

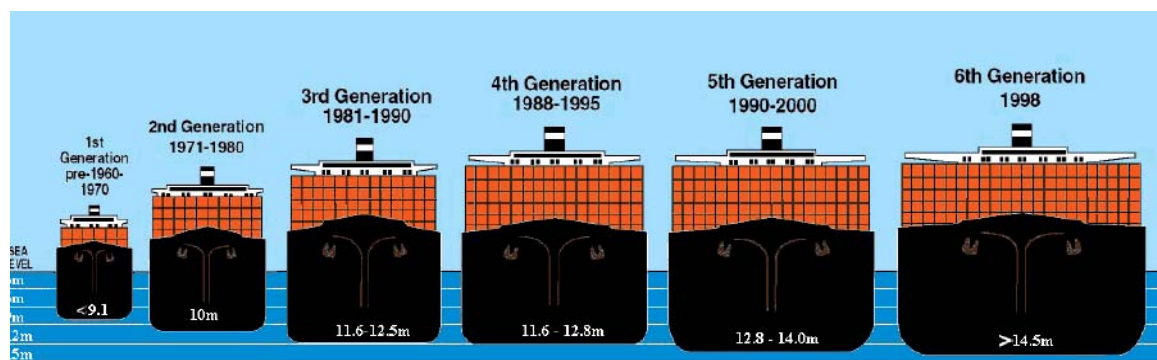
## The Ports

- 3.1 Evidence given to the Committee at the ports visited, indicated that each had at least one serious infrastructure problem hindering access to the port area. The Committee identified critical projects to a potential value of \$6.5 billion – required at Australian ports and their environs and port-related corridors.
- 3.2 It is the view of the Committee that, while industry and state governments are committed to a number of these projects, the Australian Government may need to contribute not less than \$3 billion, on a 50/50 basis with either State or private providers, to bring the ports up to internationally competitive standard.
- 3.3 In some cases, the problem was the lack of a rail connection, or the need for a passing loop or unloading area of suitable length. In others, there was a problem with road connections, such as the need for a ring road approach to the port for freight vehicles, or a flyover to remove a bottleneck where road and rail, or two roads, meet.
- 3.4 The ports are also struggling with the problems caused by steadily increasing ship sizes and the associated problem of channel depth. Many are being pressured by urban encroachment and the resultant difficulties in planning transport corridors, especially looking forward twenty years or more.

## Ship Sizes

- 3.5 Factors such as the rising cost of oil have encouraged shipping companies to work hard at reducing operational costs for their vessels.
- 3.6 In addition, rapid growth in world trade volumes, and particularly the heavy demands on shipping caused by China's growing demand, has moved the world economy towards a shortage of cargo vessels.
- 3.7 The response has been to build bigger and bigger ships, especially container and bulk cargo ships. This process has introduced a new terminology. For example, we now have Panamax ships – the largest size that can navigate the Panama Canal. We also have Cape size vessels – larger vessels that cannot fit through the Canal and must travel around Cape Horn. The following diagram illustrates this growth process:

Figure 3.1 Evolution of Container Ships



Source: Port of Melbourne

- 3.8 The increasing size of cargo vessels has presented ports around the world with a new problem – the need for increased channel depth, to allow the larger vessels to navigate the harbour when fully laden.
- 3.9 In some cases, where the cargo can be moved by conveyor or pipeline, the problem can be solved by using a long jetty to allow the ship to stay in deep water. In many Australian ports, however, there is a need for extensive dredging to accommodate even Panamax and post-Panamax vessels. Few Australian ports can accept Cape size vessels.

## Dredging

3.10 Most of the ports visited either had an immediate problem with channel dredging, or were expecting to have to deal with that problem in the near future. In some ports the problem is acute and a shallow channel is reducing access to the port for larger vessels. In others, the vessels can reach the dock unloaded or partially loaded, but cannot pass through the exit channel when loaded to full capacity. The other difficulty is the need for additional channels, for example in Gladstone, to allow vessels to pass on their way into, or out of, the port.

3.11 The problem is illustrated by the situation in Melbourne. The Port of Melbourne Corporation said in its submission:

The Corporation is currently undertaking a major project to increase the depth of its channels to 14 metres to accommodate the larger, more efficient vessels now being utilised by shipping lines. Already, 30 per cent of the container ships that visit Melbourne cannot enter or leave the port fully laden because of draught restrictions.

Without the planned increased channel depth, future trade growth and the development of the port will be retarded and there will be higher costs for shipping lines, exporters and importers. The project has the in-principle support of the government, shipping lines, exporters and the majority of port users and the Corporation has devoted a significant amount of funding and resources to progress the project.<sup>1</sup>

3.12 P&O Ports expressed concern that if the channel deepening in Melbourne did not go ahead, that port could become the weak link in the national transport chain:

If that does not occur, it will affect Sydney and Brisbane, not just Melbourne.

The debate has been hijacked by vested interests in the environmental side and it has lost balance from the real impact on the state of Victoria it would have if that did not proceed.

Ships are already altering their whole cargo patterns because of the limitations in Melbourne. That has been happening for

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1 Port of Melbourne Corporation, Submission 67, pp.4-5.

the last three or four years, and it is going to get worse.

Shipping lines the world over are consolidating. There will be further consolidations. Vessel sizes are increasing. Ports must be capable of dealing with those deeper draft vessels.<sup>2</sup>

- 3.13 As P&O Ports indicated, challenges to channel dredging on environmental grounds have added to the difficulties, and are a growing problem. People concerned about the damage dredging causes to marine life, have protested and raised legal issues in attempts to block planned dredging programs in some ports.
- 3.14 The CEO of Fremantle Ports also commented that additional delays are caused by unnecessarily slow and complex administrative procedures. She noted the need for simplification and the removal of duplication in the approval process, so that the task can be carried out properly – but quickly:

There are many regulatory challenges that I think all ports face. Even with dredging, there is the potential duplication of the federal environmental process with the state process and how complex it is to get sea-dumping permits. So I would hope that through the COAG and other processes there is a lot of work done on that simplification and facilitation. At the same time, there are reasons these regulations are in place – I do not question that; you need to do it right – but I am not sure that we need to make it quite as complex as we do.<sup>3</sup>

- 3.15 The Association of Australian Ports and Marine Authorities (AAPMA) made similar comments about the problems of dredging projects:

There are often unnecessary delays in the approvals process through government regulatory agencies particularly relating to environmental issues and especially dredging and dredged material disposals. These delays often delay the commencement of capital and maintenance projects unreasonably and can potentially disrupt dredging projects once they are under way.

There appears to be a lack of coordination in setting standards and requirements between and within the Australian government and states relating to dredging and dredge material disposal approvals and new issues continue

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2 P&O Ports, Transcript, 21 November 2005, Sydney, p.40.

3 Fremantle Ports, Transcript, 10 March 2006, Perth, p.45.

to be raised each time there is an application from a port, often with little linkage, if any, back to current or previous applications from a range of ports.

There appears no agreed mechanism in Australia covering the Australian government and its agencies and states/territories that gives confidence that there will be a proactive and balanced approach to dredging environmental concerns, so that the approvals process can be made more efficient and effective.

Furthermore, the interaction between the Australian government and the states/territories in the dredging and disposals process raises the environmental bar every time there is an application which leads to continually increasing costs and greater operational inefficiencies, often with little overall benefit other than research opportunities.<sup>4</sup>

- 3.16 The Port of Albany has a unique problem. It plans to dredge King George Sound to 15-17 metres, to allow the use of Cape size vessels for iron ore shipments. However, several years ago, dredging for a new wood chip berth revealed unexploded military ordinance, dating from soon after World War 2, in the harbour. The legal dispute with the Australian Government over this problem is still in progress and the dredging program is at a standstill.<sup>5</sup>
- 3.17 The Australian Wheat Board (AWB) said that to maximise export returns, it recommended:
- Advance funding for channel and berth deepening at Newcastle, Melbourne and Albany to make each of those ports capable of loading a 14 metre [draught] Panamax vessel.<sup>6</sup>
- 3.18 The Board also referred, more generally, to “...[draught] limitations at ports that constrain the full loading of some classes of ships”.<sup>7</sup>
- 3.19 The AAPMA, when asked by the Committee to nominate the highest priority infrastructure requirements, listed channel

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4 Association of Australian Ports and Marine Authorities, Submission 63, p.3.

5 Albany Port Authority, Submission 157, pp.6-7; the Port Authority recently announced that the dispute had been resolved – Albany Port Authority, Media Release, 22 June 2007.

6 Australian Wheat Board, Submission 97, p.4.

7 Australian Wheat Board, Submission 97, p.10.

development among them. The Association specifically mentioned the need to deepen the channel in Melbourne.<sup>8</sup>

### **Recommendation 3**

**3.20 The Committee recommends that COAG undertake the establishment of an Australia-wide set of standards for the approval of port dredging projects, with a view to a co-ordinated and timely approach to achieving critical depth upgrades.**

3.21 The Committee considers that it is essential that Australia's ports are able to keep pace with the growth in cargo vessels. This country is far too dependent on trade to allow itself to become a backwater, because the ports are unable to handle the larger vessels that are rapidly becoming the norm on the world's shipping lanes.

3.22 Of all of the dredging projects brought to the Committee's attention, however, Melbourne stands out as the most essential. The Committee believes that Melbourne's role as a port is so important, that it must be assisted to reach the point where it can handle, if not Cape size vessels, at least fully loaded Panamax and post-Panamax vessels. A recommendation on this issue is included in the section of this Chapter on the Port of Melbourne.

## **Urban Encroachment**

3.23 Urban encroachment, always a problem in most of the larger ports, is now also posing a serious problem for some of the smaller ports.

3.24 The problem highlights the need to reserve transport corridors well in advance of need. The difficulties caused by failure to take this seriously, were brought to the Committee's attention on several occasions.

3.25 The Queensland Government commented that this is a growing problem faced by several of the ports in that state:

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8 Association of Australian Port and Marine Authorities, Transcript, 21 November 2005, Sydney, p.16.

As populations grow, land surrounding port facilities is consumed for urban, industrial and commercial purposes. Corridors for access to the port come under pressure with a growing mix of traffic. Urban amenity issues soon arise – heavy transport and residential housing do not mix well.

Urban congestion is a significant problem for Queensland's major ports in Brisbane, Gladstone and Townsville, all of which are ringed by densely populated urban areas or commercial/retail precincts.<sup>9</sup>

- 3.26 The Port of Brisbane Corporation summed up the need for a long-term view of protecting these corridors:

By their very nature, freight facilities and associated transport corridors are increasingly becoming a 24 hour a day land use. Consequently it is vitally important that both the port, linkages to it, and any freight facilities planned in the immediate and broader hinterland regions, are protected from urban encroachment and are properly designed to minimise any potential impacts from current and likely future urban settlement patterns.<sup>10</sup>

- 3.27 Adsteam Marine Limited claimed that the problem has been made worse by a decline in the facilities available for bulk and break bulk cargoes in major ports, especially Sydney, Melbourne and Brisbane:

In short, older break bulk and bulk cargo facilities in many of Australia's major capital city ports are under pressure from commercial and residential development and the attractive yields such land use generates for government and commercial investors.<sup>11</sup>

- 3.28 Esperance has looked to the future of transport corridors around the port and has made provision in the town planning scheme to preserve them. All undeveloped land along the main corridor through Esperance has been reserved and cannot be developed. On land that was already developed, the scheme requires that, if redeveloped, the owners must comply with specified requirements; for example, quiet house design to block out noise. The aim is to

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9 Queensland Government, Submission 95, p.9.

10 Port of Brisbane Corporation, Submission 52, p.4.

11 Adsteam Marine Limited, Submission 34, p.3.

ensure that the corridor can operate 24 hours a day, seven days a week, and that there is sufficient room for future expansion.<sup>12</sup>

3.29 This topic is discussed in more detail in Chapter 8.

## Individual Ports

### New South Wales

#### Port Botany and Sydney Harbour

- 3.30 In its Trade Report for 2005-06, the Sydney Ports Corporation reported that its ports had achieved a record year. Total throughput was 26.7 million tonnes, up 3.1 per cent on the previous year. Of this total, imports made up three quarters at 20.2 million tonnes, a 1.8 per cent increase, and exports contributed 6.5 million tonnes, a very healthy increase of over 8 per cent.<sup>13</sup>
- 3.31 The total number of containers passing through Sydney continued to grow and reached 1.445 million TEUs, 5 per cent more than the previous year. Other trade grew much more slowly, a 1 per cent increase. The containerised trade showed a continuation of the growing trade influence of Asia. Of the total containers imported, 61 per cent were from Asia. Similarly, containerised exports increased 8.4 per cent, reflecting the high level of demand from Asia.<sup>14</sup>
- 3.32 A survey of truck turnaround times, in February/March 2006, indicated that the average turnaround time had decreased from 64 minutes in June 2000, to 45 minutes. Monthly container throughput has increased from 82,000 to 106,000 over the same period. To assist the process, a one-way traffic system was opened in November 2006.<sup>15</sup>
- 3.33 The number of containers moved by rail has increased from 123,000 in 1997-98 to 290,000 in 2005-06. Currently that is 21.5 per cent of all containers moved into and out of the port. The NSW Government's

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12 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, pp.5-7.

13 Sydney Ports Corporation, *Trade Report 2005-06*, November 2006, p.3.

14 Sydney Ports Corporation, *Trade Report 2005-06*, November 2006, p.3.

15 Sydney Ports Corporation, *Logistics Review 2005-06*, November 2006, p.3.



objective is to increase that share to 40 per cent.<sup>16</sup> This will be assisted by the recently approved Southern Sydney Freight Line, which will link Port Botany to the south-west of Sydney and to the main line to Melbourne.<sup>17</sup>

- 3.34 Based on figures for 2001-02, the Port Authority estimated that Port Botany accounts for 60 per cent of the economic impact generated by Sydney's ports. Kurnell Refinery and the Gore Cove Terminal account for 20 per cent and Darling Harbour, Glebe Island and White Bay 5 to 7 per cent each.<sup>18</sup>
- 3.35 The prospect of continued solid growth, of 5 to 6 per cent a year, in the container throughput at Port Botany has resulted in a proposal to expand its capacity. The present infrastructure is expected to reach capacity in 2010.<sup>19</sup>
- 3.36 The proposal will allow for about 1.6 million additional containers a year. It is designed to cater for the expected increases in container trade over the next 25 years. The proposed additions require approximately 60 hectares of reclaimed land, and will provide five new berths capable of handling large container vessels. Provision has also been made for a tug and support vessel facility, with six new tug berths. The area will be serviced by dedicated road and rail links.<sup>20</sup>
- 3.37 The NSW Government has announced its intention to move the motor vehicle import facilities from Sydney to Port Kembla. The Port Kembla Port Authority reported that the transfer will be carried out in stages and that the new facilities will be in full operation in 2008, handling up to 250,000 cars annually.<sup>21</sup>
- 3.38 The Botany Bay City Council expressed opposition to any further development of Botany Bay. It is concerned that the combination of: traffic for the port, the airport traffic, and large industrial developments, commercial facilities and residential areas, is already overwhelming the road system.<sup>22</sup>

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16 Sydney Ports Corporation, *Logistics Review 2005-06*, November 2006, p.4 and New South Wales Government, Submission 96, p.2.

17 Sydney Ports Corporation, *Logistics Review 2005-06*, November 2006, p.8.

18 Sydney Ports Corporation, *Understanding the Economic Value of Sydney's Ports*, 2004, p.9.

19 Sydney Ports Corporation, *Port Botany Expansion*, January 2004, p.3.

20 Sydney Ports Corporation, *Port Botany Expansion*, January 2004, pp.6-7.

21 Port Kembla Port Authority, *The Next Generation*, Annual Report 2006, pp.3-4.

22 Council of the City of Botany Bay, Submission 15, p.1.

- 3.39 The Council said that even greater reliance on rail would not solve the difficulties. It suggested that future development should be in Port Kembla and Newcastle:

The traffic in City of Botany Bay is increasing alarmingly without any port extension due to the saturation of industrial development coupled with the [ever] increasing land use conflicts between industrial, residential and commercial development.

Expanding the port would create grave ramifications on the operation of all the major roads in the area. Given that an average truck displaces some 4 standard passenger cars and a B-double displaces some 6 standard passenger cars, the actual increase in truck traffic on the road network is, in reality, substantially greater.

Whatever policies are developed to increase the use of the railway movement of freight, past history has proved that road transport will increase enormously. Added trucks on [the] existing congested road network would bring heightened anxiety, time-loss, air pollution levels, accidents and frequent gridlock at major intersections. Traffic congestion will be compounded by increased freight rail movements, which will contribute to air and noise pollution.

Strategic consideration should be focussed on alternative locations for the expanded port(s) and to the potential to integrate while diversifying cargo inputs to the three major ports in the Greater Metropolitan Sydney. Greater consideration for areas of both Port Kembla and Newcastle is essential.<sup>23</sup>

## Newcastle

- 3.40 Newcastle is the natural port for the resource-rich Hunter Valley and the North and North-West of NSW. In tonnage moved, it is one of Australia's largest ports; with coal making up more than 90 per cent of total throughput. Newcastle is also one of the world's largest coal export ports. Other cargoes handled at the port are: grains, vegetable oils, alumina, fertiliser and ore concentrates. Movements

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23 Council of the City of Botany Bay, Submission 15, pp.1-2.

of general cargo, such as aluminium, steel and machinery, are increasing.<sup>24</sup>

3.41 The HunterNet Co-operative indicated that there is a need to divert some of Sydney's container traffic to Newcastle. HunterNet said that many products of the Hunter Valley are taken to Sydney for export, simply because there is a lack of shipping connections in Newcastle.<sup>25</sup>

3.42 It said that research by the Port of Newcastle showed that there would be a comparative advantage in shipping about 160,000 TEUs of the Sydney traffic through Newcastle. The Co-operative said that what is needed is the development of the proposed Multi Purpose Terminal:

It is our contention that consideration be given ...to the establishment of specialised export shipping facilities within the precincts of the Multi Purpose Terminal to assist current exporters, facilitate export endeavours of smaller prospective exporters, and reduce traffic loads for road/rail and port facilities within Sydney and environs.

Such a facility would also add to the attraction of the region for the entry of new or transferred businesses from other regions, while the increased level of shipping movements would create greater ...opportunities for the local ship repair/servicing support industry.<sup>26</sup>

3.43 The Port Corporation is encouraging development of the former steelmaking site at Mayfield. It considers the brownfield site, left behind by BHP, as the perfect site for a port to be developed. The site is flat, has deep water access and an existing road and rail infrastructure. The area also has 100 hectares of land that could be used in complementary development.<sup>27</sup>

3.44 In addition to the coal loading facilities operated by Port Waratah Coal Services, there is a bulk liquid terminal. The East and West Basins have four main berths, with a depth of 11.6 metres; there is another at Throsby Basin, slightly shallower at 11.0 metres; the

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24 Newcastle Port Corporation, [http://www.newportcorp.com/page\\_default.aspx?pageID=3](http://www.newportcorp.com/page_default.aspx?pageID=3), accessed 1 May 2007.

25 HunterNet Co-operative, Submission 134, p.4.

26 HunterNet Co-operative, Submission 134, p.5.

27 Newcastle Port Corporation, [http://www.newportcorp.com/page\\_default.aspx?pageID=19](http://www.newportcorp.com/page_default.aspx?pageID=19), accessed 1 May 2007.

Steelworks Channel has six more berths, two quite shallow, two at 12.8 metres and two deep water berths with 16.5 metres. Kooragang Island offers one berth at 11.6 metres, one at 13.5 metres and three berths at the coal terminal at 16.5 metres. Development of the former BHP site would open up several more berths.<sup>28</sup>

- 3.45 The port has several development plans in view. The NSW Government has called for proposals to build a 150 hectare site, to be known as the Intertrade Industrial Park. It is funding \$8 million in infrastructure for the site. The Port Corporation is spending \$22 million to refurbish BHP Oil Berth Five and to develop 80,000 square metres adjoining the wharf for cargo-handling, storage or an assembly area.<sup>29</sup>
- 3.46 Another project will extend the shipping channels into the South Arm of the Hunter River. The main shipping channels will be deepened and possibly widened. Although Newcastle has a declared depth of 15.2 metres, between 25 and 33 per cent of deep-draughted vessels are unable to load to capacity. The intention is to dredge to between 16 and 17 metres.<sup>30</sup>
- 3.47 Further development is planned for Kooragang Island. An important part of this planning is a lease to the Newcastle Coal Infrastructure Group, to build a facility with two additional coal loading berths. The Group has until early 2009, to obtain the necessary planning and environmental approvals. There are plans also to establish bulk goods handling and manufacturing facilities at Walsh Point.<sup>31</sup>
- 3.48 Other plans are in hand to develop industrial sites at Tomago and West Wallsend, to take advantage of the proximity of the port and the road and rail connections already in place, or planned.<sup>32</sup>

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28 Newcastle Port Corporation,  
[http://www.newportcorp.com/page\\_default.aspx?pageID=66](http://www.newportcorp.com/page_default.aspx?pageID=66), accessed 1 May 2007.

29 Newcastle Port Corporation,  
[http://www.newportcorp.com/page\\_default.aspx?pageID=84](http://www.newportcorp.com/page_default.aspx?pageID=84), accessed 1 May 2007.

30 Newcastle Port Corporation,  
[http://www.newportcorp.com/page\\_default.aspx?pageID=84](http://www.newportcorp.com/page_default.aspx?pageID=84), accessed 1 May 2007.

31 Regional Land Management Corporation,  
<http://control.rb.com.au/template/rlmc.aspx?edit=false&pageID+480>, accessed 1 May 2007.

32 Regional Land Management Corporation,  
[http://control.rb.com.au/SiteFiles/rlmc%20sites%20low%20\(2\).jpg](http://control.rb.com.au/SiteFiles/rlmc%20sites%20low%20(2).jpg), accessed 1 May 2007.

- 3.49 In early 2007, Newcastle had once again run into problems with coal deliveries and a long queue of ships had built up. Some mines were slowing their production, with the threat of other mines closing down, because they were unable to move their coal to the port:

The Hunter Valley Coal Chain Logistics Team Chairman ...said the queue was the result of a combination of contributing factors - most of which the HVCCLT have little or no control over...mostly a result of the natural peaks and troughs in demand experienced by coal ports all over the world.

There has been an increase in arrival rates of vessels sent by large coal consuming countries. This is part of the normal seasonal pattern and demonstrates the ongoing strong global demand for Hunter Valley Coal.

Other factors contributing to the vessel queue have been some maintenance and reliability issues, as well as recent poor weather affecting both the operation of the rail network and the movement of vessels within the Newcastle port.

Recent poor weather has delayed vessel loading by several days ... Heavy rain falls have also caused flooding on parts of the rail network which has hampered the ability to bring coal into Port Waratah Coal Services.

To assist in bringing down the queue in the short term, the Hunter Valley Coal Chain Logistics Team has scaled back planned maintenance activities so as to temporarily increase coal chain capacity. In particular, PWCS has deferred some ship loader maintenance to enable the port stocks to clear and to bring the coal chain back to its planned level of capacity.<sup>33</sup>

- 3.50 In its April newsletter, the Hunter Valley Coal Chain Logistics Team reported that, despite a new record for a quarterly throughput in the quarter to March 2007, the coal chain had still underperformed. It said there were many reasons for this: locomotives, track problems, loading points, ship-loading and weather difficulties all had an impact.<sup>34</sup>
- 3.51 With the new stockpile and stacker at PWCS now fully operational, the rate of throughput has been increased to the equivalent of 90.4

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33 Hunter Valley Coal Chain Logistics Team, *Measures in place to reduce queue*, Media Release, 13 September 2006.

34 Hunter Valley Coal Chain Logistics Team, *Logistics Team News*, No.10, April 2007, p.1.

million tonnes a year. The target is to maintain rates equivalent to more than 90 million tonnes a year, for the remainder of this year.<sup>35</sup>

### Port Kembla

- 3.52 Port Kembla has two major commodity export terminals. The Port Kembla Coal Terminal (PKCT) exports 10 to 11 million tonnes of coal and coke a year, with capacity for 15 million tonnes. The Port Kembla Gateway handles bulk and break-bulk cargoes, such as: copper concentrates, fertiliser, clinker, logs and steel products.<sup>36</sup>
- 3.53 The Port Kembla Grain Terminal, in the Inner Harbour, exports various grains from regional NSW. The quantities vary with seasonal conditions. The terminal is managed by Grain Corp.<sup>37</sup>
- 3.54 Overall, the port handled almost 26 million tonnes of cargo in 2005-06. Of the total, a little less than 11 million tonnes consisted of coal and coke, 8 million tonnes of iron ore was imported, and 3 million tonnes of steel exported.<sup>38</sup>
- 3.55 Port Kembla is in a state of transition as a result of the NSW Ports Growth Plan in 2003. The port is preparing for new roles under that plan: handling general and break-bulk cargo and, particularly, the transfer of motor vehicle imports from Sydney.<sup>39</sup> Throughput at Port Kembla will include up to 250,000 cars annually, 250 additional ship calls, 40,000-50,000 containers (TEU) and 125,000 tonnes of break bulk cargo.<sup>40</sup>
- 3.56 The expansion of Port Kembla will substantially increase its capacity, and the impact of increased throughput will place pressure on existing road and rail infrastructure on the Wollongong - Sydney transport corridor.
- 3.57 To prepare for these changes, the NSW Government decided to build a third 290 metre berth and new cargo facilities. The third

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35 Hunter Valley Coal Chain Logistics Team, Logistics Team News, No.10, April 2007, p.1.

36 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=4>, accessed 1 May 2007.

37 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=4>, accessed 1 May 2007.

38 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=53>, accessed 1 May 2007.

39 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=45>, accessed 1 May 2007.

40 Department of Transport and Regional Services, *Draft Sydney Wollongong Corridor Strategy*, 31 January 2007, p.11.

berth was scheduled for completion by the end of June 2007. A fourth berth is due to be completed in late 2008. In conjunction with the third berth, a 15,000 square metre storage facility, hardstand, reefer points and stevedoring equipment are being added. Rail and road connections within the port will be realigned to optimise their use and the use of available land.<sup>41</sup>

- 3.58 Depths available in Port Kembla range from 12.2 metres to 15 metres and enable the port to admit most of the large vessels using Australian ports.<sup>42</sup>
- 3.59 Port Kembla also has long term plans to reclaim an area of about 30 hectares in the Outer Harbour. The area is suitable for forest products, car imports and pre-delivery checks, cement products, and other bulk cargoes. It already has rail and road access.<sup>43</sup>
- 3.60 Probably the most important infrastructure project for Port Kembla is the proposed Southern Sydney Freight Line. Completion of that line will open up opportunities to take advantage of excess capacity at Port Kembla. The Port recently announced that it has the capacity to assist Newcastle with some of its stranded coal shipments, if required.<sup>44</sup>
- 3.61 There are difficulties getting the coal trains through the Sydney area, but the General Manager of PKCT said:
- Just over two years ago we loaded a number of vessels with coal which was produced in the Hunter Valley and railed to Port Kembla. We know it can be done! Historically, coal has been received at Port Kembla from Mudgee and a major proportion of our current coal throughput emanates from the Lithgow region.<sup>45</sup>
- 3.62 A related project, now under renewed consideration for several years, and already partially built, is the Maldon-Dombarton rail link. Completion of that link would allow the coal from the Western,

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41 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=45>, accessed 1 May 2007.

42 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=45>, accessed 1 May 2007.

43 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=46>, accessed 1 May 2007.

44 Port Kembla Coal Terminal, *Port Kembla Coal open for business*, Media Release, 13 April 2007.

45 Port Kembla Coal Terminal, *Port Kembla Coal open for business*, Media Release, 13 April 2007.

Clutha, Tahmoor and Tower mines to access Port Kembla. At present this coal is trucked to the port and the local government is keen to avoid an increase in the number of trucks on the roads. As demand for coal continues at a high level, and the port increases its throughput capacity, that increase is inevitable, unless new rail arrangements can be put in place.<sup>46</sup>

- 3.63 The Maldon-Dombarton line would be of benefit to coal shipments coming from the Lithgow region to Port Kembla. Currently about 4 million tonnes are moved from that area to Port Kembla. Referring again to the problems in Newcastle, PKCT said that if shipments were diverted to Port Kembla:

When the coal and, indeed, any other coal that was to come to Port Kembla from Newcastle ...it would come through the Sydney network. The Maldon-Dombarton line would be an advantage, but it would only be an advantage if we took a broader view of freight transport from, say, the base of the Blue Mountains so that the coal could skirt around Sydney rather than having to join the Sydney-Illawarra rail line.<sup>47</sup>

- 3.64 Deliveries of coal to Port Kembla are restricted by a curfew. PKCT said that "...we are open for fewer hours than we are closed in terms of our road receival capability. That is an inefficient use of a capital asset."<sup>48</sup> PKCT also commented:

Of course, coal trains cannot run at peak commuter travel times and curfews are imposed during both the morning and the evening. The impact of these curfews is to reduce the available receival time at Port Kembla by nine hours on any given day - so we have a 15-hour window of opportunity. ...The combined impact of the restrictions on both public road receivals and our rail curfews is that PKCT's overall receivals capability is restricted to 55 per cent of available time.<sup>49</sup>

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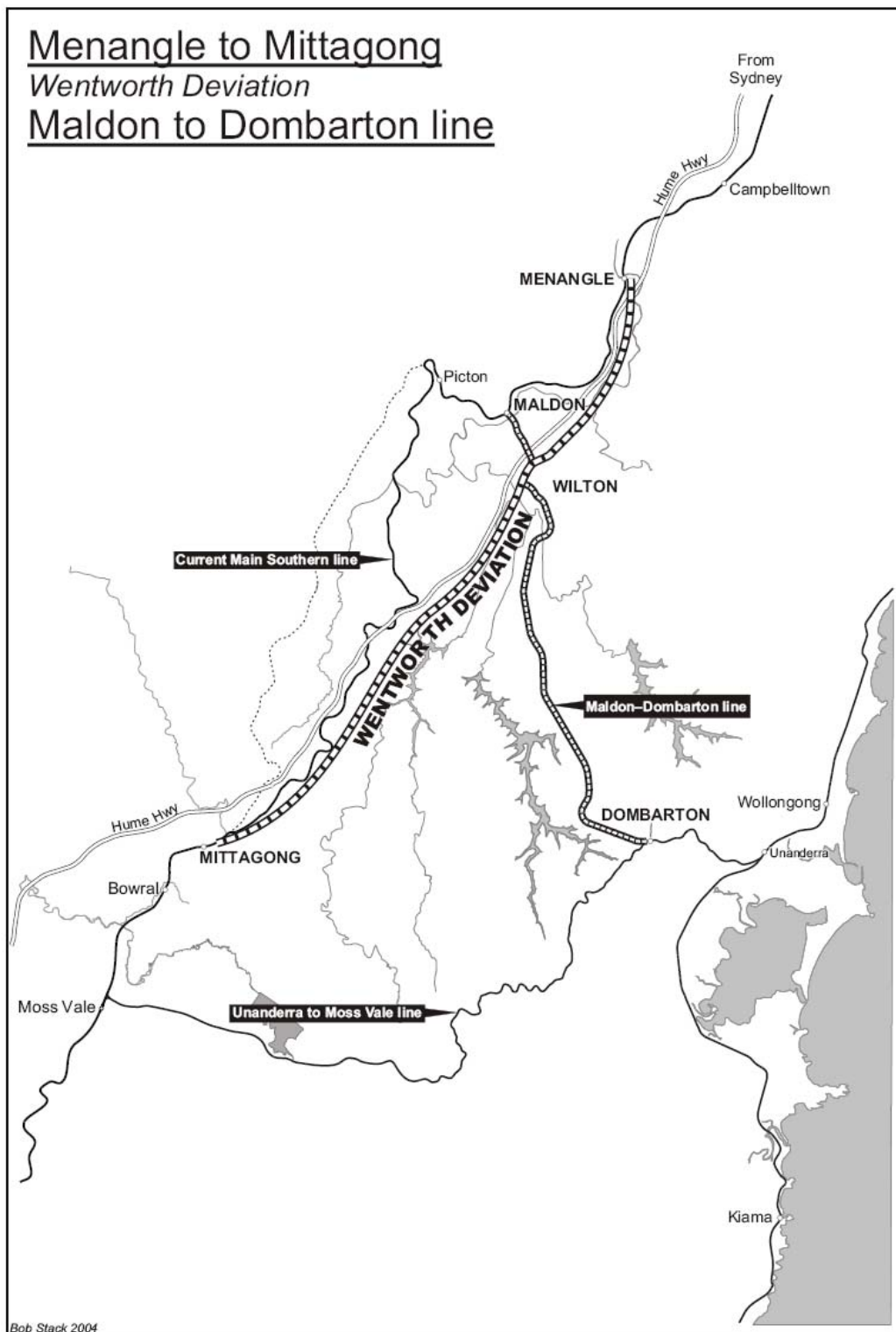
46 Professor Phillip Laird, Submission 116, pp.5 and 18-19.

47 Port Kembla Coal Terminal, Transcript, 1 February 2006, Wollongong, p.19.

48 Port Kembla Coal Terminal, Transcript, 1 February 2006, Wollongong, p.21.

49 Port Kembla Coal Terminal, Transcript, 1 February 2006, Wollongong, p.17.





Source: Professor Philip Laird, Exhibit 17 (Original prepared by Mr Bob Stack).

- 3.65 The road curfew was temporarily lifted at the beginning of 2007, to allow 24 hour, 7 days a week, road deliveries. The concession was to allow the PKCT to prepare for a large number of vessels expected in

the first three months of the year.<sup>50</sup> However, in discussions with the Committee, PKCT indicated that it is not simply a case of removing the curfews and all will be well:

...by removing the curfews in the case of rail you would have an interaction of coal trucks and passenger movements through Sydney. So whilst it would be an optimal decision for Port Kembla Coal Terminal, it would be a suboptimal one for ...New South Wales.<sup>51</sup>

3.66 The Committee was unable to find any solid reason for the continuation of this curfew. It believes that the restriction should be removed, or, at least, substantially reduced.

3.67 In general, PKCT indicated:

...support for the Maldon Dombarton link. It is no longer an either or situation. PKCT needs access to increased road and rail receipt capability if it is to provide an efficient service to our customers and importantly to realise our growth potential in an environment of growth elsewhere in the port.<sup>52</sup>

3.68 Other recent inquiries and submissions received by the Committee indicate similar support for re-examination of the Maldon-Dombarton link. These included the June 2005 NSW Legislative Council Standing Committee on State Development report into the inquiry on NSW Port Infrastructure, which recommended consideration of "...the feasibility of expanding rail infrastructure into Port Kembla, including consideration of the Maldon-Dombarton line in conjunction with the AusLink program."<sup>53</sup>

3.69 Importantly, rail operators at Port Kembla, according to evidence provided to the Committee, indicate use of the Maldon-Dombarton link would occur depending on volumes. PKCT proposed in this situation that:

You need to look not only at the coal terminal growth plans but also at the port's growth plans and put the two together and then make an assessment...<sup>54</sup>

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50 Port Kembla Coal Terminal, *Temporary road transport of coal*, Media Release, December 2006.

51 Port Kembla Coal Terminal, Transcript, 1 February 2006, Wollongong, p.21.

52 Port Kembla Coal Terminal Ltd, Submission 137, p.8.

53 Port Kembla Coal Terminal Ltd, Submission 137, p.8.

54 Port Kembla Coal Terminal Ltd, Transcript, 1 February 2006, Wollongong, p.22.

- 3.70 In evidence, Professor Laird provided the Committee with four key reasons relevant to consideration of completing the Maldon-Dombarton link, which can be summarised as: growing rail congestion and curfews; the expansion of Port Kembla; the link is already half completed and, finally, the potential failure of the existing Waterfall-Thirroul line.<sup>55</sup>
- 3.71 According to the ARTC, a commercial study would be required to complete the Maldon-Dombarton line and determine the extent of both private and government investment. The ARTC indicated that such a study would comprise both an engineering and a commercial study in the order of \$3 million to \$3.8 million.<sup>56</sup>
- 3.72 Mr Meyrick told the Committee that there was always a conflicting strategic view by big and small business on freight infrastructure, because of differing “planning horizons”. He believes that this strategic conflict could be resolved:

If we look forward then we will have to look at what we can do to maximise the ability to move cargo efficiently into and out of the port. I think that that will necessarily involve a higher rail ingredient than we have at present, so we need to plan and build towards that.<sup>57</sup>

## Victoria

### Melbourne

- 3.73 The Port of Melbourne is Australia’s biggest container and general cargo port. It handles 39 per cent of Australia’s container trade, amounting to 1.7 million TEUs in 2003-04. The annual growth rate for container movements through the port was 14 per cent, in the year to March 2005. For other cargo, the equivalent growth rate was 12.5 per cent, giving an overall average growth of 12.7 per cent.<sup>58</sup>
- 3.74 Melbourne acts as a natural cargo hub. It has good road and rail connections to South Australia (and further on to WA), regional New South Wales, and along the Eastern seaboard to Queensland. It

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55 Professor Philip Laird, Transcript, 1 February 2006, Wollongong, p.36.

56 Australian Rail Track Corporation, Transcript, 1 February 2006, Canberra, p.10.

57 Meyrick and Associates, Transcript, 16 August 2006, Canberra, p.7.

58 Port of Melbourne Corporation, Submission 67, p.1.

is also the main transshipment port for Tasmanian cargo, whether for export or for mainland destinations.<sup>59</sup>

3.75 In its submission, the Port of Melbourne drew attention to several road and rail projects that would increase the capacity and flexibility of the port. On Footscray Road, there is a need for grade separation of road and rail, the provision of multiple rail tracks, and road access for Port Precinct Vehicles.<sup>60</sup>

3.76 The capacity of Westgate Bridge is under review by VicRoads. The bridge is near capacity at peak hours and is posing problems for east-west access to the port.<sup>61</sup> The Victorian Freight and Logistics Council indicated that the problem is an immediate one and also referred to problems with the Monash Freeway. The Council commented:

The Westgate Bridge exceeds capacity for several hours each day. This infrastructure is a key connector between the apex of freight and logistics activities in the western suburbs and the Port of Melbourne. An alternative river crossing will be needed within the next few years to sustain efficient freight movement.

The Monash Freeway linking the south-eastern metropolitan region to the port precinct is also chronically congested during daylight hours. This route is the key arterial connection for more than one-third of freight generation and consumption sites in Melbourne.<sup>62</sup>

3.77 The Council added to this assessment during a public hearing when, in reference to the Westgate Bridge, it said:

The whole thing does clog up for several hours each day. It is working beyond its volume to capacity ratio.<sup>63</sup>

3.78 The Port Corporation also nominated Dock Link Road as a route that is in need of further work, to allow high productivity vehicles to access the North Dynon Rail Terminal and to eliminate road/rail conflict.<sup>64</sup>

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59 Port of Melbourne Corporation, Submission 67, p.1.

60 Port of Melbourne Corporation, Submission 67, p.3.

61 Port of Melbourne Corporation, Submission 67, p.3

62 Victorian Freight and Logistics Council, Submission 89, p.1.

63 Victorian Freight and Logistics Council, Transcript, 25 July 2005, Melbourne, p.22.

64 Port of Melbourne Corporation, Submission 67, p.3.

- 3.79 Rail access to the port also faces some difficulties. AusLink funds have been allocated to provide grade separation across Footscray Road (to be completed by 2009) and for an improved rail connection between Tottenham Junction and the Bunbury Street tunnel. Despite these projects, however, there will still be problems. The port needs the re-establishment of the rail connection to Webb Dock and an upgraded connection to West Maribyrnong. Both of these latter connections are broad gauge at present, and would need to be converted to dual gauge.<sup>65</sup>
- 3.80 Another immediate problem facing the port is channel dredging. The port management has plans to dredge the channel to 14 metres. This measure is necessary because 30 per cent of visiting container ships cannot enter or leave the port fully laden. In its submission, the port said:
- Without the planned increased channel depth, future trade growth and the development of the port will be retarded and there will be higher costs for shipping lines, exporters and importers.<sup>66</sup>
- 3.81 Completion of the task has been delayed because of an active campaign against it by environmentalist groups. An accommodation must be found.

#### **Recommendation 4**

- 3.82 **The Committee recommends that, in the national interest, the Australian Government assist the Port of Melbourne to complete its channel deepening project as soon as possible.**

#### **Geelong**

- 3.83 Geelong is Victoria's largest regional port, handling about 25 per cent of the state's exports; that is, about 12 million tonnes a year. It has 14 commercial shipping berths, 95 hectares of land, and associated storage and processing facilities. Export cargoes are mainly bulk and break-bulk products: petroleum products, bulk and bagged grain, woodchips, steel, logs and ingots. Imports are:

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65 Port of Melbourne Corporation, Submission 67, pp.3-4.

66 Port of Melbourne Corporation, Submission 67, p.5.

petroleum products, chemicals, fertiliser raw materials, alumina and steel. The port had a business turnover of \$1.3 billion in 2004-05, with flow on benefits to the region of \$762 million.<sup>67</sup>

- 3.84 Toll Geelong Port commented that Geelong's road and rail connections are generally good – but it noted that there is an opportunity to improve them. Toll suggested that this opportunity will arise with the construction of the proposed Geelong By-pass Freeway and the re-routing of the Melbourne-Adelaide standard gauge rail line through North Geelong.<sup>68</sup>
- 3.85 Toll said that if two projects, in particular, were constructed, "...the port operations in Geelong could be improved substantially":
- a grade separation access road to the Geelong By-pass; and
  - a dual gauge rail spur to connect the Lascelles Wharf terminal to the main rail networks.<sup>69</sup>
- 3.86 These new infrastructure facilities would assist Geelong to cope with expected increases in the movement of: fertiliser, wood chips, logs, steel and various break-bulk commodities. Under present conditions, additional shipments of those products would be moved by road through both residential and commercial areas.<sup>70</sup>
- 3.87 The Lascelles Terminal moves over 1 million tonnes of dry bulk products a year. At present, it has no rail connection to service its extensive wharf storage, handling and ship berthing facilities. The proposed new infrastructure would enable the direct railing of products between the port and the main freight rail system.<sup>71</sup>

## Portland

- 3.88 Portland lies between Melbourne/Geelong to the east and Adelaide to the west. The cargo passing through the port is mainly bulk products, particularly grain. It has no container handling infrastructure.<sup>72</sup>

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67 Toll Geelong Port, Submission 113, p.1 and Port of Geelong Economic Impact Study 2005, [http://www.tollports.com.au/downloads/studies/EIS\\_2005.pdf](http://www.tollports.com.au/downloads/studies/EIS_2005.pdf), p.1, accessed 10 April 2007.

68 Toll Geelong Port, Submission 113, p.1.

69 Toll Geelong Port, Submission 113, p.1.

70 Toll Geelong Port, Submission 113, p.2.

71 Toll Geelong Port, Submission 113, p.1.

72 Port of Portland, Submission 107, p.1.

- 3.89 The port offers some advantages over competing grain ports. It is a deep water port with a depth of 13.5 metres at the harbour entrance and 12.8 metres at Berth 1. The following table shows the comparison with other nearby ports:<sup>73</sup>

Table 3.1 Comparison of Port depths

	Maximum Departure Draught
Adelaide (Inner Harbour)	10.4 metres
Melbourne (Appleton Dock)	11.12 metres
Geelong (Graincorp)	11.6 metres
Portland (Berth 1)	12.8 metres

Source: Port of Portland.

- 3.90 Portland handles about 4 million tonnes of cargo a year – 70 per cent exports and 30 per cent imports. The main export cargoes are: woodchips (1,200,000 tonnes), grains (940,000 tonnes), ingots (350,000 tonnes) and logs (250,000 tonnes). Main imports are: alumina (650,000 tonnes), fertiliser (450,000 tonnes) and petroleum (120,000 tonnes).<sup>74</sup>
- 3.91 Grain is the only export commodity delivered to the port by rail (about 800,000 tonnes). An additional 750,000 tonnes of exports are transported by conveyor belt, but the majority (about 2,450,000 tonnes) is delivered by road. This involves around 90,000 truck visits a year, or 290 a day.<sup>75</sup>
- 3.92 The Port Authority considers that the port itself has sufficient capacity for the current workload and also for foreseeable increases.<sup>76</sup> However, there are serious doubts about the capacity of the transport infrastructure servicing the port, to cope with expected growth.
- 3.93 There are a number of developments in the hinterland of Portland that are expected to begin exporting their products in the next two or three years.
- 3.94 Iluka Resources is developing a mineral sands project that is expected to achieve exports of 300,000 tonnes a year. This will all be delivered by road and will involve approximately 6,650 additional

73 Port of Portland, Submission 107, p.2.

74 Port of Portland, Submission 107, p.3.

75 Port of Portland, Submission 107, p.3.

76 Port of Portland, Submission 107, p.1.

truck visits to the port. Similarly, woodchip exports of between 2.3 million tonnes and 3.8 million tonnes are expected by mid-2008. That product will also be delivered by road.<sup>77</sup>

- 3.95 Combining these demands, the Port Authority has estimated that they will involve between 184,800 and 243,500 additional truck visits to the port each year. That equates to 500 to 670 truck visits a day, 365 days a year.<sup>78</sup>
- 3.96 A pulp mill is to be constructed, at a cost of \$1.5 billion, 8 km south of Penola. The output is expected to be about 770,000 tonnes a year. Options being considered for transporting the pulp include: rail to Adelaide or by truck to Portland. Re-establishment of the Heywood to Penola standard gauge rail link would make it possible to rail this cargo to Portland.<sup>79</sup>
- 3.97 In its submission, the Port Authority set out a number of priority projects to enable Portland to cope with its projected cargo growth:
- standardisation of the Victorian regional rail network (particularly the Mildura line) to end Portland's isolation from the eastern rail network;
  - reinstatement of the rail link to Mt Gambier in South Australia;
  - road improvements to accommodate the safe usage of B-doubles; and
  - construction of an overpass at Wellington Road, to separate port and residential traffic (already under consideration by the Victorian Government).<sup>80</sup>

## Queensland

### Brisbane

- 3.98 Brisbane is the second-largest capital city port measured by throughput. Its cargo mix is very diverse – containers, cars, oil, cement and petrol are imported and coal, grain, woodchips and rural commodities are exported. The port invested \$140 million in capital expenditure in 2005 and \$440 million over five years – this,

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77 Port of Portland, Submission 107, p.4.

78 Port of Portland, Submission 107, p.4.

79 Protavia Pty Ltd, <http://penolapulpmill.com.au/overview.html>, accessed 15 June 2007.

80 Port of Portland, Submission 107, pp.2 and 5.



the Port Corporation said, was a greater capital investment than all of the other capital city ports combined.<sup>81</sup>

- 3.99 In financial year 2003-04, the port increased its total tonnage to 25.1 million tonnes. It was the eleventh consecutive year of record growth in its total trade. Imports totalled 14.3 million tonnes and exports 10.8 million tonnes.<sup>82</sup>
- 3.100 Brisbane's container trade is growing faster than in any other Australian port. The Corporation reported growth of 11 per cent a year over the last ten years. The port's share of the east coast container trade is 18 per cent; up from 15 per cent three years ago. In 2003-04, the port recorded growth of 12 per cent in container trade, reaching a record 639,570 TEUs. Present annual throughput of containers is about 750,000. The Queensland Government described Brisbane as "Australia's third busiest container port and ...the fastest growing port in the country".<sup>83</sup>
- 3.101 Brisbane has several important advantages when compared to other capital city ports. The older port facilities are being relocated to Fisherman Islands, to build what amounts to a new port. The site is isolated from housing areas and is not constrained by the urban encroachment faced by other city ports.<sup>84</sup> There are, however, access problems in the port area and on the freight corridors to the port.
- 3.102 At the new site, the port has 1,000 hectares available for development, which, as the Corporation said:
- ...is very large for a port anywhere in the world - 1,000 hectares is a very large piece of real estate.
- The Corporation added:
- I think that puts a little in perspective the fact that we are building a port facility which will not have bottlenecks, which is prepared for the future and has plenty of capacity to grow.<sup>85</sup>
- 3.103 The Port Corporation noted that in addition to its own investment there had been a good level of private investment also:

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81 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.17.

82 Queensland Government, Submission 95, p.14.

83 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.17 and Queensland Government, Submission 95, pp.13-14.

84 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.17.

85 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, pp.16-17.

We have just had Patricks invest over \$100 million in a world-first automated straddle terminal... It is the only one in the world.

The straddle ...picks up a container, moves it around the terminal, takes it up to the crane to put under the ship or on the truck. These were always driven in the past by people; we now have high-tech and these things are robotic.

There are a whole range of other companies investing tens and hundreds of millions of dollars at the port. It is not just our investment that is massive; it is also that of the private sector.<sup>86</sup>

- 3.104 Brisbane also has the great advantage, like other Queensland ports, of being its own planning approval authority:

An important thing about our port is that we are master-planning the port. ...we are developing a greenfields facility and, really importantly, we are our own planning authority. We can approve developments on our land, which is quite unique in the Australian context. ...So if we are looking at getting the job done we do not have to rely on getting council approval or state approval to do it. We have very strong planning controls but...the quality of development is very high. But it is important in developing infrastructure for the future that we can plan our own developments.<sup>87</sup>

- 3.105 The Port of Brisbane, in its submission, commented on the need to look beyond immediate needs for transport infrastructure. It listed, for example, several developments that will progressively affect the capacity of rail connections to the port:

- an expected increase in rail's share of the national freight task:
  - ⇒ as the cost of road transport increases,
  - ⇒ to combat increasing road congestion, and
  - ⇒ to service new and expanded intermodal terminals at Ipswich and Acacia Ridge;
- urban development pressure on, and around, existing corridors; and
- significant increases in coal tonnages through the port.<sup>88</sup>

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86 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.18.

87 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.17.

88 Port of Brisbane Corporation, Submission 52, p.3.

3.106 The Port Corporation added:

It is clearly recognised that a dedicated, fast and reliable rail freight network is required to link the industry nodes along the Western Corridor (and the hinterland...) and the northern rail network to the Port of Brisbane situated within the Australian Trade Coast ... - one of the fastest growing, integrated industrial trade regions in Australia.<sup>89</sup>

3.107 When asked about the capacity of rail connections to the port, the Corporation commented:

We have rail to the port, which carries bulk cargoes such as coal and grain. Once again, it works quite effectively. About 15 per cent of our containers come in or leave on rail, so it is a good facility. Queensland Rail is making further improvements to the network. The freight network has to come through the passenger network. It has always been a bit of a constraint, but QR has been very effective in improving the amount of rail we can get to the port.

Looking to double coal volumes in the next couple of years, the rail system can handle that as QR is investing enough to make sure that we can continue to grow. We think the rail capacity is adequate for the medium term. In the longer term, some work may be required but in the medium term it is okay.<sup>90</sup>

3.108 The ARTC, however, said it has concerns about the rail access to the port:

At the present time there is a partial standard gauging into the Port of Brisbane. It is a dual gauging framework. It is very difficult to get capacity into the port because it has to fight with capacity on the urban passenger system...

...It jumps from partly standard then to dual gauge. That means that the capacity to get trains through to the Port of Brisbane is significantly constrained by having to fit between urban passenger systems. In the longer term there is a need to look at a single standard gauge connection to the port,

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89 Port of Brisbane Corporation, Submission 52, p.3.

90 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.19.

separating that from the urban system. That is one of the long-term plans.<sup>91</sup>

- 3.109 When asked whether a new corridor would be needed to achieve freight and passenger service separation, the ARTC said:

...In the same corridor. It can fit in the corridor without too much trouble. The issue is getting a consensus between the levels of players about that.

That is, on the eastern seaboard, I think one of the most significant gaps to be resolved over the next decade.<sup>92</sup>

- 3.110 The Queensland Government also called attention to access problems for freight coming from the west of Brisbane:

Rail freight capacity from the west of Brisbane, through the suburban network and thence to the Port of Brisbane is becoming a critical issue. Hence an investigation into a new freight corridor commencing at Ebenezer and extending south-east to link with the standard gauge rail line at Bromelton.<sup>93</sup>

- 3.111 The Brisbane Port Corporation said that generally the road connections to the port are very good, but the condition of the last few kilometres of the road into the port is a serious restriction:

In terms of the road to the port, we have had significant growth in containers, as I mentioned. We are moving the old port out of Hamilton. We have a major facility at Hamilton where we move roughly 180,000 cars through. We are moving that out to the port as well, so the pressure on road is very significant.

We have the potential for an excellent road network, there is no doubt about it. You can now drive from the Port of Brisbane to Gympie... to the bottom of the Toowoomba range and ... to the border without a set of traffic lights. That is quite remarkable. We have the potential for a fantastic road system.

We can get to motorways very easily and in short distances. But the last six kilometres of the road to the port is our biggest constraint. We have access to fantastic motorways

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91 Australian Rail Track Corporation, Transcript, 6 September 2006, Canberra, p.3.

92 Australian Rail Track Corporation, Transcript, 6 September 2006, Canberra, p.3.

93 Queensland Government, Submission 95, p.15.

except for the last six kilometres, which you will see this afternoon. The state has already worked with the federal government in providing stage one of the port motorway. It runs from the Gateway Motorway... The first four kilometres down to the port was completed in December 2002, which had a fantastic influence on the movement of cargo in and out of the port.

...It is just the last six, which is planned for some time in the future. We have seen significant growth [and] as we move the old port from Hamilton to the Port of Brisbane, we are going to see a quite significant increase in traffic. We have potential for a fantastic road except for the last six kilometres, which is a current and future bottleneck. The Port of Brisbane Motorway is part of the AusLink network. Stage one has been done but stage two is still somewhere in the distance.<sup>94</sup>

## Gladstone

- 3.112 Gladstone is operated by the Central Queensland Port Authority, which also has responsibility for Port Alma at Rockhampton. It is Queensland's largest multi-cargo port and one of the world's top five coal export ports. In 2004-05, the port handled 63.1 million tonnes of cargo, of which 43.58 million tonnes was coal.<sup>95</sup>
- 3.113 The port has two coal terminals (R.G.Tanna and Barney Point) and fourteen additional berths. The other main products at Gladstone are: bulk woodchips (until recently), magnesia, grain, calcite, magnesite, cottonseed, bauxite, alumina and aluminium, cement and fly-ash. In 2003-04, a record 9.6 million tonnes of bauxite was brought to Gladstone from Weipa.<sup>96</sup>
- 3.114 The Queensland Government described the Gladstone region as "Queensland's heavy industry hub." It said the area is:
- ...experiencing rapid and significant growth, drawing many billions of dollars of investment into the region. This area is poised to experience more job creation than anywhere else in Australia.

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94 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.19.

95 Queensland Government, Department of Natural Resources and Mines, *Queensland's Ports*, October 2005, p.8.

96 Queensland Government, Department of Natural Resources and Mines, *Queensland's Ports*, October 2005, p.8 and Queensland Government, Submission 95, p.21.

The population in the coastal sub-region is expected to grow from just over 64,000 in 2002, to an estimated 105-106,000 in 2026.<sup>97</sup>

- 3.115 Expansion of the coal export facilities in Gladstone has been approved and is already under construction, with work having commenced on the new Wiggins Island facility. The planned expansion will increase the capacity of the R.G.Tanna terminal from 47 million tonnes in late 2005, to 68 million tonnes by mid-2007. An increase of 2 million tonnes at Barney Point will raise the total coal capacity for the port to 75 million tonnes by mid-2007.
- 3.116 A transport corridor has been secured to allow for road, rail, pipeline and conveyor access from the port to the industrial land held by the Department of State Development. Planning is already under way for a world class aluminium smelter on that site.<sup>98</sup>
- 3.117 The Gladstone City Council said that there is a need for Kirkwood Road to be extended to provide a by-pass route for heavy traffic coming to the port and its northern industry precincts from the south.
- 3.118 The Callemondah Overpass, a \$6 million Australian/State Government initiative, straddling three major rail lines and linking Kirkwood Road to these port and industrial areas, was completed in 2006.
- 3.119 Stage 1 of Kirkwood Road itself is currently being completed by the Gladstone City Council, while Australian Government funding of \$12.75 million for Stage 2 was announced in the 2007 Budget. The more challenging \$18.75 million Stage 3, will be required in the short to medium-term. The land corridor for this extension has already been secured and protected. Construction and operation of the Comalco alumina refinery north of Gladstone has made this project an essential one.<sup>99</sup>
- 3.120 The second important piece of infrastructure for Gladstone is completion of the port access road. Stage 1 of the road is already in operation. When the road is complete, it will remove heavy vehicles from urban and residential streets and have them largely by-passing

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97 Queensland Government, Submission 95, p.20.

98 Queensland Government, Submission 95, p.22.

99 Gladstone City Council, Submission 120, p.3.

the city. The north coast rail corridor through the city is a logical and practical route for this road.<sup>100</sup>

- 3.121 The City Council also noted that there are opportunities to divert current road traffic onto the north coast rail line. About 10,000 tonnes a year of magnesite is being moved by truck from a mine located close to the rail route. Similarly, large quantities of limestone are trucked from Tarcoola to three plants that are all located near existing rail lines.<sup>101</sup>

### Mackay

- 3.122 The Port of Mackay is a breakwater harbour, north of the city. Its main cargoes are: sugar (for export) and petroleum, bulk fertilisers and magnetite (imports). The Queensland Government described the port as "...the most volatile of all Queensland ports in terms of trade volume", because of its heavy reliance on sugar and grain exports.<sup>102</sup>
- 3.123 Throughput of 1.926 million tonnes was down on 2003-04, a fall of 3.5 per cent. The decline was due to a sharp fall of 11.8 per cent in exports to 1.177 million tonnes. This was offset, however, by an increase in imports of 13.4 per cent, to 749,302 tonnes. The main cause was an increase of 41,000 tonnes (8.4 per cent) in petroleum products imports, spurred by demand from the Bowen Basin mineral sites. Magnetite imports almost doubled to 87,000 tonnes.<sup>103</sup>
- 3.124 Although Mackay's infrastructure is considered adequate for the foreseeable future, there are community concerns about heavy vehicle traffic to the port sharing a corridor that is handling increasing passenger traffic. This has led to consideration of a new road corridor to the port.<sup>104</sup>
- 3.125 About 38 kilometres south of Mackay is the port of Hay Point. It has two separate coal export terminals and is one of the world's largest coal ports. The Dalrymple Bay Coal Terminal (DBCT) exported 50.25 million tonnes, and Hay Point 35.31 million tonnes, in 2004-05.<sup>105</sup>

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100 Gladstone City Council, Submission 120, p.5.

101 Gladstone City Council, Submission 120, pp.6-7.

102 Queensland Government, Submission 95, pp.25-6.

103 Queensland Government, Submission 95, p.25.

104 Queensland Government, Submission 95, p.26.

105 Queensland Government, Department of Natural Resources and Mines, *Queensland's Ports*, October 2005, p.12.

- 3.126 A plan has been developed to expand the capacity of both terminals. DBCT will be expanded to 80-85 million tonnes a year – 68 million by mid-2007 and 80 million in 2008-09. Similarly for Hay Point, its capacity will be increased from 35 million tonnes a year to 44 million by mid-2007.<sup>106</sup>
- 3.127 A build up of ships queued off the coast awaiting shipments of coal from DBCT and Hay Point, was one of the key factors leading to this inquiry. In recent months, that situation has arisen again and the question is being asked: Can the coal chain handle the planned increases in output?
- 3.128 Queensland Rail is undertaking a number of improvements to the rail network that should improve the situation by the end of 2007. A third rail loop has been added at the DBCT, duplication of the track is underway in several locations and two new passing loops will be available before the end of the year.<sup>107</sup>
- 3.129 The Committee was disappointed when it sought an explanation for the current delays at Dalrymple Bay that the operator felt unable to comment; given that a similar problem there in 2005, was one of the triggers for this inquiry.

### **Bundaberg**

- 3.130 The Port of Bundaberg, about 300 km north of Brisbane, is expecting strong growth in its cargo throughput. It currently handles 450,000 to 500,000 tonnes of raw sugar a year. That equates to 7,500 to 12,500 B-double and semi-trailer movements in the port and accounts for over 95 per cent of total throughput.<sup>108</sup>
- 3.131 The port is 19.3 km downstream from Bundaberg and 4.8 km from the mouth of the Burnett River. It has an 11 km channel and, with a depth of 9.5 metres, is designed for vessels up to 200 metres long and 32 metres beam. A vessel of that size (Handymax) will carry about 50,000 tonnes of cargo. There are two main wharves; one for

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106 Queensland Government, Department of Natural Resources and Mines, *Queensland's Ports*, October 2005, pp.12-13.

107 Queensland Rail, *Coal Rail Infrastructure Master Plan, 2007 series – Session 2*, February 2007, pp.6-10.

108 Queensland Government, Department of Natural Resources and Mines, *Queensland Ports*, October 2005, p.19.



bulk sugar and general cargo and the other for bulk shipments of molasses.<sup>109</sup>

- 3.132 At present, road access to the port is a single-lane arterial road running north to south. A by-pass, the Southern Ring Road, planned by the Queensland Government to give traffic from the south clear access to the port, has commenced construction. The problem being faced is that some predictions suggest that by 2013-14, over 50,000 B-doubles and semi-trailers will use that single road each year.<sup>110</sup>
- 3.133 The expectation is that three other export products will add significantly to the pressures on the transport infrastructure leading to the port:
- industrial minerals from 110,000 tonnes a year (approximately 1,850 B-double trips) in about 2007-08, to 500,000 tonnes (8,500 B-doubles) five years later;
  - woodchips – 50,000 tonnes a year in about 2009 (1,400 B-double trips) to 400,000 tonnes (about 10,000 B-doubles) after four years; and
  - stockfeed – 100,000 tonnes (2,850 B-doubles) expected about 2007-08 to 250,000 tonnes (7,150 B-doubles) after three years.<sup>111</sup>
- 3.134 The Port Authority also expects growing pressure, on a smaller scale, from other products:
- cement and building products – 25,000 tonnes a year in 2005-06, to 40,000 tonnes in 2010-11, doubling heavy vehicle movements from 1,000 to 2,000;
  - molasses – on average 4,750 B-double movements a year;
  - fuel – imports through Bundaberg are expected to recommence soon. Imports are expected to total 120 to 150,000 tonnes a year, that is about 2,200 heavy vehicle movements; and
  - other petroleum products – projections show a possible market of 50,000 tonnes by the end of 2010-11 (about 10,000 heavy vehicle movements).<sup>112</sup>
- 3.135 The Port Authority indicated that the port had only a partial, and undeveloped, rail link on the Bunda line, which it said is

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109 Queensland Government, Submission 95, p.18 and Bundaberg Port Authority, Submission 37, p.4.

110 Bundaberg Port Authority, Submission 37, p.3.

111 Bundaberg Port Authority, Submission 37, p.3.

112 Bundaberg Port Authority, Submission 37, p.3.

unsatisfactory. It noted that a joint Rail Access Study with the Queensland Government was investigating alternative rail links.<sup>113</sup>

- 3.136 The Queensland Government did not agree with those assessments. In commenting on the difficulties imposed by the seasonal nature of Bundaberg's cargoes, it said:

Prospects for new trades such as sand and woodchip, are constantly being investigated, however, none of these initiatives is likely to require the provision of additional major infrastructure at the port or require rail access to the port.<sup>114</sup>

The Committee, however, did not accept the Government's comment. It considers that there is a good possibility that some of the projects listed will be using the port, and new transport infrastructure will become necessary.

- 3.137 The Queensland Government did acknowledge that some work would be needed on road connections in the area:

Road upgrades, however, will likely be required in the short term for reasons other than port related freight. A growing beverage and small crop industry is impacting traffic in the CBD as is the seasonal movement of sugar cane from farm to mill. Some of the cane railway network has become redundant with the closure of the Fairymead Mill forcing cane onto the road network.<sup>115</sup>

- 3.138 The Government did acknowledge that:

Rail freight is limited in its capacity to take up the additional demand due to noise constraints associated with night loading in a largely residential area. This seasonal constraint is threatening the growth of several major local producers with the potential for such firms to relocate closer to Brisbane. This situation is serious for the regional economy as it would add to the significant unemployment problem in the area.

Other factors, such as the impact of the restructure in the sugar industry on road cane haulage, and the development of several new large industries that plan to export their product through the Port of Bundaberg, have begun to place pressure

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113 Bundaberg Port Authority, Submission 37, p.4.

114 Queensland Government, Submission 95, p.18.

115 Queensland Government, Submission 95, p.18.

on the city's road transit routes. The need to bring forward the proposed Bundaberg By-pass Road has become evident.<sup>116</sup>

- 3.139 In its submission, the Port Authority looked beyond the present circumstances and considered that "...improvement and integration of the road, rail and shipping network would significantly leverage development in the ...region."<sup>117</sup>

### Townsville

- 3.140 Like Mackay, Townsville is a breakwater harbour. It is located at the mouth of Ross Creek, near the city centre. It is Queensland's third largest industrial port and offers nine berths.<sup>118</sup>
- 3.141 Townsville is one of the world's leading base metal export ports and is Australia's largest export port for sugar and molasses. It has about \$3.5 billion in exports each year; about 12 per cent of Queensland's total exports.<sup>119</sup>
- 3.142 In 2003-04, total throughput reached 10.1 million tonnes, the seventeenth consecutive record year. Imports increased by 3.2 per cent and exports by 4.1 per cent, an overall rise of 3.6 per cent or 176,406 tonnes.<sup>120</sup>
- 3.143 By 2006, the throughput had fallen a little to 9.93 million tonnes, reflecting declines in imports of nickel ore and exports of sugar and molasses.<sup>121</sup>
- 3.144 The port is expecting strong growth over the next few years. Preliminary assessments indicate that throughput could increase from about 10 million tonnes to 32 million tonnes in the next 15 years.<sup>122</sup>
- 3.145 The Queensland Government indicated that, while Townsville has some access issues at present, they are being solved. It shares Mackay's problem of urban encroachment, with an access road that

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116 Queensland Government, Submission 95, p.19.

117 Bundaberg Port Authority, Submission 37, p.2.

118 Queensland Government, Submission 95, p.27.

119 Townsville Port Authority, <http://www.townsville-port.com.au>, Brochures and Publications – General Information, accessed 15 May 2007.

120 Queensland Government, Submission 95, Attachment - Trade Statistics for Queensland Ports, p.13.

121 Townsville Port Authority, Summary of Activities, <http://www.townsville-port.com.au/statistics.php>, accessed 15 May 2007.

122 Townsville Port Authority, Our Future, <http://www.townsville-port.com.au/content/view/156/143/>, accessed 15 May 2007.

runs through residential areas. Road access will be improved by the planned Townsville Port Access Gateway Project, which will provide a new road from the Pacific Highway to the port. Congestion in the port itself will also be relieved by the construction of a new berth for cruise and naval vessels, taking pressure off the trading berths.<sup>123</sup>

### Cairns

- 3.146 Cairns has a multi-purpose regional seaport, located in the sheltered natural harbour of Trinity Inlet. Major cargoes are sugar, molasses, petroleum and fertiliser.<sup>124</sup>
- 3.147 Total trade in 2003-04 was 1.164 million tonnes, down 2.3 per cent on the previous year. The main reason for the decline was a 19.4 per cent fall in sugar exports, brought about by bad seasonal conditions and low world prices. Sugar exports were 281,158 tonnes and total exports were just over 513,000 tonnes. Total imports rose 7 per cent to 650,975, because of strong petroleum imports.<sup>125</sup>
- 3.148 The Queensland Government said that with falling sugar volumes, calls for better road access to the port have died away. Similarly, rail volumes are small and there is little demand for a better rail/port interface.<sup>126</sup>

### Weipa

- 3.149 Situated on the Embly River on the west coast of Cape York Peninsula. The main cargo is bauxite, exported by Comalco. Most of the bauxite (70 per cent) goes to QAL in Gladstone. The remainder is shipped to Italy and Korea.<sup>127</sup>
- 3.150 In 2004, the port reached a record level of bauxite exports – 13.6 million tonnes. There was also an increase of 80.51 per cent in general cargo and 64,000 tonnes of petroleum. Allied to the bauxite trade, these results produced a record total throughput of 13.75 million tonnes.<sup>128</sup>

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123 Queensland Government, Submission 95, p.28.

124 Queensland Government, Submission 95, p.31.

125 Queensland Government, Submission 95, p.31.

126 Queensland Government, Submission 95, p.32.

127 Queensland Government, Submission 95, Attachment – Trade Statistics for Queensland Ports, p.27.

128 Queensland Government, Submission 95, Attachment – Trade Statistics for Queensland Ports, p.27.

## Western Australia

### Fremantle

- 3.151 The Port of Fremantle consists of two sections – the Inner Harbour, at the mouth of the Swan River, and the Outer Harbour, 20 km south on Cockburn Sound. The Inner Harbour provides modern deepwater facilities for containers, break-bulk cargoes, livestock exports and motor vehicle imports. The Outer Harbour is a bulk cargo port, handling grain, petroleum, liquid petroleum gas, alumina, mineral sands, fertilisers, and similar bulk products. Both sections are connected to the interstate and intrastate rail networks.<sup>129</sup>
- 3.152 Fremantle exports about 27 per cent of Australia’s wheat exports, and about 19 per cent of alumina exports. In 2004-05, the port handled 25.5 million tonnes of cargo. The container trade has been growing steadily for 15 years, with an annual average growth rate of 10 per cent.<sup>130</sup>
- 3.153 The port has undertaken extensive capital works projects to improve the efficiency of Fremantle Ports. The Port Authority reported that it had constructed a new rail loop and terminal at North Quay, for the Inner Harbour container trade, at a cost of \$32 million. Other projects included: infrastructure at the Kwinana Bulk Terminal (\$31.8 million), Victoria Quay road and rail alignment (\$5.7 million) and upgrading port security (\$2.1 million).<sup>131</sup> Fremantle Ports told the Committee that this constitutes its “...biggest infrastructure agenda ...for decades”.<sup>132</sup>
- 3.154 A new bulk loader, installed in 2005, has “...lifted bulk handling capacity ...and improved berth availability”. Fremantle Ports, in anticipation of expected expansion of the HIs melt pig-iron plant, is planning to redevelop Kwinana Bulk Berth 1, which is currently unused.<sup>133</sup>
- 3.155 Fremantle Ports is already planning for a number of new container and general cargo berths in the Outer Harbour. The new facilities, and their associated rail and road connections, should be required

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129 Fremantle Ports, Submission 153, p.1.

130 Fremantle Ports, Submission 153, pp.1-2.

131 Fremantle Ports, Submission 153, p.1.

132 Fremantle Ports, Transcript, 10 March 2006, Perth, p.33.

133 Fremantle Ports, Transcript, 10 March 2006, Perth, p.33.

by about 2017, to take the overflow when the Inner Harbour reaches its capacity. The two harbours, operating together, would then have the capacity to handle the anticipated trade levels for the foreseeable future.<sup>134</sup>

- 3.156 Over a number of major inquiries, the Committee has been enormously impressed by Fremantle Ports and feels that it should press on with its planned efficiencies and expansion plans.

### Geraldton

- 3.157 The Port of Geraldton is also expecting rapid growth based mainly on iron ore exports. In 2005-06, the port's total throughput was 5.5 million tonnes; for 2006-07, a total of 7.5 million is expected. A \$35 million development project currently under way at Berth 5, will allow for a further 10 million tonnes by the third quarter of 2007.<sup>135</sup> A recent Media Statement by the WA Minister for Planning and Infrastructure, confirmed that shipments from the upgraded Berth 5 would begin in 2007.<sup>136</sup>
- 3.158 The port has a depth of 12.8 metres, which allows partial loading of Panamax vessels, to about 63,000 tonnes. Typical loads at present are from 45 to 60,000 tonnes on Handymax or smaller Panamax vessels. To cope with a fully laden Panamax, the Port Authority estimates that at least another metre of draught is needed.<sup>137</sup>
- 3.159 The port representatives indicated that it is unlikely that further dredging will be undertaken. There are environmental constraints and dredging is very costly because the seabed is considered the hardest limestone in the world. Consequently, the long-term plan is for the development of another deep-water port at Oakagee, 23 km from Geraldton.<sup>138</sup>
- 3.160 The WA Government has approved the development of the new port.<sup>139</sup> It will be capable of handling Cape size vessels, which can

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134 Fremantle Ports, Transcript, 10 March 2006, Perth, pp.33-34.

135 Geraldton Port Authority, Transcript 6 March 2006, Geraldton, pp.22-24.

136 Alannah MacTiernan MLA, Minister for Planning and Infrastructure, *Geraldton Port's New Iron Ore Berth Upgrade Under Way*, Media Statement, 31 January 2007, p.1.

137 Geraldton Port Authority, Transcript, 6 March 2006, Geraldton, pp.23-24.

138 Geraldton Port Authority, Transcript, 6 March 2006, Geraldton, pp.23-24, and Submission 145, p.12.

139 Alan Carpenter MLA, Premier of Western Australia, *Oakagee Confirmed as Preferred Port Site*, Media Statement, 19 April 2006, p.1.

load three times the weight of cargo that Panamax vessels can take from Geraldton.

## Bunbury

3.161 Bunbury's total annual trade throughput is about 12.2 million tonnes; 8 to 8.5 million tonnes of that is alumina. Total value of trade is \$5.9 billion, with alumina making up just over \$5 billion. About 80 per cent of the total comes to the port by rail, but the Port Authority commented:

We have a couple of large producers who rail freight into the port, but we certainly have many other customers who rely heavily on road to get their product into the port.<sup>140</sup>

3.162 Like the other ports in WA, Bunbury is expecting its throughput to grow rapidly in the next twenty years. As an example of its expectations, the Port Authority explained that the plans of just two exporters could see Bunbury handling considerably more freight than it does now.<sup>141</sup>

3.163 The Authority explained that Alcoa and Worsley had shared alumina shipping facilities for more than twenty-five years, but Worsley has now commissioned a new private berth. The company plans to increase alumina output from 3.3 to 3.7 million tonnes and, by 2010-11, increase it again to 4 million tonnes. Adding in their imports of caustic soda, their total trade would then be 4.5 million tonnes.<sup>142</sup>

3.164 Similarly, Alcoa is planning an expansion of output from 2.4 to 4.7 million tonnes a year. The two companies together would therefore be moving 7.5 to 8 million tonnes a year by 2010-11.<sup>143</sup>

3.165 The Port Authority listed several other potential sources of additional trade. Two coal producers have plans to move 5 to 10 million tonnes a year through Bunbury. Other potential products include: bio-diesel and bio-ethanol, copper concentrates, pig-iron, iron oxides and timber products.<sup>144</sup> The South West Development

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140 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, pp.1-2.

141 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.2.

142 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.2.

143 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.2.

144 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.2.

Commission estimated that, at peak production, woodchips would reach 1.5 million tonnes a year.<sup>145</sup>

3.166 The present depth in the port is insufficient to efficiently deal with the expected export volumes, particularly the bulk products. Currently the draught is 12.2 metres, which allows partial loading of Panamax vessels to about 60 to 65,000 tonnes. Even then, they sometimes have to wait for full tide to get safely out of the harbour.<sup>146</sup>

3.167 The Port Authority is investigating deepening the harbour and the channel to 15 metres, which would be especially useful to the alumina, coal and mineral sands exporters. The extra depth would allow for fully loading Panamax vessels to 75 or 80,000 tonnes. The expected cost of this project is over \$200 million, a sum that would include a new ship loader. The Port Authority commented:

The alumina guys in particular regularly say, "We want maximum draught." Certainly, the coal exporters hold out increased draught as a significant factor for themselves.<sup>147</sup>

3.168 Bunbury faces several access problems that will worsen as the level of trade grows. The Port Authority nominated the Bunbury outer ring-road, and linking the port access road to it, as significant infrastructure requirements for Bunbury. The expansion and deepening of the port and the channel is, as already indicated, a high priority. Increased use of rail to the port is likely to have a heavy impact on traffic congestion on Estuary Road and that is a problem that will have to be addressed.<sup>148</sup>

3.169 The proposed ring road would enable heavy transport vehicles approaching the port to be channelled onto a dedicated freight road. This would divert them around residential areas and avoid mixing trucks with local traffic. It would avoid the present situation where all the heavy traffic has to pass around the Eelup roundabout and then face a right-hand turn against a main feeder road to the city:<sup>149</sup>

Currently when we have a confluence of trucks that arrive at the Eelup roundabout in Bunbury it becomes a very visible issue in the community's minds. They see the number of

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145 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.14.

146 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, pp.2 and 5.

147 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, pp.2 and 5.

148 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.3.

149 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, pp.4-5 and 12.



trucks. There is a perception of risk, a perception of danger, and that escalates peoples' perceptions of freight as an industry in our region. Our approach to that has got to be: how can we get traffic in and out of the port and how we can get product in and out of the port in a way that is less visible to the community through dedicated freight routes? The Bunbury Port Authority provided information in relation to the port access route - that is one option - and the potential for an outer ring-road around Bunbury complements that option.

Looking at road to rail options is another way to proceed. For our region and for the size of our region, we need to balance those investments in a way that we can manage the conflict between freight industry and community amenity as opposed to thinking purely in economic terms about the rate of return on a particular freight issue.<sup>150</sup>

3.170 The Port Authority mentioned two other potential problems, when coal shipments begin. At present there is no coal rail siding or loop in the port and, because of the potential for contamination, it cannot use the same system as the alumina shipments. More immediately, the port has been involved in court proceedings with the woodchip exporters, who are also concerned at the possibility of contamination if their product shares facilities with coal exports. On 10 November 2006, the Port Authority announced that a "workaround solution" had been found that will be implemented before coal shipments are exported.<sup>151</sup>

3.171 Like other ports, Bunbury has the problem of urban encroachment. Responding to a question about public attitudes to the port expansion, the Port Authority said:

...Bunbury shares the same problem with a lot of ports around the country: the city has grown closer to us. Some of the residents were close to start with, but certainly we are seeing residential development come closer and closer to the port. Issues of noise, dust, and operations at night, are concerns for the community. Where we can we put buffers in

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150 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.20.

151 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, pp.4-5 and 12 and Media Release, *Woodchip Settlement Reached*, 10 November 2006.

place. ...The port is pretty much surrounded by residents and that does cause us issues.<sup>152</sup>

- 3.172 The port is not restrained by curfews or restricted access at present, but it restricts the loading of some cargoes to the daytime. For example, scrap metal is not loaded between 10 pm and 7 am. If the wind is in the wrong direction, the alumina companies will suspend loading to avoid causing problems for the community:

Quite a few of the operators have modified their loading and yard practices to try to reduce as far as possible the impact on the community.<sup>153</sup>

### Albany

- 3.173 The Port of Albany is expecting substantial growth in its cargo throughput over the next ten years. From a total of 2.97 million tonnes in 2005, the Port Authority has estimated that total throughput will reach 5 million tonnes by 2014.<sup>154</sup>
- 3.174 In fact, that total could be more than doubled, if the proposed Grange Resources Southdown Magnetite Project proceeds. If it goes ahead, the first shipment should leave in 2009 and the total annual tonnage from the project, delivered to the port by pipeline, would be about 7 million tonnes.<sup>155</sup> A recent announcement by Grange Resources indicated that the project could receive approval by October 2007.<sup>156</sup>
- 3.175 At present, the port mainly handles grain and woodchips, which together make up 98 per cent of throughput. Grain deliveries are equally split between road and rail; while deliveries of woodchips are two thirds by rail and one third by road.
- 3.176 The Port Authority is anticipating about a 25 per cent increase in grain tonnage to 2014, but the quantity of woodchips is expected to double from 1 million tonnes in 2005 to 2 million in 2014. The grain loading facilities at the port have undergone a \$100 million dollar

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152 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.11.

153 Bunbury Port Authority, Transcript, 7 March 2006, Bunbury, p.11.

154 Albany Port Authority, Submission 157, p.1.

155 Albany Port Authority, Submission 157, p.1.

156 Grange Resources Limited, *Southdown Public Review Period Underway*, Media and Stock Exchange Announcement, 22 February 2007.

upgrade, which included ten new storage towers and elevators and accompanying road works.<sup>157</sup>

3.177 The rail infrastructure needs for Albany mainly concern the delivery of bulk cargoes to the port. The Port Authority is planning a grade separated crossing to carry the rail connection over Princess Royal Drive. This will allow longer woodchip trains to be used for port deliveries.<sup>158</sup>

3.178 In addition to the crossing, the Authority indicated that there is a need for an additional rail loop within the port, to avoid trains having to reverse to leave the port after delivery is completed. A similar arrangement at the Mirrambeena Industrial Estate will also be needed as the port traffic increases.<sup>159</sup>

3.179 Other rail construction may be needed if possible coal exports through Albany proceed. The Port Authority commented on the possibility that a coal resource in the South West Region could be exported through Albany:

Were the export of coal through Albany Port to eventuate it is likely that the coal would be transported by rail given the long haul distance and the potentially greater efficiencies that could be achieved by rail in transporting bulk minerals freight great distances.

Given that coal trains are up to 2 kilometres in length there would be a need for stakeholders to make significant modifications to the railway infrastructure within the Port area. It is also likely that it would be necessary to duplicate long lengths of the railway line between Albany and approximately Katanning to transport large quantities of coal economically.<sup>160</sup>

3.180 The main roadwork required is the proposed Albany Ring Road. Construction of the first of the four stages of this project has already commenced. When all stages are completed, heavy vehicles approaching the port will be grade separated from other main roads and will have minimal hindrance.<sup>161</sup>

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157 Albany Port Authority, *Port Talk*, Issue 4, March 2006, p.2.

158 Albany Port Authority, Submission 157, p.1.

159 Albany Port Authority, Submission 157, p.2.

160 Albany Port Authority, Submission 157, p.3.

161 Albany Port Authority, Submission 157, pp.2-3.

## Esperance

- 3.181 The Port of Esperance is growing rapidly. Its throughput of cargo has risen from 750,000 tonnes in 1991, to over 7,200,000 tonnes in 2004. The projection for 2010 is for more than 11,200,000 tonnes.<sup>162</sup>
- 3.182 To cope with the increasing volume of cargo, Esperance needs to remove several choke points. The Port Access Corridor has problem areas where 53.5 metre road trains pass through level crossings. At other times, at the same crossings, traffic has to wait while trains are blocking the road.<sup>163</sup>
- 3.183 Esperance has the advantage of being a deep-water port. In 2003 it was deepened to 19.5 metres, allowing access to Cape-size vessels up to 200,000 tonnes at one berth and fully-loaded Panamax vessels at another.<sup>164</sup>
- 3.184 The main exports through Esperance at present are nickel, iron ore, grain and lead carbonate. It is already the largest export port for nickel concentrates in the Southern Hemisphere.<sup>165</sup>
- 3.185 When BHP-Billiton has its new mine at Ravensthorpe in full operation, the level of nickel exports will increase again. It will also increase import levels as sulphur (500,000 tonnes a year) and magnesium (40,000 tonnes) are brought in for the mine operations. The port is spending \$37 million on infrastructure to handle the cargo from Ravensthorpe.<sup>166</sup>
- 3.186 Iron ore exports from Esperance are also growing strongly. From its commencement in the 1990s, the trade grew to 5.3 million tonnes in 2005. By early 2007, the expectation was that 8 million tonnes a year will be exported.<sup>167</sup> Advice in June 2007 indicated that the target had almost been achieved.

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162 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission - Joint Submission, Submission 27, p.10.

163 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission - Joint Submission, Submission 27, p.12.

164 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.3.

165 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.3.

166 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.4.

167 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.3.

- 3.187 Esperance also handles 2 million tonnes of grain exports and there are other important cargoes, such as:
- lead carbonate, also increasing and expected to reach 20,000 tonnes within two years;<sup>168</sup> and
  - woodchips, an expected 300,000 tonnes of exports a year from 2008.<sup>169</sup>
- 3.188 The main infrastructure needs in Esperance are in the road and rail connections to the port. The main item proposed was a grade separation at the entrance to the port where trucks and trains meet, at an estimated cost of \$8 million. Other important infrastructure needs mentioned were: a realignment of the road near the port entrance costing about \$2 million, and a rail connection from the port to the Shark Lake Industrial Park being developed 14 km from the port. The estimated cost of the rail link was about \$4 million.<sup>170</sup>
- 3.189 The Port Authority also mentioned the need for duplication of 3 km of rail line, from the rail siding into the port. As the throughput of the port increases, the Authority said that there would be difficulty getting the products down a single rail line:

I think that there is a problem arising rapidly but just when it starts is the question.

Iron ore is the big product that comes down that rail and they already have problems getting sufficient iron ore down. Recently we had to close down for a week for maintenance. There are 18 trains a week with 120 wagons on a train. If you lose those trains for that week you never catch up; that is gone forever.

I know that Portland [Mining is] increasing their facility at Koolyanobbing to produce more product and consequently they would like to get it down the line. They have just

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168 A problem with lead contamination from this product is being investigated. *Plan to clean up lead in Esperance*, <http://www.abc.net.au/news/stories/2007/04/28/1908724.htm>, accessed 31 July 2007.

169 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.3.

170 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, pp.6-8.

completed another shed at the port to hold product so that they can get more through.<sup>171</sup>

- 3.190 The port itself has converted a one-way road within the port to two-way, so that trucks will no longer be stopped from moving out of the port when a train is blocking the main access road.<sup>172</sup>

### The Pilbara Ports

- 3.191 The Committee was unable to visit the Pilbara and view first hand the operation of the ports in that region. However, it is aware that the operation of those ports, and their rail connections, is rated as world's best practice.
- 3.192 A submission from Rio Tinto Iron Ore explained that the integrated operation of mine, rail and ports provides many advantages:
- In operational time frames, integrated operation of mine, rail and ports provides flexibility to run additional trains or alter train timetables at short notice to meet shipping and customer requirements. Similarly, risk attributable to breakdowns, accidents or events of force majeure, can be most effectively managed when mine, rail and port operation are integrated.<sup>173</sup>
- 3.193 In addition to the day-to-day operational advantages offered by this situation, Rio Tinto explained that it is an essential part of the iron ore producer's competitive situation in world markets:

...the integration of rail, mine and port facilitates the efficient and timely augmentation of rail and port capacity in step with the development of mine capacity. This provides a strong competitive advantage to the Pilbara iron ore producers in the international iron ore market. Various ...overseas competitors enjoy many advantages, including lower wages and/or higher iron ore content, so efficiencies are important to maintain competitive advantage.<sup>174</sup>

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171 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, pp.14-15.

172 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Transcript, 9 March 2006, Esperance, p.15.

173 Rio Tinto Iron Ore, Submission 154, p.8.

174 Rio Tinto Iron Ore, Submission 154, p.8.

- 3.194 Rio Tinto also attributed the ability of iron ore producers to cope with surges in demand to the tight control allowed by an integrated network:

The ability of the Pilbara iron ore producers to expand rapidly to capture new opportunities has been demonstrated starkly over the last few years since the China-led boom in demand for commodities became apparent.

Capacity expansions totalling 122 Mtpa have been announced ...since 2002, much of which has already been commissioned, resulting in exports increasing from 173 Mt of ore in 2002 to 244 Mt of ore in 2005. Contrast this performance with the response of coal producers dependent on multi-user facilities on the east coast of Australia.<sup>175</sup>

## South Australia

### Adelaide

- 3.195 The Port of Adelaide is South Australia's principal container port. It handles a wide range of liquid, bulk, non-bulk and containerised cargo.<sup>176</sup>
- 3.196 The port consists of an Inner Harbour (handling roll-on, roll-off and bulk cargoes) and an Outer Harbour (with four berths, each equipped for specialised cargo). The container terminal is located in the Outer Harbour and has both road and rail connections to the national network.<sup>177</sup>
- 3.197 The South Australian Government and Flinders Ports have deepened the main channel in the Outer Harbour from 12.2 metres to 14.2 metres. They also lengthened the channel from 9 km to 11.7 km. In addition, the container berth is to be extended by 125 metres, to accommodate the larger ships that are expected to use the port now that the dredging is complete. ABB Grain is also adding to the port facilities with a new terminal, grain conveyor and ship loader.<sup>178</sup>

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175 Rio Tinto Iron Ore, Submission 154, p.8.

176 South Australian Government, Submission 123, p.4.

177 South Australian Government, Submission 123, Appendix 1, pp.A1-2.

178 South Australian Government, Submission 123, p.5 and Flinders Ports, Latest News, <http://www.flindersports.com.au/latestnews1.html>, accessed 15 May 2007.

- 3.198 In fact, on 2 March 2007, Flinders Ports announced the arrival of the biggest container vessel ever to visit Adelaide. The port is now able to handle fully laden Panamax size vessels. It can accommodate a fully laden grain vessel up to 80,000 tonnes or a container vessel drawing 13 metres (plus the tide).<sup>179</sup>
- 3.199 The Port Adelaide Container Terminal, run by Dubai Ports, has excess capacity and the SA Government said:
- ...increased capacity is planned for the port to efficiently handle the larger deeper draught container ships that have started to service Australia. Combined with the deepening of the Outer Harbour channel to service Port Adelaide's container and bulk grain berth, Adelaide will have the capability to assist Victorian exporters and importers who may not be able to access ...larger ships due to channel and congestion constraints through the Port of Melbourne.<sup>180</sup>

#### Other South Australian Ports

- 3.200 South Australia has several other important ports. Port Lincoln is a deepwater port, with 14.7 metres draught. This allows vessels leaving the shallower ports of Victoria and South Australia to use it to "top up" their load. It lies 682 km from Adelaide by road. Grain is the main export product – about 1.05 million tonnes a year; about 45 per cent of the state's grain.<sup>181</sup>
- 3.201 Other important exports are seeds, stockfeed and the main imports are fertiliser and petroleum. In 2004, the port handled a little over 2 million tonnes of cargo.<sup>182</sup>
- 3.202 Thevenard, 793 km west of Adelaide, also handles some grain, but on a smaller scale. The port handled 1.68 million tonnes of cargo in 2004. The main product is gypsum and this made up 1.54 million tonnes of the total. The gypsum is brought by rail from Lake

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179 South Australian Government, Submission 123, p.5 and Flinders Ports, Latest News, <http://www.flindersports.com.au/latestnews1.html>, and <http://www.flindersports.com.au>, both accessed 15 May 2007.

180 South Australian Government, Submission 123, p.5.

181 Eyre Peninsula Local Government Association, Submission 1, p.3 and South Australian Government, Submission 123, Appendix 1, pp.A2-3.

182 South Australian Government, Submission 123, Appendix 1, p.A3.



MacDonnell, 70 km away. Grain shipments totalled 84,000 tonnes and salt 47,000 tonnes.<sup>183</sup>

- 3.203 The deepest draught is only 9.8 metres, which allows for ships carrying about 30,000 tonnes. Consideration is being given to deepening the channel to accept larger vessels.<sup>184</sup>
- 3.204 Port Pirie is 223 km north of Adelaide. The port is relatively shallow, with most berths having 7-8 metres of draught available. Pasmenco operates one of the world's largest smelters at Port Pirie – producing 283,000 tonnes of zinc concentrate and 28,600 tonnes of lead a year for export. The port's other main cargoes are: grains (for export) and imports of mineral concentrates (292,000 tonnes), coal (50,000 tonnes) and ores (132,200 tonnes). In total the port handled 796,000 tonnes of cargo in 2004.<sup>185</sup>
- 3.205 There are a number of smaller ports in South Australia; most of them either handle grain exports (e.g. Port Giles, Wallaroo and Ardrossan) or are special purpose ports (e.g. Whyalla – steel, Klein Point – limestone, and Port Bonython – liquid hydrocarbons).<sup>186</sup>
- 3.206 Harbours on Kangaroo Island are mainly serviced by roll-on, roll-off ferries; although consideration is being given to facilities at Ballast Head to service the blue gum industry.<sup>187</sup>

## Tasmania

### Hobart

- 3.207 On 1 January 2006 the separate port corporations for the Tasmanian ports were amalgamated into the Tasmanian Ports Corporation, or TasPorts. There has also been a major change in the distribution of cargo between the four biggest Tasmanian ports in recent years. Hobart's throughput has dropped significantly. Most cargo now passes through the Northern ports, mainly through Bell Bay, followed by Burnie and Devonport.<sup>188</sup>

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183 Eyre Peninsula Local Government Association, Submission 1, p.4 and South Australian Government, Submission 123, Appendix 1, p.A3.

184 Eyre Peninsula Local Government Association, Submission 1, p.4.

185 South Australian Government, Submission 123, Appendix 1, p.A5.

186 South Australian Government, Submission 123, Appendix 1, pp.A5-8.

187 South Australian Government, Submission 123, Appendix 1, pp.A5-8.

188 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, pp.1-2.

- 3.208 TasPorts commented that the change had occurred as fuel prices and other costs rose. Shipping companies were no longer prepared to deviate so far south of the main shipping lanes, and most cargo is moved north or south by rail or road, to be loaded or unloaded in one of the three northern ports:

What we are seeing...is the cargo throughput in Hobart slowing down significantly. It is all going through the north of the state, largely through Burnie, Devonport and Bell Bay. Bell Bay was taking a lion's share. ...we are now sitting with Bell Bay as the major port in terms of tonnage, followed by Burnie and then Devonport.<sup>189</sup>

- 3.209 TasPorts said that visits to Hobart by cargo vessels:

...are only casual. They are basically going to Risdon, which is bulk, and Self's Point, which is bringing fuel into the state. The remainder in the city centre is pretty minor commodities and cruise vessels and that sort of thing. As a cargo port, the city centre of Hobart is really not doing terribly much at all. So all that cargo is coming north...<sup>190</sup>

- 3.210 In 2005-06, Bell Bay had 5 million tonnes of cargo, Burnie 4 million, Devonport 3 million and Hobart 2.5 million.<sup>191</sup>

### **Bell Bay**

- 3.211 Bell Bay, near Launceston, has experienced remarkably rapid growth in recent years. The Port Authority reported, in mid-2005, that the previous four years had produced an average increase of 40 per cent in container traffic, and 22 per cent in overall tonnage through the port.<sup>192</sup>
- 3.212 The port has undertaken several improvements to infrastructure to cope with this traffic growth. For example, bulk cargoes have been relocated away from the immediate port area, additional storage capacity for containers has been added, and receipt and delivery arrangements for truck cargoes improved. All of these changes have been self-funded by the port.<sup>193</sup>

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189 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.2.

190 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.2.

191 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.3.

192 Port of Launceston, Submission 8, p.1.

193 Port of Launceston, Submission 8, p.1.

- 3.213 Even with those changes in place, growth has been so rapid, that there is still no space for additional expansion of throughput. Consequently, the port and State authorities are planning the reclamation of 6 hectares of foreshore land to provide for medium term expansion. Fortunately, the port is on an industrial estate and does not have the problem of urban encroachment.<sup>194</sup>
- 3.214 The port has a draught of 11.5 metres available and can accept Panamax vessels. The largest ship visiting at present is 245 meters in length but the Authority commented that the port could manage a ship of 265 metres, carrying a load of 3,000 to 3,500 containers.<sup>195</sup>
- 3.215 Bell Bay does not have dredging problems; the Authority said that it stays clear with the normal movement of the current. Devonport and Burnie, however, both require dredging.<sup>196</sup>
- 3.216 The problems for Bell Bay, involve the rail and road connections. The Port Authority said:
- For over four years the port has tried to secure an upgrade of a council road (currently limited to 5 tonnes capacity) which will provide a second port access and reduce traffic congestion within the port area.
- Equally, a second rail access is required to provide greater efficiencies for cargo handling activities and improve the level of safety throughout the port area. A submission for funding has been made under the Regional Partnerships process.<sup>197</sup>
- 3.217 Anticipating that its cargo expansion will continue, the Port Authority commented:
- ...unless the port is supported by improved road and rail access to allow cargo to be moved more effectively, efficien[cy] gains made by the port will be lost.
- We are currently experiencing difficulties with rail operations in cargo handling areas where inefficient movement of containers creates lost time. An inability to meet schedules ...ultimately comes at a cost. An additional rail access to the port will resolve most of these issues.<sup>198</sup>

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194 Port of Launceston, Submission 8, p.1.

195 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.3.

196 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.3.

197 Port of Launceston, Submission 8, p.1.

198 Port of Launceston, Submission 8, pp.1-2.

- 3.218 Pacific National also referred to difficulties with the rail connection to Bell Bay, and within the port itself:

The only rail loading facilities at Bell Bay are located on the wharf area. This area is congested and parts of it are not accessible while ships are being unloaded.

The Bell Bay rail facilities have evolved with the port. The yard layout is poor. Connection to the rail network is also sub-optimal; the gradient leading out of the port is very steep and limits the weight of trains that can be hauled from the port.

An alternative access has been designed that would rectify this and improve yard layout. Funding has been [sought] under the DOTARS Regional Partnerships Scheme to construct this access (\$3.5M).<sup>199</sup>

- 3.219 TasPorts explained that the problem with rail access to Bell Bay, does have a ready solution:

There is one rail access. It is a very steep access. In fact, I understand that the entrance there is one of the steepest gradients in Tasmania on the rail network. ...they come in through the main entrance and then have to shunt to one end of the port. Bell Bay is a very long coastal strip so they have to shunt to one end of the port and then shunt all the way back to the other end.

The solution is to have another entrance from the main line at the western end ... so that you can come in from both ends. That would save additional shunting and save crossing three roads, delaying traffic and causing safety issues as well.<sup>200</sup>

## Devonport

- 3.220 In Devonport, the port is split by the Mersey River. On the western side, serviced by the rail line, are Cement Australia and the general cargo berths. TasPorts considered that area underutilised. The eastern side of the river has no rail access at all. The Toll container terminal, which handles the container trade to Melbourne, and the TT-line terminal, are both effectively isolated from rail access. The

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199 Pacific National Tasmania, Submission 7, p.6.

200 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.4.

need for a rail crossing of the river is the main access problem faced by Devonport.<sup>201</sup>

## Burnie

3.221 Burnie has a similar problem to Bell Bay, although it is not as difficult. There the train:

...cannot come straight off the main line and get straight into that terminal; it has to shunt over in a westerly direction and then back back into the terminal again, so it is slowing up there. They have to split the train in the terminal. There are various lines there. It is a bit inefficient, but it is probably better catered for than the other ports.<sup>202</sup>

## Northern Territory

### Darwin

3.222 About 10-15 years ago the NT Government made the strategic decision to develop a new port infrastructure on a greenfield site at East Arm. The Darwin Port Corporation noted that, although the new area has only limited infrastructure, the move has enabled the port to avoid the problems of urban encroachment.<sup>203</sup>

3.223 The development has been programmed in stages. With the completion of Stage 1 in 2000, the transfer of facilities from the city began. The construction of the Adelaide-Darwin railway prompted Stage 2, which involved a \$100 million investment in port infrastructure. The Port Corporation said:

That was primarily to provide rail access into the port and a four-hectare container terminal. All up there is about \$200 million worth of basic port infrastructure being established at East Arm with the idea of it being the foundation for further development of the port facility.<sup>204</sup>

3.224 In 2000, Darwin handled about 1 million tonnes of cargo; in 2004 about 1.7 million. Some of that increase came from projects related

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201 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, p.5.

202 Tasmanian Ports Corporation, Transcript, 9 August 2006, Canberra, pp.5-6.

203 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.2.

204 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, pp.2-3.

to the oil and gas industry and development of the LNG plant at Wickham Point. The LNG plant will have an initial capacity of 3 million tonnes a year and could be expanded to 10 million tonnes a year.<sup>205</sup>

- 3.225 The Port Corporation outlined some of the areas of expected growth. An industrial fuel terminal is being established as a collection and distribution point for all the oil companies. A three kilometre pipeline connects the wharf to the new terminal. There will also be a palm oil processing plant; importing and processing about 130,000 tonnes in Stage 1 and producing a green diesel product. There is potential for fuel imports from Singapore, for distribution to the south by rail.<sup>206</sup>
- 3.226 The port is investing \$20 million to provide handling equipment for dry bulk cargoes. Manganese ore will be exported through Darwin, at an initial rate of 600,000 tonnes a year. The port is also expecting iron ore exports; initially 1 million tonnes a year. Provision is being made for possible increases in Uranium exports.<sup>207</sup>
- 3.227 The container terminal has the capacity to handle 250,000 TEUs a year and has a direct rail connection over a causeway. The port has a further 18 hectares of space available for reclamation to permit future development.<sup>208</sup>
- 3.228 Overall, the port anticipates that by 2010, its throughput will have increased from less than 2 million tonnes, to 10 million tonnes.<sup>209</sup>
- 3.229 The port can handle Panamax size vessels and third generation container vessels. Part of the main berth is dredged to 13 metres and the remainder to 14 metres. Darwin has a tidal range of 8 metres; the minimum clearance at low tide is 12.2 metres.<sup>210</sup> The Port Corporation said that the tidal range is used to advantage:

The port is designed for 100,000 tonne vessels – East Arm that is. In terms of [draught] restrictions, the shallowest depth on entry to the port is 12.2 metres at the mouth of the harbour.

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205 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, pp.3-4.

206 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.3.

207 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.4.

208 Darwin Port Corporation, [http://www.nt.gov.au/dpa/port\\_darwin/port\\_eastarm.html](http://www.nt.gov.au/dpa/port_darwin/port_eastarm.html), accessed 24 April 2007.

209 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.4.

210 Darwin Port Corporation, [http://www.nt.gov.au/dpa/port\\_darwin/port\\_eastarm.html](http://www.nt.gov.au/dpa/port_darwin/port_eastarm.html), accessed 24 April 2007 and Transcript, 27 September 2005, Darwin, p.9.

But Darwin is unique in that it has an eight-metre tidal range. So you can quite easily work the vessels. We get quite deep-[draught] ships getting out of Darwin.

We do not do any maintenance dredging here as a regular program... There has been no call for any major capital dredging for the port to date. A classic example of that would be the LNG vessels that we are considering for export out of here early next year. They are 298-metre long vessels and they draw something like nine or 11½ meters on exit. They are not an issue. They will work the tide to move in and out of Darwin.<sup>211</sup>

- 3.230 There is an access problem in the port area, where the rail line crosses the main port access road. Grade separation is needed to avoid impediments to port access by emergency vehicles.<sup>212</sup> The NT Department of Planning and infrastructure said that the project is included in current AusLink funding.<sup>213</sup>
- 3.231 The Committee was also told that there are some serious access issues in the port that are restricting its efficiency and increasing costs for users.<sup>214</sup>
- 3.232 The Australian Trucking Association Northern Territory, said that there are several difficulties with port access:
- businesses in the adjoining Business Park do not have direct access to collect containers. Operators are forced to leave from the front of their premises, drive to the port entrance, enter the port and drive to an area directly behind their premises, collect the container and then retrace their journey. In addition to the obvious waste of time and money, the situation raises other issues. Because part of the journey is on public roads, the container can only be, for example, 20 tonnes. A heavier container would exceed the permitted axle loading for the public road.
  - the weighbridge only weighs vehicles heading in one direction (into the port). Trucks leaving the port, including road trains, must do a u-turn, go through the weighbridge and then do another u-turn to leave the port.

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211 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.6.

212 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.4.

213 NT Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, p.12.

214 Australian Trucking Association Northern Territory, Transcript, 27 September 2005, Darwin, pp.65-66.

- trucks are required to park outside the port, while they wait to collect their load or unload. The problem is, that there is no allocated parking area and it would only take a few trucks to block off the port access. The problem is manageable now, but with the expected growth of the port's throughput, that situation will not last.<sup>215</sup>

## Committee Assessment

- 3.233 As discussed in Chapter 2, the growth in Australia's freight task is imposing severe strains on the freight infrastructure network.
- 3.234 Almost every port participating in this inquiry is facing difficulties handling that growth. As a consequence, each port has at least one infrastructure project considered vital to its ability to cope with expected freight increases.
- 3.235 The Committee believes that the infrastructure projects discussed in this Chapter are so important to that task, that they should be assigned a special priority in funding.
- 3.236 The projects are typically in the cost range of \$70 to \$100 million; a large amount of money, but comparatively small for nationally important infrastructure projects. They all share the characteristic that their completion would make a substantial contribution to the efficiency and/or safety of the transport links to the ports.
- 3.237 The Committee proposes the establishment of a "Critical Port Infrastructure Fund", separate from AusLink, to assist in the construction of these projects as quickly as is feasible. Examples brought to the attention of the Committee during this inquiry are set out below and in the following chapters on Rail and Road infrastructure.
- 3.238 The Committee believes that for the proposed fund to achieve its aims it will need the active co-operation of both COAG and the National Transport Commission. A process will have to be established to manage appropriations from the Australian Government and the States. This could be done by establishing a Commission, for example a Critical Port Infrastructure Commission, to administer the new fund.
- 3.239 The arrangements envisaged would involve representatives of the Australian Government, each State, and appropriate representatives
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215 Australian Trucking Association Northern Territory, Transcript, 27 September 2005, Darwin, pp.65-66.



of the Australian Local Government Association. It would have an established process for identification of the suitable projects, a Secretariat and funding to make purchases.

- 3.240 The Committee noted that dredging is going ahead, or is planned, in several ports. Of those projects, it considers what happens in Melbourne to be the key to port access in this country.
- 3.241 The fact is that if Melbourne is unable to accept the larger container and general cargo vessels now being scheduled, those ships will not come to Australia, regardless of what other ports can handle. If that occurs, it will have serious effects on Australia's export trade.
- 3.242 That would have flow on effects not only on the ports themselves, but for industry, port road access planning, and for rail initiatives, such as the North South Rail Link.
- 3.243 In talking of access, the Committee is not solely confining this to road and rail access, but places considerable emphasis on the matter of channels.

#### Summary of Port Access Issues

- 3.244 These issues are listed in no particular priority order:
- Channel dredging in Melbourne
  - A multi-purpose terminal at Newcastle
  - Dredging the shipping channels at Newcastle
  - The Maldon-Dombarton rail link
  - The removal, or major reduction, of the curfew restrictions at Port Kembla
  - The rail connection to Webb Dock in Melbourne
  - A review of the capacity of Westgate Bridge
  - The Dock Link Road in Melbourne
  - An upgraded rail connection to West Maribyrnong
  - The Geelong By-pass
  - Re-routing of the main standard gauge line through North Geelong
  - A rail connection for the Lascelles Terminal at Geelong
  - Standardisation of the rail line to Mildura
  - Re-instatement of the standard gauge link between Mt Gambier and Portland
  - Road improvements around Portland, to allow the use of B-doubles
  - An overpass at Wellington Road, Portland

- A standard gauge rail connection to the Port of Brisbane, separate from the passenger rail
- A rail freight corridor from Ebenezer to join the standard gauge line at Bromelton
- The last 6 kilometres of the Brisbane Port Motorway
- Extension of Kirkwood Road in Gladstone
- Completion of Gladstone's port access road
- Rail improvements to the DBCT and Hay Point Coal Terminals
- The Townsville Port Access Gateway Project
- The development of Oakagee Port
- Dredging at Bunbury
- The Bunbury outer ring road and its link to the port access road
- Provision for a grade separated crossing at Princess Royal Drive, Albany
- An additional rail loop in the port at Albany
- The Albany Ring Road
- Grade separation on the Port Access Corridor in Esperance
- Re-alignment of the Port Access Road near the port entrance at Esperance
- A rail connection to Shark Lake Industrial Park near Esperance
- Duplication of 3 kilometres of the rail line into the port at Esperance
- Deepening the channel at Thevenard
- Upgrading the alternative port access road at Bell Bay
- A second rail access to the port at Bell Bay
- Re-design of the port access at Bell Bay, to improve the yard layout and remove the steep gradient leading out of the port
- A rail crossing of the river at the port in Devonport
- Direct access from the main rail line to the port terminal at Burnie
- Grade separation of the port access road in Darwin
- Direct access from the Business Park adjoining the port in Darwin - removal of the need for Business Park companies to go onto public roads to collect their goods from the port
- Redesign of the Darwin Port Weighbridge to allow operation for traffic moving in either direction
- A dedicated truck parking area outside the port for waiting trucks.

**Recommendation 5**

- 3.245 The Committee recommends that a “Critical Port Infrastructure Fund” should be established to urgently provide funding assistance for the construction of vital infrastructure projects costing up to \$150 million. This fund would be in addition to AusLink and separate from it. It would not, of course, cover projects already being funded from other sources.

**Recommendation 6**

- 3.246 The Committee recommends that this fund should be not less than \$600 million a year over a five year program, on the basis of 50/50 participation with either State or private providers.

**Recommendation 7**

- 3.247 The Committee recommends the establishment of a Critical Port Infrastructure Commission to administer the Critical Port Infrastructure Fund recommended above.

