



RPS

SECOND CONTAINER PORT ADVICE – EVIDENCE BASE



Submissions summary report

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1 Executive summary

1.1 Background

In May 2016 the Victorian Special Minister of State asked Infrastructure Victoria to provide advice on the need, timing and location of a second container port in Victoria – at either a Hastings or Bay West location.

Infrastructure Victoria has committed to a transparent engagement process with the community, industry and other stakeholders. This engagement has prompted a deep, informed discussion, while building consensus on the key issues of public importance, policy priorities and trade-offs.

In March 2017, Infrastructure Victoria released its evidence base for consultation. This included a number of technical studies and a discussion paper explaining why the results of the studies are important in helping Infrastructure Victoria prepare its advice to government.

As part of releasing its evidence base, Infrastructure Victoria ran a number of community drop-in sessions to discuss the evidence base and sought submissions on whether:

- Infrastructure Victoria has the right evidence to prepare its advice.
- There are any gaps in the evidence base that Infrastructure Victoria should consider.
- There is any additional information to help Infrastructure Victoria prepare its advice.

1.2 Submissions overview

In total, Infrastructure Victoria received 64 submissions from a range of stakeholders and the community.

Submissions articulated both opposition and support for the need and timing of a second container port, with the discussion of relative opportunities, challenges, impacts and benefits. Timing, triggers and the decision around the need for a second container port were points of discussion and contention in many submissions.

Generally, an even spread of feedback was received on location, including Port of Melbourne, Hastings and Bay West, although slightly more feedback was received about the Hastings option.

For Hastings, a large volume of feedback focussed on economic and environmental issues, with an emphasis on potential impacts on tourism and recreation. Comparatively, Bay West submissions focussed less on environmental impacts and more on economic development opportunities.

Points of comparison between second container port options were also discussed. Issues of note include:

- Dredging volumes and related costs.
- Relative freight transport costs.
- Assessment of environmental impacts.
- Overall cost comparison of the concept options.

1.3 Feedback on Infrastructure Victoria's process

A number of submitters commented on Infrastructure Victoria's approach to consultation, including their evidence-based approach to decision making. It was noted that transparency has increased through the release of their detailed discussion paper, which informed this round of consultation.

Infrastructure Victoria was commended for adopting a vigorous and systematic process to inform debate about the timing and location of a second container port for Victoria. They were also commended on the breadth and quality of the studies included in the evidence base.

Some concerns were raised about the condensed timeframes afforded for organisations to consider the detailed documentation presented. In particular, it was mentioned that this limited opportunities for councils to engage with locally elected representatives and provide councillor endorsed submissions.

However the majority of submitters, many of whom provided submissions and/or participated in workshops during previous rounds of consultation, documented their appreciation for the opportunity to contribute to Infrastructure Victoria's advice to government.

1.4 About this report

This report provides a summary of the submissions collected from stakeholders and interested citizens in response to the evidence base and the discussion paper.

It has been prepared to:

- Provide an overview of how many submissions were received and who they were received from.
- Summarise themes for sequencing, timing and location of investment in future container port capacity in Victoria.

All submissions that Infrastructure Victoria has permission to publish are available on their online consultation site at yoursay.infrastructurevictoria.com.au/ports/submissions.

In preparing this report, each submission received was allocated a unique identifier by Infrastructure Victoria. Submissions were reviewed by RPS and comments on key issues were categorised by theme and subtheme. Themes and subthemes have been aligned with the scope of the advice Infrastructure Victoria will provide to the Victorian Government on the timing and location of a second container port for Victoria.

In presenting this report, it is important to note the following:

The feedback summarised in this report is based on information provided in submissions, which has been themed to provide an overview of the full range of views and opinions expressed by submitters.

The views expressed represent those of submitters, not those of Infrastructure Victoria or RPS. Infrastructure Victoria and RPS cannot guarantee the factual accuracy of information provided in the submissions that have been analysed and written about as part of this report.

2 Submissions feedback

2.1 Submissions received

In total, Infrastructure Victoria received 64 submissions in response to the evidence base discussion paper from a diverse range of stakeholders, with the largest proportion of submissions coming from local government (27 per cent). In addition to local government, a proportionately larger number of submissions were received from individuals (22 per cent) industry, including port and transport operators (17 per cent), organisations (12 per cent) and peak bodies (11 per cent). While there is continued interest in the discussion on a second container port, a proportionately smaller number of submissions came from community groups (5 per cent) and utility providers (1 per cent). Figure 2.1 provides an overview of stakeholders who provided submissions.

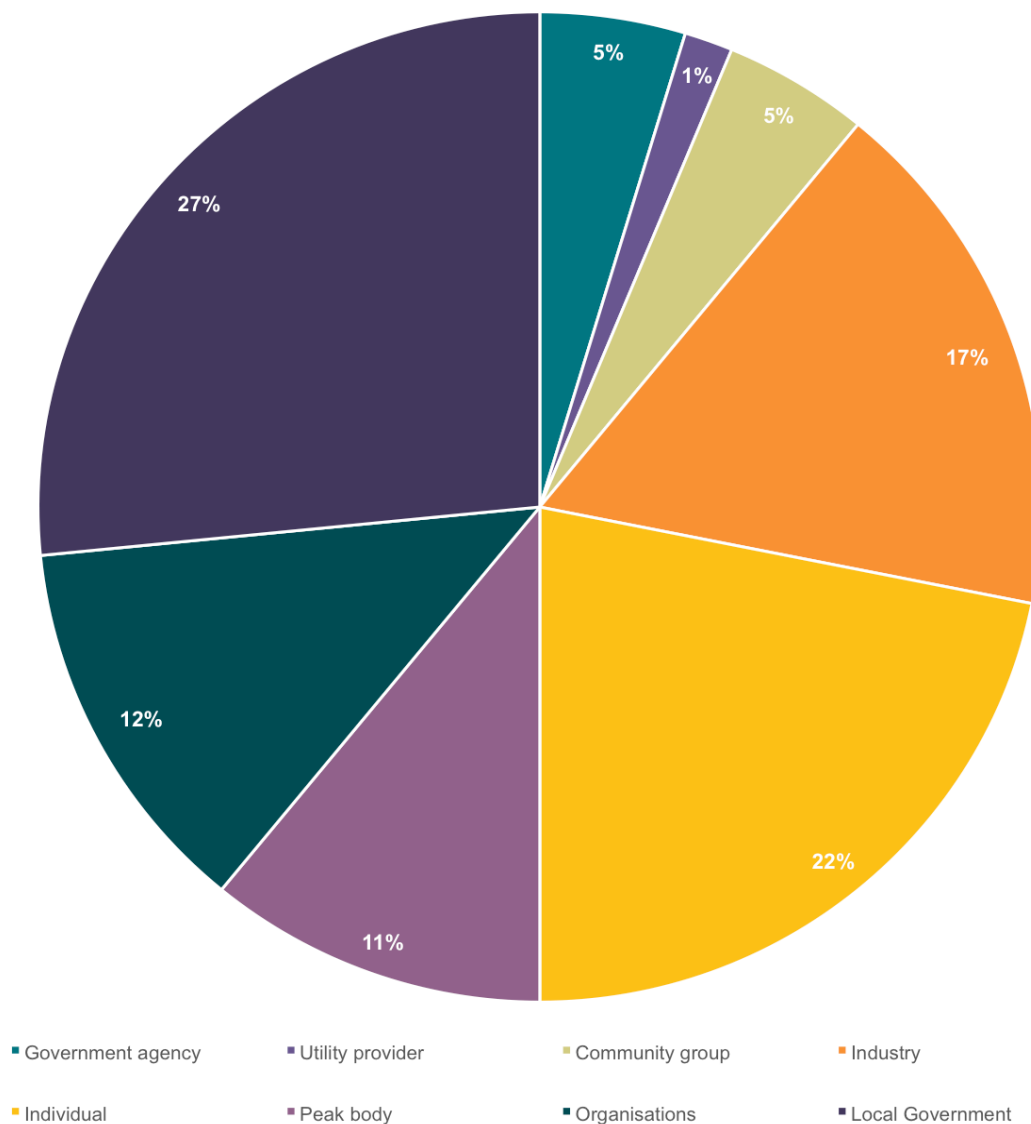


Figure 2.1 Overview of submissions received by stakeholder type

2.2 Presenting feedback

In presenting feedback in this report, submissions have been categorised by theme and sub-theme in line with Terms of Reference from the Special Minister State. Infrastructure Victoria's advice on options for Victoria's future port capacity will address a range of issues, as outlined in the Minister's Scope of Advice.

The Scope of Advice provides the framework for how submission feedback has been sorted and categorised in this summary report. Table 2.1 provides an overview of the themes and sub-themes.

Table 2.1 Overview of submissions themes

| TIMING AND TRIGGERS FOR A SECOND PORT | |
|--|--|
| Theme | Sub-themes |
| Timeline and variables for a second container port | <ul style="list-style-type: none"> ▪ Timing for decision on second port <ul style="list-style-type: none"> ▪ Immediate need ▪ Medium-term need ▪ Future need ▪ Second port not needed ▪ Impacts if second port not ready ▪ Other feedback |
| Future port requirements | <ul style="list-style-type: none"> ▪ Located near transport <ul style="list-style-type: none"> ▪ Transport links ▪ Freight terminals ▪ Road infrastructure ▪ Protecting pathways ▪ Rail connections ▪ Freight costs ▪ Ship size ▪ Other feedback |
| Capacity for containers, bulk and other cargo | <ul style="list-style-type: none"> ▪ Changing forecasts ▪ Capacity at Port of Melbourne |
| Current port capacity and ability to handle future scenarios | <ul style="list-style-type: none"> ▪ Ship sizes <ul style="list-style-type: none"> ▪ Coordination between ports ▪ Social impacts of port expansion ▪ Transport network changes |
| Increases in capacity for investment and improved management | <ul style="list-style-type: none"> ▪ Rail connections <ul style="list-style-type: none"> ▪ Rail targets ▪ Webb Dock Freight Link ▪ Fishermans Bend Freight Link ▪ Other rail options ▪ Distribution networks ▪ Dock upgrades <ul style="list-style-type: none"> ▪ Capacity increases ▪ Tasmanian services ▪ Support for growth ▪ Off-peak transport ▪ Heavy vehicles and traffic impacts |

TIMING AND TRIGGERS FOR A SECOND PORT

| Theme | Sub-themes |
|---|--|
| | <ul style="list-style-type: none"> ▪ Ship sizes ▪ Further feedback |
| Other feedback related to current Port of Melbourne | <ul style="list-style-type: none"> ▪ Alternative uses for current port site ▪ Continued operation preferable to new port |

HASTINGS AS A SECOND PORT LOCATION

| Theme | Sub-themes |
|---|--|
| Suitability of and barriers to Hastings as a second port location | <ul style="list-style-type: none"> ▪ Availability of dedicated land ▪ Ability to meet need ▪ Population growth ▪ Developing a green port ▪ Environmental impacts ▪ Not a suitable location for a container port |
| Cost associated with Hastings | <ul style="list-style-type: none"> ▪ Costs <ul style="list-style-type: none"> ▪ Regional Rail East |
| Risks associated with Hastings | <ul style="list-style-type: none"> ▪ Environmental risks <ul style="list-style-type: none"> ▪ Dredging ▪ Impact on flora and fauna ▪ Oil spills and incidents ▪ Work associated with Hastings option ▪ Water movement and erosion ▪ Minimising environmental impacts ▪ Tourism and social impacts ▪ Transport connections <ul style="list-style-type: none"> ▪ Road transport ▪ Rail transport ▪ Proximity to demand ▪ Maintaining access for existing industry |
| Benefits associated with Hastings | <ul style="list-style-type: none"> ▪ Environment ▪ Capacity ▪ Freight ▪ Economic ▪ Transport |
| Other feedback | |

| BAY WEST AS THE SECOND PORT LOCATION | |
|--|---|
| Themes | Sub-themes |
| Impacts and requirements for supporting infrastructure | <ul style="list-style-type: none"> Supporting infrastructure |
| Suitability of Bay West as a second port location | <ul style="list-style-type: none"> A better option Specific location feedback Land availability Proximity to other ports |
| Costs associated with Bay West | <ul style="list-style-type: none"> Cost risks |
| Risks associated with Bay West | <ul style="list-style-type: none"> Environment <ul style="list-style-type: none"> Dredging, water movement and erosion Impact on flora and fauna Timing Navigation and safety Transport impacts and supporting infrastructure Tasmanian services Ship size |
| Benefits associated with Bay West | <ul style="list-style-type: none"> Transport Freight Environment Social impacts Alignment with other projects |
| Measures to preserve long-term optionality | |
| Impacts and requirements for surrounding and supporting infrastructure | <ul style="list-style-type: none"> Environmental impacts Supporting infrastructure |
| Other feedback | |

3 When a second port would be needed

3.1 Timeline and variables for a second container port

Submissions presented varied feedback on ‘when’ a second container port would be needed. A large proportion of feedback focussed on timing for making a decision (25 per cent) or other elements for consideration, such as trigger points or the notion of a ‘transitional port’ (19 per cent). Many submissions linked decision timing to ‘need’, discussing and weighing up immediate, medium-term and future need (31 per combined). However, the largest proportion of feedback (25 per cent) questioned the need for a second container port. Other feedback discussed potential impacts and risks if a second container port was not ready to operate by the time the Port of Melbourne had reached capacity. Figure 3.1 provides an overview of feedback received on ‘when’ a second container port would be needed.

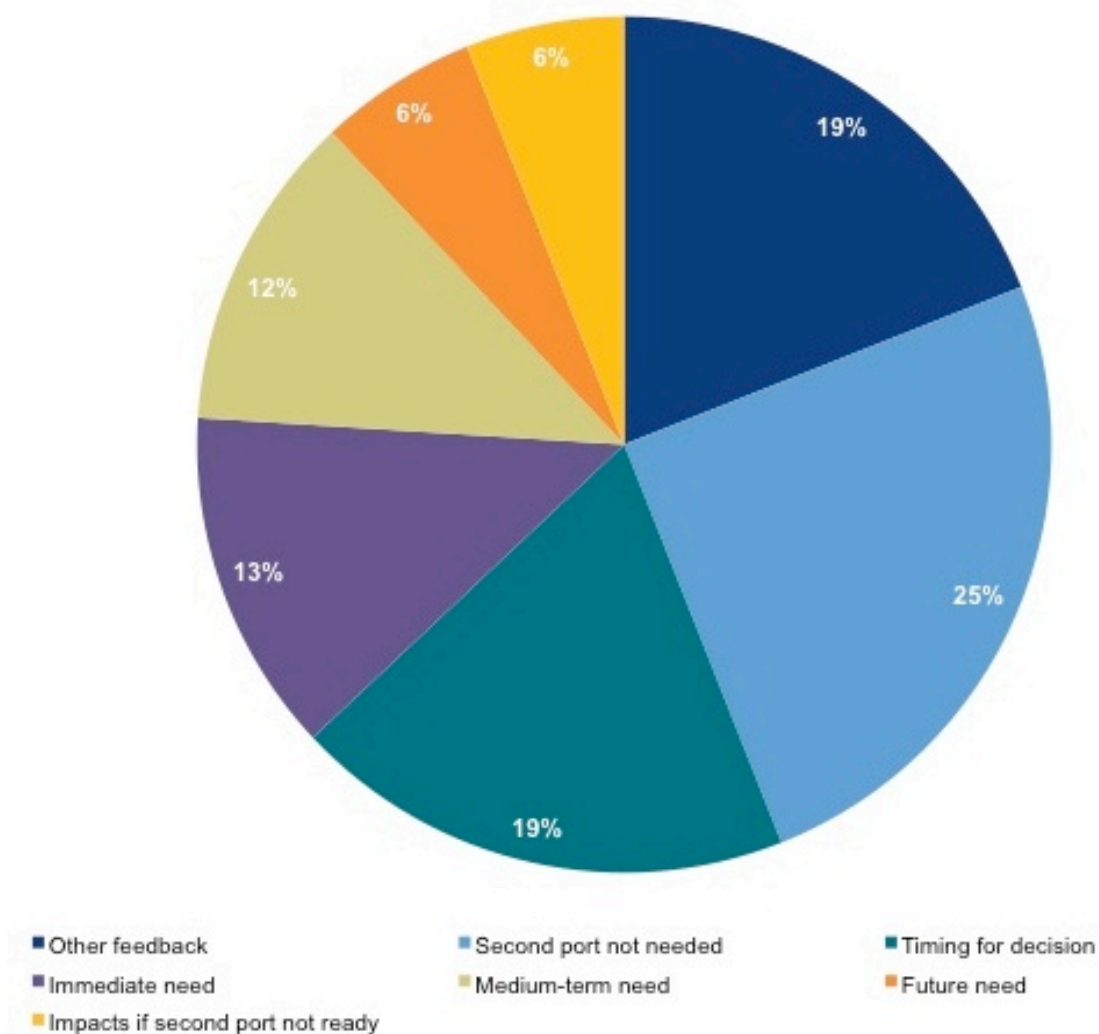


Figure 3.1 Feedback received on the timing of a second port

Timing for decision on second port

A number of submitters commented on ‘when’ the decision about the location for a second port should be made. Some noted the decision should be made immediately due to the long lead times (10-20 years) required for the development of major projects.

Despite the 50-year tenure of the recent Port of Melbourne lease, one submitter commented that existing facilities would be full by sometime in the 2030s, and as such, planning for a second container port should commence straight away.

Some submissions also discussed the potential risks of delaying a decision, including investment uncertainty and impacts on economic development. One submission in particular called for a decision to be postponed until more is known about how automation will influence port operations.

A range of stakeholders provided feedback on the timing of a decision on a second container port. These stakeholders included Mornington and Hobsons Bay City Councils, Avalon Airport and various individuals.

Immediate need

A number of submissions asserted the planning process for a second port should commence immediately.

One submitter advocated for all preliminary work to be undertaken to enable construction to begin at short notice in the future. This would involve confirming the preferred site, undertaking pre-planning and obtaining approvals, acquiring land and securing access easements.

Another submitter noted that the increasing volume of agricultural product being transported could see the need for another container port emerge sooner than expected.

Medium-term need

Several submissions noted a medium-term (15-20 year) timeframe before a second port would be required.

Generally, the notion of 'medium-term need' was linked to the capacity of the Port of Melbourne and growth rates over time. One submission provided a scenario analysis indicating the Port of Melbourne may reach capacity by 2036 with a high growth rate, 2042 with a medium growth rate and 2055 with a low growth rate.

Another submission stated the Port of Melbourne would reach a threshold in about 15-20 years, noting that growth exceeding five million containers would impact on Melbourne's liveability.

Future need

One submission placed the future need of a second container port further into the future, stating there was an argument that capacity increases at the Port of Melbourne could delay the need for a new port until the last 10 years of this century – 60-80 years away.

Second port not needed

A quarter of submissions that offered feedback on this topic questioned the need for a second container port. Most of these submissions were from individuals.

Submitters discussed opportunities to maximise capacity at the Port of Melbourne and reflected concerns about the potential social, environmental and economic impacts of building a new container port elsewhere.

One submitter mentioned Port of Melbourne's proximity to all modes of transport would be difficult to replicate in either Bay West or Hastings and would require significant funding. They stated road and rail infrastructure improvements around the existing port could result in productivity gains, while relocating non-container trade, such as automotive and Tasmanian services, to other ports like Geelong, should be examined.

One submission drew on evidence from the Supply Chain Advisory Network, noting Australia's market may not be large enough to justify building a second container port. This submission particularly emphasised that markets dictate the size of ships, not government policy, and that the mega-ships a new port would facilitate may not even come to Australia.

A number of submissions cited social and environmental reasons for not building a second port. In particular, one submission called for the Port of Melbourne to be “cleaned up” and no further deepening of Port Phillip Heads. This submitter also called for the Bay West and Hastings options to be ruled out because of impacts on wetlands and endangered species, including birds.

Impacts if second port not ready

Mornington Peninsula Shire commented on impacts to the Victorian economy if a second container port was not ready to trade before the Port of Melbourne reached capacity. Concerns focussed on the importance of maintaining Victoria’s competitive advantage as preferred freight and logistics hub over other states.

Drawing on a report (GHD, Port of Hastings: Economic Impact Analysis 2013), a submitter noted insufficient container port capacity in Victoria would result in a loss of \$2.2 billion in Gross State Product by 2035 and a decrease of 4,800 jobs by 2035.

Other feedback

Other feedback on the timing of a potential future container port included suggestions and requests for:

- Infrastructure Victoria to provide a “clear timetable and trigger points” in their final advice to the Victorian Government.
- A “new approach” to Australia’s ports, imports, manufacturing base, produce, technical systems, infrastructure and education, noting this as “long overdue”.
- The creation of “transition port” not a second port, whereby current operations transition from the Port of Melbourne to another container port located outside the central city over the next 50 years.
- Ship sizes to be by specified Victorians rather than shipping companies, in that Victoria should specify environmental deliverables and only allow ships that comply to enter.

3.2 Future port requirements

Many submissions regarding the requirements of a future port came from the transport sector, or transport-related industry groups. These included Lead West/Western Transport Alliance, Avalon Airport, the Victorian Transport Association and the Australian Rail Track Corporation. A number of individuals and councils also provided comment.

Submissions offered detailed feedback on future requirements for a second container port. Key aspects included proximity to transport and pathways, alongside rail connections and consideration of freight costs. An overview of feedback is presented in Figure 3.2 and summarised in this section.

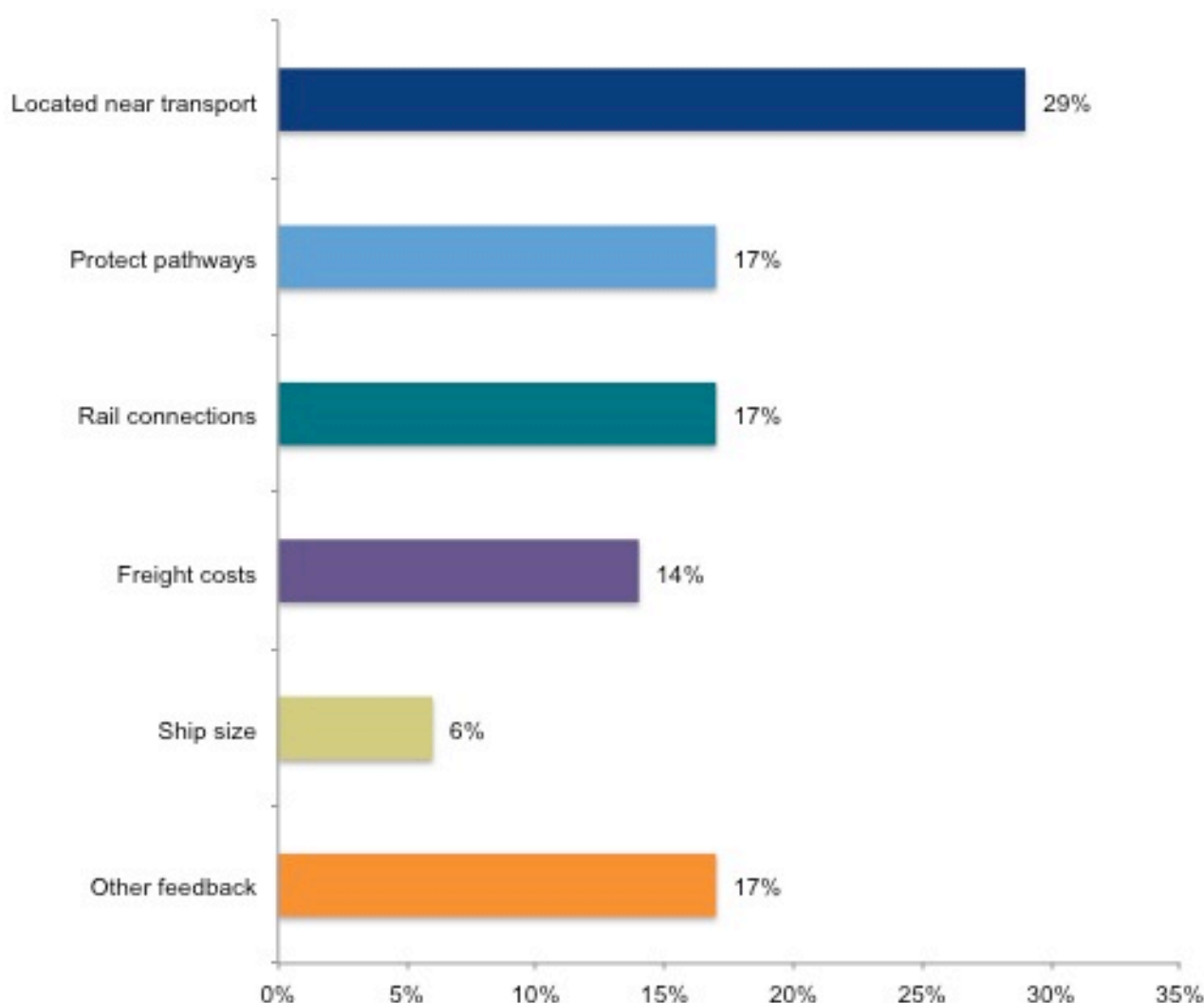


Figure 3.2 Feedback on requirements of a future port

Located near transport

A number of submissions discussed the importance of efficient transport links to port operations. Some submitters requested Infrastructure Victoria to include a comparative assessment of the practicality and feasibility of freight transport access, both rail and road, to the respective port options as part of their advice.

The majority of comments regarding the need to locate a second container port near transport came from individuals rather than organisations.

Transport links

A number of submissions discussed the importance of efficient transport links to port operations. Some submitters requested Infrastructure Victoria include a comparative assessment of the practicality and feasibility of freight transport access, both rail and road, to the respective port options as part of their advice.

Transport infrastructure was highlighted as an integral part of port planning in many submissions. This included the transport of goods to and from market efficiently, safely and at the least cost. Submitters stated proximity to rail, uncongested road access and the cost of transport should be factored into the decision.

Another submitter saw transport links as critical to reducing reliance on road transportation and ensuring stronger links between the freight rail network and logistics industries in Melbourne's west.

Freight terminals

Links between the existing port and intermodal or freight centres was also flagged in a number of submissions. One noted a greenfield site in the “right location” could enable the development of freight terminals and the road/rail network to cater for efficient transport of existing and forecasted freight volumes.

Several submissions discussed connections between a second container port and intermodal terminals – including facilities at Altona and the Western Interstate Freight Terminal at Truganina. Rail links, including metropolitan rail shuttles, were emphasised as being essential to reducing road congestion.

Road infrastructure

Some submissions highlighted the need for a second cross-city road corridor to support a second container port. Submitters reflected on congestion impacts for the CBD and Port of Melbourne during the unavailability of the West Gate Bridge, and that no alternative exists that can mitigate this disruption.

Road connectivity to the hinterland was also a concern for some submitters. Minimising economic impacts for supply chain businesses would involve looking at mass limits on roads that permit High Productivity Freight Vehicles and transport management strategies like time-based tolling and priority lanes.

Protecting pathways

Several submissions noted the importance of protecting the location and access pathways for a second container port. Submissions reflected on the notion of “certainty” for future land use around port sites. This would include identifying and protecting freight corridors and connections until a decision is made.

Some submitters commented that a decision should be made now so the myriad of stakeholders affected by a new second port can begin to factor this decision into their long-term planning.

Other feedback referenced the need to protect corridors between the Western Interstate Freight Terminal, the Port Rail Shuttle and both potential second container port options. This would include planning and protection of corridors for rail shuttle linkages to Lyndhurst, Somerton, Dandenong and Altona.

Comments regarding the protection of pathways came from local government and peak bodies, including Lead West and the Australian Rail Track Corporation.

Rail connections

Peak bodies and industry groups as well as individuals shared views on the importance of rail connections.

Submissions emphasised that rail connections were particularly important, some asserting that a greater share of the freight task would need to transfer from road to rail in the next 20 years. On-dock rail connections and integration with intermodal terminals and distribution centres were also cited as important.

One submitter suggested the use of rail to take freight to satellite areas for cross docking and consolidation. They also noted the need to develop port rail shuttle plans and suggest mode shift targets for transport mode share to every rail-connected Victorian Port, as well as government incentives for greater use of rail.

A range of feedback was received about rail connections to a second port and the opportunity to create an “ideal port system”. This ideal system would include better statewide and interstate connections via projects like the Port Rail Shuttle and Brisbane Inland Rail.

Separating freight and passenger rail services was flagged as a priority for future port requirements.

Specific mentions were made about upgrading freight railways including Dynon and Lyndhurst in Melbourne’s south east. Some submitters stated these upgrades would be needed regardless of which location is chosen to stop south east Victoria from being significantly disadvantaged.

Freight costs

Consideration of freight costs in regards to the requirements of a future port was raised by industry and property groups, including the Property Council of Australia and Salta Properties.

Several submissions noted the importance of considering the cost of freight. One submitter felt the importance of the location to the freight industry was understated in Infrastructure Victoria's evidence base discussion paper – as location will greatly impact the cost of moving goods around Melbourne and beyond.

Submissions emphasised the need to consider “true end-to-end supply chain costs” including landside transport between major industrial areas and a second container port. Others felt the location of the second port at Hastings or Bay West would increase transport costs and cause an increase in cross-city movements.

Ship size

Submissions regarding ship size came from individuals and the Australian Logistics Council.

A number of submitters discussed what ship sizes could look like for a future container port. One submitter stated that new berths should be designed to accommodate vessels of at least 18,000 TEU while others accepted that one of the major determinants for locating a second port would be driven by future ship size.

Another submitter felt Infrastructure Victoria's discussion of ship sizes could be strengthened by further references to other reports, including Drewry maritime research. They argued the need to look at overseas shipping companies as this will influence the need for a second container port and its timing.

Other feedback

Other feedback discussed a range of factors on what a future, second container port should look like, including:

- Natural water depth and shelter to accommodate vessel movements and efficient loading and unloading.
- Sufficient land and water space for the initial development, growth, maintenance and future expansion of port operations and facilities.
- A sufficient hinterland and trade-related business case.
- Road pricing reform to support a “level playing field” between road and rail and to support a more productive, efficient and sustainable freight transport network.

“Port access, congestion, community safety, vehicle emissions, continued road depreciation and road way capacity are important considerations when planning Victoria's next container port.”

- Rail Freight Alliance

3.3 Capacity for containers, bulk and other cargo

Submissions also provided feedback about current capacity for containers, bulk and other cargo at Port of Melbourne and potential triggers for a second container port. Feedback discussed changing forecasts and capacity and space restrictions. Feedback is summarised in this section.

Changing forecasts

Changing forecasts was highlighted by a number of submitters as a key issue for determining the need for and timing of a second container port. As part of this, one submitter reflected on how much container trade forecasts have varied over the last 20 years despite being conducted by the same firms.

Another submitter commented on the “disconnect” between forecasts and the approach to ship sizes and trading patterns that will be used by shipping companies. The submitter noted shipping companies incorporate statistics from other ports to determine what size and type of ship will be employed.

Drawing on the forecasts provided in Infrastructure Victoria’s evidence base discussion paper, another submitter suggested the Victorian Government should regularly update and publish container demand forecasts to ensure Melbourne has the required 10-15 year lead time to build a second port.

Changing forecasts as an influencer of timing was raised by an individual and the Australian Rail Track Corporation.

Capacity at Port of Melbourne

There was extensive discussion among submitters regarding when the Port of Melbourne would reach capacity and its potential for expansion. A number of submissions reflected on Infrastructure Victoria’s capacity assessments and the broad long-term capacity in the range of 12-15 million TEU per year.

One submission stated the Port of Melbourne would continue to be the most cost-effective location to provide Victoria’s future container terminal capacity due to its ability to leverage the existing container trade-related asset base and provide incremental capacity increases in response to trade growth forecasts.

A number of submitters discussed the potential for increasing capacity at the Port of Melbourne. Submissions covered topics such as additional draught capacity and underutilisation of available draught, broader market dynamics, ship sizes and berths, port automation, land availability and transport connections.

One submission discussed future upgrades to Swanson Dock to handle larger vessels (up to 10,000 TEU), alongside Webb Dock upgrades to handle up to 11,500 TEU. However, the submitter noted any plans to upgrade the port’s capacity to handle larger ships should be coordinated with other major container ports.

Another submitter argued that increasing throughput for the Port of Melbourne was aspirational given constraints related to the quay line and the complexity of increasing the capacity of Webb Dock, due to limited land and associated impacts of dredging and land reclamation activity.

One submitter emphasised that caution should be exercised in relation to the value of available forecast capacity estimates for the Port of Melbourne. They stated that ultimate capacity relies not only on the amount of land but how the space is used for loading/unloading, holding/stacking and dispatch/receipt of containers.

In extending the lifespan of the existing port, one submitter emphasised the difference between ‘theoretical capacity’ versus developing a practical plan to increase capacity. They suggested this plan should include the redevelopment of tired infrastructure, such as the associated road network.

In considering the surrounding road network, another submitter flagged the Port of Melbourne's inability to accept High Productivity Freight Vehicles due to size and weight restrictions on surrounding roads. The submitter believed this raised questions over the capacity numbers quoted by Infrastructure Victoria.

Another submission emphasised the importance of continuing to operate the Port of Melbourne as efficiently as possible for as long as possible, and that planning for a potential second port should not deter the need to invest in infrastructure in and around the Port of Melbourne to increase its capacity.

Feedback about capacity at the Port of Melbourne was received from the Port of Melbourne, individuals, and local government.

3.4 Current port capacity and ability to handle future scenarios

Submissions from local government, peak bodies, Hobsons Bay and Bass Coast councils and multiple individuals discussed a range of issues in relation to the Port of Melbourne's current capacity and its ability to grow into the future. Feedback focussed on current and future ship sizes and the potential social impacts of port expansion. An overview of feedback is presented in Figure 3.3 and summarised in this section.

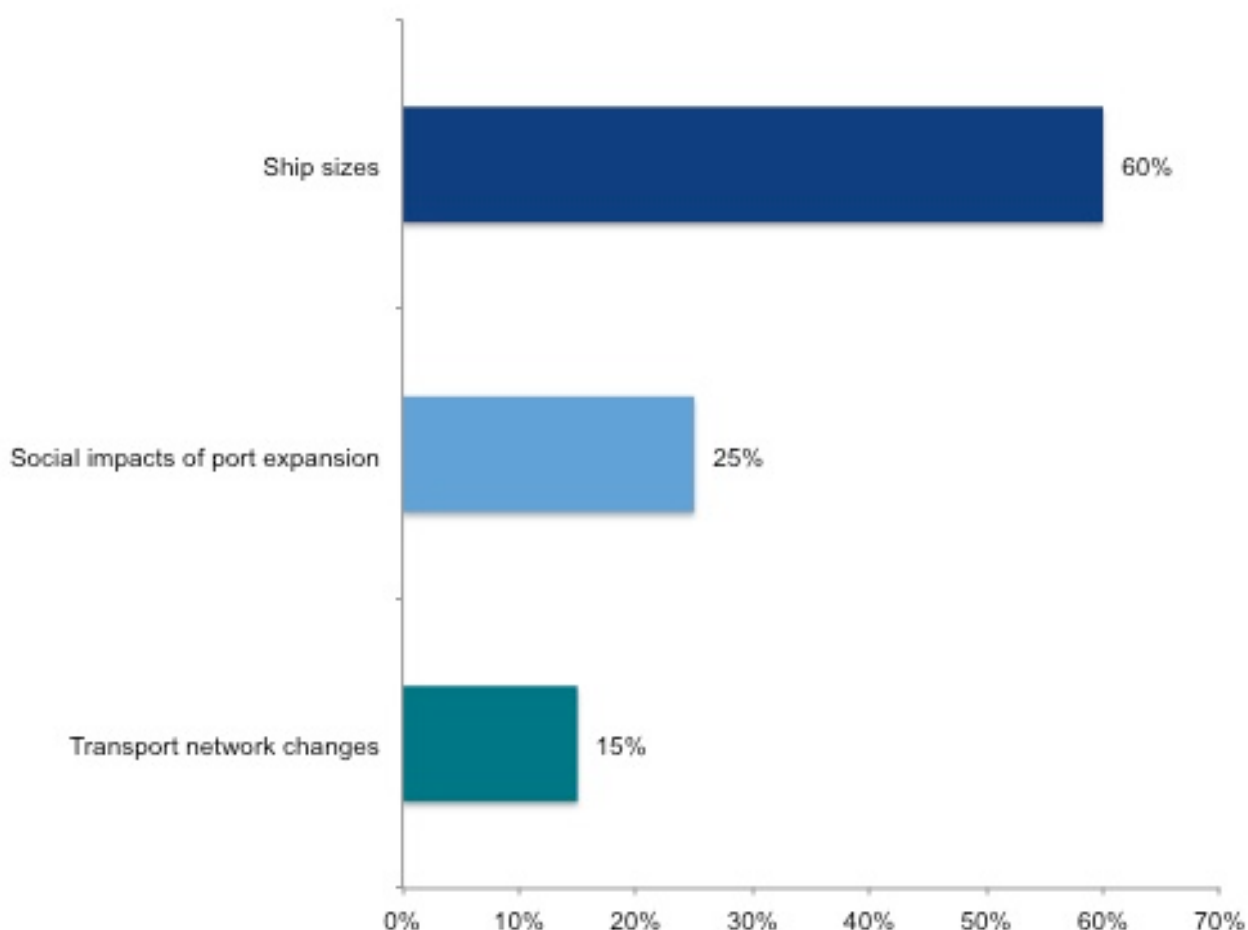


Figure 3.3 Feedback received about current port capacity and ability to handle future scenarios

Ship sizes

Submissions showed extensive and varied opinions about the size of ships that would need to be accommodated in Melbourne and whether this was a trigger for a second port. Some submitters stated there was need to provide capacity for larger ships while others felt this capacity would not be needed.

A number of submissions emphasised the market drives the TEU capacity and the size of the vessel to be sent to the port. On this subject, one submission argued the Australian market would not support visits by ultra-large vessels in the foreseeable future due to lower demand and higher unit costs.

While one submission asserted there was ample capacity for ships of up to 14,000 TEU to accommodate demand through Port Phillip Heads up to 2100, other submitters believed that economies of scale would be achieved through efficiencies of using container ships of less than 14,000 TEU.

On this point, some submitters felt larger ships, but not as large as 14,000 TEU, should be accommodated. One submission noted requests for the Port of Melbourne to accommodate vessels in the 8,000 to 10,000 TEU range are likely to increase rapidly and Victoria should have berths available to service such vessels.

Ship sizes were raised by Lead West/Western Transport Alliance, Avalon Airport, individuals and the Port of Melbourne.

Coordination between ports

Several submitters called for a coordinated approach to accommodating larger ships, arguing Victorian ports should work in partnership with the other major east coast ports (Sydney and Brisbane) given the port with the most restricted infrastructure determines the size of vessels visiting Australia.

Another submission emphasised the importance of coordination – stating that shippers in Melbourne would not have the chance to participate in economic savings of the larger vessels on route between the east coast of Australia and Asia if larger vessels can't be deployed or have to be sub-optimally loaded.

One stakeholder noted the size of container vessels visiting Australia has increased over time. They stated air draught restrictions under the West Gate Bridge would severely restrict larger vessels from berthing in the future, affecting the capacity of Melbourne to continue as Australia's leading container port.

Social impacts of port expansion

Hobsons Bay City Council made comment regarding a range of social issues connected to port expansion, including traffic, amenity and recreation. This issue was also flagged by individuals.

Submissions flagged a range of social impacts associated with expanding the operational footprint of the Port of Melbourne. Some submitters pointed to land use conflicts, urban renewal and increased densification in Fishermans Bend and Beacon Cove, calling for clearer policies from the Victorian Government to protect freight corridors.

One submission noted that any land reclamation works to support expansion for Webb Dock would compromise the extensive network of open space on the Hobsons Bay foreshore, particularly if port operations moved to 24-hour automated operation.

Other social impacts noted in multiple submissions included traffic congestion, truck routes, light spill, noise, height of stacked containers, as well as impacts on property values and liveability. Some submitters also questioned the impact of expanded port operations at Webb Dock on recreational values, such as sailing.

For these reasons, some submitters advocated for establishing a new port away from urbanised areas – this would increase the likelihood of achieving an efficient and effective 24-hour facility capable of expansion and addressing industrial requirements.

Transport network changes

Multiple submissions discussed the Port of Melbourne's capacity for growth, citing limitations of the local transport network and social impacts of port expansion. Links to the broader transport network, including restrictions and constraints on road and rail access were discussed in a number of submissions.

One submission identified the replacement of Swanson Dock East and West as “critical” to a successful transition for the future Port of Melbourne, noting Swanson Dock has rail access but is restricted in ship size. Road constraints and a lack of rail connections also limit Webb Dock’s capability to handle eight million TEU.

Another submitter reflected on access restrictions for grain trains to existing port facilities. This issue is compounded by freight trains having to compete with passenger trains for rail lines. The submitter noted that while Webb Dock could cater for larger ships, the lack of rail access would continue to be a major constraint.

The feasibility of the Freight Link proposal was questioned by a numbers of submitters, noting its proximity to the Wirraway precinct in Fisherman’s Bend, which has been earmarked for “family-friendly” development. It would also require operators at Webb Dock to relocate, which would impact leases and automotive facilities.

Port of Melbourne Corporation, local government and Avalon Airport submissions discussed this topic.

3.5 Increases in capacity for investment and improved management

Extensive feedback was received regarding potential modifications and upgrades to the Port of Melbourne to increase its capacity. Much of this feedback focussed on hard infrastructure both external to and within the port. An overview of the feedback is presented in Figure 3.4 and summarised in this section.

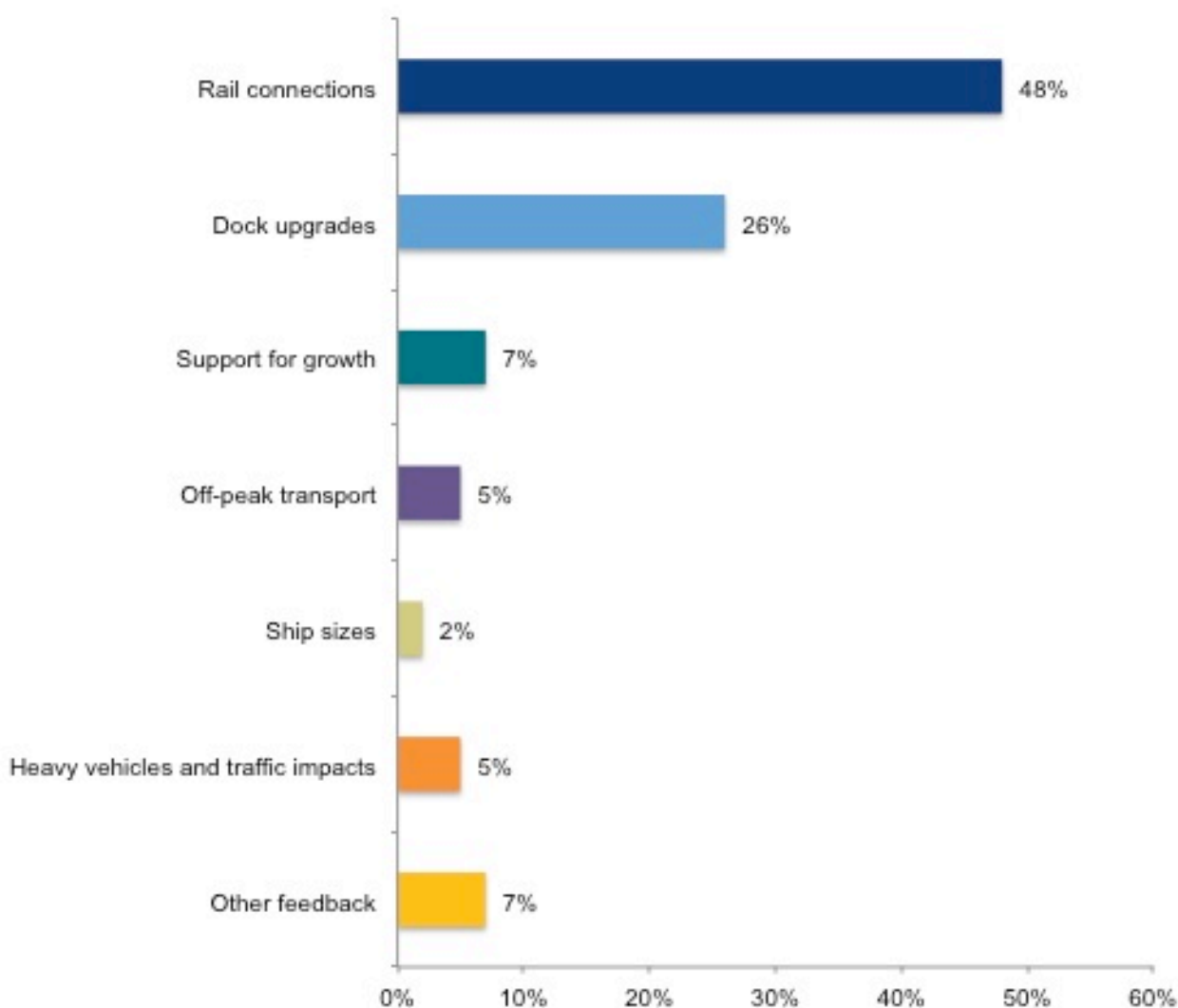


Figure 3.4 Feedback on potential modifications and upgrades to Port of Melbourne

Rail connections

A variety of comments regarding rail connections was flagged in a large number of submissions. These comments included calls for improved rail connections to the Port of Melbourne and some comment on the impacts of rail connections.

These submissions came from a broad variety of stakeholders, including Hobsons Bay, Geelong and Wyndham councils, Port of Melbourne, Australian Rail Track Corporation, the Australasian Railway Association and multiple individuals.

Multiple submissions noted that capacity increases at the Port of Melbourne would require rail to take a larger modal share and the need for both on- and off-dock rail connections. One submitter highlighted the long-term plan for investing in the port, including improved rail and High Productivity Freight Vehicles links.

Other submissions evidenced national and international ports to show the importance of rail terminals at container ports, and how one should be incorporated into Webb Dock. With Fishermans Bend and transport infrastructure plans being developed, the submitter noted it was “vital” to incorporate a rail transport corridor.

Another submitter expressed concerns about managing rail connections to the Port of Melbourne, stating that moving freight by rail – 9,000 train trips to leave the precinct each year to move 10 per cent of eight million TEU – would see 24 trains per day running through residential areas.

Rail targets

Several submissions made comment on the proposed 30 per cent rail transport target. Feedback included support for prioritising rail freight, emphasising that if freight mode could swing more in favour of rail, the 30 per cent share quoted as an “aggressive target” would be achievable.

The same submission linked rail targets to improving traffic and congestion on roads, stating that if a more optimistic target were set, coupled with the forward development of the Western Interstate Freight Terminal, truck congestion would be reduced and therefore more manageable.

Given the enlarged freight task in the future, another submission argued the number of containers moved by rail needs to increase significantly just to maintain the existing rail mode share. This submission noted the need for a “holistic plan” to be produced as part of maximising the potential for moving more freight by rail.

Webb Dock Freight Link

One submitter felt Infrastructure Victoria should include a Webb Dock Rail Link in its work, along with a wider range of metropolitan freight rail network improvements, as part of a rail access strategy. They suggested a rail link to Webb Dock could be delivered at a lower cost than the proposed Fishermans Bend Freight Link.

Another submitter noted the existing Webb Dock railway line and suggested reactivating the line, including reinstating the Yarra Rail Bridge and reacquiring sections of easement, to provide more immediate rail access and reduce road transport congestion in an area slated for residential growth.

Fishermans Bend Freight Link

Another submission discussed the Fishermans Bend Freight Link in greater detail. It stated the project was an impractical and non-viable option for improving the capacity of Webb Dock, noting conflicts between freight and mixed-use and residential renewal in the Sandridge and Wirraway precincts of Fishermans Bend.

Other rail options

Two other submissions provided suggestions for improving rail connection to the Port of Melbourne involving new infrastructure. These suggestions included an underground rail link, the consideration of light rail, and the use of container trams to enable distribution of containers with a reduced impact on amenity.

Distribution networks

One submission noted the need for a network of large-scale, inland ports to service the trains required and hub containers at night while distribution centres are closed. They believe an efficient network of rail serviced inland ports should be established well in advance of any second port capacity migration.

Dock upgrades

There was extensive feedback provided around potential dock upgrades at the Port of Melbourne. Feedback considered the potential capacity increases that dock upgrades could deliver, as well as the relative benefits, constraints and impacts.

Hobsons Bay City Council flagged concerns about expansion into Port Phillip Bay, while Avalon Airport's submission discussed potential impacts of expansion on the environment and transport networks and practicality of expansion.

A. Richard Clarke's submission discussed extensively potential means and outcomes of capacity enhancements.

Capacity increases

One submission stated capacity increases at the Port of Melbourne would cancel out the need for a second container port. It stated six berths at Swanson Dock combined with four or five at Webb Dock East, and accepting the various calculations of road, gate and traffic capacities would provide the required throughputs.

Another submission advocated for removing vehicle trades from Webb Dock in the medium to long term as a means of freeing-up much needed and valuable space. It suggested that car carriers could be relocated to other locations, such as the redundant Alcoa berth at Geelong.

Another submission noted potential capacity enhancements at Webb Dock could facilitate the handling of about 1.4 million TEU annually at the Victorian International Container Terminal, while further enhancements at Webb Dock could enable about eight million TEU to collectively meet nine million TEU.

It was noted that upgrades to increase container throughput would not address the constraints of berthing larger container constraints at Swanson Dock. There were also some comments on the efficiency of berth windows, off-schedule ship arrivals and machinery breakdowns, which affect capacity.

Tasmanian services

A number of submissions discussed the importance of the Port of Melbourne to Bass Strait trade. One submission noted Infrastructure Victoria's evidence base discussion paper led to erroneous directions being drawn around relocation of Bass Strait trades.

One particular submission emphasised the time critical nature of Tasmanian services. It stated that relocating Bass Strait operations up river of Port of Melbourne could add an additional 1.5 hours to arrival and departure times for every 14-hour trip, thereby reducing critical port time for loading and unloading.

Another submission suggested berth and back-up land for Searoad Shipping to be relocated from the No.2 berth Webb Dock East to the northwest corner of Webb Dock or southern end of Webb Dock West. This could allow berths 2 and 3 to be combined, an additional 400 metres of straight quay length.

Another submission stated moving Tasmanian services would add significant costs to the supply chain.

Support for growth

A number of submitters, including A. Richard Clarke and the Australasian Railway Association made positive comments about the Port of Melbourne's capacity for growth, noting that in the short to medium term, this

was the most efficient way to meet freight demand. Submitters noted the ability for capacity to be unlocked, subject to coordinated development of supporting infrastructure.

However, another submitter commented that the cost-friendly option of transitioning Webb Dock West to a container terminal is not considered operationally feasible due to the shape of available land and lack of back-up land for containers, and therefore should not be pursued.

Expansion impacts

City of Hobsons Bay and Avalon Airport flagged a number of potential impacts resulting from expansion at Port of Melbourne.

Looking at the potential impacts of expanding the Port of Melbourne, one submitter highlighted the risk of extending Webb Dock into Port Phillip Bay. They noted that if reclamation uses infill then consideration needs to be given to how materials could affect the environment over time.

A number of submissions discussed the potential impacts of extending Webb Dock. While one submitter argued that land reclamation would be preferable to dredging, another submitter argued that the environmental affect of using infill used during reclamation should be considered.

In terms of the visual impact, one submitter questioned whether Webb Dock would impact on the scenic views given the large ships arriving and departing.

Another submitter believed incremental developments at the Port of Melbourne would pose significantly less environmental disruption compared to new Greenfield developments at Hastings or Bay West.

Off-peak transport

While some submissions noted moving freight at night poses issues for staffing and delivery times and residential areas, the Port of Melbourne supported the need to increase off-peak transport network access for freight vehicles, noting Infrastructure Victoria's work on increasing night movement to around 30 per cent.

Heavy vehicles and traffic impacts

Issues relating to truck travel and movements on motorways were discussed in a number of submissions. Some submissions offered traffic volume data and surveys as part of discussing the lack of rail capacity and the impacts of increased truck movements with container growth.

Submissions regarding traffic and heavy vehicles came from Avalon Airport, Hobsons Bay City Council and the Port of Melbourne.

While one submission argued port-related trucks made-up less of the total truck traffic on surrounding roads in Melbourne than estimated, another submission provided data showing that truck movements would increase by 350 per cent if the Port of Melbourne reaches full capacity.

A number of submissions discussed the relative benefits of alternative routes. One submission noted the West Gate Tunnel Project would not address truck issues and that East West Link will ultimately be needed. Another submission questioned whether changes to port truck operations would reduce truck traffic.

A particular submission made comment about the road network that services the Port of Melbourne. It agreed service levels on arterial roads are at tipping level, and that even with expensive enhancements to service Swanson and Webb docks, congestion will remain high or at critical level.

It notes that specific consideration needs to be given to:

- Feasibility of inter/off-peak travel and impacts on port logistics chain.
- Road network tolls and impacts of toll avoidance on amenity of residential areas.

- Vehicle mass and dimension limits leading to increased truck numbers accessing the port.
- Increasing curfews on inner west roads and longer routes.

Another submission noted the need for High Productivity Freight Vehicles upgrades to the Bolte and West Gate bridges, while another submission emphasised the need to learn from poor past planning and provide for better heavy vehicle access, improving the management of the Port of Melbourne.

Ship sizes

Lead West, Avalon Airport, Port of Melbourne and A. Richard Clarke and ANL Container Line all discussed the influence of current and future ship sizes on decision regarding the future capacity of the current port.

Linking in to other feedback about Swanson Dock's limitations for handling larger vessels of the future, another submitter noted that significant expansion of Webb Dock is required to increase its throughput to eight million TEU and to handle vessels up to 14,000 TEU.

Referencing ship sizes, another submission cited that the largest vessel to regularly berth at Port of Melbourne is 7,500 TEU (at East Swanson Dock under strict conditions). Due to external constraints, access to Swanson Dock would continue to be restricted for larger ships.

While Webb Dock could be enhanced (increasing to nine million TEU), extending it to handle larger ships would require significant dredging and maritime construction in the Port Phillip Bay with environment and social issues potentially impacting on the "social license" to build.

Further feedback

A range of further feedback was offered on increasing capacity for investment and improved management was offered about warehouse facilities, costs and technology, including:

- Opportunity for the addition of warehouse or distribution facilities at Webb Dock. This could reduce traffic significantly, lead to a reduction in cost to the supply chain, emissions and truck congestion.
- Consider the costs involved for upgrades to the Port of Melbourne, citing \$3 billion would be needed for upgrades to Webb Dock and \$3.4 billion for Freight Link.
- Enhance capacity through technology, driving port efficiency, productivity and cost effectiveness through adoption of new technology.

3.6 Other feedback

A range of other feedback was received from local government and individuals about current and future operations at the Port of Melbourne and its role in triggering the need for a second container port.

- Some submissions discussed the "higher value" the Port of Melbourne site could have for other uses, including residential, mixed use and open space development. These submissions also noted that relocating the port would solve a lot of the heavy truck issues.
- Another submission stated continued operations at the Port of Melbourne would be preferable to establishing a port at Hastings or Bay West. Locating a container port in either location would put sites of international environmental significance at risk. If a second port is needed, this submission called for alternate sites outside of Western Port or Port Phillip Bay to be considered, such as Breamlea.

“Independently verified, scientific research must form the basis of any recommendation for a second container port location in Victoria to ensure that the environmental impact is known, understood and shared with the community.”

- Bass Coast Shire Council

4 Hastings as the second port location

Submissions presented varied feedback on the suitability and barriers to locating a second container port at Hastings. A large proportion of feedback highlighted the availability of zoned land (31 per cent) and the growing population and demand for goods and employment in Melbourne's south east. Figure 4.1 provides an overview of feedback on the suitability and barriers for Hastings, with 8 per cent of submitters indicating support for Hastings as the preferred option. This section also summarises feedback received on risks and benefits associated with Hastings options. The majority of feedback highlighted environmental risks (64 per cent) and tourism impacts (18 per cent) as key concerns, while feedback on benefits focussed equally on transport, freight, economic and capacity (21 per cent respectively).

4.1 Suitability of and barriers to Hastings as a second port location

Submissions presented opinions on the suitability of Hastings as a potential location for a container port. Designated land and population growth were aligned with suitability, while environmental impact was highlighted as a barrier. An overview of feedback is presented in Figure 4.1 and summarised in this section.

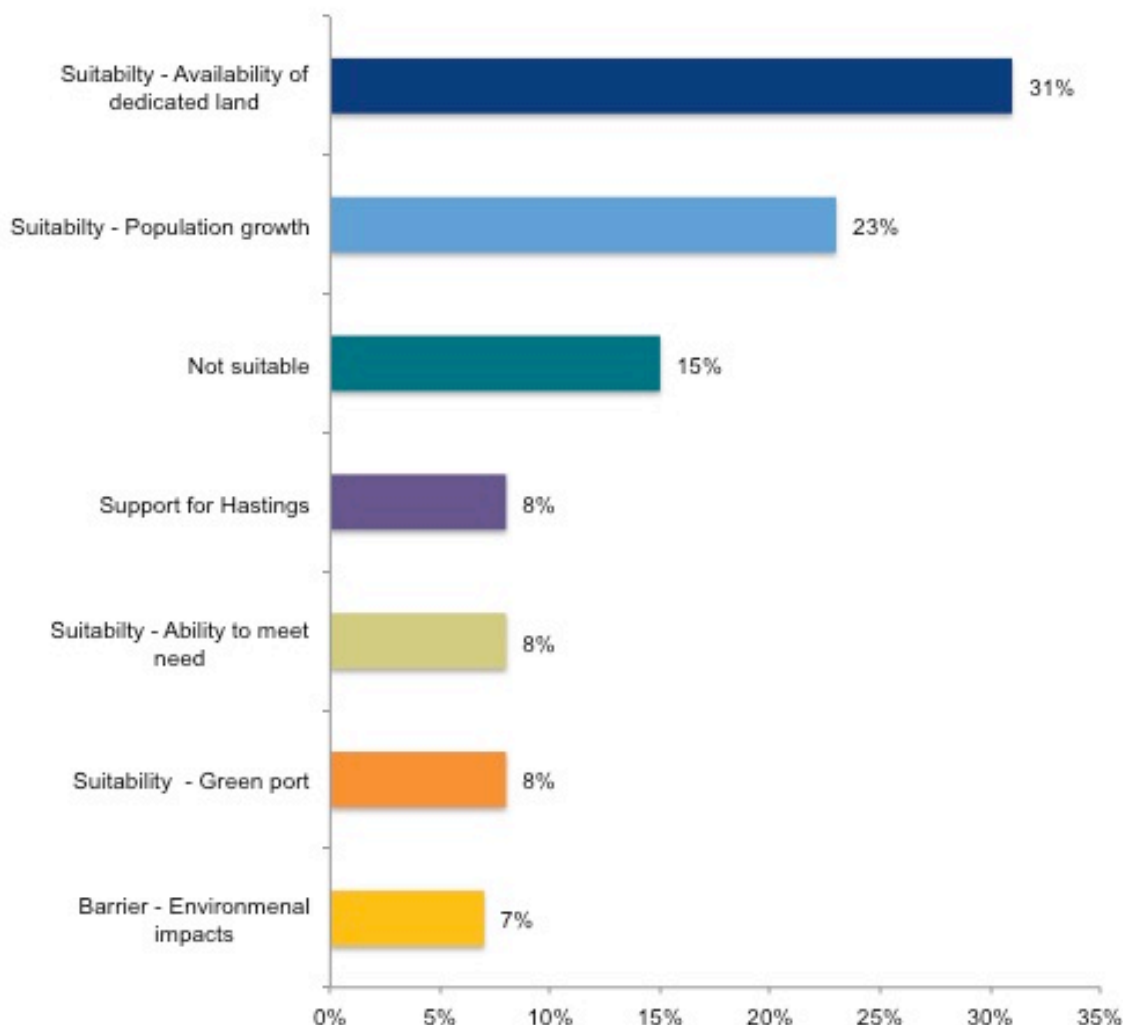


Figure 4.1 Feedback on suitability and barriers to Hastings as a second container port location

Availability of dedicated land

A number of submissions, including from including Mornington Peninsula Shire and the South East Melbourne Group of Councils, reflected on the amount of dedicated land available for a container port at Hastings. This is due to the fact that land around Hastings and Crib Point was set aside for port related purposes in the 1960s. Currently, 3,500 hectares is zoned for port related use.

Further to this, a number of submissions reflected on the significant amount of work already undertaken by the Port of Hastings Development Authority and at a regional level to identify supporting landside infrastructure. Based on this, it is believed Hastings could be in operation sooner than the Bay West option.

One submission stated that Hastings already has zoned land ready for port activities while the Western Treatment Plant surrounds Bay West and this facility could not be easily relocated. This submission also stated Hastings offers the ability to host Bass Strait and automotive trades currently located at Webb Dock.

Ability to meet need

In looking at the ability of a second port to meet freight need, a submission emphasised that a container port at Hastings could be built in three stages with a design capacity in excess of nine million TEU. One submitter noted this would provide a 4.1 kilometre quay line (non contiguous) with a backup area of 250 hectares.

One submitter proposed an alternative design for a new port with two or three berths designed to be up to five times more efficient than conventional ports. This was provided as an attachment to their submission.

Population growth

Local government highlighted the continued growth of Melbourne's south east as part of supporting the option to locate a container port at Hastings. A container port at Hastings would better service the population and industry across Victoria, while having two ports on the western side was seen as inefficient.

One particular submission emphasised that Melbourne's south east will continue to have a larger population than the west and north for the foreseeable future. It stated that given the heavy slant towards population and industry, the majority of products are destined for the south east, now and in the future.

Developing a green port

One submitter advocated for a "green port" showcasing "green" technologies and international best practice in marine and terrestrial environmental management. A green port would involve the community and recognise the environmental and cultural values of Hastings and the Western Port Ramsar Wetlands.

Environmental impacts

One submitter stated a container port at Hastings would pose an "unacceptable risk". The submission noted the potential impact an oil spill may have on the Phillip Island Nature Park Penguin Parade and Seal Rocks, and flow-on affects for beaches, recreation and tourism, and the economic benefit these bring to Victoria.

A number of submissions referred to "oil spill trajectory modelling", noting the potential impact of a spill on the closely located Western Port Ramsar Wetland, mangroves and salt marshes around the Bay. This includes impacts on marine fauna like Australian Fur Seals and birds like Shearwaters and Hooded Plovers.

Feedback also noted the orientation of quay would be affected by prevailing westerly winds, severely affecting the handling and berthing of large vessels – exacerbated by strong tidal flows. With limited sheltered vessel anchorages available, additional dredging would be needed to ensure safe anchorages.

Extensive comment was provided by a range of stakeholders, including community groups and individuals on environmental impacts. This feedback is discussed in section 4.3 below.

Not a suitable location for a container port

A number of submissions, including from Bass Coast Council and the Victorian Transport Association argued that Hastings is not a suitable location for a container port. One submission asked for the Hastings Port Concept to be re-examined as it is “inconsistent” with State Government policy and strategy due to the relationship between tourism, social, economic and environmental implications.

Another submission contended waterside and landside transport access issues alongside the “irreversible incursion on the fragile biodiversity of the Bay” make Hastings an unsuitable location for a container port.

Waterside issues mentioned by this submitter included narrow channels, use by recreational vessels, and the degree of dredging required. Landside issues mentioned included trucks doing longer journeys through densely populated urban areas and freight movements impeding the passenger rail system.

4.2 Costs associated with the Hastings option

A number of submissions, including from Lead West, Avalon Airport, the Crib Point Advisory Group and individuals highlighted the disparity in costs between the Hastings and Bay West options.

Submissions compared the figures available in Infrastructure Victoria’s evidence base discussion paper, showing the cost of Hastings as \$7.9 billion without Regional East and \$12.9 billion with it. They noted the cost of was double that of Bay West, which could not be seen as a good outcome for Victoria’s taxpayers.

Regional Rail East

Multiple submissions highlighted the need for rail access running prior to establishing a new port.

Regional Rail East was specifically raised by a number of stakeholders including Mornington Peninsula Shire and the Southern Melbourne Regional Development Australia committee.

A number of submissions argued the cost of Regional Rail East should not be included in estimates for the Hastings option as it skews the assessments and there are broader benefits than freight movements.

Some submitters proposed only the portion of Regional Rail East required to service the proposed container port option be assigned to the cost estimates for Hastings. One submitter noted that if the cost of upgrading the rail line were attributed to Bay West there would be significant distortions to the costing of that option.

Referencing a 2013 report from GHD, one submitter stated if Regional Rail East is not installed under a Bay West scenario then the south east of Victoria would be significantly disadvantaged. They noted upgrades to the Dandenong Line would be required for Hastings and Bay West as each port reaches six million TEUs.

A number of submissions expressed concerns over the number of rail trips required (up to 30,000 freight trips per year) and the impact this could have on passenger services. Other submitters expressed concerns about the cost of Regional Rail East and the need to introduce rail freight targets.

4.3 Risks associated with the Hastings option

Submissions discussed a range of risks in relation to the development of a potential second container port at Hastings. Feedback focussed on environmental and social risks and potential impacts on the tourism industry. An overview of feedback is presented in Figure 4.2 and summarised in this section.

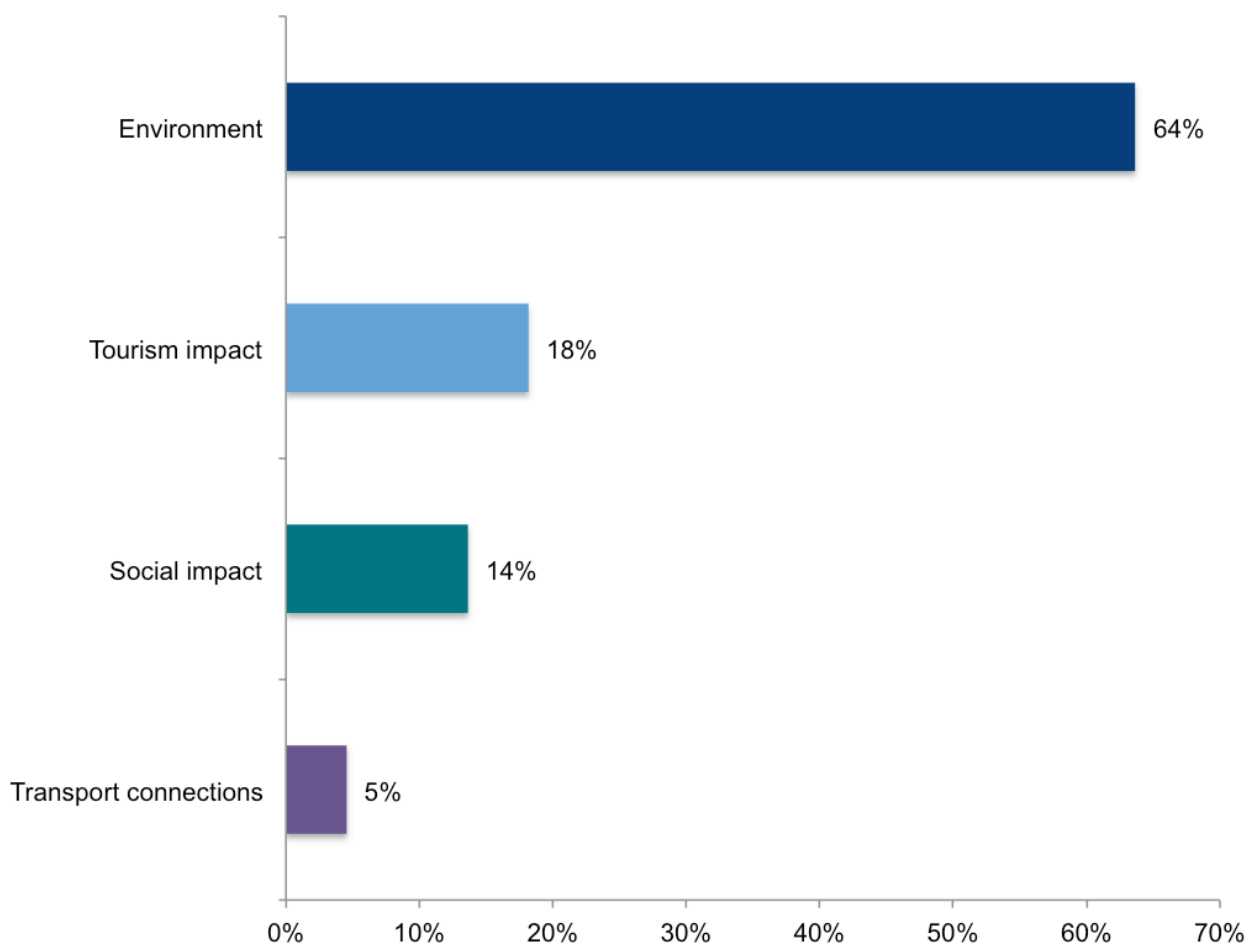


Figure 4.2 Feedback on risks associated with the Hasting option

Environmental risks

A significant number of submissions covered the environmental implications of constructing and operating a second container port at Hastings. These came from a variety of groups, including tourism and environmental groups and multiple individuals.

Submissions called attention to impacts on the Western Port Ramsar Wetland, the amount of dredging required, and affects on tidal flows and the broader bay environment.

A number of submitters called for additional environmental studies covering Phillip Island, the surrounding marine and land area, as well as any impacts on the Little Penguin population and associated tourism activities (see Section 6.2 for more detail).

Some submitters called a stronger negative weighting to be allocated to the Hasting option in recognition of the area's unique environmental values.

Dredging

A number of submissions raised concerns about the amount of dredging and impacts on the surrounding environment. Some submissions cited the work of Associate Professor Kennedy, stating there will be immediate effects from dredging and a very high risk of erosion in a number of areas.

There was concern expressed that reclamation and dredging may expose acid sulphate soils leading to fish deaths, heavy-metal contamination and long-term denudation of exposed areas. Other submitters deduced

that dredging may result in large dredge plumes or the spread of silt that could reduce light to habitats, impacting on seagrass, seabed, mangroves, saltmarsh and beaches.

One submission called for economic analysis to include a compensation fund for affected property holders and coastal land managers.

Another noted the existence of major Western Port Group aquifers at or near the seabed over much of the northern arm of Western Port. This submission asserted that increased agriculture has depleted the fresh water in the aquifer resulting in saline intrusion, rendering bores in Tyabb unusable. By further dredging, the submitter stated the risk to agriculture dependent on the water in these aquifers is unacceptable.

Submissions from Bass Coast Shire, Birdlife Australia, Graeme Hanigan and Ross Lloyd raised the issue of dredging.

Impact on flora and fauna

It was noted land reclamation, dredging and the disposal of dredge spoil are likely to impact on the productivity of seagrass beds and benthic fauna, which would then impact on foraging resources for aquatic birds, such as waterfowl and fishers. Seagrass habitat is also crucial for fisheries production, contributing to 90 per cent of the total nutrition of key fisheries target species.

Some submissions noted any proposal that could impact on coastal habitats and their carbon stocks should be taken into account before proceeding. There was also comment about impacts on the productivity of intertidal mudflats, mangroves and saltmarsh specific to Western Port. One submitter also noted marine pests were not mentioned in Infrastructure Victoria's evidence base discussion paper.

A number of submissions noted that increased shipping movements could lead to more frequent and larger waves, questioning the potential impact on sand dunes, burrows and nesting sites. Multiple submissions specifically referenced Little Penguin numbers and habitat, and concerns about impacts on Phillip Island.

One submission stated that despite the environment being degraded in many ways by urbanisation, Phillip Island has remarkable remnant value and the conservation and the recovery program is superb.

The Ramsar Wetland site was also referenced in multiple submissions. One submission noted that none of the Port of Hastings options would avoid substantial footprint on the Ramsar site, and that the footprint and direct loss of habitat within the Ramsar site would be in the order of 10 square kilometres.

A number of submissions raised impact on flora and fauna, including those from Matthew and Helen Roach, the Preserve Westernport Action Group, Westernport and Peninsula Action Group and Birdlife Australia.

Oil spills and incidents

Submissions around oil spills and incidents at Hastings came from a number of stakeholders including Westernport and Peninsula Action Group, Birdlife Australia, Anne and Stephen Paul, Rupert Steiner, Westernport Biosphere Reserve and Preserve Westernport Action Group.

Other submissions argued vessel movements increased the risk of accidents and oil spills, which could have a catastrophic impact on Hastings. A submission also noted specific research into the likely impacts of a heavy fuel oil spill at Long Jetty Point and McHaffie's Reef, and a diesel spill at Long Jetty Point.

A submission referenced research commissioned by the Victorian National Parks Association, which shows Phillip Island is vulnerable to oil spill contamination and French Island Marine National Park is also at high risk of exposure. The submitter highlighted a gap in the relative sensitivities of potential oil spills to both sites.

The short and long-term impacts of oil spills on migratory bird populations and Little Penguins (at high risk of oiling) were flagged, alongside the vulnerability of mangroves and seagrass. Tidal movements would mean oil spills, marine pest larvae, and dredge spoil would not stay confined to the proposed port area.

There was also comment that clean up techniques for the two port options should also be compared as the low tide areas of Western Port would seem more difficult to clean up than those of Bay West.

Works associated with Hastings option

One submitter noted the Hastings option considers the need to widen the entry to Western Port. They questioned the potential impact on the shoreline through changed height and speed of the tides in Western Port if this were carried out.

Another submitter noted the extensive landside infrastructure required for this site must consider potential impacts on flooding and river health.

Water movement and erosion

Several submissions raised the issue of changed water movement and erosion. One submission noted that there was no mention of potential changes in hydrodynamics and erosion in Infrastructure Victoria's evidence base and discussion paper.

This submission quoted evidence from reports, noting there is a very high risk of greatly increased erosion throughout the northern, western and southern shores of Western Port, including the eastern shoreline of Bass Coast around Coronet Bay and the north shore of Phillip Island.

Concern was also expressed that an increase in vessel movements in Western Port would lead to sustained increases in turbidity, reducing the productivity of seagrass beds and eroding shorelines in particular at Crib Point, western French Island and the western entrance channel on Phillip Island.

Erosion of shorelines was flagged as likely to have an impact on the foraging resources of aquatic birds in Western Port including swans, ducks, fishers and shorebirds. It was also noted the social, environmental and economic costs of erosion should be considered in looking at location options for a second container port.

Submissions from Westernport and Peninsula Protection Council and Birdlife Australia were among those that raised water movement issues.

Minimising environmental impacts

To minimise environmental impacts, one submitter encouraged Infrastructure Victoria to examine a piled or suspended structure design as it would be likely to have less environmental impact on seagrass and cause less interference with tidal flows and currents than large new areas of reclaimed land.

Offsets required under the *Environment Protection and Biodiversity Act 1999* for ecological and vegetation removal and impacts were also flagged.

A submitter highlighted that the Ramsar Management Plan represents a clear message that the Western Port Ramsar site is not appropriate for industrialisation and the construction of a container port. Based on the inability to identify appropriate offsets it would not be possible to effectively offset impacts.

Tourism and social impacts

Extensive feedback was received from a range of individuals and community groups about the potential impacts to tourism and social impacts as a result of the development of a second container port at Hastings.

Comment on tourism impacts was made by a range of stakeholders including Anne and Stephen Paul, William Fenner, Preserve Westernport Action Group and Phillip Island Nature Parks Australia.

One stakeholder noted there was a lack of recognition of the visitor economy for Phillip Island and San Remo, which makes up 40 per cent of the local economy, and is key to sustaining the future visitor economy.

Their submission stated the evidence base shows inadequate recognition of the proposed development of port infrastructure and operations on social and economic sustainability for Phillip Island.

Multiple submissions also discussed social impacts including those from Lead West, Preserve Westernport Action Group, Westernport and Peninsula Protection Council, Graham Hanigan, Bass Coast Shire and Ross Lloyd.

Potential impact on the recreation and amenity value of local beaches, waterways and Phillip Island was raised in several submissions. Specific mention was made of the Cowes beaches, which the submitter stated could be negatively impacted by the visual intrusion of container shipping. Another stakeholder cited a survey undertaken by the Preserve Western Port Action Group indicated 75 per cent of respondents would not choose to visit Phillip Island if a container port is built in Western Port.

There was also comment that recreational amenity impacts from tidal flows and waves created by vessel movements were not addressed in Infrastructure Victoria's evidence base. They noted potential flow-on impacts on local tourism and beach use, including swimming, kayaking, paddleboarding and yachting.

One submitter also commented on the broader social impact. They noted the potential for reduced property values was not included in Infrastructure Victoria's calculations. This relates to running freight trains on the Frankston line during the night and through stations declared as "transport hubs" even though they have medium density housing around them.

Transport connections

Multiple submissions reflected on the transport challenges associated with locating a second container port at Hastings. One submitter noted Hastings is restricted from a road and rail access perspective and that Regional Rail East would only be required because of a port at Hastings.

One submission asserted that the difficulty of building Regional Rail East could lead to road transport having to accommodate 4.5 million TEU to and from Hastings. This would require 1.5 million B-Double trips each year or up to 4,000 trucks on Melbourne's road network each day.

Road transport

There were submissions noting the potential impact on the freeway network, as well as roads closer to Melbourne. These included submissions from Hobsons Bay City Council, Lead West and local government.

Two submissions noted the delivery of North East Link could play a key role in responding to east-west and north-south transport needs.

One stakeholder questioned whether a container port at Hastings would place too much pressure on the Eastern Freeway and CityLink. Key concerns included increased trucks on Alexandra Parade and other streets where higher freight volumes would affect the community safety and amenity.

Another submitter noted concerns about an "over-reliance" on the West Gate to reach destinations in Victoria's north and west. Other road transport challenges identified in relation to Hastings included:

- Identified need for new logistics hubs and links to freeways.
- High dependency on Monash corridor and exposure to disruptions.
- Travel distance for export containers from Riverina, South Australia, and northern and western regions.

Rail transport

The compatibility with the passenger rail network, as well as challenges posed by providing freight rail to Hastings were raised in a number of submissions.

One submitter expressed concerns about the State Government's ability to secure a freight line to serve a container port at Hastings. In particular, they questioned what this would mean for the Richmond rail corridor and Richmond station. The submission noted the interaction of long freight trains and suburban trains, as well as the corridor being unsuitable for stacked containers given height restrictions presented by bridges.

Another submitter cited the effort required to get goods from Hastings to Footscray. They raised issues including congestion on the railway line as well as the Monash, stating Geelong is an industrial city with freeway, airport and interstate rail and that the majority of end users are in Spotswood or Footscray.

Another submission flagged the provision of national standard gauge connection through Melbourne's south east as a challenge.

Proximity to demand

A number of submissions cited Victoria in the Future 2016 (VIF) projections, which show population growth in Melbourne's west and north will be the largest. They suggest this growth is likely to make increasing capacity at Port of Melbourne and introducing a second container port at Bay West more favourable to Hastings.

Arguing that geographic location of both current and future demand across Melbourne, Victoria and South East Australia is a critical factor on deciding how demand can be accommodated, submitters noted Infrastructure Victoria's evidence only considers overall growth, not where demand will be generated.

They argued this is a key factor in the cost-benefit of both continuing operations at the Port of Melbourne and the potential benefits of both options for locating a future container port.

Submissions on proximity were made by Lead West and City of Melton.

Maintaining access for existing industry

A submission noted any development for a container port at Hastings must maintain suitable marine, road and rail access and service for BlueScope Steel. While the proposed development may not interfere directly with Bluescope's plant buildings, it has the potential to significantly reduce access depending on design.

4.4 Benefits associated with Hastings

Submissions discussed potential benefits in relation to the development of a container port at Hastings. Unlike feedback on risks, stakeholder comments on benefits, including transport, freight, economic and capacity, were fairly aligned. An overview is presented in Figure 4.3 and summarised in this section.

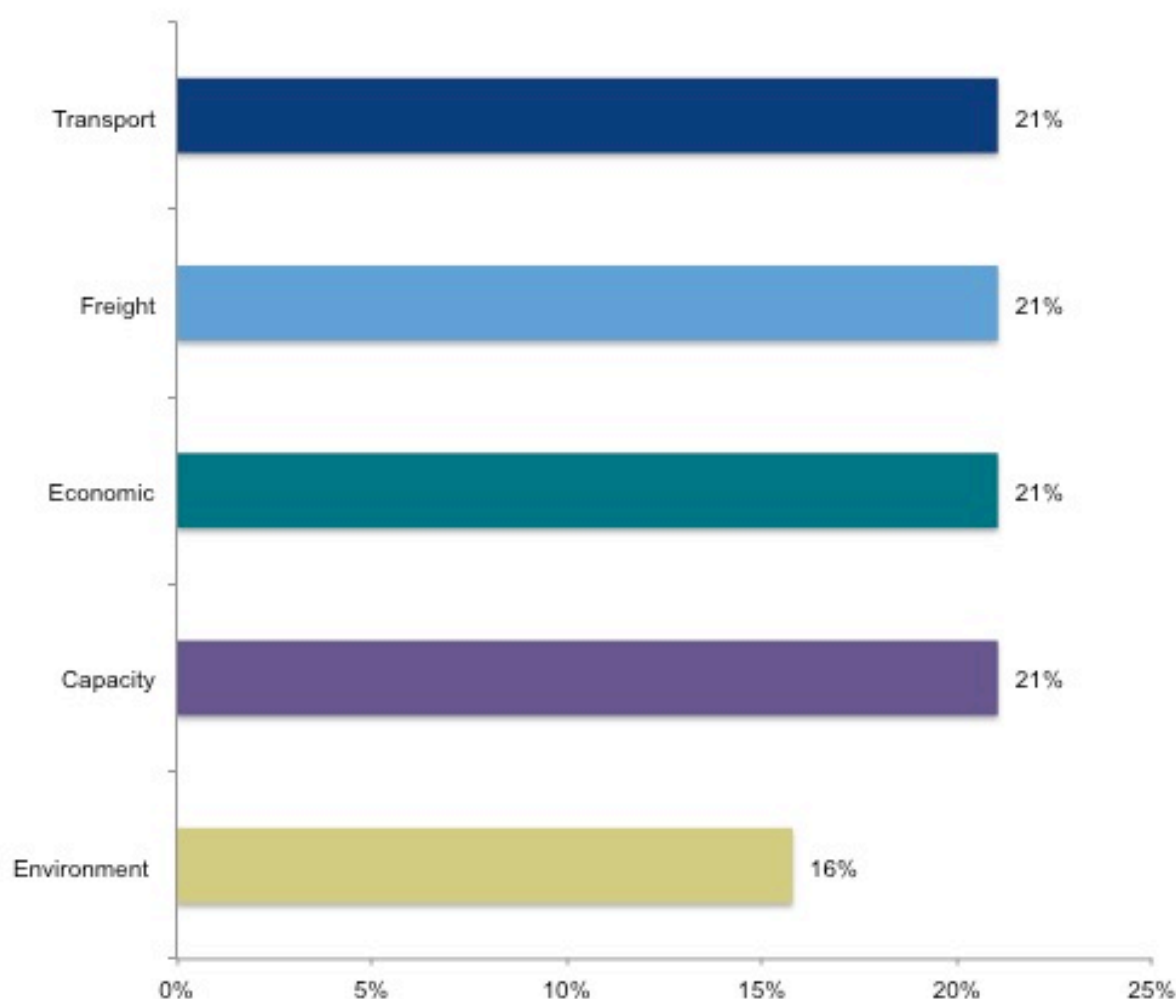


Figure 4.3 Feedback on the benefits associated with the Hastings option

Environment

Referencing Infrastructure Victoria's discussion paper and the BP Achiever docking at Hastings in 1986 without any dredging (see page 76 of the discussion paper), some submissions advocated for Hastings as the preferred option over Bay West due to its ability accommodate larger vessels.

This was viewed as an environmental benefit in comparison to the potential environmental impacts of widening the Port Phillip Heads, including anecdotal evidence of erosion at Portsea. By locating a second container port at Hastings, larger ships will be able to visit Melbourne while preserving the integrity of bayside beaches.

Comments on this topic were made in submissions from Mornington Shire Southern Melbourne Regional Development Australia Committee and South East Melbourne Group of Councils.

Capacity

A number of submissions from local government, including Gippsland Local Government Network emphasised Hastings as the most flexible option given its ability to cater for larger ships in the future. While future ship size was heavily debated in submissions, a number of submitters stated that it would be unwise to lock into a scenario where receiving 18,000 TEU ships would be impossible.

One submission stated that constructing a second port in Port Phillip Bay could put Melbourne's freight advantage at risk. Choosing the Bay West option without widening the Port Phillip Heads would limit entry for larger container vessels and diminish Melbourne's ability to compete with other Australian ports.

Freight

Population growth and distribution were considered important factors in determining where to locate a second container port. A number of submissions noted that Melbourne's south east would continue to have a larger geographic population base – meaning greater consumption and a greater freight task for the region.

Several submissions highlighted proximity to the source and the destination of goods, stating that a second container port should be located near to the leading population and manufacturing centre. To support this point, several submissions referenced a report by the Institute of Supply Chain Logistics, stating:

- 29 per cent of import containers come to the south east which equates to one third of the freight task.
- 60 per cent of truck trips come from manufacturing or processing businesses.
- Manufacturing in the east and south is the largest in Victoria and the most economically significant in terms of its Gross Regional Product.

These submitters believed a container port at Hastings would redirect supply chain movements so there are fewer cross-city movements, which would ease congestion on roads, particularly on the Monash Freeway, providing transport cost efficiencies while supporting trade and manufacturing.

Other submissions highlighted the link between the manufacturing and logistics sectors in Melbourne's south east with Tasmania, including the transport of 20,000-40,000 TEUs per annum. One submission suggested relocating Bass Strait trade to Hastings to reduce the length and speed of the sea voyage.

It was highlighted that the development of an intermodal terminal at Lyndhurst could also serve both the existing Port of Melbourne and have a role in supporting a container port at Hastings.

Among the submitters commenting on this topic were Mornington Peninsula Shire and Southern Melbourne Regional Development Committee Australia.

Economic

A number of submissions, primarily from local government, noted the regional economic benefits of a potential container port at Hastings, including revenue and job creation for surrounding areas.

A 2013 report by GHD is referenced in one submission, which stated a container port would deliver \$1 billion per annum in Gross Domestic Product in the mid-2030s rising to \$3 billion per annum in the early 2050s. It also noted 5,700 additional jobs would be created by mid 2030s and 15,200 jobs by the early 2050s.

These foreseen economic benefits are contrasted against another submission, which highlighted the socio-economic impacts of prolonged lack of employment opportunities in the south east and Frankston, including youth disengagement, substance abuse, crime and family violence, and homelessness.

Another submission noted that a significant project such as the Port of Hastings has the capability to substantially redefine Gippsland's economic capability and contribution.

Transport

While a number of submissions noted that the road network surrounding Hastings would require upgrading, submitters generally believed that existing road systems, including EastLink, provide a solid foundation for a second container port in Hastings with other supporting transport infrastructure already being considered.

A number of submitters referred to North East Link as an important enabler for a container port at Hastings. They believe North East Link will reduce the number of heavy container vehicles travelling through the CBD and create a dependable route between the south east and western Melbourne.

In looking at the Hastings option in comparison to the Bay West option, a number of submissions suggested that landside connections for a second container port at Hastings would decrease congestion on Melbourne's roads by reducing truck movements from one side of the city to the other.

Some submitters noted the west would continue to struggle with a less flexible and capable transport system, heavily reliant on the Princes Highway, and Westgate and Monash freeways. Major upgrades would be required to serve new industrial areas and link these back to other parts of the metropolitan area.

A proportion of submissions also noted that transport infrastructure is crucial to the south east and should progress regardless of whether the port is built in Hastings.

Submissions on this topic came from stakeholders including local government, the South East Group of Councils, ConnectEast and Gippsland Local Government Network.

4.5 Other feedback

A number of submissions discussed the need for a decision to be made to enable future planning for areas surrounding Hastings.

One submission noted the future development of Crib Point (located 7km south of Hastings), including future tourism and the related business-based economy is being constrained, and there can be no certainty for investors or the community until a decision is made.

Another submission from an owner of land in Special Use Zone 1 (SUZ1) highlighted the financial pressures associated with owning land in this zone. While they support the Hastings option, they believe the State Government should purchase the land regardless of the decision on where to locate a second container port.

“It makes logical and logistical sense to locate a second container port in the region which generates the greatest number of freight movements, receives the largest number of imported products and which has the largest manufacturing industry in Victoria.”

- Southern Melbourne Regional Development Australia Committee

5 Bay West as the second port location

Submissions presented varied feedback on the suitability and barriers to locating a second container port at Bay West. A proportion of submitters believe Bay West is the better option (36 per cent). Feedback also highlighted other location specific feedback relating to proposed location of a potential container port in Bay West (27 per cent). Figure 5.1 provides an overview of feedback on the suitability of Bay West. This section also summarises feedback received on the costs, risks and benefits associated with Bay West. Like Hastings, the majority of feedback highlighted environmental risks (59 per cent), while feedback on benefits focussed on transport, freight and employment and economic benefits.

5.1 Suitability of Bay West as a second port location

Submissions presented opinions on the suitability of Bay West as a potential location for a container port. While feedback was received about risks associated with this option, no feedback was offered on specific barriers to investment at this location. An overview is presented in Figure 5.1 and summarised in this section.

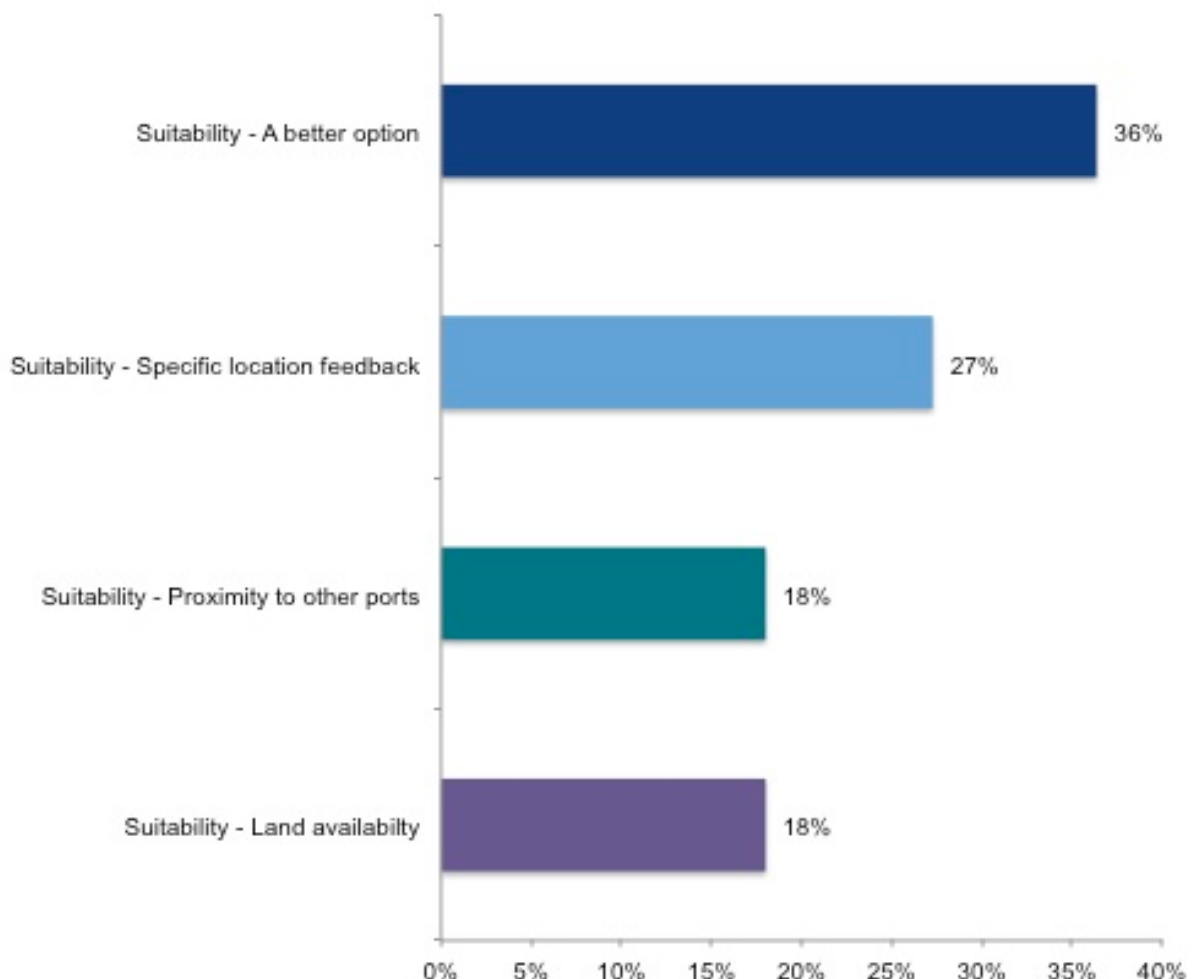


Figure 5.1 Feedback on suitability of Bay West as a second container port location

A better option

A number of submitters highlighted their preference for a Bay West location for Victoria's second container port, with many reiterating this from previous submissions they had made in earlier rounds of consultation.

Submissions proposed Bay West as the better option on the grounds of environmental impact, social impact, complexity, land acquisition, cost and feasibility. It was noted as the favourable location given it is significantly cheaper than the Hastings option, has better rail and freight links, and is a better fit with heavy industry and land supply.

Local government and peak bodies, including Lead West, Bass Coast Shire Council and Property Council of Australia made several comments regarding their preference for a second container port at Bay West.

Specific location feedback

While some submitters deemed a location in Port Phillip Bay, south of Werribee River to be the most suitable for a second container port in Victoria, another stakeholder called for more rigidity in the comparison of options for Bay West, especially a “true and defined location” for Bay West's best option.

Of the three Bay West port location concepts presented, one submitter noted they do not support the Werribee Corridor option given plans for land use in Werribee South to include high value residential and commercial developments.

One submission also noted that unlike Hastings, Bay West has an immediate advantage in so far as the eventual location of a new port could be changed to minimise adverse effects on social and environmental issues, while maximising the ability to fulfil operational needs such as transport connections and access.

Specific location feedback relating to Bay West was provided by Lead West, Avalon Airport and local government stakeholders.

Land availability

In relation to land availability, one submission noted that relative to Melbourne and Melbourne's south east, Bay West is close to a large supply of affordable industrial land that could cater for potential supply chain reorientation.

Another submission suggested a road and rail bridge would connect the proposed 240 hectare container terminal with a 4,100m quay with berthing pocket and approach channel. It was suggested that this could be built in stages and have a capacity in excess of nine million TEU.

The majority of feedback relating to land availability at Bay West came from local government.

Proximity to other ports

Given its location in the “calm waters” of Port Phillip Bay, one submitter noted Bay West would be suitable. One submitter noted the main reason for their support for the Bay West location was due to the vast majority of Victoria's grain harvest areas being to the west and north of Melbourne.

It was noted in one submission that the Infrastructure Victoria ports evidence base and discussion paper had not included information about other Victorian ports, especially with regard to grain movements, annual tonnages and split of rail versus truck revivals.

Organisations and local government provided the majority of feedback regarding the proximity of Bay West to other ports.

5.2 Costs associated with Bay West

Bay West was frequently noted as a “preferred option” over Hastings due to the lower overall cost, being half that of a similar solution at Hastings. This alone was suggested as enough of a reason to choose Bay West as the preferred location for Victoria’s second container port. However, submitters also identified cost risks.

Comments about the cost of a Bay West solution came from a range of stakeholders including organisations, peak bodies and individuals.

Cost risks

Despite the favourable comments relating to the lower cost of a Bay West location, there was a significant amount of commentary on Infrastructure Victoria’s cost estimates for the various port options, including the assumptions underpinning these costs.

One submission in particular noted costing a Bay West location without including necessary freight linkages deflates the cost of this option and could lead to billions of dollars in blowouts. Another noted concerns about the need for more detailed investigations in relation to potential costs of dredging and widening the heads.

Another submission also emphasised the significant capital expenditure implications for dredging, reclamation and construction of wharf facilities at Bay West.

Majority of comments about cost risks associated with Bay West came from local government including Mornington Peninsula Shire Council and the South East Melbourne Group of Councils.

5.3 Risks associated with Bay West

Similar to feedback on risks associated with building a container port at Hastings, the majority of feedback about potential risks at Bay West focussed on the environment. Submissions also discussed timing, navigation and transport impacts. An overview presented in Figure 5.2 and summarised in this section.

Comments about risks associated with Bay West came from a mix of stakeholder groups including Industry, local government, organisations and individuals.

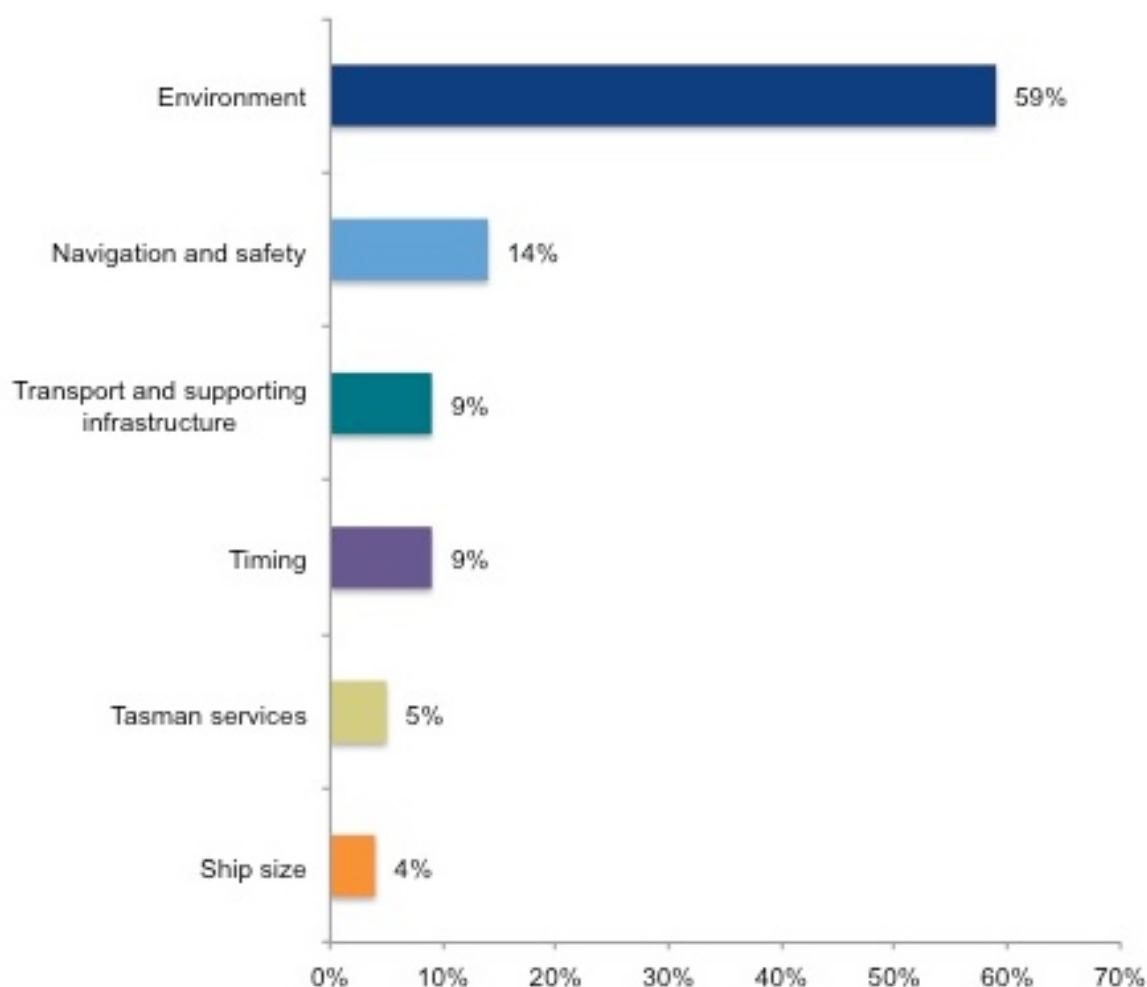


Figure 5.2 Feedback on risks associated with the Bay West option

Environment

Environmental risks were strongly reflected in many submissions in particular in relation to dredging in Port Phillip Bay and the impact of a new port on habitat and wildlife.

Endangered and nationally threatened species include the Orange-bellied Parrot, Spiny Rice-flower, Australasian Bittern, Curlew Sandpiper and the Growling Grassfrog. The surrounding environment also includes seasonal herbaceous wetlands (freshwater), coastal saltmarsh and grasslands.

The majority of comments about environmental risks at Bay West were raised by local government stakeholders.

Dredging, water movement and erosion

A number of submissions noted concerns associated with the significant dredging required in Port Phillip Bay should Bay West be chosen as the preferred location for a second container port.

Submissions reflected on the risks associated with increased tidal flows linked to greater erosion pressures. One stakeholder noted Infrastructure Victoria's preliminary modelling identified the impact of tidal range within Port Phillip Bay could increase high tide levels by six to eight millimetres.

Given the preliminary nature of this modelling, they raised concerns about damage to coastal assets from previous work in shipping channels and the heads and damage to beaches, natural assets, and the marine environment, which has flow-on negative impacts on marine based activities and businesses.

It was noted that any widening of the heads in Port Phillip Bay has potential to impact on wave action in the bay which would also impact on beaches in the bay. A rise in sea level within the bay could also have the potential to impact on the shoreline surrounding the potential Bay West site.

Several stakeholders called for more detailed work to be undertaken to better understand the environmental and social impacts of widening the heads. One submission also called for the environmental effects of a Bay West solution to be weighted strongly in the final advice to government, noting the need for alignment with the *Plan Melbourne 2017-2050* and the preservation of Melbourne's status as the world's most liveable city.

Impact on flora and fauna

There is a genuine concern that more dredging and widening of the heads will result in further damage to the coastal assets and flora and fauna of the bay, and as a result the stakeholder stated they strongly oppose any future deepening or widening of the shipping channels or the heads in Port Phillip.

Suggested immediate impacts include loss of remaining sea grass beds from dredging, loss of Ramsar status, potential toxic algae blooms, fish death, major impacts on recreational fishing, swimming and/or boating, and potentially significant impacts on local coastal erosion and/or sedimentation.

A number of submissions emphasised the importance of the Western Treatment Plant site and Ramsar Wetlands. The Western Treatment Plant holds environmental significance, providing a habitat for several critically endangered or nationally threatened species and communities.

Another submission raised the importance of the site for waterfowl, including its special contribution as non-breeding habitat and drought refuge, and its international significance as a Ramsar listed wetland.

Some submitters noted the assessment of risk to shorebirds is only for the location off the Werribee River mouth and there is inadequate consideration of Corio Bay as a bird habitat. One stakeholder suggested locating the proposed port further south would affect shorebird and seabird foraging/roosting areas of greater significance than any near Hastings.

Timing

Many submissions noted the varying predictors for future container trade and the difficulty this poses on deciding if and when a second container port is required in Victoria.

One submission in particular noted that any major variations in current predictions could change the deciding factors making the development of a completely new port such as at Bay West problematic.

Peak body South Melbourne Regional Development Australia Committee made the majority of comments relating to timing risks associated with a container port at Bay West.

Navigation and safety

Some submissions identified that navigation through the heads is more complex than through Western Port. One suggested consideration of the enhanced dangers, both environmentally and economically, as a result of increased ship traffic in a location that is complex to navigate, should not be underestimated.

Given passage through the heads is constrained as only one ship can transit at a time, another submission suggested larger ships will have a smaller window of time given they need to transit more slowly, potentially leading to more congestion at the Port of Melbourne and Bay West.

One submission highlighted the safety concerns associated with two ports sharing the same access noting that while a shipping accident in the heads is unlikely, the consequences of such an accident are far reaching and potentially catastrophic.

A mix of stakeholders including peak bodies, local government and individuals raised navigation and safety risks at Bay West in their submissions.

Transport impacts and supporting infrastructure

One submitter noted that Bay West requires significant associated infrastructure to transport freight across Melbourne without creating enormous congestion. They believed that this should be included in costing the Bay West option, and that options to nullify traffic congestion should be considered for the Bay West option.

Another stakeholder also noted impacts on traffic congestion and suggested consideration be given to:

- Management of traffic congestion associated with increased truck movements.
- Commitment for the Outer Metropolitan Transport Corridor to be complete before a port is built.
- Minimising negative impact for new residential areas abutting the rail corridor.
- Links with the Western Interstate Freight Terminal, intermediate rail terminal and port rail terminal.

Majority of feedback received relating to the risks associated with transport impacts and supporting infrastructure at Bay West came from Wyndham City Council.

Tasmanian services

One submission noted the disadvantage of a Bay West solution for Tasmanian trade given the distance from Tasmania to Geelong is the same as the distance from Tasmania to Melbourne, providing no advantage in length or speed of sea voyages compared with a Hastings solution.

The submission suggested that while there is probably land available, there is no berth and most containers would have to be on shipped by road to the existing transport centres in the north and west of Melbourne.

Feedback on risks associated with Tasmanian services came from one individual.

Ship size

One submission noted that given Infrastructure Victoria is not recommending widening the heads, a Bay West option is only viable in the event that no larger vessels seek to visit Melbourne.

The Geelong channel depths are not sufficient to cater for vessels above 12 metres, which is significant if non-container traffic from Port of Melbourne is diverted to Geelong to allow greater use of Port of Melbourne for containers and thus extending its life.

Local government were the key stakeholder group to raise risks associated with ship size.

“Extensive planning is being undertaken on the Western Interstate Freight Terminal, which is expected to be linked to the Outer Metropolitan Ring Road, and the rail network to Adelaide, Sydney and Brisbane.”
- City of Melton

5.4 Benefits associated with Bay West

Submissions discussed potential benefits in relation to the development of a container port at Bay West. Stakeholder comments focussed on transport, freight, environment and social benefits, as well as alignment with other projects. An overview of feedback is provided in Figure 5.3 and is summarised in this section.

The majority of comments relating to the benefits of Bay West as the location for Victoria’s second container port came from peak bodies and local government, including Lead West and Hobsons Bay City Council.

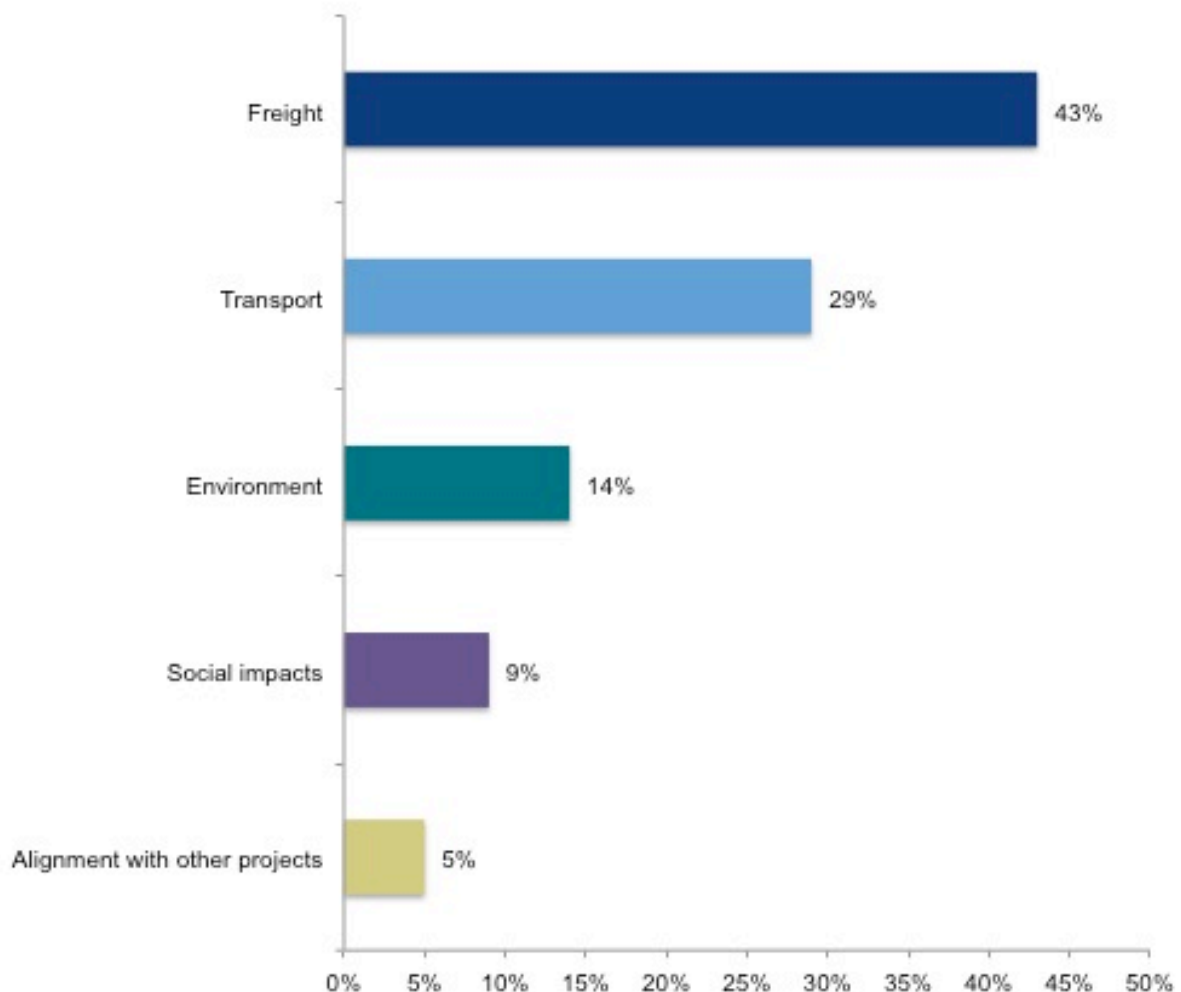


Figure 5.3 Feedback on the benefits associated with the Bay West option

Transport

A large number of submissions noted the transport benefits of a Bay West port location over Hastings. These included excellent connections from the container terminal to interstate and intrastate rail networks and road connections to the Monash Freeway, Hume Freeway and the planned Outer Metropolitan Ring Road.

It was argued the reserved land for the future Outer Metropolitan Ring Road allowed for an eight lane freeway and freight rail corridor that would link the Princes, Western, Calder and Hume freeways, in turn linking the major freight precincts in Melbourne.

One submission also noted the proximity of Bay West to Avalon Airport and how this would complement a proposal for Victoria's future inland freight precinct. Adjacent to Avalon Airport, the precinct offers an efficient long-term inland freight terminal for Melbourne and Victoria.

This submission noted access to Avalon Airport has the potential to open up new markets for high value agricultural, manufacturing, fresh and packaged food products by air freight.

Comments relating to the transport benefits of Bay West were raised by a range of stakeholders including organisation, local government, peak bodies and individuals.

Freight

A number of submissions noted freight network productivity benefits from a Bay West port location compared to Hastings. In particular, submissions noted the productivity benefits of the port being located close to, and providing strong connections to, port and industrial hubs of Altona, Brooklyn and Spotswood.

In addition to this, one submission noted the shift of population growth from the south east to western and northern areas, and the need for distribution of additional containers that will service future demand to reflect this population shift. Similarly, another submission noted the growth of the transport, postal and warehousing industry activity in the north and west of Melbourne and the expectation that this trend would continue given the area is better suited to freight import/export business needs.

Another submission cited population projections in *Plan Melbourne 2017-2050* to emphasise the population growth estimated for the northern and western areas of Melbourne – 'rebalancing the population distribution across metropolitan Melbourne'. This growth in population is linked to employment growth in the west, including significant sites for employment, such as the Western Industrial Precinct and National Innovation and Employment Clusters in Werribee and Sunshine.

One transport-related stakeholder submitted their support for Bay West if a second container port is required due to its location between two major cities, in a growing municipal area and within close access to major warehousing facilities in Laverton, Derrimut and Tarneit. They also noted the ability to feed Swanson, Webb and the new Bay West dock would mean less ships being held in the Port Phillip swing basin.

Local government, and peak bodies and organisations, including Lead West, Victorian Transport Association and Avalon Airport made several comments regarding the freight network benefits associated with Bay West.

Environment

The environmental benefits of a Bay West location in comparison with Hastings were noted by a number of submitters. Specifically, submitters highlighted the reduced environmental impact of Bay West due to the proposed innovative offshore design and the advantage of locating the port near Werribee River, requiring the least amount of dredging and subsequent environmental impacts.

One submission looked at the direct loss of around 10 kilometres of habitat within the Ramsar Wetland for a port at Hastings, emphasising no alternative design can be offered to avoid this impact. Given offsets are not readily available within Western Port and the creation of new habitats will take time, potential acquisition of private land and extensive monitoring is required to ensure that the habitat created is equal to that lost. In comparison, the submission noted the loss of Ramsar wetland for the Bay West port is estimated to be one square kilometre and suitable offsets are readily available within the Western Treatment Plant.

Another stakeholder suggested the orientation of quay line at Bay West provides best protection against westerly winds and also noted anchorages are available in Port Phillip.

The environmental benefit of a Bay West location was raised in submissions from local government as well stakeholders including Avalon Airport and Lead West.

Social impacts

One organisation noted Bay West as a preferred option over Hastings due to the significantly reduced social impacts of the more remote location from existing residential land uses. As the location is in a sparsely populated area, the submitter suggested Bay West should be free from curfews.

Alignment with other projects

One government agency stakeholder noted they were currently considering future options for developing the Geelong shipping channels, including deepening options and suggested Infrastructure Victoria consider the opportunity to use dredged materials from the Geelong channel as part of the reclamation needs at Bay West.

5.5 Measures to preserve the long-term optionality

Submissions discussed a range of measures to preserve the long-term optionality, focussing mainly on corridor planning and preservation.

As noted in one submission, the selected greenfield site at Bay West allows for careful planning of the freight corridor and port. The rail terminal location for the Werribee South option is on green-wedge land and covered by public acquisition and environmental significance overlays.

However, a number of potential constraints have been identified, including transport corridors and key sewage assets running near to or through the Western Treatment Plant. Potential costs and operational disruptions to the Western Treatment Plant are a key consideration, alongside the potential expansion of the plant's facilities to cater for Melbourne's growth.

These submissions came from a stakeholder organisation and utility provider.

5.6 Impacts and requirements for supporting infrastructure

The majority of submissions relating to the impacts and requirements for supporting infrastructure at Bay West came from local government and Avalon Airport.

Environmental impacts

If a rail terminal is built, one submitter suggested considerable work will be needed to rehabilitate and offset loss of land to comply with the *Environment Protection and Biodiversity Act 1999*.

Supporting infrastructure

Submissions highlighted that there is opportunity for the Bay West site to benefit from the future extension of the Bay West heavy vehicle access road and rail infrastructure to Avalon Airport.

As noted, planning is being undertaken for the Western Interstate Freight Terminal, which is expected to link to the Outer Metropolitan Ring Road and the rail network to Adelaide, Sydney and Brisbane. Further planning is also being undertaken to create the Melbourne – Brisbane Inland Rail corridor to enable more freight to be moved by rail.

One submission noted Melbourne – Brisbane would logically connect to the terminal (if constructed) as would the upgrade of the Melbourne – Adelaide – Perth corridor, currently under investigation by Infrastructure Victoria. Together, these projects would make a significant change in creating more efficient freight supply chains and a National Distribution Network.

5.7 Other feedback

One stakeholder noted in their submission that the proposed terminal island offers some protection from coastal erosion. Ideally they suggested the port would be designed to incorporate new shorebird habitat using spoil, or through encouraging the accumulation of fine sediments in targeted areas.

Another submitter believed the Bay West quay should run perpendicular to the shoreline despite Infrastructure Victoria's evidence suggesting the quay for Bay West be parallel to the shoreline. They proposed this solution would also facilitate the possibility of having rail onto the wharf.

The submission noted a trend towards bigger ships and suggested constructing a second port within Port Phillip Bay risks Melbourne losing its position as Australia's largest container port and Victoria's status as the freight state.

6 Areas for further investigation

A number of submitters flagged that they believed more analysis or examination of a number of issues should be considered before deciding on the timing and location of a second Victorian container port. Figure 6.1 provides an overview of the issues stakeholders believed require additional investigation and a summary is provided below. The topics presented were wide and varied, however there was some alignment among some stakeholders regarding the need for more work on environmental impacts (21 per cent), traffic (15 per cent), supply chains (13 per cent) and grain shipments (9 per cent). Comments also spanned other elements, including rail targets, demand modelling and cultural heritage. An overview of feedback is presented in Figure 6.1 and summarised in this section.

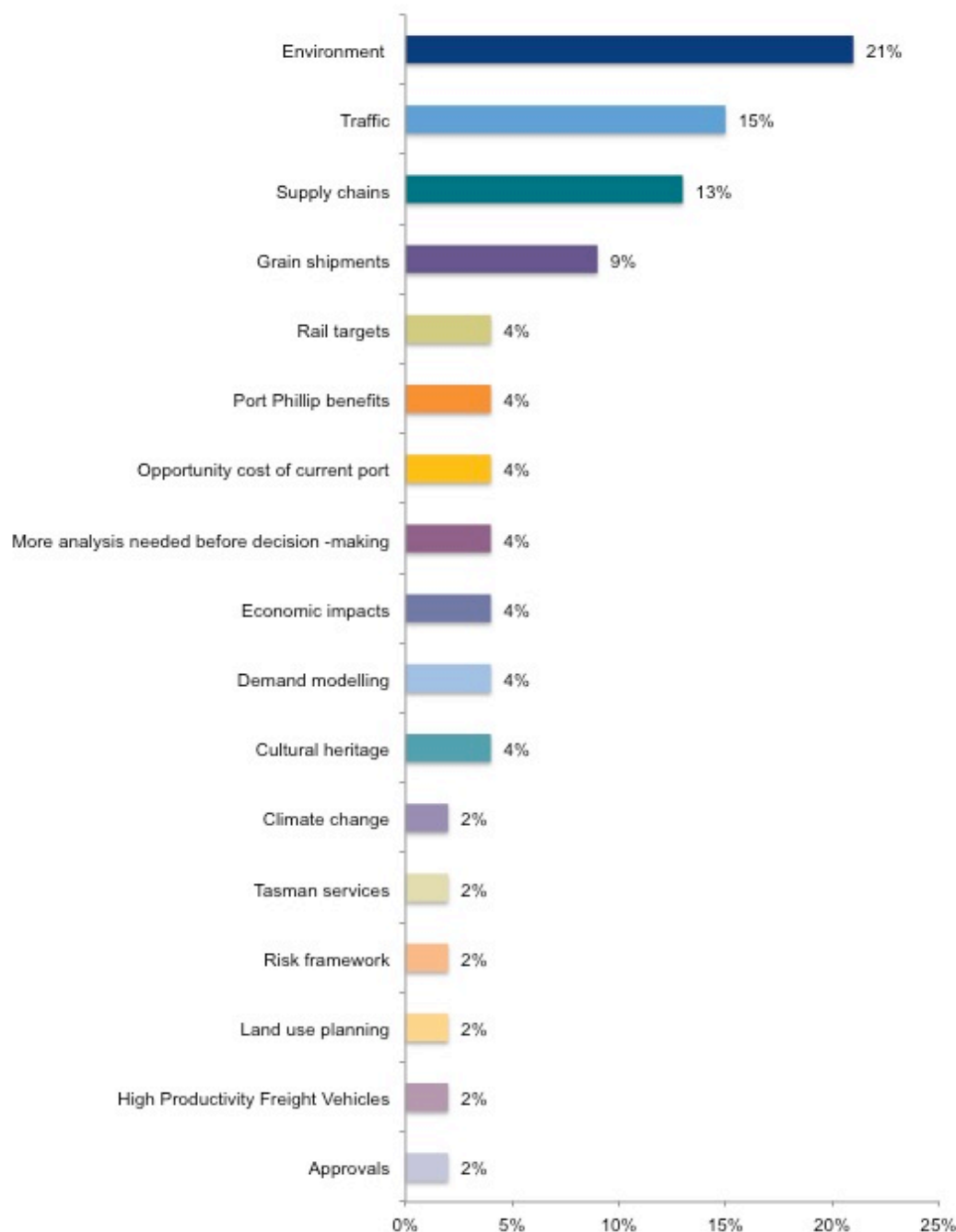


Figure 6.1 Issues identified for further investigation

6.2 Environmental impacts

Several submissions called for additional work regarding environmental impacts.

One stated further work should be undertaken to ensure environmental issues are rigorously assessed before a final recommendation is made, noting there is no assessment of the coastal erosion impacts if the heads are widened. It stated the assessment appears to “unfairly downplay” any issues surrounding dredging in Port Phillip. However, other comments suggested dredging in Western Port is a problem because the spoil has to be dumped in Bass Strait and sand brought in to develop the port interface.

Another submission called for a cost–benefit analysis of the proposed expansion of the Port of Hastings to include the extent to which the value of the ecosystem is likely to be compromised. Calculations provided in the submission estimate the value of Western Port Bay at \$6.2 billion per year.

There was also feedback stating more detailed studies would be required to quantify the impact of widening the heads on the immediate and the broader area. The submitter stated it was “extremely concerning” that these detailed studies have not been undertaken and will not be considered when Infrastructure Victoria provides its advice to government on the preferred location.

The range of stakeholders who raised the need for further environmental investigations included local government, peak bodies, utility providers, community groups and individuals.

Tourism impacts

In regard to the Hastings option, one submission asserted Infrastructure Victoria’s analysis and GHD’s Environment and Social Advice report was not comprehensive enough to judge the potential impact on tourism. The submitter stated the industry generates approximately \$339 million in direct visitor expenditure, equating to 3,100 direct and full-time equivalent jobs. The submitter felt this “gap” in understanding potential negative impacts on tourism must be addressed before final recommendations to government are made.

Cumulative impact

There was comment the location for a second port should not be considered for each bay in isolation as major incidents could have affects that extend across the region. The submission also noted that whatever the final recommendations, additional environmental assessments should be required to provide a similar level of understanding and risk mitigation that was achieved through the second channel deepening Environmental Effects Statement. The submission recommended it be a “Declared Project” to ensure the highest level of environmental protection and that other assessment processes are not side-stepped.

Flow-on environmental impacts were also referenced in another submission concerned with the potential environmental impacts in the Hastings area. It noted lack of adequate consideration for environmental impacts beyond the area directly around the port development, making specific mention of the risks of oil spills and impacts to Little Penguins and Australian Fur Seals and the need for monitoring parameters. Similarly the same submitter noted social impacts should not be confined to the area at the port, and that environmental and social impacts appear not to recognise future planning for the Summerland area on the western tip of Phillip Island overlooking the ship movement path, including Penguin Parade development of \$58 million to be completed in 2019.

Hydrodynamic modelling

In regards to Bay West, the need for more detailed hydrodynamic modelling of the changes in currents to assess impacts of either the construction or operational stages was flagged in one submission. It was suggested modelling should include longshore movement of currents and sediments, intertidal mudflats south of the proposed location and seagrass beds outside the immediate development footprint.

6.3 Traffic

The need for further traffic analysis and investigations was raised by peak bodies and individuals as well as key stakeholders including the Port of Melbourne and Hobsons Bay City Council.

Freight impacts

A number of submissions questioned whether more analysis was required for impacts of freight on road networks, particularly in inner-city suburbs undergoing growth.

One submission noted insufficient consideration has been given to how future growth in non-freight traffic will impact on the use of road and rail infrastructure, citing growth in Fishermans Bend, Footscray, North Melbourne and E-Gate, which will bring lower road capacity and lower tolerance for impacts on amenity.

Comments were also made that there was little in Infrastructure Victoria's evidence base discussion paper about how changes in freight movements will impact local transport in the inner-west and inner-north, including the limitations additional truck traffic will pose for facilitating cycling.

Additionally, there was comment that increasing population density in the City of Hobsons Bay would lead to congestion and a suggestion the paper should consider current and future changes on the existing road network as these may increase feasibility of connecting and upgrading the existing rail network.

Road safety

A submission stated the discussion paper does not consider cost of pedestrian and cyclist fatalities in the inner-west resulting from collisions with freight trucks. However, in one submission it was noted that an analysis of crash statistics had been undertaken in the City of Maribyrnong, finding:

- There had been two people killed and 28 injured.
- Cars and light vehicles were responsible for 24 of those accidents, four by unknown vehicle types and one involved a rigid truck, but not a semi-trailer as usually used for port-related movements.

Road pricing

The possible implications of future road pricing was flagged as something that should be considered in Infrastructure Victoria's evaluation of port expansion options.

Future investments

One submission highlighted a potential gap in Infrastructure Victoria's road and rail network evidence, which appears to lack the inclusion of assumptions around future Victorian Government road and rail network investments post the West Gate Tunnel Project.

6.4 Supply chains

Several submitters stated they believed there needed to be more work undertaken on supply chains. One submission noted Infrastructure Victoria's discussion paper does not take into account existing supply chains, location of value-add manufacturers and the final destination of goods moved in shipping containers.

Further analysis of goods movement after unloading should be included in Infrastructure Victoria's final advice. This is linked to land availability, noting an independent "whole of economic lifecycle" analysis should be done, which takes into account industries such as manufacturing and retail trade.

The majority of calls for further analysis of supply chains came from local government stakeholders as well as some peak bodies and industry stakeholders including Lead West and Southern Melbourne Regional Development Australia Committee.

Future direction of imports

A particular submission noted further work should be undertaken to understand the future direction of major importers into Melbourne, with relation to the “Direct to Store” and “Direct to Consumer” supply chains. Once this work has been undertaken, a further refinement of when a second container terminal (or additional capacity) is needed would be far more easily understood.

The submitter believed that:

- There is not sufficient evidence regarding potential changes to supply chains in medium to long-term – and what impact these changes could have on the use of supporting infrastructure.
- Infrastructure Victoria should consider how both the geographic and modal structure of supply chains to Port of Melbourne could change in the medium to long-term.

Origin and destination of containers

There were a number of comments about the consideration of the origin and destination of containers in determining the location of a second port.

One submitter felt an analysis of the present and future origin and destination of containers from Port of Melbourne and the impact this may have on supply chains was missing from Infrastructure Victoria’s evidence base.

Another submitter called for further analysis as part of the evidence base of the relationship between industrial land availability and container destinations, stating it “shows that the west and north of Melbourne are more likely to have more land available that suits freight industry needs”.

Economic context

There was also a comment that Infrastructure Victoria’s evidence base discussion paper focused more on hard infrastructure deliverables and their cost and does not sufficiently consider the economic context and benefits of a second port location. The submitter argued it makes sense to locate the second container port in the region, which generates the greatest number of freight movements, receives the largest number of imported products and has the largest manufacturing industry in Victoria.

6.5 Grain shipments

Two submissions requested more work on grain exports. One noted there was no mention of bulk grain facilities in either new port option design, which they considered to be a shortcoming.

While bulk grain products are currently handled at Port of Melbourne, Portland and Geelong, the submitter stated it was clear in the report that if the Port of Melbourne was closed or restricted in bulk grain deliveries, the other two rural ports could not cater for larger ships, and are restricted for future development by the depth and width of their shipping channels.

The submitter requested a separate report be commissioned to fully assess and document the bulk and container transport of all grain and other rural products in Victoria, including the splits between rail and truck, current export tonnages and predicted export tonnages for the 30-year port design period. It should include an assessment of the restrictions on ship sizes at the existing grain ports and the relative costs of increasing the shipping channel sizes to meet increased ship sizes.

A second submission noted the evidence presented investigates the potential feasibility of increasing capacity but does not articulate clearly if this might result in a higher TEU cost. Further, what effects this might have on specific trades such as grain, which are particularly price sensitive.

All feedback asking that there be further investigation into the effects of a second port on grain shipments came from local government stakeholders.

6.6 Rail targets

One submitter did not agree the 30 per cent target for rail transport was an aggressive target, and that Infrastructure Victoria should reconsider the assertion that rail mode will not exceed 30 per cent.

Another stated the rail capacity analysis does not appear to consider the clear government policy supporting increase rail modal share for container movements.

Submissions questioning the rail targets put forward by Infrastructure Victoria as part of their evidence base came from Lead West and Port of Melbourne.

6.7 Port Phillip benefits

There was a recommendation for Infrastructure Victoria to consider the potential economic benefit of future improvements to Port Phillip Bay channelling being shared between all harbours in the Port Phillip area.

A second submission noted the Bay West option should include advantages and cost benefits of upgrading (or widening) the heads – allowing more access for cruise ships, including the potential to use part of the existing Port Melbourne site for new passenger liner and Spirit of Tasmania berths and boarding facilities.

Feedback calling for further analysis into the economic benefits of future improvements to Port Phillip Bay was provided by one peak body and one local government stakeholder.

6.8 Opportunity cost of current port

There were some comments that Infrastructure Victoria's current evidence base does not consider alternate uses for the site of the current Port of Melbourne.

One submission noted consideration was required for the "opportunity cost" of either maintaining or increasing levels of activity at the Port of Melbourne, given growth in surrounding areas and proximity to the CBD, and that land and supporting infrastructure could be used for other high value economic activities.

A second submitter queried the role of the Port of Melbourne in the growing central city. They were keen to see the economic benefits of increasing the capacity of Port of Melbourne weighted against potential negative externalities (such as congestion, air and noise pollution). The submitter noted the identification and weighting of land use and economic considerations requires detailed analysis.

Submissions asking for further consideration of the opportunity cost for maintaining or expanding activities at the Port of Melbourne came from two peak body stakeholders.

6.9 More analysis needed before decision-making

Two submissions requested more analysis to be completed before making a decision on a second container port. The first noted there is insufficient evidence available for either Hastings or Bay West locations, and as such, work should continue on both options for the time being.

The second submission flagged more work was required on the Bay West option.

It stated sufficient effects of greater ship numbers, channel deepening and widening of the heads has not been done, despite planning and environmental studies for a second container port at Hastings having been undertaken for at least the past 10 years.

These two submissions came from peak body and local government stakeholders.

6.10 Economic impacts

One submission recommended an economic impact assessment specific to Bay West rather than the broader economic impact for Victoria as proposed. It noted the need to understand space requirements, as well as exactly what the anticipated job creation and greater economic uplift for the west is projected to be.

Another noted “positive externalities” associated with future port locations should be captured and assessed as part of Infrastructure Victoria’s evaluation of the port options. For example, a positive externality is Bay West’s close proximity to Werribee National Employment and Innovation Cluster.

Calls for further investigations into possible economic impacts came from peak body and local government stakeholders.

6.11 Demand modelling

One submission stated long-term demand forecasts (post 2040) provided by Deloitte are a lot lower than other recent reports, notably the 2014 analysis by the Victorian Department of Treasury and Finance.

It noted consideration needs to be given to this discrepancy as demand will impact on when a second port is viable – with higher demand meaning Port of Melbourne will reach capacity ahead of predictions and a second port will be needed.

The submission encouraged Infrastructure Victoria to:

- Assess if demand modelling by Deloitte is too low compared to other recent models.
- Assess what impact a higher demand than Deloitte modelling would have on when and where a second port may be required.
- Commission detailed modelling on where demand will come from geographically within Victoria and Australia.
- Consider how point-to-point movement of this growth in container freight would impact on viability of a second port location.

A second submitter noted the volume of ships travelling in and out of the port would mean that ships would be held up pending high tide movements and the volume of ships seeking any tidal assist would negate any possible advantage.

The submission stated this gap in understanding the impact of shipping in Western Port including shipping movements, ship stranding, pressure waves and tidal assistance, needs to be addressed before final recommendations are made to government.

The need for further investigations and clarification around demand modelling was raised by one peak body and one community group stakeholder.

6.12 Cultural heritage

Two submissions recommended additional work on Aboriginal Cultural Heritage. One requested investigation of the implications that cultural heritage may have on the feasibility of the two potential future port locations. The other noted that the work completed by Infrastructure Victoria did not reference cultural values.

These requests for further cultural heritage investigations came from a utility provider and one peak body organisation.

6.13 Climate change

Two submissions noted the importance of climate change. The first stated Infrastructure Victoria should consider how climate change, specifically sea level rise and increased storm surges, will affect the planning process for both the current and new port.

The second submission noted climate change could result in shipping constraints or a reduction in the available fleet to those with the lowest emissions, which could result in a preference for larger ships.

Further investigations into the impacts of climate change were requested by Hobsons Bay City Council and one individual stakeholder.

6.14 Tasmanian services

One industry stakeholder noted the importance of the Melbourne to Tasmanian market and renewed interest in international shipping lines calling into Tasmania. They noted if this trend continues then future forecast modelling for Bass Strait may be distorted.

6.15 Risk framework

One submission noted a detailed risk framework should be factored into advice to government due to the long-term uncertainties of the impacts of climate change, economic and social changes.

6.16 Land use planning

One marine life research stakeholder stated greater consideration is needed for strategic land use planning, and that a core consideration in determining the location of the port should be whether supporting industries can co-locate in close proximity to the port.

6.17 High productivity freight vehicles

One government agency noted Infrastructure Victoria's consideration of landside capacity of the Port of Melbourne could benefit from further evidence on potential for greater utilisation of High Productivity Freight Vehicles.

The submission noted evidence on the benefits of the High Productivity Freight Vehicles network to the Port of Melbourne container capacity maximisation. This could inform the analysis of the broader opportunities for productivity improvements created by expanding the High Productivity Freight Vehicles network.

6.18 Approvals

A utility provider noted Infrastructure Victoria has stated it would be relatively easier to gain environmental approvals for Bay West versus the Hastings option due to the proposed terminal and channels for Bay West being located more than one kilometre outside the Ramsar site.

However, the submission cited that given significant potential impacts to the foreshore from the port and significant environmental values, it is possible there could be a similar level of difficulty in obtaining approvals. To support approval applications, the submitter stated detailed studies would be required on the likely impact to habitat and environmental values, and how best to avoid, minimise or mitigate these.

“It is critical that future consideration of Victoria’s future port needs is part of a broader conversation about the investments and regulatory reforms needed to improve freight capacity and reduce business costs”

- Australian Railway Association

Appendix A

A1 Appendix 1

6.19 List of submitters

The following page lists stakeholders and individuals that have agreed for their submissions to be made public. Six submitters have requested for their details to be withheld.

- Adams Group
- ANL Container Line
- Australian Logistics Council
- Australian Rail Track Corporation
- Australasian Railway Association
- Avalon Airport
- Bass Coast Shire Council
- BirdLife Australia
- BlueScope Steel Limited
- City of Ballarat
- City of Greater Dandenong
- City of Greater Geelong
- City of Port Phillip
- City of Yarra
- Clarke, Richard
- ConnectEast
- Crawford, Russell
- Crib Point Advisory Group
- Darroch, George
- Department of State Growth – Infrastructure Tasmania
- Destination Phillip Island – Regional Tourism Board
- Dolphin Research Institute
- Fenner, William
- Frankston City Council
- Hanigan, Graeme
- Hobsons Bay City Council
- Latrobe City Council
- LeadWest
- Lloyd, Ross
- Roach, Matthew & Helen
- Melbourne Water
- Melton City Council
- Mornington Peninsula Marine Alliance
- Mornington Peninsula Shire
- Northern Grampians Shire Council
- Paul, Anne & Stephen
- Phillip Island Nature Parks Australia
- Planning Institute of Australia, Victoria
- Port of Melbourne Operations
- Preserve Western Port Action Group
- Property Council of Australia, Victoria
- Rail Freight Alliance
- Richards, Annabel
- Salta Properties
- South East Melbourne Group of Councils
- Southern Melbourne Regional Development Victoria
- Steiner, Rupert
- Victorian Regional Channels Authority
- Victorian Transport Association
- VicTrack
- Western Port Biosphere
- Westernport and Peninsula Protection Council
- Whelan, Michael
- Whitfield, Tom
- Wimmera Development Association
- Wright, Phil
- Wyndham City Council