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Secretary  
Port of Melbourne Select Committee  
Parliament House  
Spring Street  
Melbourne VIC 3000

Dear Secretary

**Re: Submission to the Port of Melbourne Select Committee**

The Victorian National Parks Association (VNPA) welcomes the opportunity to make a submission to the Port of Melbourne Select Committee.

The VNPA is Victoria's leading nature conservation organisation and an independent, non-profit, membership-based group. It exists to protect Victoria's unique natural environment and biodiversity through the establishment and effective management of national parks, conservation reserves and other measures. VNPA has a vision of Victoria as a place with a diverse, secure and healthy natural environment cared for and appreciated by all.

Our submission to the Port of Melbourne Select Committee therefore focuses on environmental issues that may arise from the operations and expansion of the Port of Melbourne and the location of a second container port in Victoria. As a result, the comments in this submission are of most relevance to terms of reference (b) and (c), but we will also raise other issues under term of reference (g).

The remaining terms of reference are largely about the structure of the lease, the level of competitiveness as a result of the lease and its effect on port logistics, supply chains and the benefits to Victoria's container trade, and other economic matters, which are outside the current scope of VNPA's interest in this issue and are not covered here.

Yours faithfully



Chris Smyth  
Acting Executive Director  
Victorian National Parks Association



## Submission to the Port of Melbourne Select Committee

### Preamble

As Victoria's leading nature conservation organisation, the focus of this VNPA submission is on the potential impacts on marine and coastal environments that could arise from decisions about the existing Port of Melbourne, an expanded Port of Melbourne, and the siting and operations of a second container port. Measures that could be used to better investigate, monitor and minimise those environmental impacts are also discussed.

The submission begins by introducing the issue, followed by comments pertaining to term of reference (c), a discussion on term of reference (b) and concludes with comments under term of reference (g). Although the first two terms of reference are somewhat limiting when it comes to a discussion of environmental impacts, with (c) focusing on only the expansion of the existing Port of Melbourne and its potential environmental impacts while (b) only considers how the conditions of the lease could affect the future establishment of a second container port, this submission considers broader environmental impacts under each and also tackles legislative and other issues under (g).

### Introduction

The Victorian Government has proposed the sale of a 50-year lease (with a further option of 20 years) over the Port of Melbourne. The lease would effectively establish a monopoly position for container operations in Victoria for the lessee. Under the lease arrangements, should the Government determine that trade growth requires a second container port be built, it could be liable to make payments to the lessee for diverted trade. However, this may not occur if the port reaches capacity and requires the construction of a second container port.

The proposed lease sale has generated considerable public debate involving the major Victorian political parties, port users and the broader community. The federal environment minister, Greg Hunt, called it 'fiscal vandalism and environmental vandalism wrapped up together'<sup>1</sup>. He called on the government to rule out blasting of The Heads to allow for larger ships to enter the bay, the government responding in the same article by saying that: 'Any future dredging of the shipping channels in Port Phillip Bay will continue to require the relevant environmental conditions and approvals'.

Others have criticised the sale due to concerns about the length of the lease, the effect of a monopoly on user fees, especially on how that may affect agricultural producers, and on the future of a second container port, local transport issues, the need to keep important strategic assets in public hands and the unsuitability of the Port of Melbourne's location being surrounded by a rapidly expanding Melbourne.

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<sup>1</sup> The Age 2015 'Greg Hunt says plans to lease Port of Melbourne "environmental vandalism"', The Age 26 June 2015

## Conclusions

1. Proposals for an expansion of the Port of Hastings or construction of Bay West would cause significant environmental issues in highly sensitive marine and coastal environments.
2. There is lively debate about the future of ports and shipping in Victoria but independent analysis is required to sort the fact from the fiction in relation to trade and container growth rates, maximum port capacities, and the need for a second container port rather than an integration of existing port infrastructure and operations. It is not clear from the available information that a new port is required.
3. Making a choice about the location and timing of a second container port is confounded by the current public debate about expanding the Port of Hasting and the construction of Bay West. The investigation by Infrastructure Victoria should consider a broader sweep of options for future ports and shipping operations in Victoria, but this investigation should be in parallel and integrated with an independent Planning Panel or Victorian Environment Assessment Council investigation tasked with investigating the environmental impacts of the alternatives. Community participation should be a key part of both investigations.
4. A comprehensive monitoring program is essential if we are to understand the condition and extent of marine and coastal values in Victoria and how they may be impacted by various major projects, including those associated with ports and shipping.
5. Before any major expansion of the Port of Melbourne or other of Victoria's commercial ports, there should be substantive reform of the *Environmental Effects Act 1978*.
6. Any plans for changes to infrastructure and operations of Victoria's commercial ports should be consistent with the Port Phillip Bay environmental management plan (in prep.), the objectives and provisions of the future marine and coastal act and cognisant of the issues and trends revealed by the state of the bays reports (in prep.).
7. The projected impacts of climate, as outlined in the Victorian coastal strategy 2014, should be factored into any planning for the use of the state's marine and coastal environments, including ports and shipping.
8. Governments at the state and local level should ensure that the planning and management of Victoria's marine and coastal environments is multi-user, including conservation, with each user given equal standing in any planning and management processes.
9. The Port Phillip Bay Entrance Deep Canyon Marine Community should be listed as a threatened community under the *Environment Protection and Biodiversity Conservation Act 1999*.

### **Term of Reference (c): the potential impacts on the environment of the further expansion of the Port of Melbourne**

#### *Port Phillip Bay's values*

At almost 2,000 square kilometres, Port Phillip Bay is Victoria's largest embayment. It is in Melbourne's front yard and has immense environmental, commercial and recreational value to Victorians. It contains many habitats including sandy seafloor, seagrass meadows, mangroves and reefs, while Ramsar sites are found along its western shoreline. Some of these natural values have been protected in three marine sanctuaries and the Port Phillip Heads Marine National Park. The bay also provides important ecosystem services.

The sandy beaches on the eastern shoreline, and the bay's shallow waters, are the playground of Melburnians for swimming, sailing, diving and recreational fishing. Commercial fishing is another key

use. In the bay's north are the extensive developments associated with the Port of Melbourne, while Corio Bay's Port of Geelong is found in the southwest corner.

*Port infrastructure and operations in the bay*

Port Phillip Bay contains the state's two largest commercial ports: Port of Geelong and Port of Melbourne.

The Port of Melbourne is Australia's largest cargo, container and automotive port, visited by more than 3,000 ships and with an annual throughput of more than 2,500,000 TEUs<sup>2</sup>. The average container vessel visiting the port carries about 3,100 TEUs, while the average container exchange is around 1,700<sup>3</sup>.

In the Port of Melbourne there are two main docks, Swanson Dock West and Swanson Dock East, which can currently handle existing trade but the Webb Dock redevelopment will increase capacity by a further one million TEUs.

Although almost 87% of the port's container imports are distributed into the Melbourne metropolitan area, mostly in the west, the port's catchment extends into southern NSW and south-eastern South Australia.

*Trade growth and maximum port capacity*

Over the past 14 years container growth for the port has been at an average of 5.9%<sup>4</sup> and is projected to grow at 4.8% per year over the next 20 years to be 6.4 million TEUs in 2032-2033 (2.5 million TEUs in 2012-13). Over the same period non-containerised trade grew at only 1.9% and is projected to grow at 0.6% annually to 2032-2033 to 13.2 million tonnes<sup>5</sup> (11.8 million tonnes in 2012-13)

However, to satisfy the projected growth in container traffic through the port, its capacity will need to increase. The upper limit of that increase has been subject to some debate between consultants and has ranged between 5.3 and 8.4 million TEUs per year. So too has the year when maximum capacity is projected to be reached, with KPMG estimating 2035 and Morgan Stanley and Flagstaff Partners believing it will be 2050<sup>6</sup>. Whenever it does, and if trade continues to grow, which is strongly correlated to population and GDP growth, then a new port, the expansion of an existing port or the better integration of Victoria's ports will be needed.

According to the plans for the Port of Melbourne, an increase in the port's capacity can be achieved by:

- Redevelopment of Webb Dock, which will add 1,000,000 TEUs annually.
- Improved transport infrastructure for moving bulk goods and containers to and from the port by connecting to the arterial road network and improve the speed of container handling.
- Deepening water in the docks to accommodate larger vessels.
- A new automotive terminal.
- Additional container capacity at Swanston Dock.

<sup>2</sup> TEU is equivalent to a 20-foot container

<sup>3</sup> Bureau of Infrastructure and Regional Development 2014, Containerised and non-containerised trade through Australian ports to 2032-2033, Research Report 138, Canberra, p.43

<sup>4</sup> *ibid*

<sup>5</sup> *Ibid* p. 48

<sup>6</sup> Hawthorne, M 2015 'Shipping expert says Greg Hunt's Port Phillip Bay dynamite claims are 'fanciful'', The Age 2 July 2015

### *Planning in and around the ports*

The Port of Melbourne has its own planning scheme that is administered by the Minister for Planning. The adjoining municipalities, the cities of Maribyrnong, Port Phillip, Melbourne and Hobsons Bay, also have individual planning schemes. Some expansion of the port's capacity is currently underway with the redevelopment of the Webb Dock. Any expansion beyond the port's planning scheme area, or footprint, is constrained by existing and proposed residential and commercial development surrounding it, but within the footprint any expansion could have environmental and amenity impacts on these surrounding areas.

There may be localised environmental impacts associated with increased traffic and congestion especially through suburbs to the west of the port. Residents in Yarraville have maintained a long-running campaign against the noise, air pollution and congestion from heavy truck traffic travelling to and from the port. Issues like this will need to be dealt with by the use of statutory planning controls under the planning schemes of the port and the surrounding municipalities, by enhanced transport planning or, in the case of large projects, through the provisions of the *Environment Effects Act 1978*, although the weakness of this statute needs addressing, which is discussed later under term of reference (g).

When considering the environmental impact of the expansion of the Port of Melbourne on Port Phillip Bay, it is also necessary to consider the planned expansion of the Port of Geelong, otherwise the cumulative impacts will be discounted. With the closure of Ford and Alcoa, the expansion of the Port of Geelong is seen by the local and state governments as a way to reduce the socio-economics impacts for the city.

Expansion plans for the Port of Geelong involve proposals for dredging within the port and at The Heads to accommodate larger and wider vessels and with deeper drafts. Those plans also propose the relocation of bulk cargo handling at the Port of Melbourne to an expanded Port of Geelong<sup>7</sup>, which could free up Port of Melbourne land for what the plan refers to as 'higher value uses' such as residential (that, of course, could also be used for additional container handling capacity, although that is not mentioned in the report). The Labor Party's plan for jobs and growth<sup>8</sup> goes even further, suggesting that its Bay West proposal could free up all of the Port of Melbourne's 510 hectares for urban renewal projects.

In the larger Port Phillip Bay, the expansion of the port will mean that a higher number of ships are using the bay and transiting through Port Phillip Heads. Would this require more dredging at The Heads, as occurred during the Channel Deepening Project?

### *The Channel Deepening Project*

The \$1-billion Port Phillip Bay channel-deepening project was designed to boost container trade and the Victorian economy, and maintain the Port of Melbourne's competitive position with other Australian ports. The shipping channels in the bay's north, south and its entrance at The Heads were deepened to a minimum depth of 17 metres to allow ships of 14 metres draft to enter the bay, stirring up sediments, reducing water quality and threatening seagrass meadows. The project removed 500,000 cubic metres of dune limestone rock from The Heads.

At The Heads there is a 100-metre-deep canyon with steep walls, sheltered caves, ledges and overhangs covered by a community of sponge gardens that scientists regard as unique. The colourful sponges, branching soft corals, stalked ascidians and carpets of colourful anemones, along with fish and encrusting algae, provide spectacular scenery, popular dive sites and include 100 individual sponge species found nowhere else. These sponge gardens are now listed under the state's *Flora*

<sup>7</sup> Geelong Port and Land Infrastructure Plan, Final Report Geelong Port City-2050

<sup>8</sup> Australian Labor Party 2012, *Victorian Labor's plan for jobs and growth*, p. 48

and *Fauna Guarantee Act 1988* after a successful application by the VNPA and the Australian Conservation Foundation, but the listing came after the deepening of The Heads and damage to the sponge gardens.

By affecting the speed of tidal flows, the dredging of the entrance to Port Phillip Bay may also be responsible for the subsequent and controversial loss of sand at the Portsea Beach. The then government, the Port of Melbourne Corporation and its senior bureaucrats, including the Office of Environmental Monitor, strenuously denied that the deepening of the entrance to Port Phillip Bay was responsible for the loss of the Portsea Beach, claiming that bad weather was the culprit.

But locals who are expert in navigating these waters, along with local business folk suffering economic losses due to an absent Portsea Beach, believed the deepening of the bay's entrance was involved and they were proven right. On 7 July 2013 *The Age* reported:

*The dredging of Port Phillip Bay contributed to the destruction of Portsea front beach and other damage along the Mornington Peninsula, according to two confidential reports commissioned by the Victorian government*<sup>9</sup>.

A study of future works to protect the beach found that:

*Future sea level rise will result in further losses of the beach and may promote increased occurrence of ocean swell penetration to Portsea Front Beach. Without action, it is unlikely a beach will form and/or remain in front of the geo-bag seawall. Over longer periods (with raised sea levels), erosion of the western section of the beach is probable*<sup>10</sup>.

When submitting to the Inquiry into the Environmental Effects Statement Process in Victoria in 2010, Dr Matt Edmunds, one of the marine scientists who worked on the monitoring programs during the channel deepening project said:

*For the Channel Deepening Project, the monitoring program assessed during the SEES process only monitored sponge gardens in direct association with potential impacts. All other biological monitoring, the bay-wide monitoring program, were not specifically designed to measure responses to dredging. They were generally pre-existing monitoring programs with few sites anywhere near the influence of dredge plumes and the frequency of monitoring was generally too low to separate dredging influences from other environmental influences. We are none the wiser as to what the biological responses to dredge plumes were, with no confirmation of impact predictions or knowledge to improve impact predictions in the future. This failure is a systemic one – with advising scientists, reviewers, EES panel, Government agencies and the Minister all contributing to the problem (and I include myself for various reasons)*<sup>11</sup>.

The failure to establish a comprehensive monitoring program before, during and after the channel deepening project makes it very difficult to determine the extent of its impacts. Other weaknesses in the project's environmental management plan included too few environmental limits for impact on natural assets e.g. wetlands, sponge gardens and seagrass beds, limited baseline data, monitoring limited in spatial extent, no monitoring of spoil grounds in relation to impact and recovery of bottom habitats, and limited bioaccumulation sampling in the Yarra.

<sup>9</sup> Houston, C 2013, 'Beach loss linked to dredging', *The Age*, 7 July 2013

<sup>10</sup> Aurecon Australia 2012, Project: Portsea Beach Pre-Feasibility assessment of erosion response options, options assessment, prepared for the Department of Sustainability and Environment, Aurecon Australia, Brisbane, p. 23

<sup>11</sup> Edmunds, M 2010, Submission on Marine Ecology to the Inquiry into the Environmental Effects Statement Process in Victoria, M. Edmunds Report No. 428 Version 1.0 March 2010

### **Term of Reference (b): the potential impacts of the proposed lease on the development of a second container port in Victoria**

This term of reference implies a focus on issues relating to the 50-year lease conditions that, by creating a long-term monopoly, may influence competitiveness and port user fees, and restrict options for a second container port in the future. These considerations will likely be the focus of other submitters; VNPA's focus is the potential environmental impacts of a second container port.

One of the great difficulties in determining the need for an expanded port (container and bulk cargo) capacity in Victoria, and the need for a second container port, is that any investigation of the capacity needed, and the time frame in which it is needed, is largely influenced by industry trade projections, not an independent data source.

The maximum capacity of a port is also affected by factors such as channel depths, berth capacity, land availability and rail and road connections, and the efficiency of use of capital assets such as berths and cranes. According to the *Victorian ports strategic plan*<sup>12</sup>, Australia has a relatively low efficiency in the use of such assets.

Any consideration of a second container port, which the State Government has announced will be the subject of an Infrastructure Victoria investigation, should address these data issues and should be framed around the best integration of Victoria's existing commercial ports that maximises their efficiency and socio-economic benefits, and minimises their environmental impacts.

The extension of the investigation into environmental impacts is beyond the capacity of Infrastructure Victoria. There should be a parallel investigation into the potential future environmental impacts conducted by an independent Planning Panel or the Victorian Environment Assessment Council. This will also provide opportunities for community participation through submissions and public hearings.

There have been two options put forward for a second container port, an expansion of the Port of Hastings in Western Port and the construction of a new port at Bay West on the western shoreline of Port Phillip Bay. Each of these is now discussed followed by an alternative option, one that involves the integration of existing ports.

#### *Port of Hastings expansion*

Western Port is Victoria's second-largest embayment, a total of 680 square kilometres, 40% of which is exposed as mudflats at low tide; in 1983 it was designated as a Ramsar site. The bay contains extensive areas of saltmarsh, mangroves and seagrass, and French Island, which has land-based and marine national parks, and Phillip Island, the home of a colony of little penguins visited by up to one million tourists each year.

The Port of Hastings was established in the nineteenth century but became an industrial port in the 1960s with the discovery of oil and gas in Bass Strait. The Victorian Ports and Harbour Authority managed the port until 1997, when the Port Management Agreement established the Port of Hastings Corporation as part of the state government's privatisation policy. This was replaced in 2012 by the Port of Hastings Development Authority in the Coalition government's plans for a \$12billion port expansion.

The expansion of the Port of Hastings would have established a capacity to handle an annual minimum of nine million TEUs on 3,000 vessels by 2060: in recent times the port has had up to 250 ship visits per year transporting four million tonnes of petroleum and one million tonnes of steel. The steel shipments have now ceased with changes to Bluescope Steel's Australian operations.

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<sup>12</sup> Victorian Government, *Victorian ports strategic plan C26*

The previous state government's fast-track expansion plans for the Port of Hastings as a major container port included upgraded road and rail corridors, channel dredging, land reclamation and the loss of 4–6 km of mangroves. Dredging would be required in the shipping channels and also to create a turning bay for the ships – Western Port is not a natural deepwater port. Combined with the spread of Melbourne into its catchment—the City of Casey's population is growing at 3.3% per year—these developments would have placed enormous and increasing pressure on the bay's natural environment and reduced the area's social amenity.

In April 2013, the Napthine Government announced the allocation of \$110 million over four years for the design and environmental assessment processes for the Port of Hastings expansion. Having the port infrastructure designed while environmental assessments were being undertaken pre-empted the results of those assessments and undermined due process.

According to a report<sup>13</sup> commissioned by VNPA and the Westernport and Peninsula Protection Council, the expansion of the Port of Hastings could expose Western Port's fragile marine and coastal environment to major damage from oil spills. The report found that even relatively small amounts of oil spilled from Western Port shipping traffic—heavy fuel oil and diesel spills from container ships and port support vessels—could reach local shorelines within minutes and high conservation areas within less than six hours.

The VNPA-commissioned research modelled six credible oil spill scenarios based on 27 previous oil spill accidents across Australia since 1970. Computer modelling tracked the spills over a two-week period from two locations within Western Port. The modelling showed the Phillip Island Nature Parks would be vulnerable to oil spill contamination, and French Island Marine National Park at high risk of exposure.

Of 96 aquatic bird species identified for Western Port, 31 are listed as migratory species under the *EPBC Act*, 18 listed under the *Flora and Fauna Guarantee Act 1988* and 31 covered by international agreements. The port expansion could impact on these birds through:

- oil spills resulting in the matting of waterproof feathers, causing a loss in buoyancy and insulation, and also damage seagrasses and mangroves, the foraging and roosting habitats for aquatic birds (saltmarsh and subtidal habitats can take many years to recover from contamination)
- landfill, dredging and spoil dumping causing the direct loss of habitats while also increasing turbidity and reducing light to seagrasses, which would inhibit their growth
- the wakes of a growing number of vessels increasing turbidity while also causing erosion of foraging and roosting areas along the western shores of French Island and at Long Point.

These impacts would occur after a period of what has been a sustained decline in the numbers of many aquatic bird species. A study by Hansen<sup>14</sup> found that 25 of 38 species with consistent data had experienced population declines, largely caused by the loss of seagrasses but also by other factors including the reduction of roosting and foraging areas, disturbance by recreational activity and predation by cats, foxes and black rats.

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<sup>13</sup> Asia-Pacific Applied Science Associates 2013, *Quantitative assessment of exposure risks due to oil spills from shipping in Western Port Bay*, Asia-Pacific Applied Science Associates, East Perth

<sup>14</sup> Hansen, B. 2011, *Waterbird surveys of the Port of Hastings and the western region of Western Port*, Arthur Rylah Institute for Environmental Research, unpublished client report for the Port of Melbourne Corporation, Department of Sustainability and Environment, Heidelberg, Victoria



The planned redevelopment of the Port of Hastings failed to receive unanimous support from the freight business sector. The project has been dubbed a ‘financial disaster’<sup>15</sup> by one leading figure and ‘privately criticised by business figures concerned about the lack of a standard-gauge rail link in the area and the fact that most of Melbourne’s freight and logistics (including that of Toll) is already based in the west’<sup>16</sup>. Associated with the port expansion was the development of a new rail line to transport containers through Melbourne’s wealthy suburbs between Caulfield and South Yarra.

The port expansion was shelved in 2014 with the election of the Andrews Government, which had opposed the plans while in opposition and believes the Port of Melbourne will be able to handle the growth of the container shipping trade for many years. Its focus is now the sale of the port of Melbourne lease, the funds from which will be used to remove 50 level crossings and help build Melbourne Metro and the West Gate Distributor.

The Victorian Opposition continues to support a second container port at Hastings to ensure the Port of Melbourne does not have a monopoly on container handling. Without a second port, the Opposition believes that ‘the existing facility will need to expand over the coming 70 years which will require massive dredging and blasting of the Port Phillip Bay Heads’<sup>17</sup>. Explosives have been used in the past to deepen or improve navigational clearance at The Heads from around the 1860s to the 1980s. For the channel deepening project a dredge was used to remove limestone rock, which is far more efficient than the use of explosives.

#### *Bay West*

As documented in VNPA reports *The coast is unclear*<sup>18</sup> and *Protecting our seas and shores*<sup>19</sup>, the western shoreline of Port Phillip Bay contains one of Australia’s richest saltmarshes and extensive seagrass meadows. Its flora is of national significance, while the fauna is of international significance.

This region of the bay hosts significant Australian populations of the Pacific Golden Plover, Sharp-tailed Sandpiper, Double-banded Plover, Curlew Sandpiper, Red-necked Stint, Red-necked Avocet, Pied Oystercatcher and Common Greenshank. The site is also significant for the Orange-bellied Parrot as winter habitat and is home to breeding colonies of the Fairy Tern and Pied Cormorant. Some of these bird species are also listed under the federal *Environment, Protection and Biodiversity Conservation Act 1999*.

When in opposition the Labor Party proposed the development of a new container port on the western shoreline of Port Phillip Bay. Although initially the proposed location was vague, in July 2014 *The Age* published details<sup>20</sup> of a Labor Party briefing paper on a hook-shaped pier in the Point Wilson area designed to annually handle 10 million TEUs on ships with a carrying capacity of 10,000 TEUs. The pier would extend three kilometres from the shore into deeper water and then at right angles for another five kilometres. The article also reported that the dredging required for Bay West would be from 30-60 million cubic metres, compared with 25-50 for the Port of Hastings expansion; the completed channel deepening project was 23 million cubic metres.

There remains scant detail on the project, but it would likely be located between Point Wilson and Lake Borrie and towards the mouth of the Werribee River. If that were the case, it could mean the end of The Spit Wildlife Reserve and Lake Borrie, an artificial lake that is integral to the Western Treatment Plant and important for birdlife, and casting doubts on the plant’s long-term future.

<sup>15</sup> Gordon, J. 2013, ‘Port of Hastings plan “financial disaster”’, *The Age*, 6 May 2013

<sup>16</sup> Gordon, J. 2013, ‘Port of Hastings plan “financial disaster”’, *The Age*, 6 May 2013.

<sup>17</sup> Liberal Victoria 2015, *Victoria’s second container port*, Media Release, 23 June 2015

<sup>18</sup> Smyth, C 2013, *The coast is unclear*, VNPA, Melbourne

<sup>19</sup> VNPA 2010, *Protecting our seas and shores*, VNPA, Melbourne

<sup>20</sup> Carey, A 2014, ‘Labor floats plan for giant pier out into Port Phillip in its Bay West port plan’, *The Age* 30 July 2014

In studies undertaken when this coastal area was proposed for the establishment of the East Coast Armaments Complex and the relocation of Coode Island's facilities in the 1990s, the conservation values and construction costs were found to be too high to allow the projects to proceed.

Although favoured by the Victorian Government and some business figures, like the Port of Hastings expansion, the Bay West project would also have major environmental impacts on a Ramsar site. The current Victorian Opposition has also claimed in an that the Bay West project would precipitate a need to blast The Heads to allow larger ships to enter the bay.

*The future size of ships coming to Australian ports*

Proponents of the Port of Hastings expansion and Bay West argue that both ports need to be large enough to handle vessels capable of transporting 10,000 TEUs. This, it is claimed, will require a channel depth at the entrance to Western Port and Port Phillip Bay of at least 16 metres.

Hermione Parsons, a logistics expert, believe Australia will never see the megaships that some have predicted: 'Those megaships will move between Shanghai, Rotterdam, Los Angeles, the major trading ports'<sup>21</sup>.

The arrival of these large ships in Port Phillip Bay or Western Port is simply not based on whether appropriate channel depths are available, it is also on whether such channel depths are available in the other Australian ports. At this point in time, the other major Australian commercial have channel depths and draft limits largely similar to those in the channels and at The Heads in Port Phillip Bay<sup>22</sup>. Large ships would need to visit several ports in Australia to make the operation viable. If they are unable to enter the other ports, then according to a report<sup>23</sup> by the Institute for Supply Chain and Logistics at Victoria University, they will not come. That report concludes:

*Governments have stated the crucial reason for the development of the Port of Hastings is that a deepwater port is needed to cater for much larger ships with a draft of 16 metres. In 2014 however, many industry experts suggest these mega ships may not come to Australia and Victoria, since the economic demand driven by population will probably not provide the commercial justification for international shipping companies to bear the cost of sending larger vessels to our ports. Our relatively small and diverse import/export markets and the dominance of food and perishable agricultural commodities are more likely to be best served by smaller vessels of 8,000 to 10,000 containers (TEU)<sup>24</sup>.*

Currently ships with drafts of 14 metres (but with permission of the Harbour Master up to 14.5 metre drafts) are able to enter Port Phillip Bay, where the entrance channel at The Heads is 245 metres wide. As ships get larger, they are generally becoming wider rather than deeper. Panamax<sup>25</sup> vessels generally have a draft of around 12 metres and a capacity of 5,000 TEUs, whereas Post Panamax and Post Panamax Plus have drafts of 13-14.5 metres, a width of 40-43 metres and a capacity of 4-8,000 TEUs (vessels with a capacity of 10,000 TEUs have been proposed for Bay West). The largest vessels, with a capacity of 18,000 TEUs, only have a draft of 14.5 metres<sup>26</sup> but their length and width would create problems for entering Port Phillip Bay and docking in the Port of Melbourne.

<sup>21</sup> Hawthorne, M 2015 'Shipping expert says Greg Hunt's Port Phillip Bay dynamite claims are 'fanciful'', *The Age* 2 July 2015

<sup>22</sup> Institute for Supply Chain and Logistics 2014, *Build it – but will they come?*, Victoria University, Melbourne

<sup>23</sup> Institute for Supply Chain and Logistics 2014, *Build it – but will they come?*, Victoria University, Melbourne

<sup>24</sup> Institute for Supply Chain and Logistics 2014, *Build it – but will they come?*, Victoria University, Melbourne

<sup>25</sup> The Geography of Transport Systems,

<https://people.hofstra.edu/geotrans/eng/ch3en/conc3en/containerships.html>, accessed 9 September 2015

<sup>26</sup> Institute for Supply Chain and Logistics 2014, *Build it – but will they come?*, Victoria University, Melbourne

From the above it appears that both Port Phillip Bay could receive ships with larger TEU capacities than the average (3,100 TEUs) received today. This weakens the arguments that suggest major deepening of The Heads would be required.

#### *Another port option*

In the debate about where a second container port might be located if needed, various claims have been made about the pros and cons of each. An independent study will be needed to sort fact from fiction.

The terms of reference for Infrastructure Victoria's investigation of a second container port should provide the body with sufficient scope to recommend against a second container port if it identifies ways in which existing ports can be better planned and integrated to increase their capacity and efficiency.

Such improved integration may avoid the need for the expansion of the Port of Hastings or the building of a port at Bay West, and thus avoid the environmental impacts that each of these proposals would have.

In August 2015 the Victorian Government announced the Murray Basin Rail Project<sup>27</sup>, which will spend upwards of \$400 million improving and re-establishing freight rail networks in the Murray Basin to improve rail links to the ports of Portland, Geelong and Melbourne and to remove 20,000 freight trucks usually bound for the ports from regional roads each year.

This focus on western Victoria and its links to the ports of Portland, Geelong and Melbourne would suggest even less likelihood of the Port of Hastings expansion proceeding. But it also adds weight to exploring ways that better integrate the operations of existing ports and the stretching of the period before those ports reach their ultimate capacity.

#### **Term of Reference (g): any other relevant matters.**

##### *Environmental Effects Act 1978*

An important way to manage or minimise the environmental impacts of shipping and port infrastructure within Port Phillip Bay is to ensure that the provisions of legislation covering environmental assessments are rigorous, robust and transparent. The current relevant legislation is the *Environment Effects Act 1978*. A review<sup>28</sup> of this 16-page statute by the Environmental Defenders Office (now Environmental Justice Australia) in 2010 revealed that it falls well short of what is required in the 21<sup>st</sup> century and has the following weaknesses:

- There are no objectives or purposes within the Act, in contrast to other states and the Commonwealth, and thus fails to provide a transparent framework for decision making
- It is at the Minister for Planning's discretion to seek an assessment of a project if the Minister considers that it may have a significant impact on the environment – guidelines that support the Act are not binding, there is no trigger in the Act based on the likely impact of the project, and there are no legislated criteria for determining whether an assessment is required. This politicises the process
- There are no penalties for noncompliance in situations where referrals and assessments are required
- There are no clear timeframes for the conduct of the environment assessment process. Those referred to in guidelines are not binding on the Minister

<sup>27</sup> Victorian Government 2015, *Murray Basin Rail Project*, brochure August 2015

<sup>28</sup> Environmental Defenders Office 2010, *Reforming the Environment Assessment Process in Victoria*

- There is no requirement for follow up, i.e. monitoring, evaluation, management and communications
- It is the Minister for Planning, not the Minister for Environment, who is responsible for administering the process, even though the matter being assessed relates to the environment
- Lack of independence when the State Government is the proponent of a major project
- Community participation is at the discretion of the Minister, not assured in the legislation. There are no provisions for public notification of projects, public exhibition of the effects statement, release of Panel reports or the release of the Minister's recommendations to the proponent.

To address these weaknesses, the Environment Defenders Office recommended a number of changes to the *Environment Effects Act 1978* including:

1. A clear statement of objectives, including one on ecologically sustainable development
2. Triggers for referral and penalties for noncompliance with referral provisions.
3. Clear and enforceable criteria that set out when an assessment is required.
4. A tiered assessment process to match the level of assessment with the scale and likely environmental impacts of the proposed project.
5. Clear process timeframes.
6. Monitoring and enforcement provisions, and public reporting of project impacts.
7. Opportunities for community participation.
8. Mandatory release of assessment reports and the Minister's recommendations.
9. Removal of ministerial discretion or making it subject to strict legislative criteria.

Responsibility for overseeing the process should be transferred from the Minister for Planning to the Minister for Environment.

Infrastructure Victoria will be asked to make recommendations on the site for a second container port in Victoria. In parallel with its deliberations should be an independent Planning Panel given the task of investigating the environmental impacts of Victoria's port operations and eventually the task of assessing an environmental effects statement of proposed new port infrastructure and operations. Such an effects statement should be conducted under the provisions of a reformed *Environmental Effects Act*.

#### *Listing of threatened communities*

In 2007 VNPA and the Australian Conservation Foundation successfully applied for the deep-water sponge gardens at The Heads to be listed under the *Flora and Fauna Guarantee Act 1988*.

There are descriptions<sup>29</sup> of the characteristics of each listed threatened community under the *Flora and Fauna Guarantee Act 1988*. The Port Phillip Bay Entrance Deep Canyon Marine Community is described as 'a highly diverse, varied and complex marine community of reef-dwelling sessile invertebrates, chiefly sponges, ascidians, bryozoans, hydrozoans and corals, with the sponges collectively forming what are often referred to as 'sponge gardens'. The community covers the reef surface at depths below 20-25 m within a steep-sided underwater canyon up to 100 m deep at the entrance to Port Phillip Bay'. It goes on to say that: 'Water currents of great strength (3-8 knots) are produced; these form what is known as 'The Rip', and lead to a set of marine habitats and conditions that are unique in Victoria and probably Australia'.

<sup>29</sup> [http://www.depi.vic.gov.au/\\_\\_data/assets/pdf\\_file/0005/229703/Flora-and-Fauna-Guarantee-Characteristics-of-Threatened-Communities-.pdf](http://www.depi.vic.gov.au/__data/assets/pdf_file/0005/229703/Flora-and-Fauna-Guarantee-Characteristics-of-Threatened-Communities-.pdf)

A similar application was made in 2007 for listing under the EPBC Act but was unsuccessful. It is now time that an application for listing of the sponge gardens be reconsidered under the EPBC Act by the Commonwealth Government. If listed, then a federal process of assessment would strengthen any future consideration of the impacts of major projects at The Heads.

#### *Other planning processes*

There are a number of planning processes and reviews underway that should heavily influence the way in which port operations within the Port Phillip Bay, Western Port and at Portland are operated and of which any port lessee or operator should be aware:

- The first of five-yearly state of the bays reports is currently in preparation. This will assess the historic and future trends of the state of the environment in Victoria's bays, estuaries and waterways, identify the gaps in our knowledge and monitoring, and establish a set of environmental indicators that can be monitored to ensure that we understand what is happening to the health of our bays.
- The environment management plan for Port Phillip Bay is currently in review and will establish objectives, targets and priority issues to be dealt with over the plan's life.
- The review of marine and coastal management statutes is currently underway with a view to establishing a marine and coastal act. The objectives, provisions, planning processes and institutional arrangements under such an act will have an influence on the planning and management of future shipping operations.
- Other relevant processes also underway are the preparation of a new state biodiversity strategy and reviews of the Climate Act and the *Flora and Fauna Guarantee Act 1988*, and the Environment Protection Authority.

#### *Climate change and port operations*

A rising sea level is a very tangible result of climate change, causing beach erosion and exacerbating storm surges and coastal inundation. According to the *2014 Victorian coastal strategy*, 'monitoring stations at Lorne and Stony Point have recorded rises of 2.8 mm/year and 2.4mm/year respectively since 1991'<sup>30</sup>. The planning benchmarks in Victoria plan for a sea level rise of not less than 0.8 metres by 2100.

Beach erosion and coastal inundation events exacerbated by sea level rise will threaten significant and highly valued coastal infrastructure, including that of Victoria's ports. The impacts of climate change will therefore need to be included in any planning for the operation and expansion of the state's ports. This is also the case for future proposals for deepening the entrance to Port Phillip Bay, where rising sea levels may actually increase the draft of ships that can enter, but the implications for other parts of Port Phillip Bay and its shoreline would be devastating.

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<sup>30</sup> Victorian Coastal Council 2014, *Victorian coastal strategy 2014*, VCC, Melbourne