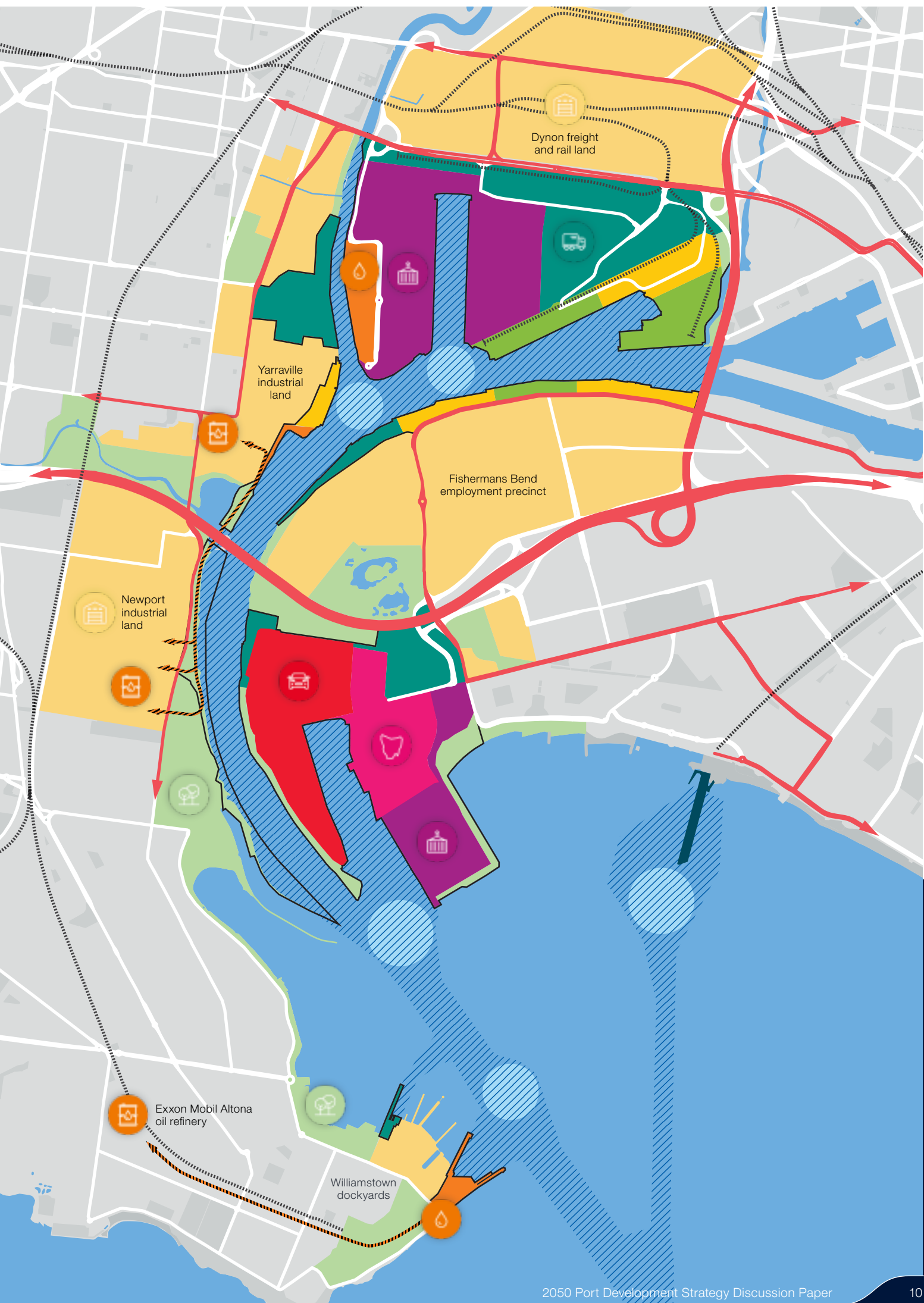
- The Port has a long and central relationship with the state's prosperity.
- The Port handles the full range of Port trades and is Victoria's only container Port.
- The Port is situated in an urban location among a wide range of land uses and major road and rail networks.
- There has been significant investment in the Port over many years to ensure the Port is equipped with the facilities, equipment and technology needed to cater for different trade types.
- There is an ongoing need to grow and develop the Port in response to changing trade demands and the state's broader infrastructure needs.

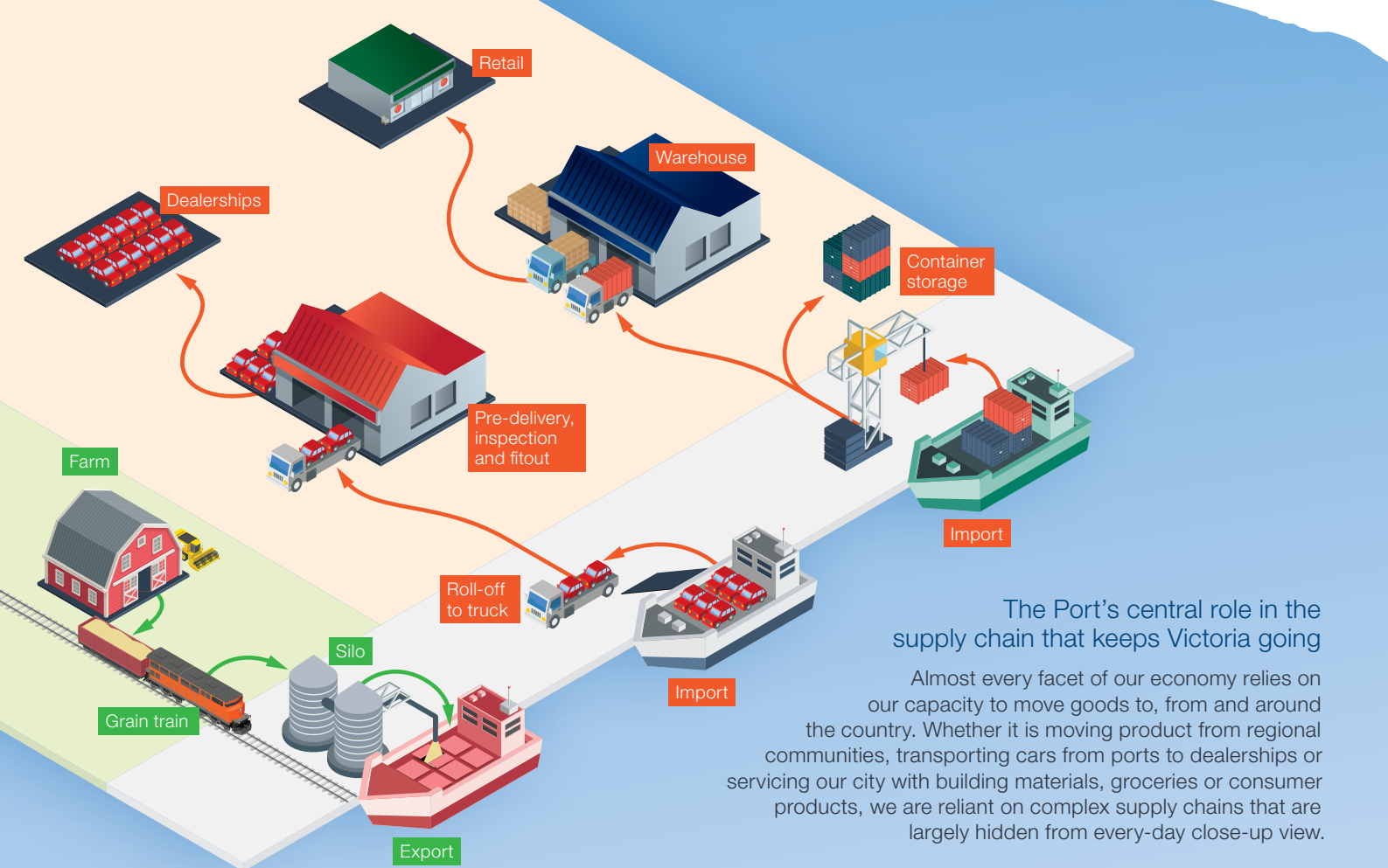
## Key questions

What should we consider when it comes to:

- making the most of the Port's existing land and infrastructure?
- the changing nature of the way land around the Port is being used by industry and the community?
- the city's infrastructure needs, such as housing, commercial areas and road and rail networks?







## A trade gateway for Australia's south-east

The Port serves a trade catchment that extends far beyond Victorian boundaries. With the necessary Port facilities and transport connections to handle each of the major trades, Melbourne serves as a vital freight hub for south-eastern Australia.

In 2017-18, more than 3,200 commercial vessels carried a total of 38 million mass tonnes, or 95 million revenue tonnes, of cargo through the Port. This is equivalent to around 156,000 Melbourne trains.

The Port's operations bring in a multitude of goods and materials that we need to live our daily lives, build new infrastructure and operate successful businesses. Similarly, millions of tonnes of goods leave our shores from the Port, supporting Australia's \$290 billion goods export industry.

Each day the Port handles:

- over 8,000 containers
- around nine ship arrivals
- almost 1,000 cars
- around 2,800 tonnes of dairy products
- over 105 containers of prams, toys, games and sporting goods
- more than 255 containers of furniture, mattresses and cushions
- over 150 containers of domestic appliances including plasma televisions, fridges and irons.

The Port needs to plan for, and be equipped to handle, the fluctuating demands for import and export trades throughout the year. To a certain extent, consumers drive these demands. Retailers need to have adequate stock to meet purchasing needs at different times of year – Christmas and end of year sales are such examples.

With agricultural produce such as grain, dairy and wine among our major exports, the Port experiences peaks corresponding to harvest schedules. March through to June is the peak trade period for produce exports.

The major factors that influence trade volumes and therefore Port activity include:

- population growth
- local demand for imported goods
- climatic conditions affecting agricultural exports
- international commodity prices.

Over the last 10 years, Port trade volumes have increased fairly steadily from 71.4 million revenue tonnes in 2008-09 to 95 million revenue tonnes in 2017-18. While the rate of change from one year to another is influenced by international economic conditions and short-term fluctuations in trade volumes, the overall 10-year trend represents a solid annual average growth rate of 3.2%.

### Revenue tonnes and mass tonnes

One revenue tonne equals weight in metric tonnes or volume in cubic metres, whichever is higher in terms of freight.

For cargo that has a weight – such as cement – its measurement is calculated in mass tonnes. Not all cargo is measured by weight, however – liquid cargo such as oil is measured by volume. The revenue tonne is the overarching measurement for all Port cargo.



In addition to considering overall trade growth trends, we need to consider which trades are in higher demand and therefore require greater access to trade-specific facilities at the Port.

The container trade is today the most significant Port trade, with 2.9 million twenty-foot-equivalent units (TEU) of containers handled during 2017-18. This equates to 71.9 million revenue tonnes – or around 75% of the Port’s trade. Containers carry a wide range of everyday consumer goods – everything from medical supplies to hair dryers, TVs to toys. With the rise in online shopping and international brands opening stores in Australia, container trade continues to grow.

Break bulk was the next largest trade in 2017-18 (8.4 million revenue tonnes) with around two-thirds of this trade relating to motor vehicle imports and exports\*.

While container and vehicle trade has grown most strongly over the past 10 years, other break bulk has declined. Container shipping is a more efficient method of cargo transport and companies are therefore containerising cargo wherever possible.

\* Motor vehicles comprise new motor vehicles, second-hand motor vehicles and transport equipment.

### TEU: Twenty-foot equivalent unit

The most common container sizes for international shipping are 20 or 40 feet long. To provide a standard measure for container trade, 40-foot containers are converted into 20-foot container equivalents. For example, one 40-foot container is counted as two 20-foot containers or two TEU.

### 2017-18 Port trade volumes

Trades	2017-18 Trade volume	10-year historical growth rate
<i>Container</i>	2.9m TEU	2.6%
<i>Motor vehicles</i>	400,000 units	0.1%
<i>Liquid bulk</i>	6.2m m³	2.2%
<i>Dry bulk</i>	4.7m mass tonnes	4.3%
<i>Break bulk*</i>	400,000 mass tonnes	6.1%

\* Excludes motor vehicles.

## Key considerations

- The Port’s long-term growth and development is underpinned by the fundamentals of trade growth.
- A range of local and international factors impact on trade volumes – a big one being population growth.
- There are a range of trade types, each needing different facilities and equipment at the Port.
- We need to plan not only for the amount of cargo the Port will need to handle, but also the type.
- Container trade is the largest and fastest-growing trade handled at the Port.



## Key questions

- What do you think the Port needs to consider when it comes to trade types, volumes and seasonal demands?
- What will be our greatest demands for imports?
- What will be our biggest export industries?





# Our contribution to the economy and local community

## A vital economic asset

The Port is part of the critical national and international supply chain that supports our economy, helps Victoria maintain its competitiveness and increases productivity through the efficient movement of goods. Without an efficient Port, many Victorian businesses would choose to do business elsewhere.

The Port is also an important part of the Tasmanian economy, serving as the key domestic and international trade gateway for Tasmania.

Based on previous studies, in 2012-13\* the Port's operations generated total economic benefits worth \$5.9 billion to the Australian economy. Of this, Victoria received \$4.3 billion in benefits and Tasmania gained \$1.3 billion, with the remaining benefits going to South Australia and New South Wales.

An efficient Port is crucial to businesses whose success directly relies on their ability to import or export goods. In turn, this generates activities for Port servicing businesses across a wide range of industries. This includes pilots and tug operators, stevedores, shipping companies, container park operators and inland transport operators. Suppliers to these businesses also benefit indirectly from the level of activity generated through the Port.

Through their individual business activities, these businesses generate a level of economic output that contributes to the total economic benefit.

In delivering economic output, the net income a business earns is represented as the value-added benefit component of the total economic benefits, which is available for further business investments or distributions, such as shareholder dividends.

Another component of economic benefit is employee wages, which contribute to household income.

The \$4.3 billion in total economic output benefit to the Victorian economy generated by the Port in 2012-13 included \$2.1 billion in value-added benefits and \$1.1 billion in Victorian household incomes.

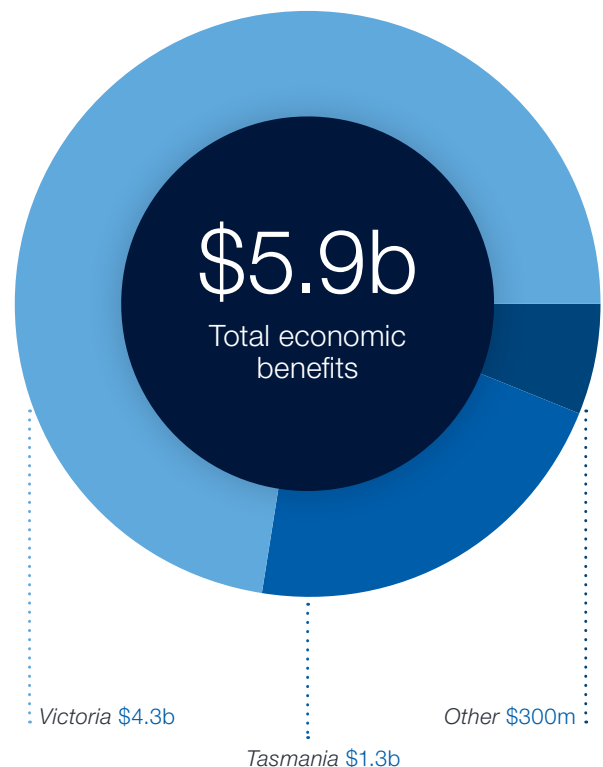
## Many different functions and trades contribute to the Port's success

The various Port functions each make a different contribution to the economy.

During 2012-13, the three largest Port functions from an economic benefit perspective were:

- land transport and storage: \$1.2 billion
- cargo services: \$1.1 billion
- ship loading/unloading: \$1 billion.

Combined, these three Port functions resulted in 77% of the total Victorian economic benefit from the Port.



\* PoM is in the process of commissioning updated economic analysis and forecasts, which will inform the PDS.

## How the Port's economic output spreads across neighbouring regions

The highest level of economic benefit, totalling slightly over \$2.9 billion, was brought to the inner Melbourne region, comprising the local government areas (LGAs) of Melbourne, Hobsons Bay, Port Phillip and Maribyrnong, where the majority of the Port's daily activities are located. Two-thirds of Port-related jobs are located in these LGAs.

A strategic approach to plan for and manage the growth of Port trade will be important for business confidence across different Port-related services, and for the wider economic and social benefits that flow from high levels of employment in our local communities.



## A major source of employment

During 2012-13, the Port supported around 21,000 full-time equivalent (FTE) jobs in Australia, half of which were directly related to the delivery of Port services.

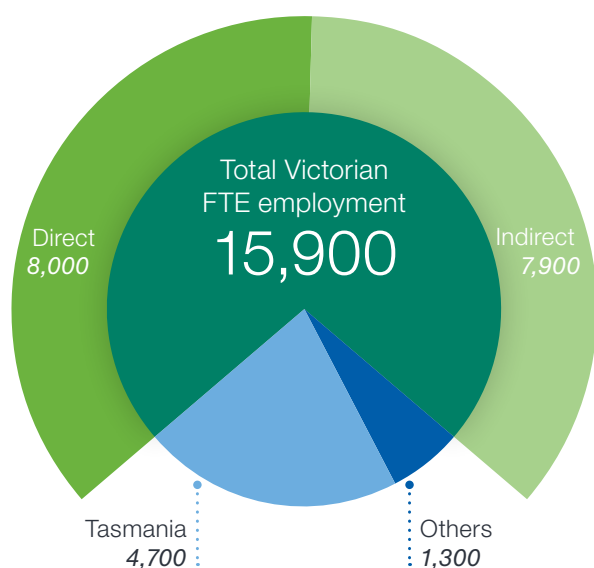
Numerous companies are involved in Port-related activities. These businesses provide jobs in areas such as:

- importing and exporting
- marine navigation management
- vessel tug and pilot services
- cargo handling and storage
- customs and quarantine management
- road and rail transport
- container loading/unloading, storage and maintenance
- Port management and maintenance.

With such an important role to play in Victoria's economic growth and prosperity, we need to carefully consider the timing and nature of growth, development and investment in the Port and understand the effects for the broader supply chain.

In 2012-13, Port activities directly and indirectly supported 15,900 FTE jobs in Victoria.

These jobs are spread throughout the state, with each stage of the supply chain requiring a range of diverse skills and capabilities, from master mariners, crane operators and train drivers, to information technology specialists, administration staff and accountants.



## EACH VESSEL VISITING THE PORT OF MELBOURNE

— BRINGS AN ESTIMATED AVERAGE OF —

# \$1,400,000 IN BENEFITS

FOR THE VICTORIAN ECONOMY

— INCLUDING —

# \$300,000 IN HOUSEHOLD INCOME & 5 FULL-TIME EQUIVALENT JOBS



## Key considerations

- A productive, efficient Port is vital to Victorian businesses.
- The economic benefits the Port brings to Victoria and south-eastern Australia are spread across a wide range of industries and regions.
- Container trade is continuing to grow and bring the most significant benefits to the economy.
- The Port's functions and activities across the import and export supply chain create thousands of jobs.
- Increasing trade volumes will have flow-on effects across the supply chain and we need to consider the nature and timing of Port growth and associated potential outcomes for local economies and jobs.



## Key questions

- What do you think PoM should consider in planning for the future of the Port to make sure it continues to help make Victoria a great place to live, work and do business?
- How can we increase the Port's productivity and efficiency to broaden opportunities for businesses and strengthen our economic contribution?



# Safe, reliable and adequate shipping channels

## The Port's network of shipping channels

Safe, reliable and efficient shipping channels are essential for the successful operation of the Port and the continuous flow of trade in and out of the state.

Commercial vessels access our Port, and the Port of Geelong, via a series of shipping channels and fairways that connect with Port Phillip Bay and Bass Strait. The Bay is also an important community asset, enjoyed by many for boating, fishing, yachting and swimming. To keep everyone safe on the Bay, there are laws and directions that govern how commercial and non-commercial vessels navigate shipping channels.

These waters are managed by VPCM, with vessel navigation control provided by the VTS under the direction of the Harbour Master. The depth and width of these channels vary from 17m and 245m respectively for the Great Ship Channel at the Port Phillip Heads (the Heads), down to 14.5m and 153m for the Yarra River Channel. Different depths are required to accommodate the varying environmental conditions through the Port, with a greater depth needed at the Heads where the wave and swell conditions can cause difficulties.

The Channel Deepening Project completed in 2009 was a significant upgrade to the Port's long-term capacity, allowing commercial vessels up to 14m draught to enter the Port under all tidal conditions.

As the seabed shifts over time, we need to undertake regular maintenance dredging to maintain the channels to their declared depths. We therefore need to plan for resettlement of the excess seabed material that is removed as part of channel maintenance activities, such as clay, silt, sand and rock. This material is resettled at two Dredge Material Grounds (DMGs) within the Bay.

As PoM is responsible for maintaining these channels and fairways, we need to plan for the numbers and types of vessels accessing the Port into the future to ensure these routes provide adequate and safe access. Just as the Government plans for road and rail network capacity, we need to consider how the Port's waters may need to adapt to changing trade needs.

Additionally, while VPCM is responsible for the planning, management and operation of Station Pier, we need to ensure, in consultation with VPCM, that the growing number of cruise ships visiting Melbourne can be accommodated, and that commercial vessel planning is integrated with cruise ship planning. Likewise, we look to work collaboratively with VPCM on future commercial vessel trends and numbers to ensure continued safe vessel navigation throughout the Port.



A

### Port Phillip Heads and Entrance

The Heads are formed at Point Lonsdale and Point Nepean and stand either side of the short strip of water (the Entrance) that connects Port Phillip Bay with Bass Strait. The Entrance is considered hazardous due to strong currents, unpredictable waters and active commercial shipping lanes. The Great Ship Channel is located within the Entrance and is used by commercial shipping vessels to transit the Heads.

B

### South Channel

The South Channel runs between the Entrance in the west and Hovell Pile (offshore from Rosebud) in the east.

C

### Shipping Fairway

The Shipping Fairway is located in naturally deep water and extends northwards within Port Phillip Bay from the end of the South Channel to the start of the Port Melbourne Channel.

D

### Port Melbourne Channel

The Port Melbourne Channel runs from the end of the Shipping Fairway all the way up to Station Pier. Towards the northern end, the Port Melbourne Channel intersects with the Williamstown Channel, which provides access to the majority of the Port.

E

### Williamstown and Yarra River Channels

The Yarra River Channel is the northern-most shipping channel and provides access to Swanson Dock, Appleton Dock, Victoria Dock, Holden Dock and South Wharf. The Williamstown Channel links the Port Melbourne Channel with the Yarra River Channel, providing access to Gellibrand Pier and Webb Dock.



# Today's cargo ships

Based on the biggest ship to visit the Port.

## Vessel measurements

Ships are measured by:

- **Length overall** – the maximum length of the vessel from the tip of the bow (the front of the vessel) to the end of the stern (the back of the vessel).
- **Beam** – the width of the vessel at its widest point.
- **Draught** – the depth of the vessel from the waterline to the very bottom of the vessel.



## The changing nature of vessels entering the Port

Data is continuously collected on all commercial vessels visiting the Port and helps to inform day-to-day Port operations and strategic planning activities like the PDS.

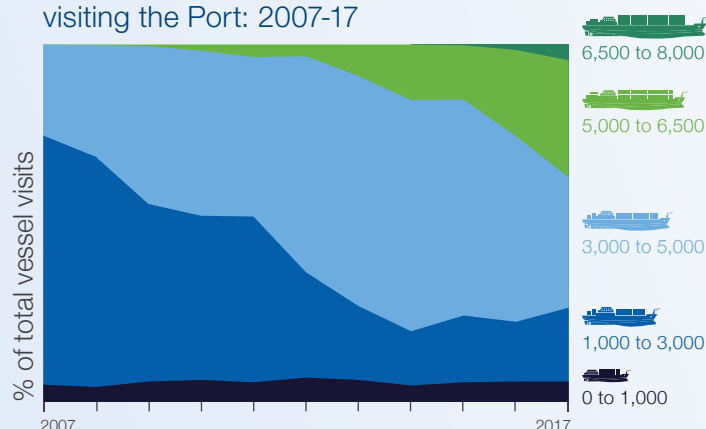
Importantly, this data tells us that vessel visits haven't increased rapidly – but vessels have gotten bigger to transport more cargo on each trip. In 2007-08, there were 3,466 commercial vessel visits to the Port, bringing 30.8 million mass tonnes of cargo. This is compared with 3,244 visits in 2017-18, bringing 38.2 million mass tonnes. With 222 fewer visits, vessels have carried an additional 7.4 million mass tonnes of cargo – an additional 2,900 mass tonnes of cargo per vessel.

With the booming container trade, container vessels in particular are growing in size and capacity. Larger container vessels are gradually accounting for a greater share of visits, as their smaller counterparts gradually decrease. The average size of a container vessel in 2007-08 was 2,460 TEU, compared with 4,176 TEU last year.

In terms of vessel visits, container vessels continue to account for the greatest number of visits, with 1,098 visits to the Port in 2017-18. Pure Car Carriers accounted for 409 visits.

Over the last 10 years, cruise vessel numbers have increased the most, at a rate of 9.7% per year.

TEU capacity range of vessels visiting the Port: 2007-17



Vessel types	2017-18 vessel visits	10-year historical growth rate
<b>Container</b>	1,098	-2.9%
<b>Pure Car Carrier</b>	409	2.6%
<b>Liquid bulk</b>	287	3%
<b>Dry bulk</b>	244	1.2%
<b>Cruise</b>	111	9.7%
<b>Other</b>	1,095	-1%
<b>Total</b>	3,244	-0.7%

## Key considerations

- The shipping channels and fairways in the Port need to provide safe, reliable and adequate access if the Port is to meet trade needs and operate efficiently.
- The size and number of vessels requiring access impact how we plan and maintain shipping routes.
- Data over the past 10 years tells us vessels are getting longer and wider to transport more cargo in each trip.
- Localised channel maintenance and modification works are an important part of the Port's capacity to handle increased cargo volumes and to support efficient operations.

## Key questions

- What else do you think we need to consider when it comes to shipping routes in Port Phillip Bay?
- What kinds of vessels, and how many visits, do you think will be needed for different trade types over the coming decades?



## Transporting freight to and from the Port

Traffic management around the Port is complex. Freight needs to move in and out of the Port 24 hours a day, seven days a week, while balancing the needs of surrounding businesses, residents and commuters. As trade growth increases, additional demand will be placed on the road and rail networks that service the Port.

Concurrently, as our population grows and inner Melbourne becomes busier, the efficient movement of goods around the state becomes more challenging. The 'peak' periods are starting earlier and finishing later, roads are more congested and train services are competing for operational space on the network.

To ensure the Port continues to provide efficient and cost-effective access to import and export markets in south-eastern Australia, we need to consider how existing infrastructure can be better leveraged and explore innovative freight transport models. A focus on reducing unnecessary freight transport movements on our road and rail networks will increase productivity, reduce congestion growth and, ultimately, be better for Victoria.

### The Port is well serviced by major road and rail networks

The Port is well connected to the major freeways and freight rail corridors and is ideally located to provide businesses with excellent access to markets across metropolitan Melbourne, regional Victoria and interstate.

There are four rail terminals within the Port and another three at the Dynon Freight Rail Terminal, which is managed by VicTrack and provides a direct connection to the Port.

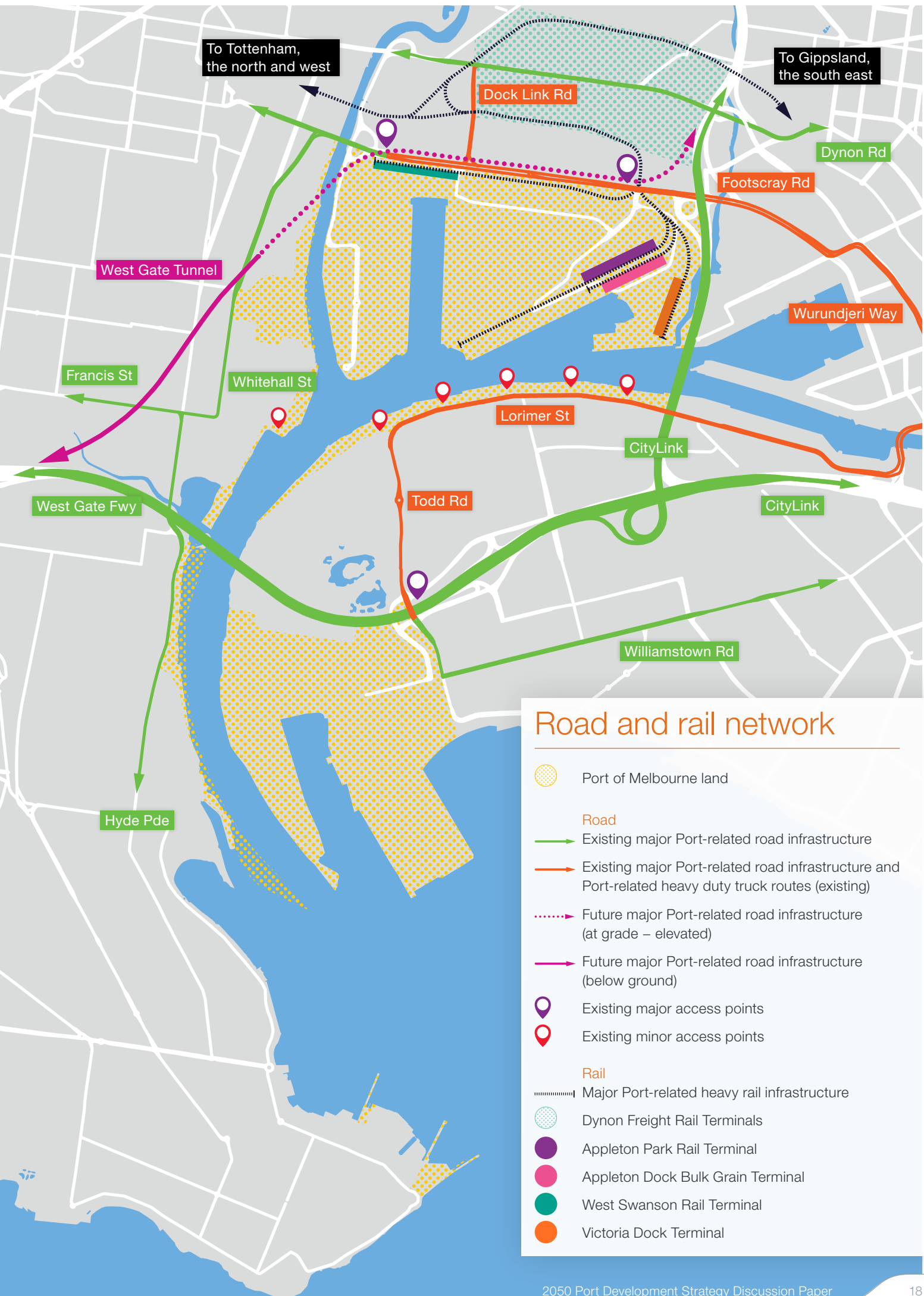
Different kinds of cargo are transported by road and rail. Freight rail is mostly used for transporting container and bulk grain trades between the Port, regional Victoria and interstate. There is no significant movement of containers around metropolitan Melbourne by rail. Dedicated freight rail lines run to the north and west, whereas freight rail shares passenger train lines to the south-east and east, which impacts the efficiency of transporting freight by rail in these corridors. On these lines, freight trains avoid peak periods, with agreed schedules fitted around passenger trains.

The vast majority of Port-related transport activities are by road, particularly within metropolitan Melbourne. The Port's key road access points are Footscray Road and the Todd Road/ West Gate Freeway intersection. The West Gate Tunnel Project will provide an additional direct link to the Port from the West Gate Freeway and Linkt at both Mackenzie Road and Appleton Dock Road. The project is scheduled for completion in 2022.

### The Victorian pipeline network directly connects to the Port

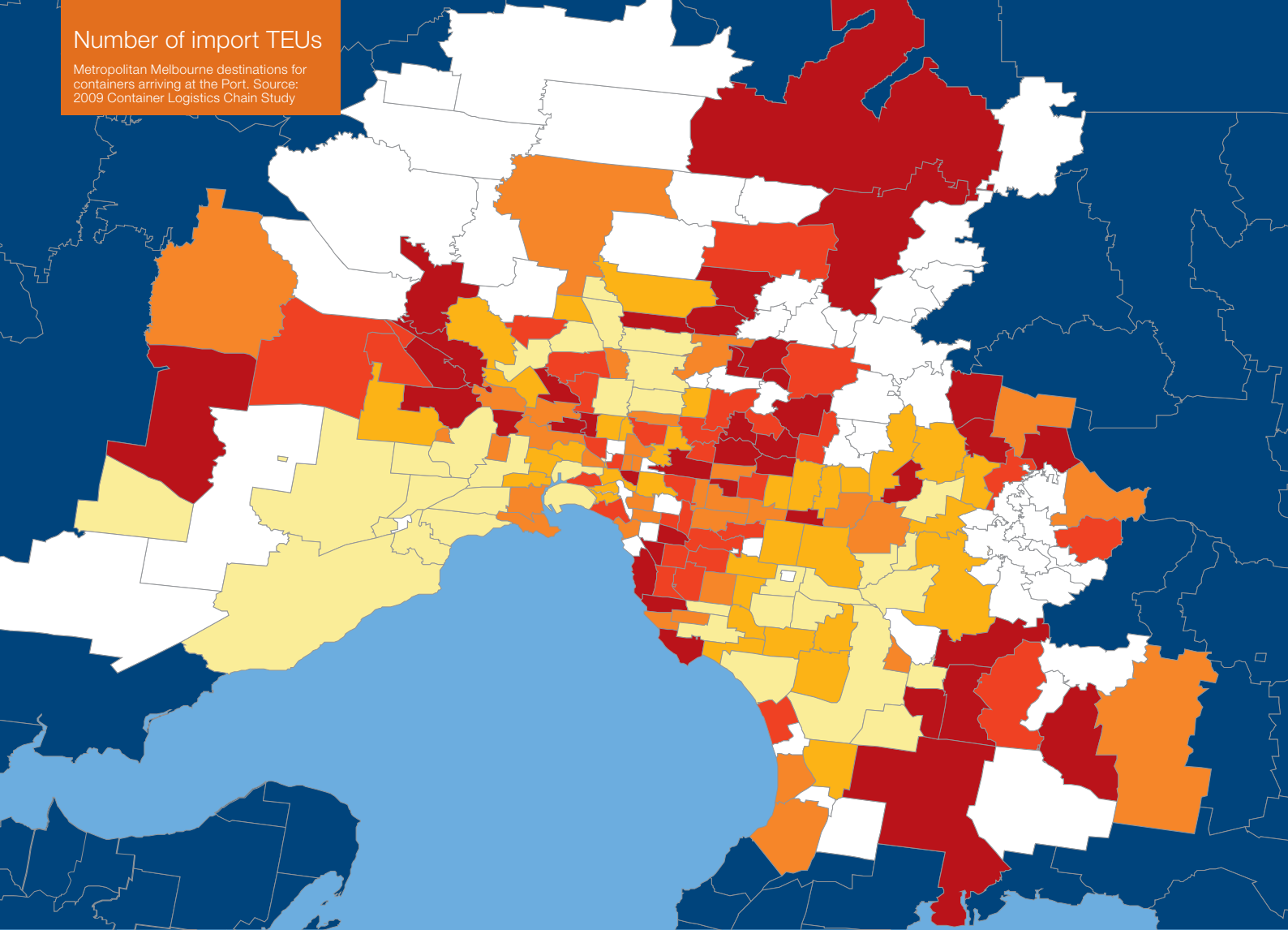
Every day the Port handles liquid products, which range from crude oil and petroleum through to food grade oils and molasses along with chemicals that are used in manufacturing and industrial processes. Many of these liquids are distributed by a network of pipelines that run between the Port, storage and distribution facilities, oil refineries, manufacturing plants and major uses, such as Melbourne Airport. This network provides high-capacity direct connections between these facilities and reduces the level of road transport that is required to distribute Port liquid bulk trades.



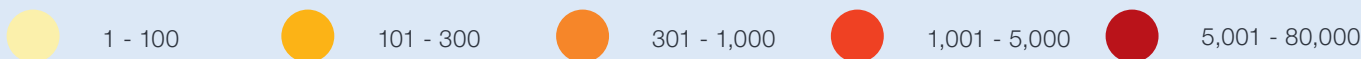


## Number of import TEUs

Metropolitan Melbourne destinations for containers arriving at the Port. Source: 2009 Container Logistics Chain Study



## Key



### There are a number of key origins and destinations for Port traffic

Understanding where Port cargo is transported to and from is a key part of making sure that Port development is well-integrated with road and rail networks and feeds into broader, state-wide transport planning.

Based on business-as-usual operations, daily Port truck trips – that is, trucks travelling directly to or from the Port – represent a small proportion of vehicles on the Melbourne metropolitan road network. Direct Port traffic accounts for around 0.12% of total vehicle trips and 5% of total heavy vehicle trips on Melbourne's roads. Overall, the outer west is a key node for Port-related activity. There are a similar number of containers arriving at the Port that are transported to destinations in the outer west as there are containers being transported from the outer west to the Port for shipment. This region is the origin and destination for around a quarter of all container transport.

Imported containers are transported widely across greater Melbourne. The vast majority (87%) are collected from the Port and delivered to destinations within metropolitan Melbourne – generally within 50km of the Port.

Most containers are delivered to Melbourne's outer suburbs, particularly:

- western suburbs (26%) such as Laverton North and Altona
- south-eastern suburbs (25%), such as Dandenong
- northern suburbs (19%), such as Somerton and Tullamarine.

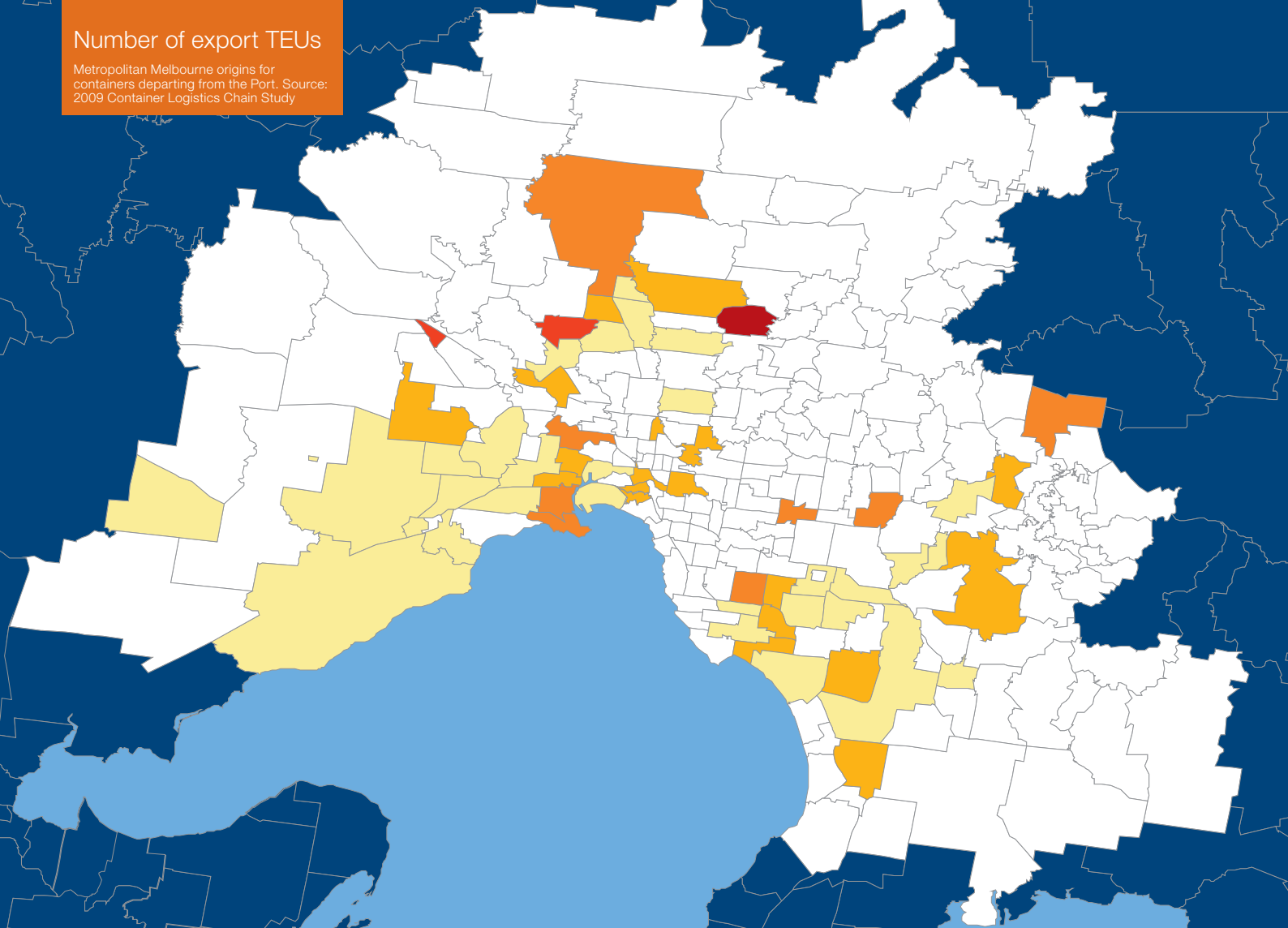
Conversely, container exports have a smaller number of origins within Melbourne and a larger number come from regional Victoria or interstate. Just over half of export containers are transferred from metropolitan Melbourne, with the largest number coming from the outer west (25%).

Inner Melbourne accounts for a relatively high proportion of container export origins (14%). West Melbourne and West Footscray are two of the biggest inner-Melbourne locations for container export origins, which is likely due to the way container shipments are staged by freight companies. Containers are often transported from interstate or regional areas and held at an intermediate location close to the Port, before being delivered for shipment.

PoM is in the early stages of undertaking an update of the 2009 Container Logistics Chain Study. This work aims to release updated PoM origin and destination data during the second half of 2019.

## Number of export TEUs

Metropolitan Melbourne origins for containers departing from the Port. Source: 2009 Container Logistics Chain Study

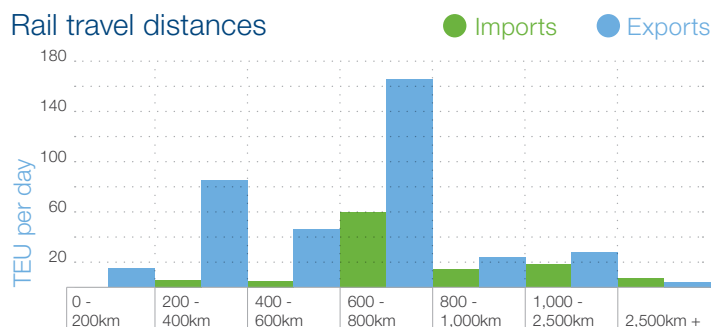


## Rail is mostly used for regional and interstate trade

Movement of freight by train is often used for container and bulk grain exports through the Port. Currently around 10% of the Port's container trade is transported to and from the Port by rail. Most of this trade has origins in regional Victoria, southern New South Wales and eastern South Australia.

The figure to the right illustrates this Port rail outcome, with containers moved 200km to 600km being from regional Victoria and southern New South Wales, and those moved 600km to 800km generally being from South Australia and Adelaide.

## Rail travel distances



## Key considerations

- The Port needs to be well-connected to road and rail networks so that freight moves efficiently between the Port and business locations.
- As the city grows, there will be greater pressure on road and rail networks for both general and freight transport.
- There is significant opportunity for rail to take a greater share of Port freight transport and provide increased capacity for the future through dedicated Port rail links.
- Increasing Port truck productivity and operations outside peak times will be important to maintain an efficient supply chain and to help minimise the impacts of increased freight traffic on the road network.



## Key questions

- What do you think we should consider when it comes to moving freight into and out of the Port?
- How can PoM work with the Victorian Government and road and rail operators to help keep Victoria moving?





# Managing inner-city growth and land use changes around the Port

## Planning together for long-term benefits

The long-term sustainability of the Port requires both managing the Port's impact on surrounding areas and protecting it from any adverse impacts or constraints that may result from adjacent land-use changes. Given the Port's urban location, it is also important to strike a balance between the needs of a working Port and community expectations.

The large majority of the Port is governed by the Port of Melbourne Planning Scheme, and its land and water are zoned Port Zone. This zoning acknowledges the significance of our commercial trading Port at a state and local level and provides transparency around possible land use outcomes.

The majority of land immediately surrounding the Port is zoned for industrial, commercial or public uses such as transport. A number of these areas contain critically important and hazardous facilities such as fuel refineries and terminals, which are directly reliant and connected to the Port via pipelines.

Industrial areas around the Port were intentionally established and zoned by planning authorities, both from a functional perspective, allowing industry to co-locate with the Port to minimise supply chain costs, and also to serve as a 'buffer', providing appropriate distances between the core areas of Port operations and surrounding sensitive areas like residences and schools.

These buffers play an important role in making sure we can safely and efficiently run the Port, while shielding the community from the impacts of such extensive operations 24 hours a day, 365 days a year, including from noise and visual amenity impacts.

Some of the buffers provided on Port land include landscaped areas, public open space, cycling trails and shared user paths.

As the city grows and demand for inner-city living increases, we are faced with the complex challenge of urban development creeping closer to the Port's boundaries and increased pressure on planning authorities to free up industrial land for alternative uses.

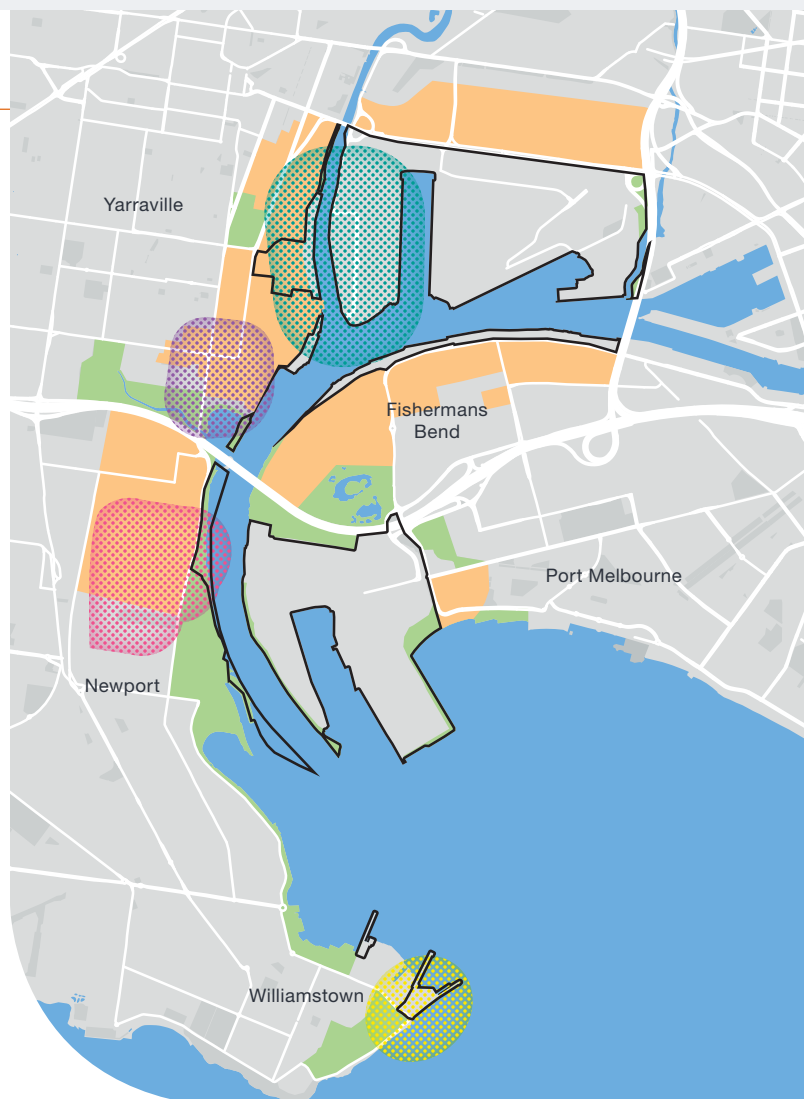
PoM is undertaking a review of the Port of Melbourne Planning Scheme to ensure it reflects the anticipated growth and development of the Port, and we will continue to work closely with Government in planning for the Port's future. Development within Port land, and of land adjacent to the Port, needs to be considered holistically to secure positive long-term outcomes – for nearby residents and businesses, for the Port's operations and, ultimately, for the state as a whole.

## Key

- Port of Melbourne land
- Port Environs Environmental Significance Overlay (ESO) and Ministerial Direction (MD14) areas surrounding the Port
- Port buffer and public open space, parks and sporting fields

### WorkSafe Advisory Areas for Major Hazard Facilities (MHF)

- Newport MHF Advisory Area
- Gellibrand Pier MHF Advisory Area
- Coode Island MHF Advisory Area
- Yarraville MHF Advisory Area



# Supporting our neighbours

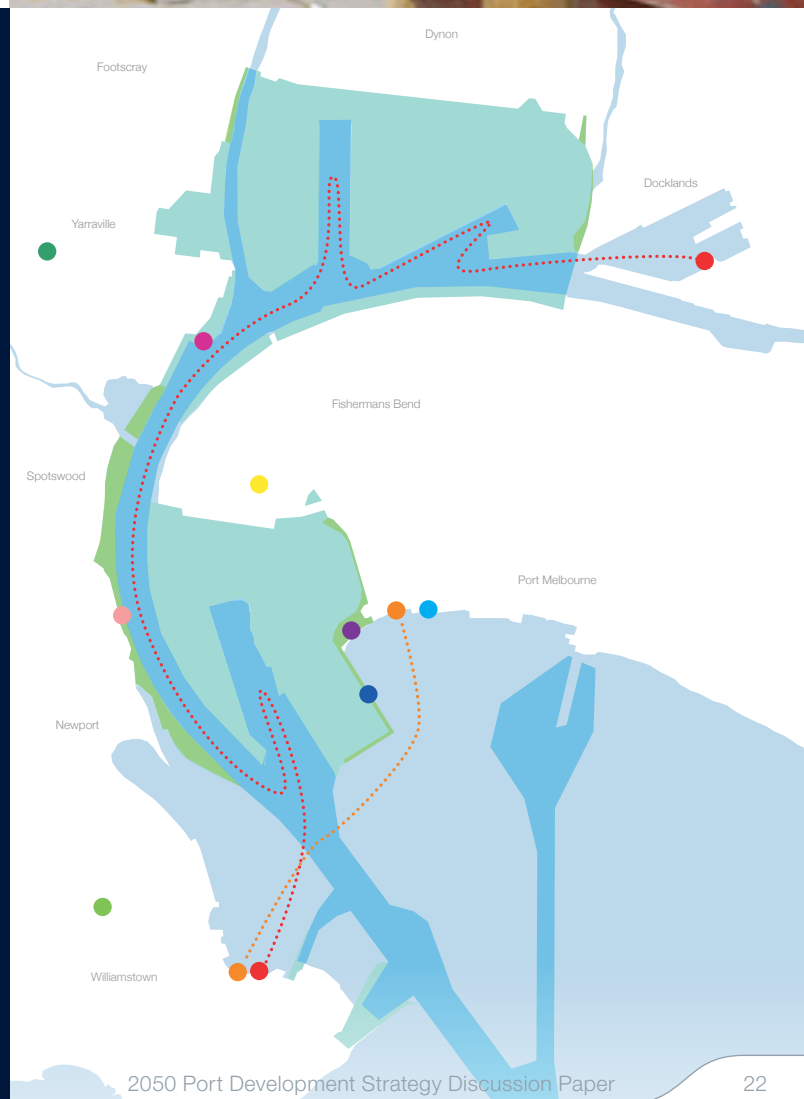
In addition to considering the possible effects of the long-term growth of the Port, we want to help make sure everyone gets to enjoy the Bay. We also want to give people an opportunity to learn about the Port. Here are some of the activities we support and services we provide to the community:

- **Port tours**  
We offer community tours of the Port, including boat tours, giving people a view of the busy Port they wouldn't otherwise see. During 2017-18, we took more than 4,000 people on 21 boat tours.
- **Community sponsorships**  
PoM sponsors a range of bayside groups and events. In 2017-18 we provided local sponsorships for the Big Bay Swim, Westgate Park, Williamstown Art and Industry Festival, Yarraville Festival and a number of Surf Life Saving Club Nippers programs.
- **Port Education Program**  
This interactive program gives students of all ages an insight to the Port's operations. The program aligns with the Australian Curriculum and is adapted to meet individual school needs. During 2017-18, more than 100 school groups, consisting of just over 5,300 students, took part.
- **Bike paths, playgrounds and fishing jetties**  
So that locals can safely enjoy public areas around the Port, we maintain a number of bike paths, access trails and fishing jetties in Port Melbourne, Yarraville, Newport and Williamstown. These include Webb Dock Trail and paths, the Maritime Cove playground and Francis Street fishing jetty.



## Key community engagement and education program activity locations

- Port tours
- The Big Bay Swim
- West Gate Park
- Williamstown Art and Industry Festival
- Yarraville Festival
- Local Surf Life Saving Nippers programs
- Bike paths and access trails around Webb Dock (including the Webb Dock Trail)
- A community playground at Maritime Cove
- A fishing jetty at Francis Street
- Bike paths and jetties along the Newport foreshore



# Our environmental responsibilities

We're committed to making sure the Port operates responsibly and that our activities minimise impacts on the Bay and surrounding environments. A range of environmental legislation applies to the Port's daily activities and to any major projects the Port may undertake. The significant legislation currently applicable to Port projects is outlined below, along with examples of the kinds of Port activities to which the legislation might apply.

Relevant legislation	Act overview and description	Port activities that may be affected
<b>Victorian Acts</b>		
<b><i>Environment Effects Act 1978</i></b>	The <i>Environment Effects Act 1978</i> provides for assessment of proposed works that are capable of having a significant effect on the environment.	<ul style="list-style-type: none"> <li>• Dredging</li> <li>• Significant land excavation</li> </ul>
<b><i>Planning and Environment Act 1987</i></b>	The <i>Planning and Environment Act 1987</i> establishes a framework for planning the use, development and protection of land in Victoria. It sets out the parameters for establishing planning schemes.	<ul style="list-style-type: none"> <li>• Land use changes or development</li> <li>• Port of Melbourne Planning Scheme</li> </ul>
<b><i>Marine and Coastal Act 2018</i></b>	The <i>Marine and Coastal Act 2018</i> provides for coordinated strategic planning and management for the Victorian coast and a coordinated approach for the use and development of coastal Crown land.	<ul style="list-style-type: none"> <li>• Dredging</li> <li>• Navigation</li> </ul>
<b><i>Aboriginal Heritage Act 2006</i></b>	The <i>Aboriginal Heritage Act 2006</i> provides for the protection and management of Victoria's Aboriginal heritage.	<ul style="list-style-type: none"> <li>• Any development or activity that is within a culturally significant area</li> </ul>
<b><i>Heritage Act 2017</i></b>	The <i>Heritage Act 2017</i> is Victoria's principal legislation for the identification and management of heritage places and objects of state significance, historical archaeological sites and maritime heritage.	<ul style="list-style-type: none"> <li>• Land use changes, development in areas of significance or impacts to buildings of significance</li> </ul>
<b><i>Road Management Act 2004</i></b>	The <i>Road Management Act 2004</i> establishes a coordinated management system for public roads that will promote safe and efficient state and local public road networks and the responsible use of roads.	<ul style="list-style-type: none"> <li>• New Port road or rail connections</li> </ul>
<b>Commonwealth Acts</b>		
<b><i>Environment Protection and Biodiversity Conservation Act 1999</i></b>	The <i>Environment Protection and Biodiversity Conservation Act 1999</i> is a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places defined as matters of national environmental significance.	<ul style="list-style-type: none"> <li>• Dredging</li> </ul>
<b><i>Historic Shipwrecks Act 1976</i></b>	The <i>Historic Shipwrecks Act 1976</i> provides a framework for the protection of historic shipwrecks and relics within both state and Commonwealth waters.	<ul style="list-style-type: none"> <li>• Dredging</li> </ul>

## Key considerations



- The Port is a significant commercial and industrial facility.
- Land around the Port has been developed to provide necessary Port-related industrial and commercial facilities and to create an important buffer between the Port and residential areas.
- Over time, residential and non-Port-related development has crept closer towards the Port's boundaries.
- The Port's operations will increase and its facilities will continue to be developed, as the surrounding communities also continue to grow.
- Increased development will bring economic benefits, but could have negative impacts on both the Port's capabilities and the community if planning isn't holistic and well-managed.
- Port activities may affect land and marine environments and are carefully planned and managed to minimise negative impacts.

## Key questions



- What do you think are going to be the most important long-term uses of land around the Port, and what challenges or opportunities might there be?
- What do you see as the priorities for us to consider when it comes to planning how we use Port land?







# How you can help shape the Port

## How the PDS will be created

Developing a strategy for the long-term growth of the Port is complex and requires consideration of a wide range of technical information, forecasts and stakeholder needs. To make sure we have a well-balanced and strong approach to growing the Port, we will develop the PDS over a 12-month period, including two rounds of community, industry and government consultation and a range of detailed technical assessments.

01

### Discussion Paper released to seek your feedback: September 2018

Early stakeholder and community input will help us understand which aspects of the Port's development are of the most interest to different groups, and identify issues and opportunities to be considered through the PDS.

We're here!

02

### Forecasts, technical assessments and analysis: Second half of 2018

Current technical analysis and strategic forecasts are essential to ensure the PDS sets the right direction for the Port's growth, and that we are well-positioned to maximise opportunities and respond to emerging risks. Key analysis and development activities include:

- **Trade forecasts** – the volume and the type of cargo that will need to move through the Port in the future.
- **Ship fleet forecasts** – understanding the size and type of vessels that will need Port access.
- **Infrastructure assessments** – the condition and capacity of existing Port assets and the kind of infrastructure we will need to meet the trade and ship fleet forecasts.
- **Road and rail transport assessments** – the capacity and condition of current road and rail connections and forecasts for future needs, as well as how Port road and rail needs interact with the broader network.
- **Economic, social and environmental assessments** – the current and future economic role of and benefits from the Port, along with social and environmental considerations associated with the Port's continued growth and development.

03

### Draft PDS prepared and submitted to Government: End of 2018

A Draft PDS will be prepared based on the work and information gathered through steps 1 and 2. The PDS and a range of supporting information will be provided to the Minister for Planning by the end of 2018, as required by Victorian Government's Port Development Strategy Ministerial Guidelines.

04

### Draft PDS released for comment: First half of 2019

We will release the Draft PDS for public comment to gain further feedback for consideration in the final PDS.

05

### Finalisation and publication of the PDS: Second half of 2019

We will incorporate feedback received from the community, industry and Government to finalise the PDS. The PDS will be published and will be publicly available. The PDS will then guide the Port's growth and development activities and will be reviewed every five years.

5-year review

# Get involved

We are seeking your views on the key challenges and opportunities outlined in this Discussion Paper. Here are the key questions we'd like you to help us answer.

The Port's urban location, its land and facilities:	1. What should we consider when it comes to: <ul style="list-style-type: none"><li>• making the most of the Port's existing land and infrastructure?</li><li>• the changing nature of the way land around the Port is being used by industry and the community?</li><li>• the city's infrastructure needs, such as housing, commercial areas and road and rail networks?</li></ul>
Trade demand and the Port's role as a trade gateway for Australia's south-east:	2. What do you think the Port needs to consider when it comes to trade types, volumes and seasonal demands? 3. What will be our greatest demands for imports? 4. What will be our biggest export industries?
The critical role the Port plays in our economy:	5. What do you think PoM should consider in planning for the future of the Port to make sure it continues to help make Victoria a great place to live, work and do business? 6. How can we increase the Port's productivity and efficiency to broaden opportunities for businesses and strengthen our economic contribution?
Safe, reliable and adequate shipping channels that cater to the changing number and size of vessels visiting the Port:	7. What else do you think we need to consider when it comes to shipping routes in Port Phillip Bay? 8. What kinds of vessels, and how many visits, do you think will be needed for different trade types over the coming decades?
Transporting freight to and from the Port:	9. What do you think we should consider when it comes to moving freight into and out of the Port? 10. How can PoM work with the Victorian Government and road and rail operators to help keep Victoria moving?
Surrounding land uses and our environmental responsibilities:	11. What do you think are going to be the most important long-term uses of land around the Port, and what challenges or opportunities might there be? 12. What do you see as the priorities for us to consider when it comes to planning how we use Port land?

Your ideas and feedback will form part of the information we will consider in drafting the PDS



There are a number of ways you can get involved:

- Online:** Visit [portofmelbourne.com/community-education/port-development-strategy](https://portofmelbourne.com/community-education/port-development-strategy) to complete a feedback form and register your details to stay in the loop on the PDS.
- Email:** Please send us your comments and submissions to [2050pds@portofmelbourne.com](mailto:2050pds@portofmelbourne.com)
- In person:** Come along to one of our drop-in sessions in September – details will be published on our website and in local papers.



# Glossary

Term	Definition
<b>Beam</b>	A vessel's width at its widest point.
<b>Berth hire fees</b>	The time-based fee for vessels berthing on a Common User berth.
<b>Break bulk</b>	Cargo that is carried in units, pallets, bundles or barrels or other non-unitsised cargo such as vehicles.
<b>Capacity</b>	The operational capacity of a berth or terminal is the maximum cargo throughput that can be achieved to provide an acceptable level of service. Capacity is usually expressed in terms of mass or revenue tonnes per annum, or TEU per annum.
<b>Channel Deepening Project</b>	The Channel Deepening Project was a major Port of Melbourne capital dredging project completed in 2009. The project means that the Port can handle 14m draught vessels under all tidal conditions.
<b>Channel fees</b>	Charged on commercial vessels for the use of the channel and associated services.
<b>Common User</b>	A facility not dedicated to one user or one industry.
<b>Containerised cargo</b>	Cargo that can be physically, conveniently and economically transported within a container.
<b>Draught</b>	The draught of a vessel is its depth – the distance between the waterline and the bottom of the hull or keel.
<b>Dredge material</b>	Clay, silt, sand or rock removed from the seafloor.
<b>Dredge Material Ground (DMG)</b>	An approved underwater area where dredge material is placed and stored.
<b>Dry bulk</b>	Non-liquid cargoes that are transported and handled in bulk, such as grain, cement and fertiliser.
<b>Essential Services Commission (ESC)</b>	The regulator of essential services across the Victorian energy, water, transport and local government sectors. ESC regulates the fees that PoM can charge for a range of services for the use of Port facilities and assets, which are identified as Prescribed Services.
<b>Future Fund</b>	The Future Fund is a shareholder of the PoM Group and is Australia's sovereign wealth fund, responsible for investing for the benefit of future generations of Australians.
<b>Global Infrastructure Partners (GIP)</b>	Global Infrastructure Partners (GIP) is a shareholder of the PoM Group and is a leading global independent infrastructure investor combining specialist industry experience with best practice operational and financial management.
<b>Harbour Master</b>	An official responsible for enforcing the regulations of a Port, to ensure safe navigation, the security of the harbour and the correct operation of the Port facilities.
<b>Length overall</b>	The maximum length of the vessel from the tip of the bow (the front of the vessel) to the end of the stern (the back of the vessel).
<b>Liquid bulk</b>	Liquid cargoes that are transported and handled in bulk (e.g. crude oil, refined petroleum products and chemicals).
<b>Mass tonnes</b>	A quantity measure that is based on the weight of the cargo.
<b>OMERS</b>	OMERS is a shareholder of the PoM Group and is one of Canada's largest defined benefit pension plans. It invests and administers pensions for members from municipalities, school boards, emergency services and local agencies across the province of Ontario.
<b>Port Capacity Project</b>	A major development project that involved the development of new automotive and container terminals at Webb Dock. The project was completed in 2017.
<b>Port of Melbourne Group (PoM Group)</b>	The Port of Melbourne Group is the owner of PoM. It comprises a number of large and highly experienced Australian and international infrastructure investors and managers.
<b>Port of Melbourne Operations Pty Ltd (PoM)</b>	The Port Licence Holder and private operator of the Port of Melbourne, on behalf of the PoM Group, under a 50-year lease from the Victorian Government.
<b>Prescribed Services</b>	The use of Port channels, berth pockets and wharves are Prescribed Services under the Port pricing regulation, meaning PoM can charge a fee for these services.
<b>Pure Car Carriers</b>	Pure Car Carriers are Roll on-Roll off (Ro-Ro) vessels that are specifically designed to carry cargo that has wheels, for everything from passenger cars through to construction machinery.
<b>Queensland Investment Corporation (QIC)</b>	QIC is a shareholder of the PoM Group. It is a global diversified alternatives investment firm based in Australia that offers infrastructure, real estate, private equity, liquid strategies and multi-asset investment services to institutional clients.
<b>Revenue tonne</b>	The overarching measurement for all Port cargo. One revenue tonne equals weight in metric tonnes or volume in cubic metres, whichever is higher in terms of freight.
<b>Ro-Ro</b>	Roll on-Roll off (berth or vessel).
<b>Stevedore</b>	A dock worker or firm that employs dock workers to load and unload vessels and service ships while in Port.
<b>Supply chain</b>	The process of moving goods from their origin, such as a farm or a factory, to the end user. Supply chains involve distribution points like airports and ports, and goods are transferred between these nodes and warehouses, distribution centres and shops. Trucks, trains, planes and other delivery vehicles are used to transport these goods.
<b>Tariffs</b>	Fees and charges associated with import or export services and taxes.
<b>The Port</b>	The Port of Melbourne.
<b>Twenty-foot equivalent unit (TEU)</b>	The standardised measurement for shipping containers, calculated by converting containers to 20-foot equivalents. E.g. one 40-foot container is counted as two 20-foot containers or two TEU.
<b>Wharfage fees</b>	Charged on the cargo being loaded and unloaded from commercial vessels and based on the quantity, volume or weight of cargo moved across the wharf.





Port of Melbourne





