
The Parliament of the Commonwealth of Australia

The Great Freight Task

Is Australia's transport network up to the challenge?

House of Representatives
Standing Committee on Transport and Regional Services

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Canberra

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Foreword

At a time of unprecedented prosperity and in the midst of an international resources boom, there could be no more potent images of lost opportunity, than the sight of queues of up to 50 vessels off three of our major ports.

It begged the question – just how deficient is the supporting infrastructure across Australia? How well equipped are our arterial road and rail systems to cope? Or finally, as the title of the Report asks: *Is Australia's transport network up to the challenge?*

In the end, it is all about integration. It is impossible to divorce one form of transport infrastructure or connectivity from another, as the Report makes clear.

After 194 submissions, 30 hearings and inspections, my colleagues and I were drawn inexorably to the conclusion that, if Australia was to meet this challenge, we needed to act decisively and soon, recognise emerging trends like double stacking and capital city basin inter-modal hubs, and jettison old thinking, especially at interstate borders.

What we discovered, as we moved from port to port, was a pattern of logistics or infrastructure failures in the access to, or the operation of, ports – a missing supply link, a lack of rail capacity, a need for bypass or ring roads, road and rail loops, and the functionality of channels to cater for larger or more frequent vessels. While you can excuse one here and there, collectively they impact on Australia's export performance and on GDP.

In the Committee's 1998 report, *Tracking Australia*, we warned of the growing freight task. The emergence of the ARTC and Australian Government involvement in New South Wales rail projects like the Hunter Valley, have improved rail performance and boosted the north-south corridor, but it is now even more obvious that bold measures will be necessary to see a more serious movement of freight from road to rail. The doubling of the freight task by 2020 looms even more ominously than it did in 1998.

To my way of thinking, the seminal quote of the Report comes from the former head of Queensland Rail, Mr Vince O'Rourke. In evidence, he said:

"We are doing too much patching. Why don't we build some really good railways? On a modern railway from Melbourne to Brisbane, freight trains could make their journey in 15 hours. It would be overnight. It is the just-in-time manufacturing inventory, logistics and integration with the ports that this nation needs."

Broadly speaking, the role of branch lines remains unresolved. The closure of such lines and the movement of grain to road transport, solves one problem but creates another – the capacity and upkeep of country roads. Revealing evidence from Canada presents an opportunity to revive these lines if an Australian framework can be developed.

The committee was surprised by the change of emphasis on inter-modal hubs. We had expected strong evidence for centres like Parkes, Moree and Toowoomba. However, while these remain important, the strong evidence and need for hubs in the Melbourne, Sydney and Brisbane basins to facilitate capital city and near-capital city freight movement, creates a new agenda for the three levels of Government.

In much the same way as recent water initiatives have been adopted to overcome border rivalries and inaction, a similar need is evident when it comes to road and rail activities along, and immediately across, interstate borders. The current situation is a blight on Australia's 'can-do' attitude.

Finally, I would like to commend members of the secretariat for their diligence and thoroughness in supporting the committee during the course of this extensive inquiry, particularly the Principal Research Officer, Tas Luttrell, and Senior Research Officer, Samantha Mannette. I would also like to thank and note the contribution of the previous Committee Secretary, Ian Dundas, and Administration Officer, Marlene Dundas, as well as Janet Holmes and Jazmine De Roza who have taken their place.

I would also like to thank all of those who made submissions or gave evidence to the inquiry, and those who assisted us by arranging inspections.

Paul Neville MP
Committee Chair



Membership of the Committee

Chair Mr Paul Neville MP

Deputy Chair Mr Steve Gibbons MP

Members Ms Sharon Bird MP

Mr Barry Haase MP

Ms Jill Hall MP

Dr Dennis Jensen MP

Mr Stewart McArthur MP

Mr Kym Richardson MP

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Administrative Officers	Ms Jazmine De Roza (from 30/11/06) Mrs Marlene Dundas (to 1/1/07)



Terms of reference

The House of Representatives Standing Committee on Transport and Regional Services is to inquire into:

- the role of Australia's regional arterial road and rail network in the national freight transport task;
- the relationship and co-ordination between Australia's road and rail networks and their connectivity to ports;
- policies and measures required to assist in achieving greater efficiency in the Australian transport network, with particular reference to:
 - land transport access to ports;
 - capacity and operation of major ports;
 - movement of bulk export commodities, such as grain and coal;
 - the role of intermodal freight hubs in regional areas;
 - opportunities to achieve greater efficiency in the use of existing infrastructure; and
 - possible advantages from the use of intelligent tracking technology;
- the role of the three levels of Government and the private sector in providing and maintaining the regional transport network.



List of abbreviations

AAA	Australian Automobile Association
AAPMA	Association of Australian Ports and Marine Authorities
ABARE	Australian Bureau of Agricultural and Resource Economics
ACCC	Australian Competition and Consumer Commission
ACCI	Australian Chamber of Commerce and Industry
AEEMA	Australian Electrical and Electronic Manufacturers' Association
ALC	Australian Logistics Council
ARA	Australasian Railway Association
ARTC	Australian Rail Track Corporation
ASA	Australian Shipowners Association
ATA	Australian Trucking Association
ATEC	Australian Transport and Energy Corridor
ATMS	Advanced Train Management System
AWB	Australian Wheat Board
BMT	Brisbane Multimodal Terminal
BTRE	Bureau of Transport and Regional Economics

CBH	Co-operative Bulk Handling Ltd
CEO	Chief Executive Officer
COAG	Council of Australian Governments
DBCT	Dalrymple Bay Coal Terminal
DOTARS	Department of Transport and Regional Services
EMRC	Eastern Metropolitan Regional Council
FIAB	Freight Infrastructure Advisory Board
GDP	Gross Domestic Product
GPS	Global Positioning System
HACC	Hunter Valley Consultative Committee
HVCC	Hunter Valley Coal Chain
HVCCLT	Hunter Valley Coal Chain Logistic Team
IMT	Intermodal Terminal
IAS	Intelligent Access Program
ITS	Intelligent Transport Systems
LNG	Liquefied Natural Gas
NOROC	Northern Rivers Regional Organisation of Councils
NTC	National Transport Commission
NTDPI	Northern Territory Department of Planning and Infrastructure
NTII	National Telematics Industry Initiative
OECD	Organisation for Economic Co-operation and Development
PKCT	Port Kembla Coal Terminal
PWCS	Port Waratah Coal Services
QAL	Queensland Alumina Limited

QAM	Queensland Agricultural Merchants
QR	Queensland Rail
REROC	Riverina Eastern Regional Organisation of Councils
RTSA	Railway Technical Society of Australasia
SDBP	Southern Distribution Business Park
SEATS	South East Australian Transport Strategy
SELGA	South East Local Government Association
SPC	Sydney Ports Corporation
SSFL	Southern Sydney Freight Line
TEU	Twenty-Foot Equivalent Unit
TIRES	Timber Industry Road Evaluation Strategy
WAPR	WA Plantation Resources



List of recommendations

2 Australia's Transport Task

Recommendation 1

The Committee recommends that the Minister for Transport and Regional Services require the Australian Transport Commission and the Bureau of Transport and Regional Economics to undertake the establishment of a national transport database.

Recommendation 2

The Committee recommends that the Minister for Transport and Regional Services urgently initiate legislation requiring transport industry operatives to supply essential information for the proposed transport database.

3 The Ports

Recommendation 3

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.

Recommendation 4

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.

Recommendation 5

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

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

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

4 Rail

Recommendation 8

The Committee recommends urgent consideration by the Minister for Transport and Regional Services of the techniques used in the Hunter Valley Coal Chain, for application to other transport chains. It also recommends that, at Ministerial discretion, a grant of \$250,000 be made available on a one-off basis, for the establishment of a position of Chain Co-ordinator and the provision of a small secretariat.

5 Road Infrastructure

Recommendation 9

The Committee recommends that the Minister for Local Government, Territories and Roads give urgent consideration to assisting the state and local governments to fund an upgrade of the road between Ravensthorpe and the Munglinup River.

Recommendation 10

The Committee recommends that the Minister for Transport and Regional Services refer to COAG the question of how local government can be assisted with the extra cost of road maintenance caused by the increasing use of heavy transport vehicles.

Recommendation 11

The Committee recommends a spending program (subject to the outcome of recommendation 2), of not less than \$100 million a year for 5 years, to address key arterial roads, major feeder roads and community bypass

roads in the Northern Territory and on connector roads into Western Australia and Queensland.

Recommendation 12

The Committee recommends that the Minister for Transport and Regional Services ask COAG to urgently progress the alignment of transport regulations between all the states and the mainland territories.

6 Intermodal Facilities

Recommendation 13

The Committee recommends that the Australian Government investigate the most efficient method of storing and distributing empty cargo containers.

Recommendation 14

The Committee recommends that the Minister instruct the Department of Transport and Regional Services to undertake a timely strategy for the movement, unloading and storage of 40-foot containers, as an integral part of the transport freight task, in line with world trends.

Recommendation 15

The Committee recommends that the Australian Government ensure that intermodal facility planning is given high priority in the AusLink Corridor Strategies. This planning should include consideration of financing options for IMT developments and upgrades, and, where necessary, the provision of targeted funding for essential projects.

Recommendation 16

The Committee recommends that, within AusLink, a guaranteed pool of funding for intermodal facilities is made available annually, on an ongoing basis, to leverage IMT developments, not only in parallel with other road and rail developments and upgrades, but as an integral part of them.

Recommendation 17

The Committee recommends that, in cases where private investment options have been exhausted, any urgently required intermodal facilities of national or substantial regional significance, should be developed through joint contributions from the Commonwealth (50 per cent), State (30 per cent) and local authorities and/or industry (20 per cent). Paramount in any such consideration would be a viable ownership model, providing open access.

Recommendation 18

The Committee recommends that the Australian Government:

- investigate strategic land banking;
- where appropriate, secure land for future intermodal facility developments and expansions; and
- encourage State and local governments, and the private sector to explore land banking options for future hub development.

8 Role of the Three Tiers of Government

Recommendation 19

The Committee recommends that COAG adopt a standard that requires infrastructure planning authorities to plan transport corridors on a time frame of at least 30 years.

Recommendation 20

The Committee recommends that the Australian Government encourage transport departments and larger local authorities to acquire and zone freight transport corridors as soon as possible.

Recommendation 21

The Committee considers that only COAG is in a position to achieve the necessary co-operation between jurisdictions. It recommends that COAG undertake, as a matter of urgency, consultations with state and local government authorities, to seek agreement that transport networks should be treated as a single Australia-wide system, as further described in Chapter 11.

Recommendation 22

The Committee recommends that the Minister for Transport and Regional Services establish a small infrastructure development unit in his department, to enable it to co-operate fully with the State departments on infrastructure planning and development. The unit should be staffed by qualified transport engineers, supported by people experienced in planning transport projects.

Recommendation 23

The Committee recommends that, in recognition of the situation of small cities and shires hosting projects of national significance, with infrastructure requirements beyond the capacity of their rate base to

finance, that the criteria for access to the AusLink Strategic Regional Programme be revised to take account of their situation.

10 Intelligent Tracking Technology

Recommendation 24

The Committee recommends that the Australian Government provide financial support for the development and implementation of a national intelligent freight tracking model, and urgent funding for a small number of demonstration projects under the national model.

11 Cross-border Issues

Recommendation 25

The Committee recommends that the Australian Government:

- establish Road and Rail Border Commissions, consisting of Australian and State Government representatives (ministerial, departmental and engineering) to advise on, facilitate and execute major border transport projects and cross-border road and rail extensions, in a focused and timely manner.
- fund, over a ten year period, the projects and works identified by the Commissions, on the basis of Australian Government 50 per cent, State Governments 25 per cent each. A lack of co-operation on timely action in the establishment of the Commission should exempt the Australian Government from further responsibility.
- establish a Commonwealth fund of \$1 billion for this purpose over the first five years, distributed on the basis of bids from the Commissions. The program should be reviewed at the end of that period, and possibly extended to ten years.

Australia's Transport Network

Introduction

- 1.1 Australia's freight task is growing rapidly, with freight demand forecast to double by 2020. However, there are real concerns about Australia's national freight transport capabilities, highlighted in Prime Ministerial Taskforce findings of bottlenecks and infrastructure weaknesses, and glaringly evident in cases such as the ships queued off Port Dalrymple, near Mackay, waiting to load coal exports. Inevitably, this begged the question: is Australia's transport network up to the challenge?

The inquiry

- 1.2 On 16 March 2005, the then Minister for Transport and Regional Services, The Hon John Anderson MP, requested that the House of Representatives Standing Committee on Transport and Regional Services inquire into the integration of regional rail and road freight networks and their interface with ports.
- 1.3 The Committee received 194 submissions, 44 exhibits and held 30 public hearings in the conduct of this inquiry.¹ This evidence –

1 Listed in Appendices A, B and C.

combined with a steady flow of relevant publications and industry and government developments – provided the Committee with a wealth of information to draw on. The inquiry examined Australia’s growing national freight task, its transport networks (including port connections), and the policies and measures required before Australia’s transport infrastructure can be considered up to the challenge.

- 1.4 Over the course of the inquiry, the Committee travelled extensively to conduct public hearings with key stakeholders and carry out inspections at important transport centres, including: Gladstone, Melbourne, Portland, Darwin, Sydney, Newcastle, Wollongong, Geraldton, Bunbury, Albany, Esperance, Perth, Brisbane, Mackay and Toowoomba. A number of public hearings were also held in Canberra.
- 1.5 This program provided the Committee with a greater appreciation of the geographical realities facing many of the transport networks under consideration. It also provided insight into the constraints faced by those networks.

Structure of the report

- 1.6 Chapter 2 sets the context for the inquiry with a discussion of Australia’s freight transport task, especially the rapid growth of that task.
- 1.7 Chapter 3 examines the capacity of Australia’s major ports, in particular the infrastructure available at each one. It also considers how the road and rail connections servicing them are coping with the current freight task and what changes or additions will be needed in the foreseeable future. The chapter includes a list of vital projects brought to the Committee’s attention through the evidence and its inspection program.
- 1.8 Chapter 4 looks at rail issues other than those directly related to a port. It highlights proposed railway improvements that could make a substantial difference to the safety and efficiency of the network.
- 1.9 Chapter 5, in a similar style to Chapter 4, examines road issues other than those relating directly to port access. Once again, projects showing promise of substantial safety and efficiency improvements are discussed.

- 1.10 Chapter 6 examines the role of intermodal facilities, their strategic significance and the need for a comprehensive and coordinated approach to intermodal planning. Initially, the Committee expected the focus to be on regional hubs. However, the preponderance of evidence indicated that it was urban hubs that were assuming the greatest importance to the transport industry, particularly on the Sydney metropolitan network.
- 1.11 Chapter 7 explores coastal shipping as an option for domestic freight movements, to complement land transport network arrangements.
- 1.12 Chapter 8 examines the roles of the three levels of government in the provision of transport infrastructure. The evidence given to the Committee clearly revealed the need for greater co-operation and co-ordination between jurisdictions.
- 1.13 Chapter 9 briefly examines the current discussion on the proposed inland rail line to service the North-South corridor between Melbourne and Queensland. It is supplemented by Appendix E, a summary of the substantial North-South Rail Corridor Study carried out by consultants on behalf of DOTARS.
- 1.14 Chapter 10 discusses the application of intelligent tracking technology to freight transport movements. It considers potential efficiency and safety benefits from the use of this technology, and the need to foster the development and implementation of an effective national model.
- 1.15 Chapter 11 comments on the neglect of transport routes that cross borders. It notes the problems of lack of co-operation and uncertainty over financial responsibilities, and calls for a new mechanism to develop transport infrastructure in these areas.
- 1.16 Appendix A lists the Submissions made to the inquiry; Exhibits are listed at Appendix B; and the program of Public Hearings is set out in Appendix C.
- 1.17 Appendix D contains a series of maps, mainly of ports, illustrating the infrastructure needed in each case. Appendix E, as mentioned above, is a short summary of the report on the North-South Rail Corridor Study. Appendix F is a matrix showing details about the major ports and their infrastructure needs. Appendix G is a short explanation of how a coal transport chain operates – using the Dalrymple Bay Coal Terminal as an example.

Australia's Transport Task

- 2.1 Rapid growth in the task facing Australia's transport networks has drawn the attention of all levels of government to the need for substantial investment in transport infrastructure, to keep pace with demand.
- 2.2 The inquiry arose from concerns about the ability of the freight networks to cope with rapidly expanding coal exports. The same issue resulted in the establishment of a Prime Ministerial Taskforce to examine the export infrastructure. The Taskforce concluded that while there was no widespread crisis in the system, there were areas where localised bottlenecks had revealed underlying weaknesses.¹
- 2.3 A major issue at the time was the large number of ships waiting off Port Dalrymple, near Mackay, to load coal export shipments. The Committee acknowledged the seriousness of that situation, but was concerned to examine the freight transport task on a broader front.
- 2.4 The inquiry therefore examines Australia's regional road and rail networks, with special attention to the links from those routes to the ports. It also considers the way that coastal shipping fits into the freight transport matrix.
- 2.5 Air Freight plays only a minor part in moving Australia's freight, about 2 per cent of the total in 2001-02. Air movement is generally confined to high value goods with little bulk.²

1 Exports and Infrastructure Taskforce, *Australia's Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.1.

2 Department of Transport and Regional Services, Submission 103, p.3.

- 2.6 The situation in Mackay highlighted the need for freight infrastructure to be flexible enough to expand to meet a sudden acceleration in demand – such as the current coal export boom. The Prime Minister’s Taskforce commented:
- There is no doubt that some parts of the nation’s export infrastructure face immediate capacity constraints. An unexpected spike in world demand for coal has led to a focus on problems that have been known for some time. Localised bottlenecks have emerged as strong demand has run into tight and inflexible supply.³
- 2.7 A number of recent reports have made estimates of the freight transport task in twenty to thirty years time. Although those estimates vary, there is broad agreement that within twenty years Australia’s freight levels will be around twice the current levels.
- 2.8 In some areas the task is growing even more quickly. The Queensland Government, for example, estimated that the freight task in that State would double in less than ten years.⁴ Similarly, the WA Government expects the task to double in about fifteen years.⁵
- 2.9 The Australian Government has responded by introducing a comprehensive land transport plan, known as AusLink. Initial allocations under AusLink provided \$11.8 billion for road and rail transport over the five years to 2008-09.⁶ This was later increased to \$12.7 billion.
- 2.10 In further acknowledgement of the urgency and importance of the task, the Government allocated an additional \$2.4 billion to road and rail transport in the 2006 Budget. With this new allocation for 2006-07, the total five-year allocation under AusLink reached \$15 billion.⁷ A further \$22.3 billion has been set aside in the 2007 Budget as funding for AusLink 2, covering the five years from 2009-10 to 2013-14. Of this amount, \$19.1 billion has been allocated for road and rail infrastructure and about \$3.2 billion for local roads grants.⁸

3 Exports and Infrastructure Taskforce, *Australia’s Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.1.

4 Queensland Government, Submission 95, p.4.

5 Government of Western Australia, Submission 88, p.6.

6 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, 2004, p.x.

7 Hon. Warren Truss, Minister for Transport and Regional Services, Budget Media Release 002TRS, 9 May 2006, p.1.

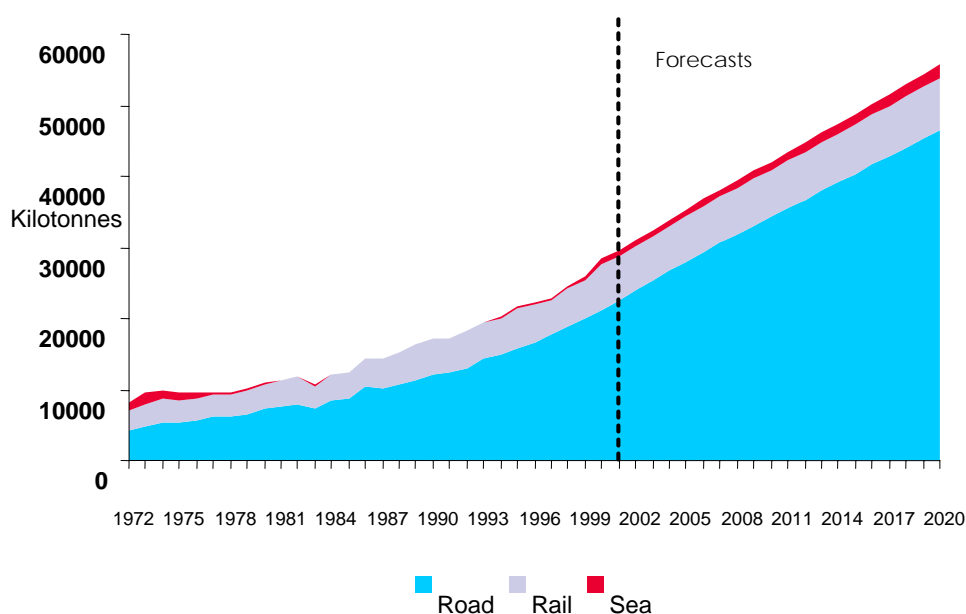
8 Australian Government, 2007-08 Budget Overview, p.15.

2.11 A central part of the discussion on the future provision of road and rail infrastructure is consideration of the relative costs of road and rail transport – an issue recently examined by the Productivity Commission.⁹

Road or Rail?

2.12 Bulk freight transported on land goes mainly by rail. Non-bulk freight, however, travels mainly by road. Trucks move about 80 per cent of the total and dominate every major freight route except one: the Eastern States to Western Australia. There the percentage shares are reversed and rail moves roughly 80 per cent of total freight. Despite the overall imbalance, the trucking industry considers that only about 15 per cent of road freight is contestable by rail.¹⁰

Figure 2.1 Non-bulk freight transported, by mode, 1972-2001 and projections to 2020



Data source: BTRE, *Freight between Australian cities 1972-2001*, Canberra, 2003.

⁹ Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, Melbourne, 22 December 2006.

¹⁰ Australian Trucking Association, *Trucking – Driving Australia's Growth and Prosperity*, ACIL Tasman, August 2004, p.1.

- 2.13 The chart shown above is drawn from the report *Trucking – Driving Australia’s Growth and Prosperity*. The extent of the predicted transport task can be gauged from the steepening curve of the forecast freight levels.¹¹
- 2.14 In 2001-02, domestic freight in Australia totalled 2.3 billion tonnes. Of this, 73 per cent moved by road, 25 per cent by rail and 2 per cent by sea. Measured in tonne kilometres, the shares of rail and sea increased to 38 and 27 per cent respectively - this reflected the longer average distances travelled.¹²
- 2.15 The Bureau of Transport and Regional Economics (BTRE) made it clear in 2003, that determined action would be needed to halt the trend to road and away from rail:
- With no change in relative input costs, and in the absence of a solution to some of rail’s logistic difficulties relative to road, the long-term decline in rail’s share of the freight market is unlikely to change.¹³
- 2.16 The Australasian Railway Association (ARA) agreed. A study commissioned by the Association, entitled *The Future for Freight 2005*, commented: “Without important policy and related changes, rail’s situation and modal share will likely deteriorate further”. More positively, it also noted:
- With a new approach emerging from Governments, and now with a strong, private sector led, commercial focus within the rail industry, major change is both possible and can be extremely worthwhile.¹⁴
- 2.17 The report added that: “Efficient rail can significantly improve its share of inter-capital city transport ... and, in so doing, make a major contribution to the Australian economy.” It attributed the decline of the last 30 years to:
- poor public policies on transport;
 - inappropriate industry structures; and
 - a history of poor rail industry performance.

11 Australian Trucking Association, *Trucking – Driving Australia’s Growth and Prosperity*, ACIL Tasman, August 2004, Figure 2, p.2.

12 Department of Transport and Regional Services, Submission 103, p.3.

13 Australasian Railway Association, *The Future for Freight 2005*, Canberra, 2005, p.9.

14 Australasian Railway Association, *The Future for Freight 2005*, Canberra, 2005, p.10.

Together, the report concluded, these three factors have undermined rail's ability to compete with road transport.¹⁵

Shipping

2.18 The Australian Shipowners Association considers that more attention should be paid to encouraging the use of coastal shipping services. Commenting on the billions spent by governments on road and rail infrastructure, the Association said:

The sea transport industry ... uses infrastructure which is fully funded – over-funded in fact, by the shipping industry.

Regulation of the sea transport industry is undertaken by the Australian Maritime Safety Authority which is funded (other than in respect of its search and rescue responsibilities) by levies paid by shipping. Installation and maintenance of navigation aids and lights are funded by levies paid by shipping.

Use of port facilities are subject to charges levied by port authorities whose pricing structures are designed to allow the port authority to remit to their state government owners a surplus, a dividend or a return on capital. In this way shipping over-funds the infrastructure the shipping industry uses.

The cost of making good any damage to the environment that might be caused by shipping is funded by a levy paid by the shipping industry and which is payable whether environmental damage occurs or not. Mandatory insurance is carried by ship operators to ensure governments are indemnified against any additional costs that may arise in the event of a pollution incident.

We emphasise that the shipping industry does not complain about this charging regime but there is a stark contrast between the public spending on road and rail industries and subsequent disputes over cost-recovery levels in those industries and the fully-cost-recovered shipping industry.¹⁶

2.19 This view was supported by the Hon Peter Morris when, in a speech to graduates of the Australian Maritime College, he said:

15 Australasian Railway Association, *The Future for Freight 2005*, Canberra, 2005, p.10.

16 Australian Shipowners Association, Submission 13, pp.7-8.

There is growing recognition across the economy that sea transport is an essential mode in the development of a surface transport strategy for the nation. The Greenhouse effect alone demands that sea transport play a greater role in interstate freight transport.

For the largest island continent in the world to be determining a land transport strategy to the exclusion of its own interstate shipping services is irresponsible in security, energy and environmental terms.

We know that the most expensive way of moving containers from east to west in Australia is by road. Rail is cheaper but sea transport is considerably cheaper than both and we know that on a level playing field Australian ships can be less costly than foreign ships.

We can look to the European Union's Surface Transport Strategy that seeks the optimum combination of sea, road and rail services based on economic efficiency, energy, security and environmental factors. Similarly the US is focusing on short sea services as part of its surface and security transport strategy.

An irony in Australia is that current concentration of attention on road and rail transport ignores the fact the introduction of itinerant foreign shipping into interstate domestic transport services has caused a substantial loss of east / west freight from rail to foreign shipping.¹⁷

Relative Costs of Road and Rail

2.20 The rail industry strongly insists that only cross-subsidisation by other road users allows the trucking industry to compete with rail. *The Future for Freight 2005* said that rail freight services between capital cities:

...should provide a significantly lower cost freight transport system than road on all corridors...¹⁸

2.21 The trucking industry is equally adamant that it fully pays its way. In the report *Trucking – Driving Australia's Growth and Prosperity*, in August 2004, the authors said:

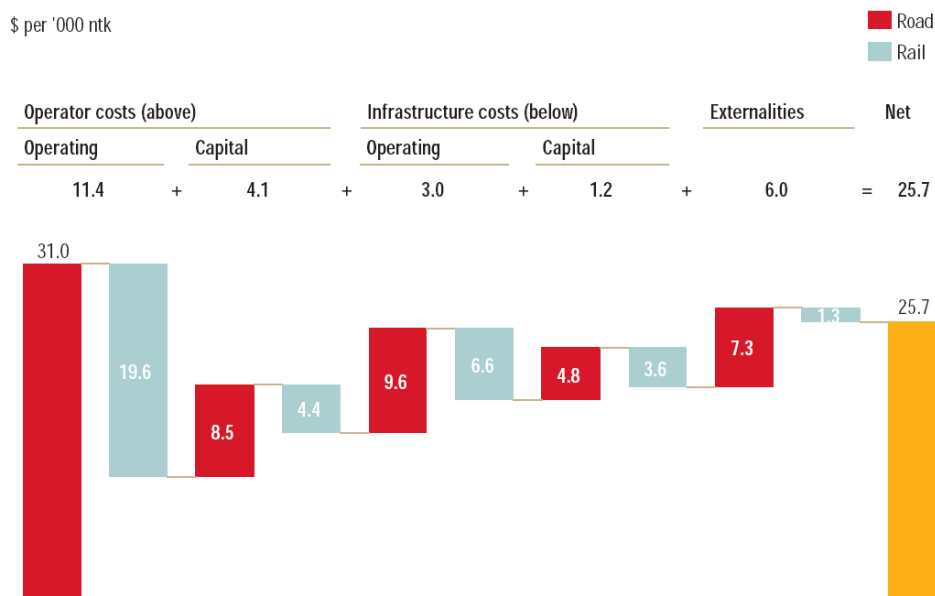
17 Hon Peter Morris, Speech to Graduates of the Australian Maritime College, Launceston, 18 March 2005, p.5.

18 Australasian Railway Association, *The Future for Freight 2005*, Canberra, 2005, p.3.

Trucks pay more than their share of allocated road costs through registration fees and fuel excise.¹⁹

2.22 The ARA report, *The Future for Freight*, calculated that completion of a thorough program of reform on the railways would leave rail with a significant cost advantage over road freight. The diagram below – Exhibit 4 from the report – shows the calculation.²⁰

Figure 2.2 Economic Cost Comparison – Road Versus Rail, Post Rail Reform



Source: Port Jackson Partners Analysis

2.23 The problem for Australia’s infrastructure planners is to achieve the necessary expansion of Australia’s land transport infrastructure, with the most efficient distribution of funds between competing rail and road interests.

2.24 The Productivity Commission was asked by COAG in February 2006, to examine road and rail freight infrastructure pricing. The Commission concluded that the system of paying according to vehicle kilometres travelled (known as PAYGO) causes problems by averaging costs across the network. The Commission said:

This blurs price signals and leads to cross-subsidies from operators carrying light loads to those carrying heavy loads, from users of lower-cost roads to users of high-cost roads

19 Australian Trucking Association, *Trucking – Driving Australia’s Growth and Prosperity*, ACIL Tasman, August 2004, p.vi.

20 Australasian Railway Association, *The Future for Freight 2005*, Canberra, 2005, p.11.

and, indeed, to those benefiting from roads that may be justifiable on social but not economic grounds.

Available evidence, though limited, consistently indicates that the unit costs of heavy vehicles using most major freight corridors are lower than the costs of their use of rural arterial and local roads, and thus lower than assessed network-wide average costs. This is not really surprising, as the marginal costs of using highways designed and built to carry heavy vehicles are very low.

...By the same token, the costs of heavy vehicles using rural or arterial roads that were not built for that purpose, and that have relatively low traffic levels, are likely to be significantly *above* the network average.²¹

- 2.25 In April 2007, COAG considered the Commission's findings and agreed on "...a comprehensive long-term reform agenda for road and rail freight infrastructure pricing and investment decision-making". COAG also:

...confirmed the commitment it made in February 2006 to ensure that the interests of rural, regional and remote Australia are addressed when considering future reforms to road and rail infrastructure pricing and will ensure that those interests are taken into account when finalising the detail of particular reforms.²²

- 2.26 One group of councils described "...an integrated transport network across road, rail and sea..." as imperative. The group added that:

...integration must be supported by infrastructure that is capable of meeting the growing needs of the transport sector. At present we find ourselves with yesterday's infrastructure attempting to support tomorrow's technology and the blatant mismatch is costing both industry and the community.²³

- 2.27 Similar views were expressed by the Great Australian Trunk Rail System consortium:

The rail infrastructure in Australia is disparate, on various gauges and radiating out from various parochial capital

21 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, 22 December 2006, Overview, pp. xxxiii and xxxiv.

22 COAG National Reform Agenda, Competition Reform April 2007, p.11.

23 Riverina Eastern Regional Organisation of Councils, Submission 92, pp.2-3.

situations in the various states. Basically it has been unaltered since the 19th century; the inter-capital connections that we have now are original branch lines that have been extended to those destinations. It is such a disparate system that we have no hope of getting it to take up the core element of the land transport situation.²⁴

The Growing Task

- 2.28 The AusLink White Paper (2004), included estimates of the growth in freight levels between 2000 and 2020. It indicated that the level of domestic non-bulk freight would increase by 3.4 per cent a year and reach 255 billion tonne kilometres by 2020. By 2022 it is expected to be double the 2000 level.²⁵
- 2.29 Over the same period, domestic, non-urban, freight is expected to grow by 2.2 per cent a year; to 375 billion tonne kilometres by 2020. One of the problems faced by the transport network is that, although this market segment is heavily geared to rail and coastal shipping, road transport is expected to double its share to about 84 billion tonne kilometres by 2020.²⁶
- 2.30 In fact, total non-bulk road freight is expected to grow at 3.6 per cent a year. On inter-capital routes it should grow even faster, at 4 per cent a year.²⁷
- 2.31 Last year, the BTRE, using its FreightSim computer model, pushed those predictions a little further. The results, reflecting revised estimates of economic growth, are a little lower than earlier projections. BTRE now expects the total domestic freight task (measured in tonnes moved) to increase by 2.75 per cent a year between 1999 and 2025. Other equivalent figures are: road freight 3 per cent, rail 2.4 per cent and coastal shipping 1.5 per cent.²⁸
- 2.32 Those estimates indicate that despite lower economic growth expectations, the trend rate of growth in the transport task is still

24 Great Australian Trunk Rail Consortium, Transcript, 1 August 2006, Sydney, p.49.

25 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.4.

26 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.4.

27 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.4.

28 Bureau of Transport and Regional Economics, *Demand Projections for AusLink Non-Urban Corridors: Methodology and Projections*, Working Paper 66, Department of Transport and Regional Services, Canberra, February 2006, p. xxiv.

increasing. The Department of Transport and Regional Services (DOTARS) reported that the domestic freight task had grown at a compound rate of 2.5 per cent a year, in tonnage terms, over the last twenty years (2.8 per cent in tonne kilometres).²⁹

The Changing Face of Freight Transport

- 2.33 Estimates prepared by the Productivity Commission in 2006, indicated that the rate of growth predicted in the AusLink White paper may be exceeded. The Commission said that non-bulk freight is expected to grow at 4 per cent a year to 2020, almost double the rate for bulk freight. The Commission noted that growth in the movement of bulk freight relates closely to export demand. Non-bulk freight levels are mainly determined by domestic economic activity.³⁰
- 2.34 The Commission noted three factors that are contributing to the faster growth of non-bulk freight:
- increased specialisation in production makes the production of non-bulk freight more transport intensive;
 - the concentration of warehousing and the shift towards national distribution by manufacturers, wholesalers and importers result in more frequent and longer trips; and
 - the increasing use of just-in-time stock management systems and door-to-door delivery make the distribution of non-bulk freight more transport intensive.³¹
- 2.35 DOTARS also commented that there had been a change in the nature of the task. Deregulation of domestic markets and other micro-economic reforms, added to specific transport sector reforms, have produced:
- ...a significant increase in road transport's share of non-bulk traffic, as well as a transfer of grain from rail to road, on many regional routes.³²
- 2.36 The National Transport Commission (NTC) noted that a concurrent trend had seen a substantial increase in the use of larger road vehicles. Reviews of road limits in the 1970s and 1980s and new national heavy vehicle standards in the 1990s, led to increases in concessional mass

29 Department of Transport and Regional Services, Submission 103, p.3.

30 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, 22 December 2006, p.28.

31 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, 22 December 2006, p.28.

32 Department of Transport and Regional Services, Submission 103, p.3.

limits and relaxation of the availability of permits for B-doubles and road trains.³³

- 2.37 The increases in vehicle size and the increased weight limits have, however, produced serious difficulties for local government in regional areas:

The growing use of B-doubles has increased the need for road upgrades, particularly the need to widen roads to better accommodate the interface between B-doubles and other road users. While local government understands the need for B-doubles and recognises the efficiencies that they provide to the transport industry, it is local communities that are paying the price, as councils defer local road work in order to undertake regional road maintenance.³⁴

- 2.38 Several Local Government groups expressed the opinion that this process is, in effect, a transfer of responsibility and cost from the State Government to Local Government. The consistent comment was that Local Government revenue sources are not up to the task of coping with this extra responsibility.

- 2.39 The rail transport sector has also made efforts to increase productivity, through the introduction of longer trains, higher axle load limits and more efficient utilisation of tracks. The latter improvements have been brought about by investment in longer passing loops and longer sidings at terminals. Continuing improvements to signalling systems and the installation of concrete sleepers are also assisting, by allowing higher speeds and shorter gaps between trains.³⁵

- 2.40 Although there is greater scope for rail in non-urban freight, there have also been suggestions that rail should compete for part of the urban freight task as well:

The urban freight planning process will also need to rethink the role of rail in the urban freight task. The provision of new rail technologies (such as 'Cargo Sprinters') and in some cases, reinstating rail sidings at manufacturing sites, will enable more freight to be moved to ports on rail rather than

33 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, pp.15-16.

34 Riverina Eastern Regional Organisation of Councils, Submission 92, p.2.

35 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.16.

road. This would enable a shift of cross metropolitan container movements from road to rail.³⁶

Additional Problems

- 2.41 A complicating factor is the concurrent anticipated growth in demand for passenger rail services. DOTARS said:

Expected growth in passenger traffic may also have a major impact on regional freight transport, as passengers and freight often share some transport infrastructure (particularly roads and rail track in urban areas). Passenger traffic (in terms of the number of trips) on the 10 major inter-capital routes is expected to grow by around 40 per cent over the next 15 years.

Traffic growth will add to current pressure points on the network, especially in regions experiencing strong growth and along major transport corridors.³⁷

- 2.42 The complication is compounded by the fact that passenger trains have priority and freight trains are often required to wait until a scheduled passenger service has passed. In 2004, a Senior Officials Group, chaired by Industry, Tourism and Resources, noted that in the NSW network:

Passenger transport is prioritised and runs to a pre-determined schedule, while coal is railed on a 36 hour regime and other freight is railed according to a weekly regime.³⁸

Later the Group's report said:

There are a finite number of pathways available to coal transport per day; with the steepness of some sections of the track and the increased haulage time presenting a bottleneck delaying movement, a number of these haulage opportunities are not realised, thereby reducing the capacity to deliver coal to the Port. In addition, passenger trains, receive priority access ahead of coal trains.³⁹

36 Austroads, *Planning for Freight in Urban Areas*, Publication No. AP - R228/03, Sydney, 2003, p.19.

37 Department of Transport and Regional Services, Submission 103, p.3.

38 Senior Officials Group, *Delivering Reliable Australian Coal Exports to the World - Coal Transport Infrastructure*, Department of Industry, Tourism and Resources, 2004, p.7.

39 Senior Officials Group, *Delivering Reliable Australian Coal Exports to the World - Coal Transport Infrastructure*, Department of Industry, Tourism and Resources, 2004, p.65.

2.43 The problem is not confined to NSW, although: "Passenger priority principles ...exist along the entire NSW network, including those lines leased or managed by ARTC." Similar provisions exist in Queensland also:

...QR is bound by the *Transport Infrastructure Act 1994 (Qld)* prioritising the right for Queensland Transport to reserve capacity for existing or proposed regularly scheduled passenger services without entering into an access agreement.⁴⁰

2.44 Another problem lies with the speed variations maintained for different rail tasks:

Different train speeds impact on rail capacity, e.g. passenger trains run at 100km/hr, wheat trains at 80km/hr and coal trains at 60km/hr, complicating scheduling and signalling logistics and effectively reducing rail capacity.⁴¹

Importance to the Australian Economy

2.45 In the AusLink White Paper, the land transport system was described as "...a valuable asset that makes a significant contribution towards the nation's economic performance and its international competitiveness." It added: "Efficient and effective transport services are essential to the production and marketing of almost all goods and services."⁴²

2.46 The White Paper estimated that the transport sector as a whole accounted for 4.9 per cent of total economic activity in Australia. In 2001-02 this was estimated to add about \$33.9 billion to Gross Domestic Product (GDP). According to BTRE calculations at that time, a one per cent improvement in transport efficiency would add about \$500 million to GDP.⁴³

2.47 The importance of the freight transport system to the Australian economy was also stressed by the NTC in the report *Twice the Task*. That report commented that improvements in the capability and

40 Senior Officials Group, *Delivering Reliable Australian Coal Exports to the World – Coal Transport Infrastructure*, Department of Industry, Tourism and Resources, 2004, p.52.

41 Senior Officials Group, *Delivering Reliable Australian Coal Exports to the World – Coal Transport Infrastructure*, Department of Industry, Tourism and Resources, 2004, p.7.

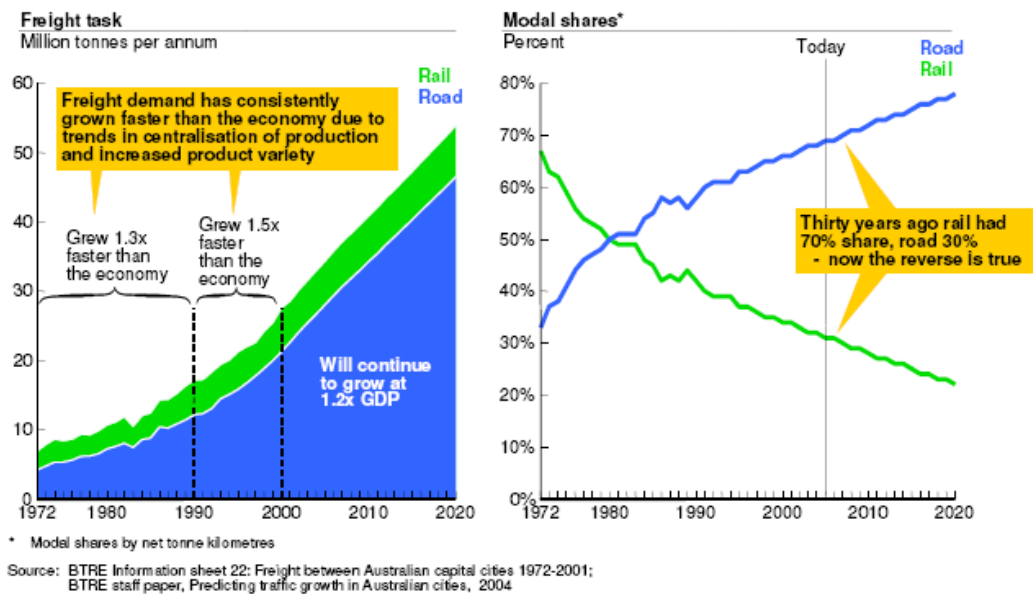
42 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.1.

43 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.1.

efficiency of transport have both driven, and facilitated, economic growth. It also noted that, historically, transport activity has grown substantially faster than overall economic growth.⁴⁴

- 2.48 The following diagrams illustrate that trend, and show the complete turnaround in the shares of road and rail over the last thirty years. They also illustrate quite clearly, the steep upward curve of the projected freight task through to 2020.⁴⁵

Figure 2.3 Trends in Inter-Capital Freight Land Transport



- 2.49 In a recent paper, the Chairman of the Productivity Commission said that the Commission had recommended a national review of the requirements of the national freight transport system. He commented:

We felt that there needed to be a much stronger focus on lifting the performance of the freight transport system *as a whole*, and on achieving outcomes that are economically, environmentally and socially sustainable. Efficient freight transport is vital for Australia's relatively small, trade-

44 National Transport Commission, "Twice the Task" A Review of Australia's freight transport tasks, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.13.

45 Diagrams drawn from: *Infrastructure: Action Plan for Future Prosperity*, Business Council of Australia, Canberra, 2005, p.12.

dependent, economy, especially given our geography and widely-dispersed population and industry.⁴⁶

- 2.50 The AusLink White Paper also noted the importance of the transport system to Australia's trade links:

The accelerated flow between countries of trade and investment creates a need for efficient transport infrastructure. Efficient infrastructure facilitates specialised production, price competitiveness, time sensitivity and reliability of Australian goods and services in both intra-industry and world trade markets.⁴⁷

Proposals for a National Infrastructure Authority

- 2.51 A number of submissions and witnesses claimed that Australia's transport infrastructure could only be brought up to world standards through the establishment of a national infrastructure authority. They said that such an authority, with the power to establish priorities and to push essential projects through to completion, without the long delays that now occur, is the only way to overcome the infrastructure backlog.

- 2.52 Mr Everaldo Compton of the Australian Transport and Energy Corridor (ATEC), commented:

My company and I believe that the Australian Government should establish by legislation an Australian infrastructure authority, which gives the Commonwealth the power to implement major projects of a national nature, whether they are rail, road or port or the connections between them. Until this is done, we are going to have a backlog of infrastructure in Australia.

I believe that this authority needs to be set up by legislation and should have the co-operation of the Council of Australian Governments, which would submit national projects to it to be taken along.

Until this happens, we are going to have state governments mainly remaining in charge of infrastructure, with limited

46 Gary Banks, Chairman of the Productivity Commission, *Road and rail pricing: some early observations ... and more questions*, CRA International Seminar, Freight Infrastructure: What are the Challenges in Achieving Efficient Pricing?, Friday 28 April 2006, p.1.

47 Department of Transport and Regional Services, *AusLink White Paper*, Canberra, June 2004, p.1.

finances and capacities to do it and not a great deal of co-operation when projects cross state borders.

I believe that an authority with legislative teeth is needed, not an advisory body. ... This needs to be established as a matter of urgency by the parliament.⁴⁸

- 2.53 However, Mr David Marchant, CEO of the Australian Rail Track Corporation (ARTC), indicated that it would be very difficult to establish a national body that could achieve the results required. He said it would require a great deal of co-operation between the States and the Australian Government:

My first objection is that, essentially, a national entity is only as good as the support it gets from the states and the Commonwealth. We work in a constitutional environment which requires the Australian government and the states to be able to work collaboratively and for there to be a range of compromises through that process to get something achieved.

If there is to be a national entity it has to be one which is supported by each of the states and the Commonwealth together. There is no way the Commonwealth can impose an entity and hope that it will work – even if it wanted to.⁴⁹

Rail

- 2.54 The Productivity Commission has reported that over the 40 years from 1961 to 2001, "...rail's share of the total freight task has kept pace with road". This was not the case with inter-capital non-bulk freight, however, where road has rapidly increased its share "...at the expense of rail and coastal shipping".⁵⁰
- 2.55 The change has been most evident on shorter routes, for example the Melbourne to Adelaide corridor. Here rail's share of land-based, non-bulk, freight fell from 30 per cent in 1995 to 13 per cent in 2003.⁵¹

48 Australian Transport and Energy Corridor, Transcript, 9 November 2005, Canberra, pp.1-2.

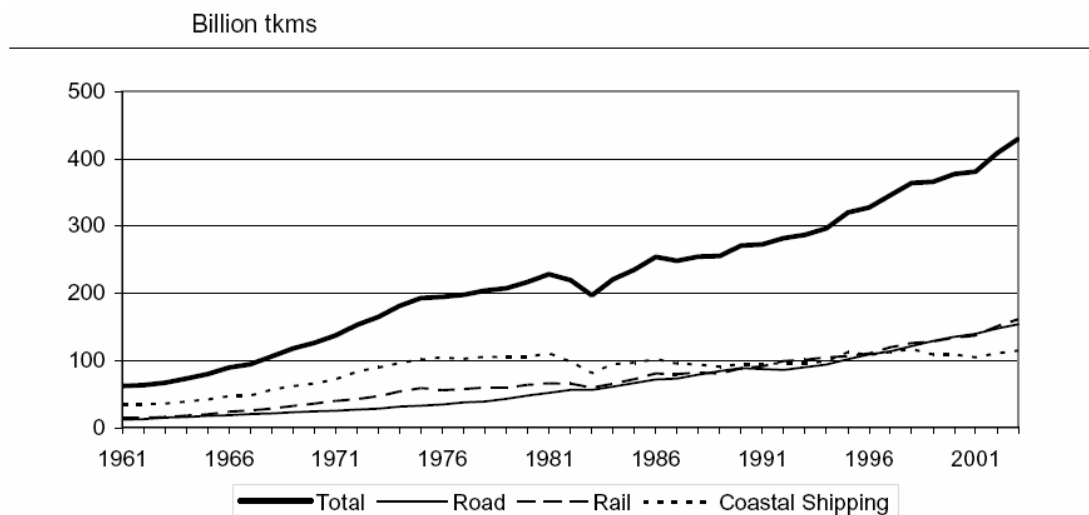
49 Australian Rail Track Corporation, Transcript, 6 September 2006, Canberra, p.21.

50 Productivity Commission, *Road and Rail Freight Infrastructure Pricing*, Inquiry report No.41, Melbourne, 22 December 2006, p.29.

51 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Discussion Draft, Melbourne, September 2006, p.2.16.

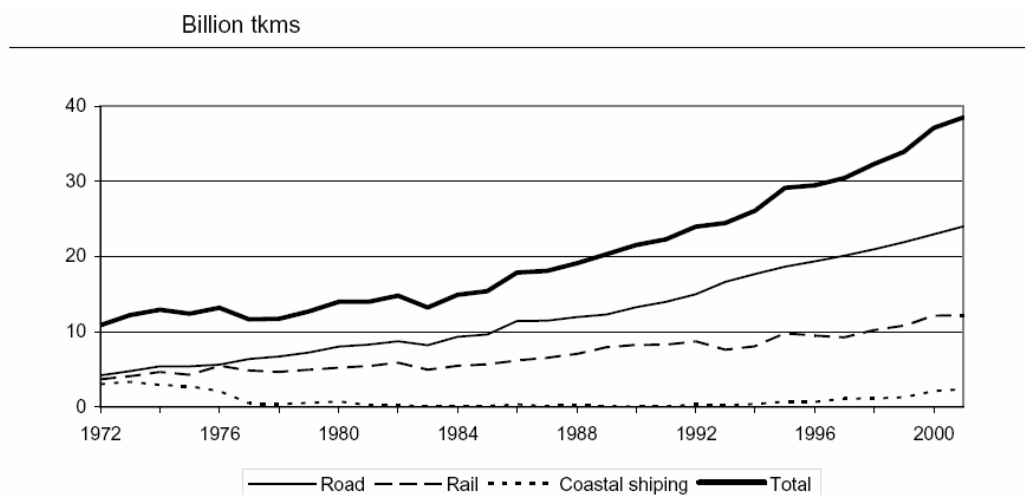
2.56 The decline on shorter routes has been offset by increases in rail's share of bulk freight movements. The Commission noted that the private access rail task had increased rapidly - reflecting the high levels of demand for exports of coal and other minerals.⁵²

Figure 2.4 The freight task, 1961-2003



Source: BTRE, *Freight measurement and modelling in Australia*, Report 112, Canberra, March 2006

Figure 2.5 Trends in carriage of inter-capital non-bulk freight



Source: BTRE, *Freight measurement and modelling in Australia*, Report 112, Canberra, March 2006

52 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, 22 December 2006, p.29.

- 2.57 The figures shown above (included as figures 2.8 and 2.9 in the Productivity Commission's report), clearly illustrate the long-term trend and the changes in inter-capital, non-bulk, freight:⁵³
- 2.58 The rail network still suffers, in many places, from the colonial hangover of different rail gauges; not only between States but within States as well. Efforts are under way to ease the situation, by converting non-standard lines to standard gauge or dual gauge. Oddly, however, non-standard lines are still being built. There are also stretches where the track alignment, and tunnel widths and heights, impose 19th Century restrictions on 21st Century freight tasks.
- 2.59 Professor Laird of Wollongong University, commented:

Reflecting the Australian Federal structure and other factors including 19th Century inter-Colonial rivalry, Australia has no fewer than three railway gauges in common use.

These are a standard gauge of 4' 8.5" (1435 mm) in use in all mainland States and territories, an Irish broad gauge of 5' 3" (1600 mm) in use in Victoria and South Australia and a narrow 3' 6" gauge (1067 mm) in use in Qld, SA, WA and Tasmania. The respective lengths in route kilometres are 16,303 km standard, 4028 km broad and 15,063 km narrow plus 296 km of dual (standard/narrow) gauge track.⁵⁴

- 2.60 The Railway Technical Society of Australasia also referred to the outdated rail infrastructure and the contrast between government funding for roads and for rail:

For rail to be efficient and competitive in moving freight between Australia's three largest cities, there will have to be major track upgrades with some track straightening. As well put in a letter "Rail network urgently needs federal funding injection" [in the] Australian Financial Review, 4 February 2002, "...*The trucks are there because successive federal governments have invested billions of dollars into roads over recent decades while spending negligible funds on rail tracks. No matter how good the new train owners may be, they will still be trying to do so on tracks and routes little changed since the 1920s.*"

53 Productivity Commission, *Inquiry into Road and Rail Freight Infrastructure Pricing*, Report No.41, 22 December 2006, pp.28-9.

54 Professor Philip Laird, Submission 133, p.3.

- 2.61 *The Future for Freight* study claimed that a comprehensive program of rail reform "...would increase Australia's Gross Domestic Product by around \$27 billion on a net present value basis." It also considered that such reforms "...should see inter-capital rail freight as a fast-growing and significantly lower-cost transport mode on all inter-capital corridors."⁵⁵
- 2.62 The Committee commented that, while the long-term objective should be to consolidate and expand the standard gauge network, that should not exclude sensible extensions to the narrow gauge or dual gauge lines in both the passenger and freight systems. This would allow for such projects as the Gold Coast to Murwillumbah narrow gauge line, or the linking of Moree to Brisbane by the south west line with a narrow gauge extension to Moree, or a dual gauge link to the North South line.

Increasing Rail's Share of the Task

- 2.63 Most States have set targets for increasing the share of freight carried by rail, in an effort to control the rapid growth in road freight. Some States have set 30 per cent on rail as the goal, but NSW is aiming for 40 per cent.
- 2.64 The problems to be faced in achieving the desired increase in rail's share of the freight market, were summarised in a report commissioned by the Business Council of Australia:

At the same time as the ... modal shift is occurring, our rail system is in many places in disrepair or bottlenecked in key areas. In an immediate sense this can be seen in the speed restrictions placed on parts of rail track, but in a more fundamental sense it can be seen in poor track configuration.

Indeed, when the key comparative indicators are examined it can be seen that rail is losing share because of very poor transit times, reliability and the extent to which rail offers services at times the market wants.⁵⁶

55 Australasian Railway Association, *The Future for Freight 2005*, ARA, Canberra, 2005, p.10.

56 Business Council of Australia, *Reforming and Restoring Australia's Infrastructure*, Report prepared for the Council by Port Jackson Partners Limited, Sydney, March 2005, p.33.

Road

- 2.65 The steadily increasing role of road freight continues a trend that has been evident since the 1970s. In 1972, for example, road freight carried between 30 per cent and 40 per cent of land freight, and rail carried the rest. In 2003, the shares had almost reversed. By 2020 the shares are expected to be about 80 per cent road and 20 per cent rail.⁵⁷
- 2.66 Australia, in common with Canada, relies more heavily on trucks than other OECD members. The road length per head of population is more than double the total for individual Western European countries. In 2004, the truck fleet was estimated to travel about 12,505 million km and to carry 1,549 million tonnes of freight a year. Trucks provide almost all urban freight transport and in many country areas are the only transport option.⁵⁸

Efficiency Gains in Road Transport

- 2.67 Road transport's rise in popularity has been assisted by a number of changes within the industry and its technology. Of particular interest in this time of soaring fuel prices, is a substantial improvement in fuel efficiency in freight vehicles.
- 2.68 In 1979, road freight fuel efficiency was 9.0 tonnes per km, but by 2001, it had increased substantially to 14.9 tonnes per km. At the same time, average loads were increasing by 2-3 per cent a year as articulated trucks replaced rigid trucks. Articulated trucks increased their share of the task from 56 per cent in 1971 to 78 per cent in 2001, while the share moved in rigid trucks fell from 41 per cent to 18 per cent.⁵⁹
- 2.69 The size of articulated vehicles has also grown, with B-doubles being supplemented on some suitable roads by B-triples (also called road trains). The number of roads where the larger vehicles can be used has been expanded. These changes have produced a useful increase in the efficiency of road transport; but they have also produced some concerns about the safety aspects of such large vehicles mixing with commuter and tourist traffic.

57 Australasian Railway Association, *The Future for Freight 2005*, ARA, Canberra, 2005, estimated from Exhibit 3, p.5.

58 Australian Trucking Association, *Trucking – Driving Australia's Growth and Prosperity*, ACIL Tasman, August 2004, pp.1-3.

59 Australian Trucking Association, *Trucking – Driving Australia's Growth and Prosperity*, ACIL Tasman, August 2004, pp.12-13.

2.70 Accompanying the growth in vehicle sizes has been rapid technological progress in braking and suspension systems, aimed at making trucks safer and reducing the damage caused to road pavements by their heavier loads.

2.71 Illawarra Coal, reported that the gross vehicle mass limit applied to its B-double truck fleet (62.5 tonnes), forces the trucks to operate at less than an optimum level:

Other specified B-double routes have weight limits of 68 tonnes, operating under the mass limits accreditation program. ...this has obvious impacts, primarily in increasing the number of trucks required to move a certain freight load. Also the trucks are operating at less than their designed and optimum capacity.⁶⁰

2.72 The company added:

Over the last 10 years the safety and operability of B-double vehicles has improved substantially. Modern trucks have much more efficient braking systems, tyres and suspension and quieter engines and bodies. Other enhancements include GPS tracking, accurate loading facilities designed to correctly spread the weight of the cargo over the vehicle's axles, antisplash designs and more efficient gross vehicle mass-to-weight ratios.

We have professional drivers operating on roads equipped with passing lanes and noise barriers. Stringent safety programs are in operation, which include fatigue management, professional driver training and auditing standards, the TruckSafe accreditation scheme, proactive maintenance programs and BHP Billiton's fatal risk control protocols, which are leading edge industry best practice harm reduction standards.

If the coal trucks were allowed to operate at the same weight limit as on other roads, that has the potential to benefit both the community and our business.⁶¹

The Container Trade

2.73 The movement of containers through Australian ports and on through the road and rail networks, is a growing part of the freight

60 BHP Billiton Illawara Coal, Transcript, 1 February 2006, Wollongong, p.5.

61 BHP Billiton Illawara Coal, Transcript, 1 February 2006, Wollongong, p.5.

task. Consequently, one of the vital parts of freight infrastructure planning is to prepare the networks for the coming changes in the container freight and logistics industry.

- 2.74 Some facets of the changes to the industry are already becoming apparent. The freight networks must be able to cope with:
- rapidly increasing numbers of containers;
 - a growing proportion of 40 foot containers, replacing the 20 foot size; and
 - the need to move double-stacked containers along rail routes.
- 2.75 In a recently released Working Paper, the BTRE estimated that total containerised trade will increase by 5.4 per cent a year, over the next twenty years. This will produce an increase from 5.2 million Twenty-Foot Equivalent Units (TEUs) in 2004-05, to 14.9 million TEUs in 2024-25.⁶²
- 2.76 The Bureau indicated, however, that it is difficult to forecast the growth in the container trade accurately. BTRE said that there are a number of factors involved.
- 2.77 There has been a steady increase in the proportion of 40 foot containers used at all the major ports in recent years but that trend is expected to slow down. The two container sizes are not perfect substitutes – export commodities are generally heavier than import commodities, and for those shipments, the smaller containers are preferred by exporters. Conversely, importers prefer the larger containers, e.g. for manufactured and refrigerated goods.⁶³
- 2.78 Despite the expected slowdown, from 41 per cent in 2004-05 the 40 foot containers are expected to make up half of the total by 2020. By 2024-25, they should reach 53 per cent. Over the same period, the average TEUs per ship will rise from 979 in 2004-05 to 1,141 and the number of ship visits to Australian ports, from 5,281 to 13,067.⁶⁴
- 2.79 The other factors relate to the size of vessels visiting Australia and the draught available in the channels of the major ports. The Bureau's Working Paper commented:

62 Bureau of Transport and Regional Economics, *Container and Ship Movements Through Australian Ports 2004-05 to 2024-25*, Working Paper 65, Canberra, June 2006, p.xxvi.

63 Bureau of Transport and Regional Economics, *Container and Ship Movements Through Australian Ports 2004-05 to 2024-25*, Working Paper 65, Canberra, June 2006, pp.24-25.

64 Bureau of Transport and Regional Economics, *Container and Ship Movements Through Australian Ports 2004-05 to 2024-25*, Working Paper 65, Canberra, June 2006, p.87.

...this historical strong growth is not expected to continue in the next twenty years because of a time lag in increasing the Australian ports' capacity to handle large ships, the flattening of the expected growth in trade volume and a long time lag in the construction of new ships with larger container carrying capacity.

Although old container ships are being replaced by large (wider and deeper) new generation ships on the major international shipping routes, Australia is less likely to get the new generation ships. This is because the volume of Australia's international containerised trade is relatively small and Australia does not fall on the world's main international shipping routes.⁶⁵

Transport Data

- 2.80 During the course of this inquiry, it became apparent that the data available on freight transport left much to be desired.
- 2.81 The problem is not a new one. Professor Laird, in a submission to the Committee, commented that the Productivity Commission had called attention to it in 1999. He said in its report on *Progress in Rail Reform*, the Commission had noted that:
- There is a lack of up-to-date transport data in Australia, impeding public debate and sound policy formation.⁶⁶
- 2.82 Again, in a supplement to that report, the Commission said, under the heading Data Gaps and Inconsistencies:
- Despite the extensive list of sources used to compile the database, a number of data gaps and inconsistencies remain, limiting the scope of this performance assessment.⁶⁷
- 2.83 In 2004, the National Transport Commission recognised the need for better data sources and proposed a national data framework. Professor Laird said that although efforts had been made to improve the situation, the BTRE noted in June 2006 that the problem still existed:⁶⁸

65 Bureau of Transport and Regional Economics, *Container and Ship Movements Through Australian Ports 2004-05 to 2024-25*, Working Paper 65, Canberra, June 2006, p.26.

66 Professor Philip Laird, Submission 181, p.2.

67 Productivity Commission, *Progress in Rail Reform – Supplement to Inquiry Report*, November 1999, p.11.

68 Professor Philip Laird, Submission 181, p.2.

There is no single comprehensive source of time series data on freight transport movements in Australia. Time series of Australian freight movements must be derived from a range of different sources together with a range of assumptions...

The issue of rail data is perhaps the most vexing. ...After 1997, the recently privatised railways have declined to permit public release of City to City data. Furthermore, since 2001, they have not allowed any origin - destination data - even State to State - to be released. This raises severe difficulties for future estimates of rail flows on any of the corridors...⁶⁹

- 2.84 The Committee considers that this problem should be dealt with immediately. It believes that the NTC proposal should be revived and that commercial interests should be required by law to provide the essential information the Australian and State Governments need to plan the long-term development of transport infrastructure.

Recommendation 1

- 2.85 **The Committee recommends that the Minister for Transport and Regional Services require the Australian Transport Commission and the Bureau of Transport and Regional Economics to undertake the establishment of a national transport database.**

Recommendation 2

- 2.86 **The Committee recommends that the Minister for Transport and Regional Services urgently initiate legislation requiring transport industry operatives to supply essential information for the proposed transport database.**

69 BTRE, *Freight measurement and modelling in Australia*, Report 112, 2006, pp.57-8.

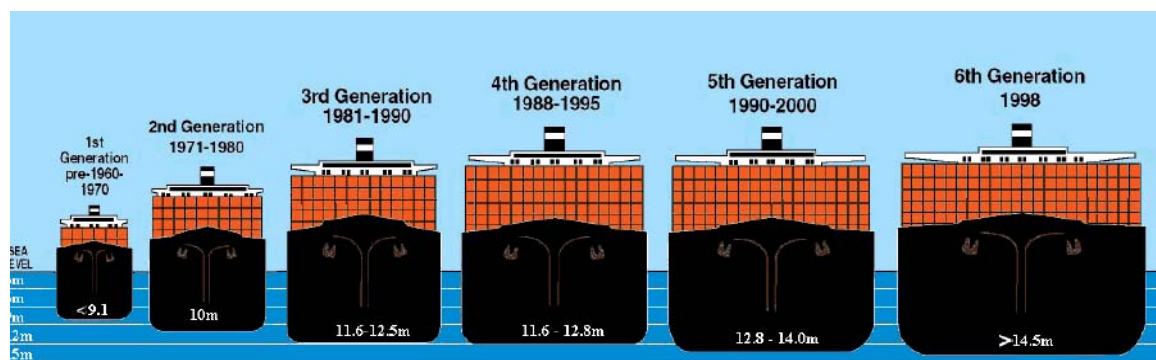
The Ports

- 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.¹

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

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.²

- 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.³

- 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

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.⁴

- 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.⁵
- 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.⁶
- 3.18 The Board also referred, more generally, to “...[draught] limitations at ports that constrain the full loading of some classes of ships”.⁷
- 3.19 The AAPMA, when asked by the Committee to nominate the highest priority infrastructure requirements, listed channel

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.⁸

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:

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.⁹

- 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.¹⁰

- 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.¹¹

- 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

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.¹²

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.¹³
- 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.¹⁴
- 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 2006.¹⁵
- 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

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.¹⁶ 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.¹⁷

- 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.¹⁸
- 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 2010.¹⁹
- 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.²⁰
- 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.²¹
- 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.²²

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.²³

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

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

of general cargo, such as aluminium, steel and machinery, are increasing.²⁴

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.²⁵

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.²⁶

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.²⁷

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

24 Newcastle Port Corporation, 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, 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.²⁸

- 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.²⁹
- 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.³⁰
- 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.³¹
- 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.³²

28 Newcastle Port Corporation,
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, accessed 1 May 2007.

30 Newcastle Port Corporation,
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.³³

- 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.³⁴
- 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

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.³⁵

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.³⁶
- 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.³⁷
- 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.³⁸
- 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.³⁹ 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.⁴⁰
- 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

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.⁴¹

- 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.⁴²
- 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.⁴³
- 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.⁴⁴
- 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.⁴⁵
- 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,

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.⁴⁶

- 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.⁴⁷

- 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."⁴⁸ PKCT also commented:

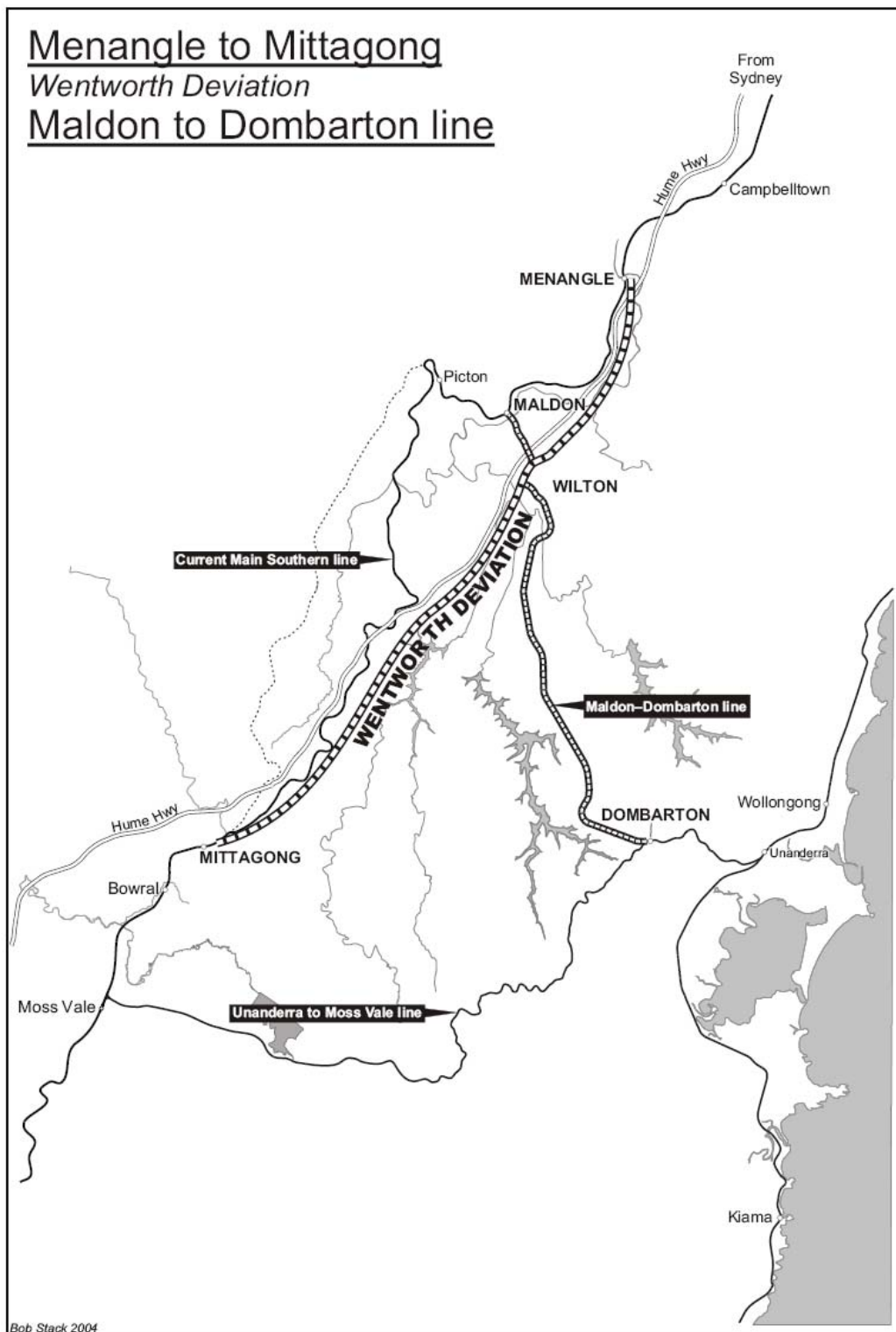
Of course, coal trains cannot run at peak commuter travel times and curfews are imposed during both the morning and the evening. The impact of these curfews is to reduce the available receival time at Port Kembla by nine hours on any given day - so we have a 15-hour window of opportunity. ...The combined 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.⁴⁹

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.⁵⁰ 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.⁵¹

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.⁵²

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."⁵³

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...⁵⁴

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.⁵⁵
- 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.⁵⁶
- 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.⁵⁷

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.⁵⁸
- 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

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.⁵⁹

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.⁶⁰

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.⁶¹ 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.⁶²

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.⁶³

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.⁶⁴

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.⁶⁵
- 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.⁶⁶
- 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:

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.⁶⁷

- 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.⁶⁸
- 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.⁶⁹
- 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.⁷⁰
- 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.⁷¹

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.⁷²

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, 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:⁷³

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).⁷⁴
- 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.⁷⁵
- 3.92 The Port Authority considers that the port itself has sufficient capacity for the current workload and also for foreseeable increases.⁷⁶ 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.⁷⁷

- 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.⁷⁸
- 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.⁷⁹
- 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).⁸⁰

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,

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.⁸¹

- 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.⁸²
- 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".⁸³
- 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.⁸⁴ 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.⁸⁵
- 3.103 The Port Corporation noted that in addition to its own investment there had been a good level of private investment also:

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.⁸⁶

- 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.⁸⁷

- 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.⁸⁸

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.⁸⁹

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.⁹⁰

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,

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.⁹¹

- 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.⁹²

- 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.⁹³

- 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

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.⁹⁴

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.⁹⁵
- 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.⁹⁶
- 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.

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 2026.⁹⁷

- 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.⁹⁸
- 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.⁹⁹
- 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

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.¹⁰⁰

- 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.¹⁰¹

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.¹⁰²
- 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.¹⁰³
- 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.¹⁰⁴
- 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 2004-05.¹⁰⁵

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-2007.¹⁰⁶
- 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.¹⁰⁷
- 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.¹⁰⁸
- 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

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.¹⁰⁹

- 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.¹¹⁰
- 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.¹¹¹
- 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).¹¹²
- 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

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.¹¹³

- 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.¹¹⁴

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.¹¹⁵

- 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

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.¹¹⁶

- 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."¹¹⁷

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.¹¹⁸
- 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.¹¹⁹
- 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.¹²⁰
- 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.¹²¹
- 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.¹²²
- 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

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.¹²³

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.¹²⁴
- 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.¹²⁵
- 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.¹²⁶

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.¹²⁷
- 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.¹²⁸

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.¹²⁹
- 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.¹³⁰
- 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).¹³¹ Fremantle Ports told the Committee that this constitutes its “...biggest infrastructure agenda ...for decades”.¹³²
- 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.¹³³
- 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

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.¹³⁴

- 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 2007.¹³⁵ A recent Media Statement by the WA Minister for Planning and Infrastructure, confirmed that shipments from the upgraded Berth 5 would begin in 2007.¹³⁶
- 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.¹³⁷
- 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.¹³⁸
- 3.160 The WA Government has approved the development of the new port.¹³⁹ It will be capable of handling Cape size vessels, which can

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.¹⁴⁰

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.¹⁴¹

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.¹⁴²

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 2010-11.¹⁴³

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.¹⁴⁴ The South West Development

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.¹⁴⁵

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.¹⁴⁶

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.¹⁴⁷

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.¹⁴⁸

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:¹⁴⁹

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

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.¹⁵⁰

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.¹⁵¹

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

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.¹⁵²

- 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.¹⁵³

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 2014.¹⁵⁴
- 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.¹⁵⁵ A recent announcement by Grange Resources indicated that the project could receive approval by October 2007.¹⁵⁶
- 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

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.¹⁵⁷

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.¹⁵⁸

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.¹⁵⁹

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.¹⁶⁰

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.¹⁶¹

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.¹⁶²
- 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.¹⁶³
- 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.¹⁶⁴
- 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.¹⁶⁵
- 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.¹⁶⁶
- 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.¹⁶⁷ Advice in June 2007 indicated that the target had almost been achieved.

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;¹⁶⁸ and
 - woodchips, an expected 300,000 tonnes of exports a year from 2008.¹⁶⁹
- 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.¹⁷⁰
- 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

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.¹⁷¹

- 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.¹⁷²

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.¹⁷³
- 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.¹⁷⁴

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.¹⁷⁵

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.¹⁷⁶
- 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.¹⁷⁷
- 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.¹⁷⁸

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).¹⁷⁹
- 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.¹⁸⁰

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.¹⁸¹
- 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.¹⁸²
- 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

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.¹⁸³

- 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.¹⁸⁴
- 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. Pasminco 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 2004.¹⁸⁵
- 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).¹⁸⁶
- 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.¹⁸⁷

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.¹⁸⁸

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.¹⁸⁹

- 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...¹⁹⁰

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

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.¹⁹²
- 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.¹⁹³

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.¹⁹⁴
- 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.¹⁹⁵
- 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.¹⁹⁶
- 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.¹⁹⁷
- 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.¹⁹⁸

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).¹⁹⁹

- 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.²⁰⁰

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

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.²⁰¹

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.²⁰²

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.²⁰³

- 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.²⁰⁴

- 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

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.²⁰⁵

- 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.²⁰⁶
- 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.²⁰⁷
- 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.²⁰⁸
- 3.228 Overall, the port anticipates that by 2010, its throughput will have increased from less than 2 million tonnes, to 10 million tonnes.²⁰⁹
- 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.²¹⁰ 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.

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, 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, 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.²¹¹

- 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.²¹² The NT Department of Planning and infrastructure said that the project is included in current AusLink funding.²¹³
- 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.²¹⁴
- 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.

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.²¹⁵

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.

Rail

- 4.1 This chapter examines regional rail issues that do not relate directly to a particular port. Where a port is directly involved, the problem has been included in Chapter 3.
- 4.2 The decline of rail's share of the freight transport market has resulted in large quantities of freight that were formerly moved by rail, now being moved by truck. The difficulties that this presents are, firstly, that the rural roads are generally not built to handle heavy freight vehicles like B-doubles; secondly, and following on from the first problem, is that rural councils do not have a sufficient funds to cope with the additional road damage caused by the larger vehicles.
- 4.3 Added to these problems are greater levels of pollution, the danger of mixing local traffic with heavy vehicles on country roads and through small towns, and the additional noise levels produced by large numbers of heavy vehicles.

Increasing Rail's Share of the Task

- 4.4 As discussed in Chapter 2, governments are giving considerable attention to the task of increasing the proportion of total freight being carried by rail. This chapter looks at areas where there is a particular need for rapid improvement in a rail link; where current work is expected to produce timely results; and also at some proposed projects that were brought to the Committee's attention. The latter

projects have the potential to markedly improve efficiency and/or safety in the rail network.

- 4.5 The projects vary widely in their cost and complexity; from a “missing link” in the connection between a port and the coalfields, to a grade separation, duplication of tracks for passing loops, or the long discussed Southern Sydney Freight Line.

The East Coast

- 4.6 The rail network on the eastern seaboard has several very difficult problems. For example:
- access to Sydney from the south, north and west;
 - the line from the Queensland border to Brisbane;
 - Southern Sydney Freight Line;
 - Hunter Valley Coal Chain;
 - missing rail links in the Hunter Valley;
 - the line through or around the Toowoomba Ranges;
 - missing rail links in the Queensland coal fields;
 - rail connectivity in Victoria and across the border to South Australia.
- 4.7 To achieve an efficient transport network for the eastern states it is vital that these problems be faced, and solved, as soon as possible. The difficulty is that to overcome each of these problems will require a great deal of infrastructure investment. The amounts involved are such, that only a co-operative approach, involving all three levels of government and private enterprise investors, will be able to overcome the difficulties.
- 4.8 One such problem is the difficult access to Sydney for freight from Melbourne and from points to the west of Sydney. If this can be solved, the additional freight volumes would almost guarantee the success of a Melbourne to Queensland freight line, to say nothing of the speed and efficiency gains. It would also relieve the pressure on the road networks, especially the Hume Highway, and on the coastal rail route.
- 4.9 A second problem also concerns access to Sydney. The rail route to the north from Sydney has been described as “...an infrastructure nightmare”. It was said to be:

... a bit of a goat track. It winds its way slowly towards Brisbane and sometimes goes around in circles to get to Brisbane...¹

4.10 The other main problem area is the route from the Queensland border to Brisbane. There are a number of alternative proposals for this part of the freight route. Toowoomba is keen to see a freight hub developed at Charlton and the construction of a much faster, higher capacity, rail route down the Toowoomba Range and through the Little Liverpool Range to Brisbane. Others favour by-passing Toowoomba and going through Warwick and the Border (or McPherson) Ranges.

4.11 The Australian Transport and Energy Corridor (ATEC) estimated that the cost of getting through the ranges to Brisbane will be more than the cost of improving the line from Melbourne to Toowoomba:

We can get from Melbourne to Toowoomba for \$800 million. That is an upgrading of existing rail tracks and the building of the new connecting parts which would cross the border into Queensland and would go from Inglewood to Millmerran.

...Varying costs have been put forward for the track between Toowoomba and Brisbane. I have seen widely differing costs, depending who does it. ...The cost of getting from Toowoomba to the port of Brisbane could be anything up to \$2 billion, depending upon who you are talking to, how many people are removed from their houses and what other issues come up.²

4.12 One of the real problems in the system is that several parts of Victoria are isolated from the national standard gauge network. Mildura, the Western District, the Wimmera, the Green Triangle and Gippsland, all have serious difficulties in connecting with the national network.

Southern Sydney Freight Line

4.13 The growing congestion on access lines to Sydney and the need for freight trains to compete with passenger trains has made improving freight access to the Sydney ports a high priority.

4.14 The ARTC has announced plans to build a new freight-only line through south western Sydney. This project, the Southern Sydney

1 Toll Holdings Limited, Transcript, 1 August 2006, Sydney, pp.36-7.

2 Australian Transport and Energy Corridor, Transcript, 9 November 2005, Canberra, p.6.

Freight Line (SSFL), involves a total investment of about \$200 million and will allow passenger and freight services to operate independently.³

- 4.15 The proposal is that the new freight line will allow speeds up to 110 km an hour at 21 tonne axle loads and 80 km an hour at 23 tonnes. Signalling systems will be upgraded to allow for operations on the new line, and an 1800 metre crossing loop will be provided between Macarthur and Sefton Park junction.⁴
- 4.16 On 21 December 2006, the NSW Department of Planning announced that approval had been given for the project to go ahead. The route approved covers 30 km from Macarthur to Sefton (near Chullora).⁵ As indicated in Chapter 3, completion of the project is a vital part of the plans for the development of both Port Botany and Port Kembla.

Hunter Valley Coal Chain

- 4.17 In the late 1990s, the rapid increase in demand for coal exports made unexpected demands on coal delivery systems. In Newcastle, capacity pressures began to reach problem dimensions and a substantial queue of ships lined up at the port. The operators in the Hunter Valley responded by forming the Hunter Valley Coal Chain (HVCC), a group involving parties from all sectors of the coal delivery system.
- 4.18 The group was faced with a projected growth of over 50 per cent in thermal coal exports in the next five to ten years. Its aims were to maximise asset utilisation, promote efficient investment decision making and to co-ordinate timely investment in new track, rolling stock and port infrastructure.⁶
- 4.19 By co-operating and planning as if they were a single entity, the companies in the group increased throughput by 17 per cent, without any substantial changes to infrastructure.
- 4.20 Toll Holdings, commenting on the success of the HVCC, said that the idea was based on the efficiencies achieved in the Pilbara:

The Pilbara is the world class railway because it is operated as one supply chain from mine to port and onto the ship. We thought we needed to bring that same approach to the

3 Australian Rail Track Corporation, Submission 186, p.5.

4 Australian Rail Track Corporation, Submission 186, p.5.

5 NSW Government, Department of Planning, Media Release, *\$200M Freight Line to Boost Sydney Transport Network*, 21 December 2006, p.1.

6 Hunter Valley Coal Chain Logistics Team, Submission 140, p.2.

Hunter Valley and because there were capacity constraints looming in the Hunter Valley we were able to get around the table with the principal mining companies, the port and [the] Rail Infrastructure Corporation and the New South Wales government and start the process of bringing it all together.⁷

4.21 The ARTC is also planning to improve the network, by a substantial investment towards upgrading the Hunter Valley system:

...version 6 of the Hunter Valley strategy...has improved our investment, subject to the coal industry's approval, from \$200-odd million to \$385 million over the next five years. That will increase the present capacity on the...coal framework from about 90 million tonnes per annum to somewhere in the order of 160 million tonnes per annum by 2008-09, and that...subject to port improvements and the construction of additional capacity to ports, will adequately take care of capacity.

...it would make Newcastle by far the biggest coal-exporting port in the world.⁸

4.22 The Committee considered that the idea of running a supply chain as a single entity is one that could be applicable in other areas. There are efficiencies to be gained through methods such as: co-operation in planning schedules for line access, carrying out maintenance on all sectors at the same time to reduce stoppage times, and close liaison with the port authorities to ensure that the right product is available for loading when needed. This approach could increase throughput and save the stakeholders from incurring unnecessary demurrage charges.

4.23 The Committee's view coincided with that of the Exports and Infrastructure Task Force:

One of the success stories noted by the taskforce during the course of its consultations were the results of teams established to improve logistics chain operations... [including] the Hunter Valley Coal Chain Logistics Team.

The taskforce sees merit in improved co-ordination and co-operation between members of logistics chains if it can improve effective capacity and efficiency, thereby potentially

7 Toll Holdings, Transcript, 1 August 2006, Sydney, p.42.

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

negating the need for some additional investment in infrastructure.

The taskforce suggests that the Department of Transport and Regional Services facilitate the establishment of such groups for logistics chains of national importance either directly or via relevant industry organisations.⁹

- 4.24 The Committee felt that a one-off grant of \$250,000 should be provided for the establishment of a position of Transport Chain Co-ordinator, with a small secretariat. This would be made available when the Minister considered that a workable model had been proposed, by State/local authorities and/or private interests. After the first year, the cost of the Co-ordinator and the secretariat would become the responsibility of the chain operatives.

Recommendation 8

- 4.25 **The Committee recommends urgent consideration by the Minister for Transport and Regional Services of the techniques used in the Hunter Valley Coal Chain, for application to other transport chains. It also recommends that, at Ministerial discretion, a grant of \$250,000 be made available on a one-off basis, for the establishment of a position of Chain Co-ordinator and the provision of a small secretariat.**

The Hunter Valley "Missing Links"

- 4.26 The rail connections in the Hunter valley, like the coalfields in Queensland, have "missing links". The first of these is a 70 km gap between Merrygoen and Gulgong. The Hunter Business Chamber commented on the difficulties caused by this gap:

Those 70 kilometres of rail track are missing. To get from Dubbo to Newcastle, they come down to Merrygoen, they push back up to Binnaway, and they then re-hook and come around, down through Werris Creek, into Newcastle.

It is very costly for business, particularly in regional New South Wales, where you are trying to be sustainable to give communities west of the range an opportunity to develop

9 Exports and Infrastructure Taskforce, *Australia's Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.34.

industry and a whole range of things but also to get their grain products and everything to the markets.¹⁰

- 4.27 The Chamber estimated that construction would cost \$50 -70 million and said the line would open up the track from Parkes to Newcastle. It said that:

The chambers of commerce in Dubbo and also in Orange – and everywhere through the north-west – people have been to us at the business chamber to say: ‘We want to do business with Newcastle and do it through Newcastle.’¹¹

- 4.28 In its submission, the Chamber said further value would be added by duplication of the line east of Muswellbrook, on the Central West link. The advantages offered by completion of the Gulgong-Merrygoen link would be: reduced freight traffic impact in metropolitan areas; better access to the port of Newcastle; faster links and lower costs; and no further need for multi-handling of containers at Ingleburn. The line would also offer a direct connection to the proposed Inland Freight Line from Melbourne to Queensland.¹²

- 4.29 The second “missing link” in the Hunter area is the proposed Ardglen tunnel, on the line from Willow Tree to Murrurundi and Scone. Here the proposal is for a 6 km tunnel at Ardglen that would cut travel time by 40 minutes and save 750,000 litres of diesel a year.¹³

- 4.30 The cost has been estimated at \$180-200 million and the private sector has offered to build the tunnel; the ARTC is also said to be examining the project. The chamber said that if the tunnel is not built, it will be an important opportunity lost for NSW:

It is the opinion of the business chamber – and particularly of those at Tamworth and those places in the north – that they will start doing business and trade and sending their commodities through to Brisbane and to Gladstone. So from a point from, say, north of Dubbo right through to Queensland, the state of New South Wales will lose an opportunity to go through to that area.

That tunnel is a key piece of infrastructure that we believe is necessary for the development of the whole of the transport.

10 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.44.

11 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.44.

12 Hunter Business Chamber, Submission 131, p.7.

13 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.45.

It takes so many trucks off the road because you can get things onto a train. The train becomes efficient. For a business, it is cost effective. It is about being cost effective.¹⁴

4.31 Another important rail link proposed for the Hunter region is a direct link between Fassifern and Hexham, to the south of Newcastle. Construction of this link would remove the necessity for traffic from Sydney and regions to the south, to pass through the suburbs of Newcastle. The estimated cost is \$95 million, and the project would lower transport costs and reduce the environmental and social impacts of freight shipments into Newcastle.¹⁵

4.32 The Hunter Business Council emphasised the benefits to be gained by construction of this link:

...the Fassifern to Hexham corridor...would take the access to the port [Newcastle] out of the residential areas. It would take the line through open space that is currently available, and that could then hook up to the main northern lines and then to the port from there.¹⁶

4.33 There is also a proposal to put a rail freight corridor beside the F3 Freeway, to take the freight movements out of the Newcastle and Lake Macquarie areas. The line could run on Electricity Commission land and there are rail formations already in place. In 2002, this project was costed at \$80 million.¹⁷

Other NSW Links

4.34 Professor Laird called the Committee's attention to a proposal for an upgrade to the line from Menangle to Yanderra, the Wentworth Route (See map on page). This would, he said:

...replace 54.3km of track with 'steam age' alignment from near Menangle...to the northern portal of the Aylmerton tunnel...with 36km of track built to modern engineering standards. This would have a ruling curvature of 1500 metres, albeit with a 1 in 50 grade that could be eased to 1 in 60 by rejoining the old track near...Yanderra.

14 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.45.

15 Hunter Business Chamber, Submission 131, p.5 and Hunter Area Consultative Committee, Transcript, 30 January 2006, Newcastle, pp.57-8.

16 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.49.

17 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, pp.47-8.

The main benefit...is saving an average of 17 minutes transit ...and modest fuel savings for heavy super freighters.

The...Wentworth route ...would tie in well with the Maldon Port Kembla Railway, and share about 2km of common alignment near Wilton...between the Hume Highway and Truck Road 88. Its reservation is long overdue.¹⁸

- 4.35 Professor Laird also noted that the Wentworth Route was one of three major deviations mentioned in the 2001 ARTC Track Audit for the Main South line. The other two are between Goulburn and Yass, and between Bowning and near Cootamundra. He added:

To complete all three deviations would require less construction than undertaken in track straightening ...between Brisbane and Townsville...¹⁹

Crossing the Toowoomba Range

- 4.36 The greatest obstacle to freight movements into Brisbane from the south and west is the mountain range between Toowoomba and the coast. The Committee believes that it is essential that the problem of passing through, or around, the mountains should be solved as quickly as possible.
- 4.37 Evidence given in Toowoomba, indicated that one of the problems was the low axle loading allowed on Queensland Rail's (QR) wagons coming through the ranges. With the axle loading limited to 21 tonnes, exporters are choosing to send their products through in bulk by road instead of sending light container loads by rail. They then pack their containers to full capacity at the port. This practice has had the double effect of losing jobs in Toowoomba and surrounding areas, and of causing congestion on the Ipswich Motorway as truck numbers increase.²⁰
- 4.38 Queensland Agricultural Merchants (QAM) suggested that the problem could be overcome, at least in part, if QR were able to spend about \$10 million on new rolling stock made of fibre composite; much lighter than the old steel wagons currently in use. The company also noted that since becoming a government owned corporation, QR has been under growing pressure to make sustained profits:

18 Professor Phillip Laird, Submission 139, p.3.

19 Professor Phillip Laird, Submission 139, p.3.

20 Queensland Agricultural Merchants Inc, Transcript, 7 April 2006, Toowoomba, pp.3-4.

The inter-modal traffic is one where they are expected to turn a dollar. Consequently their pricing is going up in a catch-up mode. They have gone from where they were just a state-run rail system to being a state-owned corporation, and they have been ratcheting up their pricing at a much faster rate than the cost of road transport.

So you have businesses turning to road transport. And road transport is just more responsive, because you can have a truck any time, any day. You cannot have a train any time, any day.²¹

- 4.39 QAM also commented that it was not expecting the line through the ranges to be upgraded to take a greater axle loading:

The minister told us in no uncertain terms that there are no plans for the state government to spend massive amounts of money on the upgrade of the Toowoomba to Grandchester line.²²

- 4.40 The Ipswich City Council said that the NSW Coordinator-General's department was looking closely at a connection from the Purga-Ebenezer area to Bromelton, to allow the facilities in the two areas to complement one another.²³

- 4.41 The Cunningham Rail Link Committee, through the Mayor of Warwick (and involving six local shires) proposed the construction of a rail link from Inglewood, through Warwick, Rathdowney, Bromelton and Yeerongpilly. It would utilise the existing standard gauge line from Rathdowney to Brisbane. This route was proposed as an alternative to the Inglewood, Millmerran and Toowoomba route.²⁴

- 4.42 The proposal argued that this route would be cheaper (by an estimated \$140 million) than going via Inglewood and Toowoomba to Brisbane. It would have an added advantage because it would not have to compete with public transport on the rail link. It also claimed that the transport hub at Bromelton could be utilised to distribute freight to areas surrounding Brisbane, without the necessity of taking it through the city itself.²⁵

21 Queensland Agricultural Merchants Inc, Transcript, 7 April 2006, Toowoomba, p.5.

22 Queensland Agricultural Merchants Inc, Transcript, 7 April 2006, Toowoomba, p.7.

23 Ipswich City Council, Transcript, 7 April 2006, Toowoomba, p.44.

24 Cunningham Rail Link Committee, Submission 72, p.1.

25 Cunningham Rail Link Committee, Submission 72, pp.1-2.

- 4.43 The obvious benefit of this route is that it would provide an immediate standard gauge line from Melbourne to Brisbane. Supporters of this group argue that it obviates the need for immediate upgrading and standardisation of the Toowoomba Range route.
- 4.44 The Shire of Warwick endorsed this proposal as the best outcome for the link between Melbourne and Brisbane. The Shire said the proposal has the support of local authorities from Beaudesert, Boonah, Warwick, Inglewood, Stanthorpe and Tenterfield.²⁶
- 4.45 As a second stage, the Cunningham Rail Link Committee said that the intention is to add a link to Charlton (on the outskirts of Toowoomba) from Warwick. The estimate for upgrading that line was about \$60 to \$80 million. The other advantage for this route is that it runs through "...basically freehold grazing country".²⁷

Queensland's "Missing Links"

- 4.46 In an assessment in 2006, ABARE considered that the key issue in Australia's coal export trade was the ability to match the available export infrastructure to the regional development of mines and their output growth.²⁸
- 4.47 This became a priority matter in the first half of 2007, when the queues of coal ships began building up off Newcastle and Dalrymple Bay. By the middle of the year, newspaper reports were suggesting that the rail network was unable to deliver to the ports the tonnages contracted to overseas buyers by the coal companies.²⁹
- 4.48 In turn, this problem brought to attention the claims made to the Committee that there are two "missing links" in the rail connections to the Queensland coalfields. It was suggested that construction of a rail line in each of these gaps, would allow coal shipments to be diverted to other ports to provide for expansion of exports, or if extensive delays occurred at either the ports or on the rail links.³⁰
- 4.49 In the north the proposal is to construct a link between the Bowen Basin coalfields and the Abbot Point Coal Terminal, near Bowen. At

26 Shire of Warwick, Submission 72, p.1.

27 Warwick Shire Council, Stanthorpe Shire Council, Boonah Shire Council and Cunningham Rail Link Committee, Transcript, 7 April 2006, Toowoomba, pp.17 and 21.

28 ABARE, Lindsay Fairhead, Robert Curtotti, Chris Rumley and Jane Mélanie, *Australian Coal Exports: Outlook to 2025 and the Role of Infrastructure*, ABARE Research Report 06.15, October 2006, p.50.

29 Weekend Australian, *\$1bn rail logjam hits jobs, exports*, 26-27 May 2007, p.1.

30 E.G.: BHP Billiton Mitsubishi Alliance, Transcript, 6 April 2006, Brisbane, pp.31-32.

present, the shipments from the northern Bowen basin fields must use the Goonyella line to the coal terminals near Mackay.³¹

- 4.50 The Mackay Area Consultative Committee indicated its support for the project. It said that the expected saving of \$11 a tonne in transport costs over the alternative 150 km route, is a considerable incentive .
- 4.51 The proposal is to build a new track of about 72 km from Newlands to North Goonyella. The line would be 60 kg rail on concrete sleepers and have a 26 tonne axle load limit. The diesel trains to be used initially, would have a coal load capacity of 4,600 tonnes. Electrification of the line would substantially increase that capacity.³²
- 4.52 In June 2007, the Queensland Premier announced that a \$25 million feasibility study on the Goonyella project had been completed. He said that agreements had been reached with property owners to acquire the necessary property to allow the project to proceed.³³
- 4.53 The project, as now proposed, will build 69 km of new track and also strengthen the existing track through to Abbot Point, allowing it to take heavier loads. The 80 tonne wagons used at present could then be replaced by 104 tonne wagons, providing a substantial increase in efficiency.³⁴
- 4.54 The Queensland Transport Minister said that Queensland Rail would fund the project, but not until contracts on user costs had been finalised with the coal mining companies. He added that the total cost would be about \$1 billion, including electrification, but anticipated earnings could reach \$4 billion a year.³⁵
- 4.55 The announcement indicated that the track would take about 30 months to build. A concurrent \$300 million expansion at Abbot Point, will double its capacity to 30 million tonnes a year by 2010.³⁶

31 Queensland Government, Department of Natural Resources and Mines, *Queensland's World-class Coals: Mine Production and Developments*, December 2005, p.17.

32 Queensland Government, Department of Natural Resources and Mines, *Queensland's World-class Coals: Mine Production and Developments*, December 2005, p.17.

33 Margaret Wenham & Tony Grant-Taylor, *Rail link hinges on miners:Lucas*, Courier Mail, Saturday, 9 June 2007, p.10.

34 Margaret Wenham & Tony Grant-Taylor, *Rail link hinges on miners:Lucas*, Courier Mail, Saturday, 9 June 2007, p.10.

35 Margaret Wenham & Tony Grant-Taylor, *Rail link hinges on miners:Lucas*, Courier Mail, Saturday, 9 June 2007, p.10.

36 Margaret Wenham & Tony Grant-Taylor, *Rail link hinges on miners:Lucas*, Courier Mail, Saturday, 9 June 2007, p.10.

- 4.56 The southern “missing link” refers to a proposed 220km narrow gauge link from Wandoan to Moura (via Theodore). This link would open the way for Surat Basin coal to be exported through Gladstone.³⁷ Another submission suggested the line should go as far as Banana. The same submission, suggested that completion of a further 20 km link, from Goondiwindi to North Star in NSW, would complete the rail connection from Melbourne to Gladstone.³⁸
- 4.57 A study prepared by GHD on behalf of the Western Downs Regional Organisation of Councils, strongly supported the completion of this link. The report said that if it were constructed “...then the area can be developed at a much more rapid pace”.³⁹
- 4.58 Other witnesses also supported this project, and indicated that the idea was supported by every council along the proposed route. Evidence was given that the boom in demand for coal was a major factor in the need for this line. Witnesses said that the two main coal mining companies in the area had “...shown real interest in strong financial contribution to this project.” The evidence noted also that there were another six to eight coal companies that would benefit from this line. For example, the Chinchilla shire said that:
- We have at least three coalmines in the Chinchilla area with proponents ready to go, but they just have no way of getting the coal out.⁴⁰
- 4.59 A number of witnesses from northern NSW were also in favour of the connection from Queensland down to North Star. They were inclined to seek the extension of the Queensland narrow gauge line. However, the Committee considered that as the national network is standard gauge, it makes more sense in the long term to have a dual gauge line, offering both narrow and standard gauge, at little extra cost. The group indicated a gap in that area that needed to be closed – between Camurra and Boggabilla.⁴¹
- 4.60 The Committee believes that the addition of these links to the rail network would provide a much-needed flexibility to the system. It
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37 Queensland Government, Department of Natural Resources and Mines, *Queensland's World-class Coals: Mine Production and Developments*, December 2005, p.17.

38 New England North West Area Consultative Committee, Submission 5, p.2.

39 Western Downs Regional Organisation of Councils, Submission 50, p.18.

40 Western Downs Regional Organisation of Councils and Chinchilla Shire Council, Transcript, 7 April 2006, Toowoomba, pp.62-3 and 67.

41 Moree Plains Shire Council, Gilgandra Shire Council, Dunavant Enterprises and Mr Kevin Humphries, Transcript, 7 April 2006, Toowoomba, p.24.

would open the possibility of alternate routes being available, if one part of the network were closed by an accident or natural disaster. It would also add a useful layer to the security of the network.

- 4.61 The Committee's view was supported by the Glen Innes Section 355 Transport Committee, which said:

The diversification of the rail network is essential. Diversification in terms of carriers and diversification in terms of options for destinations ports and routes to port. ...The current rail network locks export producers into a very narrow choice of export port if they want to use the rail network to transport their goods. We believe that diversification of destination ports can only be brought about by increasing the number of rail options available to the exporter.⁴²

- 4.62 The RTSA also indicated that there is a "demonstrable need to expedite Caboolture-Landsborough duplication and re-alignment and to start planning for other rail deviations and bridges..." on the Brisbane -Townsville route. As an example, the RTSA referred to the bridge on the Burnett River near Bundaberg "...which is now subject to a 15 km/h 'flat' speed restriction (i.e. no acceleration or braking)".⁴³

Victoria

- 4.63 The Australian Chamber of Commerce and Industry proposed the upgrading of the Melbourne to Adelaide railway to "...facilitate double stacking of containers and maximum length trains allowed elsewhere on the network (1,800 metres)".⁴⁴
- 4.64 The Chamber estimated the cost of this project at \$30 million and commented:

The current clearance problem represents a significant restraint on the national rail network. Double stack capability is currently available from Adelaide to Perth, Darwin and Parkes (NSW). The current 1,500 metre maximum train length

42 Glen Innes Section 355 Transport Committee, Submission 87, p.2.

43 Railway Technical Society of Australasia, Submission 14, p.10.

44 Australian Chamber of Commerce and Industry, Submission 57, p.22.

also limits operations, on a link which is near service capacity.⁴⁵

- 4.65 Members of the Committee reiterate the findings of their earlier inquiry *Tracking Australia*, insofar as the Dynon exit is critical to a number of routes out of Melbourne, as described in Chapter 3 (paragraph 3.78).

Rail connectivity within Victoria

- 4.66 Several witnesses raised the question of a lack of rail connectivity within Victoria. Their concerns centred mainly on the failure to complete the standardisation of rail gauges in the state. This was of special concern to the Latrobe City Council:

The city's rail freight transport with ports and the rest of Australia is severely impacted as result of State Government's decision not to standardise the rail line. This has significant negative consequences for the movement of bulk and containerised commodities from the region for export. ...

There has been little consideration by state government of freight impact of passenger transport decisions. There have been a number of consequences of related development which [have] also impinged on the ability of the Bairnsdale-Melbourne railway line's ability to remain competitive. These include the development of Federation square such that double stacking from Eastern Victoria is not available and the decision not to invest in rail gauge standardisation at the time of fast-rail development.

There is a new opportunity ... with the proposed [triplication] of the Dandenong-Caulfield line. We contend that this opportunity should be grasped as a low cost no regrets approach.⁴⁶

- 4.67 The Alliance of Councils for Rail Freight Development, which represents 24 councils in Victoria and southern NSW, said that it had been formed because of a growing feeling of frustration with the lack of rail connectivity in Victoria.⁴⁷
- 4.68 Some years ago, the Victorian Government expressed its intention to standardise the Victorian rail network. That intention seems to have
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45 Australian Chamber of Commerce and Industry, Submission 57, p.22.

46 Latrobe City Council, Submission 58, p.8.

47 Alliance of Councils for Rail Freight Development, Submission 26, p.1.

been abandoned in favour of extending the fast train passenger services.

4.69 Representatives from several areas of Victoria gave evidence to the Committee about their isolation from the main Australian standard gauge network.

4.70 The Sunraysia Mallee Economic Development Board indicated that connecting Mildura to the national standard gauge line would provide a number of benefits. At present, the Board said:

...all east-west trains, presently double stacked, are broken down at Dry Creek, SA and reconfigured to progress to Melbourne. The estimate is that 32 hours are lost in the process.

If the Mildura region is connected to the transcontinental, double stacking from Perth/Darwin/Melbourne via Mildura may prove to be economically and commercially practical, and indeed the preferred route.

The proposed route to the transcontinental is a relatively simple connection in the order of 200km, which would cost \$220 to \$250 million.⁴⁸

4.71 The Mildura Council also suggested that a rail connection via Mildura could represent an alternative North-South route, if there are any interruptions on the regular Melbourne to Brisbane route.⁴⁹ Completion of the rail loop around Mildura from Thurla to Yelta, and a rail spur to the Mildura Airport, would help to improve Thurla's connectivity to the wider network.

4.72 In May 2006, the Victorian Government committed \$53 million to upgrading the Mildura line for freight purposes.⁵⁰ On 28 May 2007, the Government announced that work on this project will commence in September 2007. The upgrade will allow freight trains to run at 80 km an hour and substantially reduce transit times.⁵¹

48 Sunraysia Mallee Economic Development Board, Submission 22, p.2.

49 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board, Submission 22, pp.2 and 5.

50 Victorian Government, Minister for Transport, Media Release, *Government Announces \$73 million investment for first stage of Mildura line upgrade*, 13 May 2006.

51 Victorian Government, Office of the Premier, Media release, *Mildura Rail Line Upgrade Works to start in September*, 28 May 2007, Melbourne, p.1.

- 4.73 The Gippsland region is also disconnected from the national standard gauge system. The City of Casey noted:

There are no Standard Gauge rail connections east of the Melbourne Terminus. This limits the opportunity to link Gippsland, south Gippsland or the Port of Hastings directly by rail to the National Rail Network.

Without a Standard Gauge connection, rail freight movements cannot compete with road freight due to the costs associated with double handling and time impacts.

Once a container is loaded onto a truck, it is far easier to complete the journey by road rather than transfer to rail and potentially transfer again between a Broad Gauge line and Standard Gauge line, with a further transfer to road for the final destination.⁵²

- 4.74 The City commented that an upgrade is needed and that would give an opportunity to provide the standard gauge link:

Upgrading of the line is required as a matter of urgency. If a third track was provided, the opportunity to include a double gauge configuration should be explored as this would provide Standard Gauge rail freight links to the Dandenong/Hallam Industrial areas.

It also maintains the opportunity to extend those links in the future along the Gippsland, south Gippsland and even the potential Port of Hastings routes.⁵³

- 4.75 The City of Casey has put the view that if a connection to the Port of Hastings is ever to be built, acquisition of the land for the rail corridor should be undertaken soon. On the basis of their argument, land acquisition is becoming more and more difficult along that route and could become economically impractical if left too long:

Any study into future freight connections to the Port of Hastings should investigate the options for a rail connection from Dandenong to Hastings. Provision for such a connection generally along the Western Port Highway corridor is becoming increasing[ly] remote as development continues to

52 City of Casey, Submission 83, p.4.

53 City of Casey, Submission 83, p.4.

constrain an alignment that might minimise acquisition of “urban” land.⁵⁴

- 4.76 While the Committee accepts the generality of this argument, and the prudent necessity of reserving rail routes, it does not see this as a high priority at present because of the huge investment in the Melbourne port infrastructure.

Western Australia

The South and South West

- 4.77 The freight task in the south and south west of WA is growing rapidly as mineral and timber developments are brought into production.
- 4.78 In the Bunbury area, there is a narrow gauge rail connection that carries alumina and also has a passenger service. The volume of freight is already large enough to conflict with the passenger schedule. As the volume of freight is growing, the South West Development Commission suggests that there is a need to examine the option of a dual gauge line from Brunswick to the port, about 27 km.⁵⁵
- 4.79 WestNet Rail commented that this duplication “...may be required at some point in the future but certainly not in the short to medium term”. The company also said that it consults regularly with Alcoa and Worsley (the companies responsible for almost 90 per cent of the region’s freight) and has planned to install additional crossing loops where they are required to support the two companies in their expansion plans.⁵⁶
- 4.80 There is a rail line in the south west, some of it nominally operative, but presently inactive. In its absence, the freight is limited to road haulage; although there have been discussions between WA Plantation Resources (WAPR), the railway company and the State Government, about re-establishing rail operations.⁵⁷
- 4.81 WA Plantation Resources has attempted to assist the transfer back to rail by building a processing plant in Bunbury, which increases the

54 City of Casey, Submission 83, p.5.

55 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.16.

56 WestNet Rail, Transcript, 7 March 2006, Bunbury, p.63.

57 WA Plantation Resources, Transcript, 7 March 2006, Bunbury, p.25.

potential freight volume from 300,000 tonnes to 700,000 tonnes – at the latter level, the haulage rate is competitive with road.⁵⁸

- 4.82 Overall, WA Plantation Resources said, “...rail infrastructure at the moment is limited. There are only two or three major lines, and certainly they do not service a significant part of the south-west region”.⁵⁹
- 4.83 The Griffin Coal Company said that it had particular problems with gaining access to rail transport. Although the mine has both loading facilities and a rail line, the railway company had not been able to provide coal trucks to take the mine’s output. A bottom dump system and a stack-out system are also needed.⁶⁰ Recent advice from the company indicated that some coal wagons had been obtained from Queensland but the problem is not yet completely solved.
- 4.84 The alternative outlet for Griffin Coal is to send its coal to Kwinana. The problem with that option, the company said, was that the railway company was quoting \$11.50 a tonne to move the coal, while Griffin’s competitors in the Hunter Valley are paying less than \$4 a tonne.⁶¹
- 4.85 In the first quarter of 2006, the mine was producing at the rate of 3.1 million tonnes a year and had just installed capacity for 5.5 million tonnes, involving an outlay of \$50 million.⁶²
- 4.86 The City of Bunbury referred to a section of the wheat belt disconnected from the rail system in the late 1980s; it includes the area around Collie, Narrogin, Wagin and Konjunup. The City said that “...There used to be three railway lines ...When they rationalised, they rationalised all three. That has disconnected that whole wheat market from Bunbury port, yet Bunbury...is a prime wheat port.”
- 4.87 The City estimated that the line could be re-established through Merredin for about \$50 -70 million. The suggestion was that a dual gauge connection would provide a direct link to the national standard gauge line.⁶³

58 WA Plantation Resources, Transcript, 7 March 2006, Bunbury, p.25.

59 WA Plantation Resources, Transcript, 7 March 2006, Bunbury, p.33.

60 The Griffin Coal Mining Company, Transcript, 7 March 2006, Bunbury, p.41.

61 The Griffin Coal Mining Company, Transcript, 7 March 2006, Bunbury, pp.42 and 46.

62 The Griffin Coal Mining Company, Transcript, 7 March 2006, Bunbury, pp.48-9.

63 City of Bunbury, Transcript, 7 March 2006, Bunbury, p.87.

4.88 The area around Albany has an expanding timber industry. The industry expects to more than double its output of woodchips within ten years. About half of this will move by rail and the rest by road.⁶⁴

4.89 Timber 2020 said that rail connections to the plantations are inadequate:

The rail line that we have was originally built for passengers going down from Perth but essentially round the grain operation. It does not cover vast areas which are now plantation, so there is no way that that stuff can go on rail unless it is brought to a central area and checked...So unless the rail set-up is increased dramatically, at huge cost, I think it is very unlikely that we are going to persuade more people than there are at the moment to go on rail.⁶⁵

4.90 The Timber Industry Road Evaluation Strategy Group (TIRES) added that:

The current rail line basically runs north-south; the timber industry goes east-west from the port, especially on the coastal strip. Even if they were to put a couple of spur lines in the east-west to meet up with that line, all they would be doing is duplicating state roads.

The local road network would still suffer under all the freight of the product from the farm to the rail line. The issue for local government is still there no matter what rail does.⁶⁶

4.91 The main rail issues in the area around Esperance, concern the line to Kalgoorlie. The Shire of Esperance told the Committee that it is essential that the line to Kalgoorlie be designated an AusLink corridor.⁶⁷

4.92 The Shire explained that this line is standard gauge and links into the national standard gauge line. The Shire claimed that if it were on the east coast, it would be an AusLink corridor:

The rail line starts at Leonora, picks up all of the products in that north-eastern mineralised area of the state – a whole range of products – and brings them down and exports them

64 Great Southern Timber Industry Road Evaluation Strategy Group, Transcript, Albany, 8 March 2006, p.20.

65 Timber 2020, Transcript, 8 March 2006, Albany, p.23.

66 Timber 2020, Transcript, 8 March 2006, Albany, p.26.

67 Shire of Esperance, Transcript, 9 March 2006, p.10.

through this port, and it takes fuel back up into that region. So we are saying that corridor must have significance.

Our belief is that, if it is not within that corridor laid down by federal parliament, we will have a huge amount of problems in ever attracting federal funding to the significant investments that might be needed for the future.⁶⁸

4.93 In discussing the ownership of the line, the Shire said:

We were quite frustrated and disappointed when the former Western Australian government sold the rail track and the rolling stock to the same company... We believe that the Australian Rail Track Corporation should have controlled that line from top to bottom. It was common sense...

Then I think we would be part of a standard model right across Australia and it would allow us to see more competitive rates on those lines, because you have got a rail and track corporation controlling it...⁶⁹

4.94 The City of Kalgoorlie-Boulder, referring to the line south to Esperance, said that it is in need of some improvement:

My understanding is that the geometry of the track is not ideal and in fact limits the speed and the safe travel of the trains using that line. That is obviously going to slow the trip down and lessens the amount of rolling stock you can have on the line.⁷⁰

4.95 Co-operative Bulk Handling Ltd (CBH), however, said that, for the grain industry:

It is hard to see any real opportunity to increase the use of rail into the Esperance port zone for two reasons: firstly, the locations of the current storages and, secondly, the problems that we have in the port itself in...the discharge operation, which is quite inefficient at the moment. Most of this port zone is serviced by road.⁷¹

4.96 Portman Ltd is exporting almost 8 million tonnes of iron ore a year from its mine at Koolyanobbing. The mine will have a future capacity of between 10 and 15 million tonnes a year. Portman said, however,

68 Shire of Esperance, Transcript, 9 March 2006, Esperance, p.11.

69 Shire of Esperance, Transcript, 9 March 2006, Esperance, p.12.

70 The City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, p.28.

71 Co-operative Bulk Handling Ltd, Transcript, 9 March 2006, Esperance, p.36.

that the rail line would have to be significantly upgraded to handle a greater tonnage than the present load. The company estimated that the required upgrade between Kalgoorlie-Boulder and Esperance would cost about \$70 million.⁷²

4.97 The ore is railed via Kalgoorlie-Boulder to Esperance. Portman and WestRail said that two new passing loops had been added to the line between Kalgoorlie-Boulder and Esperance and eight existing loops had been extended. The loops could now handle 126 car trains – the limits previously were between 84 and 100 cars. Those improvements cost Portman \$16 million and the company has also invested \$45 million on rolling stock in recent years.⁷³

4.98 Portman said that the haulage of 580 km to Esperance is one of the longest haulage operations for bulk goods anywhere. The company's problem is that it costs them about \$10 a tonne, compared to \$2 or \$3 a tonne for haulage in the Pilbara. Another problem is the rail line itself:

The rail is on an old alignment. I think it is referred to sometimes as being a contour type line, ...it meanders through the contours of the countryside and was suitable for slow-speed operation of trains of 50, 60 or 100 years ago.

...sharp radius corners, limited formation preparation, not suitable for high-speed, heavy operations...Currently the speed limitation is 50 kilometres an hour for loaded trains. The standard that applies elsewhere, and indeed on the Koolyanobbing-Kalgoorlie section, is 80 kilometres an hour, so we are suffering a significant productivity issue with significant speed restrictions.

In addition to that, it is susceptible to flooding and ...to heat buckling ...in summertime, when additional speed restrictions could be imposed because of the integrity of the track and its capacity to handle temperature variations. So it is a relatively tenuous link.⁷⁴

4.99 The region has additional prospects, with the proposed development of another iron ore (hematite) deposit 40 km south west of Wiluna by Golden West Resources. The area is 700 km from the proposed port of Oakagee, near Geraldton, and 900 km from Esperance. Tests so far have proved reserves of 50 million tonnes, and this is expected to

72 Portman Ltd, Transcript, 9 March 2006, Esperance, pp.44-5 and 47-8.

73 Portman Ltd, Transcript, 9 March 2006, Esperance, pp.44-5.

74 Portman Ltd, Transcript, 9 March 2006, Esperance, p.46.

reach 100 million by the end of 2007. Ultimately, the company expects to have 250 million tonnes available for export at 10 million tonnes a year. The initial stage will be 1 million tonnes a year for three years, by road and rail to Esperance.⁷⁵

- 4.100 Based on prices in mid-2007, the deposit would be worth \$A77 a tonne, FOB. The company expects the price to decline after 2008, and in three years it could be \$A60-65 a tonne. Transport costs via Esperance have been estimated at \$25 a tonne, mining costs at \$5 to \$8 a tonne, and processing \$3 a tonne. The company is considering a purpose-built, open-access, rail line into Oakagee, post 2010 – it expects that this would lower transport costs to \$19 a tonne.⁷⁶

Mid West Region

- 4.101 The Hon. Murray Criddle, said that the rail network in this region had been used for only about two million tonnes a year – mainly wheat and mineral sands. He added that:

Only minimal expenditure has been undertaken on the rail network. Line closure, speed restrictions and reducing train sizes have been used to keep the rail operational for current clients.⁷⁷

- 4.102 He said there is now a need to move about 4 million tonnes a year. This has caused some road congestion because the rail lines, some dating from the 1920s, are unable to cope and the freight moves to road transport. To overcome this problem he proposed an upgrade in the rail line from Geraldton to Mullewa and Perenjori, to about 30 tonnes axle loading, and the addition of new passing lanes. He estimated the total cost at \$60 million.⁷⁸

- 4.103 The Mid West Development Commission commented that the sub-standard rail connections are already forcing some iron ore exporters to use road transport:

75 Golden West Resources Ltd, http://www.goldenwestresources.com/downloads/070621_strachan.pdf, accessed 28 June 2007.

76 Golden West Resources Ltd, http://www.goldenwestresources.com/downloads/070621_strachan.pdf, accessed 28 June 2007.

77 Hon Murray Criddle MLA, Member for the Agricultural Region of WA, Transcript, 6 March 2006, Geraldton, p.2.

78 Hon Murray Criddle MLA, Member for the Agricultural Region of WA, Transcript, 6 March 2006, Geraldton, p.2.

Mt Gibson Iron is exporting iron ore from Geraldton at a rate of approximately 2.4 mtpa ...but is being forced to supplement rail freight with road freight due to the inadequate rail system that was constructed in the 1920s/30s to haul significantly less quantities of grain.

Midwest Corporation...have elected to use road instead of rail for a number of reasons. They would have to use the same rail network as Mt Gibson.

It is apparent that the region's road and rail network will be incapable of delivering proposed iron ore tonnages to the port.

Accordingly, at least 2 major iron ore projects are planning to build slurry pipelines to transport iron ore concentrate to the port rather than use the ageing and inadequate rail network.⁷⁹

- 4.104 The new port at Oakagee will require a standard gauge rail connection to the iron ore deposits in the Weld Range, about 400km north east of Geraldton. The potential is for 60 to 80 million tonnes to be exported by 2012. An upgrade of the line to the south east will also be needed and eventually converted to standard gauge.⁸⁰
- 4.105 If the plans of Golden West Resources, mentioned above, proceed as intended, the company will send 10 million tonnes of iron ore a year out through Oakagee, from about 2010.⁸¹
- 4.106 Like projects in southern WA, the iron ore projects will have problems obtaining rolling stock. The evidence indicated that the current exporter waited 16 months to get the wagons needed to move its cargo. It had, in the end, used 35 year old rolling stock, which did not fit into the train unloaders.⁸²

79 Mid West Development Commission, Submission 102, p.3.

80 Hon Murray Criddle MLA, Member for the Agricultural Region of WA and Mid West Chamber of Commerce and Industry, Transcript, 6 March 2006, Geraldton, pp.3-4 and 9.

81 Golden West Resources Ltd,
http://www.goldenwestresources.com/downloads/070621_strachan.pdf, accessed 28 June 2007.

82 Mid West Chamber of Commerce and Industry, Transcript, 6 March 2006, Geraldton, p.16.

South Australia

Green Triangle Region

- 4.107 The Green Triangle Region includes the south east of South Australia and the Western District and Wimmera in Victoria. The local councils in the region are concerned that it is isolated from the main standard gauge line.⁸³
- 4.108 When standardisation of the Adelaide to Melbourne line was completed in 1995, it effectively isolated the broad gauge lines in south eastern South Australia and parts of western Victoria. The result was that freight movements on those lines ceased.⁸⁴
- 4.109 The region's production is already export oriented and agricultural and forestry products, manufactured goods and minerals are shipped through Portland. The problem is that the area is expecting rapid growth in exports of timber products and mineral sands. Estimates indicate that this will involve an additional 3 million tonnes of woodchips and 350,000 tonnes of mineral sands a year. The lack of a rail connection will consign those shipments to the roads.⁸⁵
- 4.110 The Glenelg Council made its submission on behalf of local government bodies on both sides of the South Australia/Victoria border. The main proposal was that the rail line between Mt Gambier and Heywood should be re-opened and converted to standard gauge. The Council said that not only would this open the way for the region's exports to reach Portland by rail, but, with the Heywood-Wolseley standard gauge rail link re-established, additional capacity would be available for the Adelaide to Melbourne rail link.⁸⁶

Tasmania

- 4.111 In May 2005 the Tasmanian Government made its submission to this inquiry. That submission was critical of the lack of funding applied to rail infrastructure in Tasmania. It drew a comparison with the attention and funding given to roads and to rail infrastructure in the mainland states.⁸⁷

83 Glenelg Shire Council, Submission 10, Attachment A, pp.6-7.

84 Glenelg Shire Council, Submission 10, Attachment A, pp.6-7.

85 Glenelg Shire Council, Submission 10, Attachment A, pp.6, 8 and 10 and Limestone Coast Regional Development Board Ltd, Submission 39, p.1.

86 Glenelg Shire Council, Submission 10, p.1 and Attachment A, p.3.

87 Government of Tasmania, Submission 53, p.2.

4.112 Since then, the Australian Government has reached an agreement with the Tasmanian Government and Pacific National and has allocated \$78 million towards maintaining and upgrading the Tasmanian rail network.⁸⁸

4.113 In announcing the agreement, the Minister said:

The purpose of the rail rescue passage is to undertake a programme of remedial works on the AusLink elements of the Tasmanian rail system, between Hobart, Launceston and Burnie. These works are necessary to ensure speed restrictions and other track infrastructure impediments to reliable performance are addressed over the 10 year period of the works programme.⁸⁹

Northern Territory

4.114 The main rail issue in the Northern Territory, outside the Darwin port precincts, is the Adelaide to Darwin rail line. When asked about the seeming lack of traffic growth on that line, the Darwin Port Corporation said:

The Adelaide to Darwin railway has always been a long-term vision – it has been a 50-year project. To anticipate that all of a sudden, from day one on, you would have a significant jump in trade would be false, I think.

Certainly Port Corporation personnel, my colleagues here and other government representatives, in association with shippers and so on, are working on opportunities ...to identify trade opportunities for the railway. It is not anticipated that it will happen on day one; it is a long-term vision.⁹⁰

4.115 The Darwin Port Corporation said that the introduction of iron ore shipments would require the addition of passing loops on the Adelaide to Darwin line. That, the Northern Territory Department of Planning and Infrastructure said, would be up to the rail owner.⁹¹

88 The Hon Mark Vaile MP, Acting Prime Minister and Minister for Transport and Regional Services, Media Release 042MV/2007, 15 March 2007.

89 The Hon Mark Vaile MP, Acting Prime Minister and Minister for Transport and Regional Services, Media Release 042MV/2007, 15 March 2007.

90 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.8.

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

CASE STUDY

The Benefits of Realignment

One example of a realignment that would provide substantial improvement in transit time, and savings on operational costs, is the rail line from Hexham to Stroud Road in NSW.

The present track is 97 km long and the alignment forces trains to go through 18.5 complete circles of curvature. For almost half of the distance, the curvature is 810 metres or less.

An alternative route has been proposed, to run through the Karuah Valley. This route would be 67 km long, with a ruling gradient of 1:80 and, for most of its length, a curvature of 2,200 metres and no tunnels. Following this route would take the trains through less than one circle of curvature. The estimated cost of this re-alignment (in 2004) was \$230 million.

A computer simulation applied to this project indicated that using the new alignment for a 1,500 metre train, hauling 3,900 tonnes, would generate savings of \$960 a train to the train operator, and \$240 a train on the variable costs of the track owners.

The results of the simulation showed a reduction in transit time from 82 to 42 minutes, fuel usage reduced from 1,582 litres to 952 litres and a dramatic reduction in brake work from 1,335 kWh to 207 kWh. All of these results would contribute to a reduction in the environmental impact of train services in the area.

Measured over a year, using current freight volumes, the savings would total \$2.3 million for train owners and about \$800,000 for the track owners. It was also calculated that for each tonne of intercity freight diverted to rail, with road pickup and delivery, external costs would be reduced by \$20.

The simulation estimated that rail would win an extra 0.23 million tonnes a year – reducing external costs by \$4.6 million a year. On this basis, total benefits from the re-alignment would be \$7.7 million a year.

Source: Alex Stoney, *How benefits could flow from one section of re- alignment*, *Track and Signal*, April, May, June 2006, p.34 and *The Karuah River Railway*, Second Edition, 16 July 2004, p.2.

Regional Grain Lines

4.116 One problem repeatedly brought to the Committee's attention during the inquiry, was the poor condition of the regional rail lines servicing the shipment of grain for export. This is a problem in several states.

4.117 The Australian Wheat Board (AWB) said that one of the main problems is that the capacity of the network has not kept pace with the increase in grain shipments:

Most of the present regional road and rail network infrastructure has been based on the production levels of some 30 or 40 years ago, or roughly half the current required capacity. Over this period there has been minimal capital investment in components of the network to bring it up to modern standards.

...the rail network is deteriorating rapidly and has become a key limiting factor for the grain export industry to meet demand in a timely manner, or to be able to respond to marketing opportunities as they occur.⁹²

4.118 The AWB added that much of the rail network had been built 100 years ago. Its shortcomings, the Board said, could be seen by a comparison with the North American rail networks:

As a comparison guide, North American rail networks carry up to 100 tonnes of wheat in a wagon. In contrast, the average Australian net wagon load is 55 tonnes and can be as low as 35 net tonnes.⁹³

4.119 In recent years the process of privatisation has completely changed the dynamics of regional railways. The Railway Technical Society of Australasia (RTSA) said that for the regional grain lines to survive, a new method of administration is needed:

...the process of change that has happened over the last 10 to 15 years on Australian railways has, to a large extent, sorted out the interstate or national level operations but there has been no complementary process of change in the branch lines. They have been left out to some extent.⁹⁴

92 Australian Wheat Board, Submission 97, pp.10-11.

93 Australian Wheat Board, Submission 97, p.14.

94 Railway Technical Society of Australia, Transcript, 1 August 2006, Sydney, p.4.

- 4.120 The Australasian Railway Association said that greater co-operation is the only way that the supply chain can achieve sustainability:

The supply chain has changed dramatically and relationships within the chain have changed even more. The only way the chain as a whole will become sustainable in the long term is through policy and regulatory change to encourage participants to work more co-operatively together.

If this does not occur, each participant can only improve their individual activity within the chain at the margin...

By closing small inefficient depots, some branch lines, and using a planned co-ordinated road/rail transport system, the limited government and industry funds would be focussed on long term infrastructure improvements rather than being spread across investments that give short term, but unsustainable long term, benefits.⁹⁵

- 4.121 CBH in WA, explained that one of the problems is the comparative cost of road and rail infrastructure:

We have ...seen because of the increase in commercial pressures, an uncoordinated approach to funding for infrastructure type investment. We had some issues in relation to road versus rail infrastructure costs.

For example, slip roads into the site...are in the order of \$600,000, whilst rail related loading infrastructure at the moment runs to about \$4 million. So economically, it would make a lot more sense for CBH to invest in road related infrastructure rather than rail, although, as a company, we are very strong supporters of rail. Rail siding construction and maintenance costs are also very, very high.⁹⁶

- 4.122 The RTSA said that it believes that "...rail is not living up to the potential that it can offer producers, consumers and particularly the welfare of regional communities". It said that the problem is that:

Historical patterns and demand have shifted and now powerful market forces in grain logistics are driving efficiency and change in regional transport. Old frameworks for rail are ill equipped to effectively integrate rail to road and

95 Australasian Railway Association, Submission 70, pp.6-7.

96 Co-operative Bulk Handling Ltd, Transcript, 9 March 2006, Esperance, p.33.

storage systems, either for the grains industry or for wider sustainable regional transport.

These frameworks were established for a bygone era in which state based centrally planned rail agencies were aligned with state based road authorities, grain handlers, port authorities and export marketers.

Whilst handling authorities are now deregulated and new entrants are appearing in upcountry storage, the price signals through the expected silo returns are sending clear signals to farmers. Although enterprise level productivity in modern silos is clear, it is also evident that general productivity in regional rail has not increased to the same extent as road transport.⁹⁷

- 4.123 The Riverina Eastern Regional Organisation of Councils (REROC), representing 12 local government organisations in the eastern Riverina, said that the situation with the network of grain lines was disturbing its members:

Our members are extremely concerned that rail is being removed from the transport solution for grain. Recent policies implemented by the State Government have resulted in a series of recommendations to close branch lines in rural areas...

The closure of the branch lines has increased the number and frequency of truck movements on regional roads as this is now the only way in which farmers are able to deliver their grain to the regional receival points.

Not only has this increased the cost of production for farmers it has also negatively impacted on local councils who are now faced with repairing the damage that will result from the increased usage of regional roads by heavily laden grain trucks.⁹⁸

- 4.124 The RTSA suggested that Australia should consider the approach successfully applied in North America:

The key observation arising from the North American experience is that regional rail became viable after deregulation there because it was put onto a regional basis.

97 Railway Technical Society of Australia, Transcript, 1 August 2006, Sydney, p.2.

98 Riverina Eastern Regional Organisation of Councils, Submission 92, pp.1 and 3.

Basically, the large operators wanted to divest themselves of the responsibility and regional operators took up that responsibility.

We are suggesting that we move towards that process of change. The problem ...is that we do not have the institutional capacity in regional Australia. I accept that it varies from place to place, but the institutional capacity to do that does not exist.⁹⁹

4.125 Professor Gray, appearing with the RTSA, suggested that regional areas be encouraged to organise and operate local lines themselves. He suggested that this could be encouraged by the Australian Government providing funding to support suitable regional groups; a similar arrangement to the eleven NSW regional transport co-ordinators.¹⁰⁰

4.126 The RTSA agreed with this approach and said:

... The state officials ask us: 'What are the barriers to this happening at the moment? Why doesn't this happen at the moment?' The reason is that we need the states or the federal government to take on a facilitation role to make it happen.

We need the legislative framework to make sure the safety regulations are in place, we need to segment this particular market away from the main line market and we need to help facilitate the entrepreneurial level and local control and local ownership of these short lines.¹⁰¹

4.127 Toll Holdings indicated that discussions were under way with other parties in the grain supply chain – with the idea of applying the Hunter Valley Coal Chain model to the task of moving the grain harvest:

We are now trying to take that same approach to the grain supply chain in New South Wales where you have all the same dynamics. You have different parties owning the mines, that is, the silos, different parties owning the trains, different parties owning the rail infrastructure and different parties owning the ports. They all run into each other and the system

99 Railway Technical Society of Australia, Transcript, 1 August 2006, Sydney, p.4.

100 Railway Technical Society of Australia, Transcript, 1 August 2006, Sydney, pp.4-5.

101 Railway Technical Society of Australasia, Transcript, 14 February 2007, Canberra, p.17.

is terribly inefficient, let alone the quality of the branch line infrastructure.

We are now talking to a number of the other parties in the grain supply chain in New South Wales about replicating what we did in the Hunter Valley in the grain supply chain. We think there are huge benefits to be gained there. It really does require an entirely different approach to the way government policy operates and the way government regulates assets. At the moment the way assets are regulated it is very difficult for parties in a supply chain to come together in a room and talk about operating seamlessly together.¹⁰²

- 4.128 South Australia has a similar problem with its grain lines. The Eyre Peninsula, for example, supplies one third of the state's grain and the industry employs about one third of the region's workforce. The problem lies in the rail network needed to get the grain to the ports.¹⁰³
- 4.129 The Eyre Peninsula Local Government Association said that the rail network is a vital link in the delivery of the grain harvest to Port Lincoln and Ceduna. Unfortunately, that network is "...in a poor state of repair due to the previous owner's maintenance policy".¹⁰⁴
- 4.130 The Association listed a number of factors that are restricting the efficiency of the network:
- low track speeds and axle loadings;
 - poor out-load rates at strategic inland silos;
 - low wagon capacity;
 - multiple discharge mechanisms on rolling stock;
 - limited track space and low discharge rates at Port Lincoln;
 - summer heat restrictions during harvest; and
 - slow turn-around times.¹⁰⁵
- 4.131 In Western Australia, some regions found that privatisation of the grain lines had quickly resulted in closure of lines, which effectively moved large quantities of grain to road transport. One example of this was in the area around Esperance, and the President of the Shire of Esperance said:

102 Toll Holdings, Transcript, 1 August 2006, Sydney, p.43.

103 Eyre Peninsula Local Government Association, Submission 1, p.2.

104 Eyre Peninsula Local Government Association, Submission 1, p.2.

105 Eyre Peninsula Local Government Association, Submission 1, p.2.

My understanding of the history in Western Australia, and that is particularly across the narrow-gauge lines that run around the wheat belt areas of the state, is that the company that took it over as a component – or having connections to the company with the rolling stock – very quickly rationalised those lines; and suddenly we saw all the grain movements et cetera going onto roads and not onto rail. I think that is a bit of a sad scene.¹⁰⁶

- 4.132 The Shire continued that this process was affecting the traffic on the Kalgoorlie to Esperance line:

...we are caught up in that, because this line, a standard-gauge line, is drawn into that – to the point where grain is not going onto rail, although this year I noticed there were some rail wagons bringing grain down from Salmon Gums and Grass Patch. That could all travel on rail, and over the last two years 99 per cent of it – perhaps all of it – came down on road. So we are not getting utilisation of rail.¹⁰⁷

- 4.133 CBH is a grower-owned co-operative and the monopoly grain handling company for Western Australia. The company, in its evidence, commented that the Hunter Valley Coal Chain model would not be appropriate for the WA grain industry. CBH said:

One of the things that was obvious to me ...is that all the members of that team had skin on the table. Nationally in the grain industry, you have a disconnection between operational interface ...and the financial accountability...

...AWB [does] not own any storage and handling infrastructure in this state. They control the funds flow from the export grain that comes in. They pay the bills, if you like....They are in a significant position to reduce costs at any cost, because they are rewarded for it, which has a detrimental impact on the supply chain in the long term.

They are still the owners of that grain, once it is delivered to the pool. So, if you were to take the Hunter valley model, you would include AWB at the table, yet they have no infrastructure at risk and they are rewarded for pushing costs

106 Shire of Esperance, Transcript, 9 March 2006, Esperance, p.12.

107 Shire of Esperance, Transcript, 9 March 2006, Esperance, p.12.

out of the supply chain at any cost. It is not a model that would work with AWB at the table.¹⁰⁸

- 4.134 CBH also said that there is an urgent need to address the problem of the WA grain lines:

...there are vast sections of the line, the narrow-gauge network in particular at the moment, that are serving the grain industry that are not viable, even by conservative commercial benchmarks, so something needs to occur.¹⁰⁹

- 4.135 A recent newspaper report highlighted the problem that can arise for the grain industry when the poor transport infrastructure has to cope with a bumper crop – and compete with booming mineral shipments. The article, noting ABARE’s prediction of a 129 per cent surge in wheat production, said:

Australia may well be awash with grain in the new year, but a dispute between the grain companies and the rail operator, combined with the parlous state of the rural rail network, could limit the capacity of farmers to cash in on the drought’s end.¹¹⁰

The North American Short-Line Model

- 4.136 The Committee took advantage of the visit to Australia of a Canadian expert on regional railways – Mr Ed Zsombor, Director of Rail Services in Saskatchewan. Mr Zsombor explained some of the differences between the Australian treatment of regional grain lines and the Canadian equivalent, the system of branch lines (also known as short-lines) used to move the wheat harvest.

- 4.137 He commented that Canada has only one rail gauge. It does not have Australia’s difficulty of trying to mesh different gauges into a coherent system. Canada also has a government-owned, dedicated fleet of wagons for the grain shipments:

In the late seventies and eighties, the federal government purchased 12,000 100 ton hopper cars, 263,000 pounds gross. ...So in the transportation of grain there is no car or

108 Co-operative Bulk Handling Ltd, Transcript, 9 March 2006, Esperance, pp.32 and 37.

109 Co-operative Bulk Handling Ltd, Transcript, 9 March 2006, Esperance, p.35.

110 Matthew Stevens, *Bitter Harvest: train pain means farmers can't cash in on bumper crop*, The Australian, 27 June 2007, p.19.

ownership cost built into the freight rate because they were provided by government. ...It is a fleet dedicated to grain.¹¹¹

- 4.138 Mr Zsombor explained that the Saskatchewan Government had upgraded its 1,000 cars to 286,000 pounds gross – to haul 110 short tons of grain per car.¹¹²
- 4.139 The grain is moved by two private companies, Canadian Pacific and Canadian National. The government establishes a revenue cap for export grain, reviewed each year, and the two companies cannot exceed it. There is an established allocation that splits the revenue almost equally between them. Any excess revenue is paid back to the government and goes into an agricultural research fund.¹¹³
- 4.140 There is a legal process for abandoning or dismantling rail lines. It must first be advertised for a commercial deal. If none eventuates, the line must be offered to the province and the local governments at net salvage value.¹¹⁴
- 4.141 Mr Zsombor said that from 1979 to 1990, the federal government spent about \$1 billion dollars upgrading more than half the branch lines in western Canada. The aim was to restore them, over a period of ten years, to a capacity to allow trains to travel at 30 miles per hour, minimum, all year round, and to be able to pull 100 ton cars.¹¹⁵
- 4.142 He said that he believed that decisions on the abandonment or continuation of a line should be made by the people involved:

...when it comes to branch lines, the decision whether that line should stay or go should be at the lowest level possible and should be made by the local governments and producers and shippers. And the whole idea, like any railway,...is that you use it or you lose it. The best place to make that decision is at the local level, because they are the ones that are going to decide whether they are going to support using it.

So we believe those decisions are best made at the lowest level possible, which is generally in the region or locally. It is

111 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.3.

112 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.3.

113 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, pp.4-5.

114 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.5.

115 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.6.

not made by the province; it is not made by the federal government. So that approach is maybe a little different.¹¹⁶

- 4.143 Mr Zsombor outlined a scheme used in Canada to give local communities the opportunity to keep a line open. Saskatchewan will give local groups \$25,000 to do a business plan or a feasibility study. There is then a second plan that can be accessed if the group meets three criteria: a viable business plan for 10 years after the purchase; local investment of a minimum of eight per cent; and demonstrable local support:

So if you have those three things we will take a 15-year loan, interest free, for the purchaser and, knowing it is a new business, we let them have three years of no payments if they wish and 12 equal higher payments rather than 15 lower payments, and that is just to get them started.¹¹⁷

- 4.144 The RTSA added that, in practice, there is no risk:

One of the advantages is that it is at a net salvage value, which basically means that there is no risk; it is the steel on the rails, and if the venture does not succeed they can still get the value from the scrap metal. It is really no risk to the local entrepreneurs.

Mr Zsombor, however, noted that: "The loan is only for the land and the track. They have to arrange to buy their own locomotive power."¹¹⁸

- 4.145 Commenting on the situation in Australia, Mr Zsombor said:

...I have seen tracks that you could be running heavier loads on – I would certainly approve them – but they are underloading the cars, which makes them very unproductive and inefficient. I think that is because the standards are set for main lines, where you have got dangerous goods and you have got passengers. They are very high standards, and you do not need that on a short line or a branch line. If you had two standards or a different approach for the branch lines I think that would be really worthwhile; that would make it a lot easier to start up and to operate.¹¹⁹

116 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.6.

117 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.7.

118 Mr Ed Zsombor and Railway Technical Society of Australasia, Transcript, 14 February 2007, Canberra, pp.7-8.

119 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.11.

4.146 Later Mr Zsombor commented again on the loading of the grain wagons: "I would have no problem loading the tractor that I looked at to 100 tonnes, but they were underloading them to 40 tonnes or 50 tonnes. I could not believe that."¹²⁰

4.147 The concepts explained by Mr Zsombor received some support from the members of an RTSA Study Tour of the NSW Branch Lines in March 2006. In his comments on the tour, Mr Ian Gray said:

Even in the UK, where local government has been relatively strong, the central government has chosen to maintain rail services at the local level by sponsoring partnerships among local organisations – the "Community Rail" movement.

The development of Catchment Management Authorities, with planning powers and substantial budgets, has shown how planning sustainable development can be focused at the regional level. It should be examined as a model for establishing an institutional basis for sustainable transport, one in which people directly affected and aware of business opportunities can participate.¹²¹

4.148 Mr Graeme Priddle, on the question of whether short-line operations based on the rail services in North America could be successful in Australia, added:

Yes. Local entrepreneur owns the branch line(s). He is responsible for capital (with federal govt grants) and agreed (beforehand) maintenance.

Hook and pull operators come from outside. Wagons come from outside. ...Main line/ports responsibility of others, BUT everyone talking to every other party.¹²²

4.149 Professor Phillip Laird, also a member of the Study Tour, suggested that:

In the short term there is a good case for rehabilitation of branch lines. The alternative is to see more and more freight move by B-doubles on lightly constructed roads.

120 Mr Ed Zsombor, Transcript, 14 February 2007, Canberra, p.16.

121 Railway Technical Society of Australasia, Exhibit 34, *Study Tour – Branch Lines of NSW – Study Tour Notes*, 22-25 March 2006, p.8.

122 Railway Technical Society of Australasia, Exhibit 34, *Study Tour – Branch Lines of NSW – Study Tour Notes*, 22-25 March 2006, p.25.

The fact that lines are no longer vertically integrated means that government may need to work harder to seek contributions from beneficiaries as well as provide funds to facilitate upgrades that will enhance Australia's export potential.¹²³

4.150 Professor Laird concluded:

The main reason given for the closure of rural branch lines servicing the grain industry is that their cost to Government and the tax payer outweighs the benefit to the community of keeping the lines open.

Grain transportation via heavy vehicles, including B-double trucks, and the road network is thought to be appreciably cheaper and more efficient. However, estimates of cost reduction when the need for rail infrastructure maintenance is removed often fail to take into account excessive costs that are simply transferred onto those responsible for maintaining the local road network, and, the wider community.

...Unless all costs and factors are fully considered, the closure of rural branch lines can only be a step backwards in the current necessary search for sustainable transport options.¹²⁴

Increasing Line Capacity

4.151 The Committee considers that the users of the Hunter Valley Coal Chain have demonstrated, by increasing throughput without adding major new infrastructure, what can be achieved through consultation and co-operation.

4.152 Increasing the capacity of the infrastructure can be achieved in a number of ways, before actually setting out to reconstruct the line. Improved signalling and communication systems can allow trains to safely reduce the distance between them. Co-operatively scheduling repairs and maintenance, to keep closures to a minimum, allows a larger number of train slots. Where possible, the use of longer trains,

123 Railway Technical Society of Australasia, Exhibit 34, *Study Tour – Branch Lines of NSW – Study Tour Notes*, 22-25 March 2006, p.30.

124 Railway Technical Society of Australasia, Exhibit 34, *Study Tour – Branch Lines of NSW – Study Tour Notes*, 22-25 March 2006, pp.30-31.

double stacking of containers and the provision of more passing loops, can also have a substantial effect on the capacity of a network.

4.153 In the Committee's opinion, however, the greatest need for Australia is the reconstruction and realignment of the main freight networks. This would:

- allow faster speeds and greater axle loads;
- clear the way for longer trains and double stacked containers;
- make it possible to reduce the steepness of grades, straighten lines and remove loops; and
- allow for the elimination of many level crossings.

A Challenge

4.154 One witness, Mr Vince O'Rourke, a former head of Queensland Rail, encouraged the idea that the nation should move beyond the steam era and build modern railways to cope with 21st Century demands.

4.155 He challenged the nation to stop thinking of railways in 19th Century terms and to build a fast, modern network, using proven but very modern technology:

...there is some real innovative and creative redevelopment in the upgrade of the ARTC work. We will see significant reductions in time and improved capacity of the railway. At the end of the day, it is fixing up a railway that was designed for the steam era and we need to do something new.

Our manufacturing industry is under enormous threat. We have seen an explosion of imports. Our industries are doing it tough, and we are part of a global supply chain that is rapidly growing. We can see there are significant initiatives that need to be taken.

Regarding the Melbourne to Brisbane railway line proposal ...let us build a new railway line, and a decent one. This is a position I was advocating when I was in QR. Why don't we do something that the rest of the world does?... We see modern freight trains and passenger trains throughout Europe and the great railways of North America. ... We will patch up another railway and think we are doing pretty good to get along at 80 kilometres per hour when we should be thinking about freight trains that will travel up to 160

kilometres per hour, which happens in other parts of the world.

We are suggesting that we should build a modern railway between Melbourne and Brisbane on the shortest corridor of about 1,600 to 1,650 kilometres, west of the Great Dividing Range on the flat country with very low gradients, that it should cater for high speed freight trains up to 160 kilometres per hour and double-stack trains travelling at up to 120 kilometres per hour. It should have the capacity for fast tilting trains that would run between Melbourne and Brisbane and probably more importantly that would service the regional areas of southern Queensland and northern Victoria.

In terms of regional development, a modern railway line would cause an explosion of logistics and economic development in northern Victoria, New South Wales and Queensland. It is time to make a quantum leap in the capabilities of railways.

We are doing too much patching. Why don't we build some really good railways? On a modern railway from Melbourne to Brisbane, freight trains could make their journey in 15 hours. It would be overnight. It is the just-in-time manufacturing inventory, logistics and integration with the ports that this nation needs.

Rather than think we can do pretty well at 80 kilometres per hour, why don't we lift our minds, get into the future and start some innovative and creative solutions that the railway industry can give this nation?¹²⁵

4.156 Similar thoughts were expressed in Toowoomba, where Trans Bulk Haulage said:

...I just find it very frustrating with the infrastructure being patched and not really being improved. ...There has not been any real money spent. There needs to be big money spent. The government want everyone to become more productive but they need to spend more money and they need to spend lots and lots of it, on both rail and road. ...let's get into it and get something organised. People are just talking and going

125 Mr Vince O'Rourke, Transcript, 1 August 2006, Sydney, pp.14-15.

round and round in circles. There is nothing happening. It is very frustrating from all points.¹²⁶

4.157 The Committee found this a fascinating challenge. Australia is a huge country and heavily dependent on its internal transport network. Because it is an island and trade plays such a big role in the economy, it is also highly dependent on easy access to the ports. It is particularly appropriate, because of the growing congestion on the roads and the cost of the road accident toll in lives, injuries and property damage.

4.158 This Committee and its predecessors have long advocated a serious effort to raise the rail standard in Australia, rather than being content to simply keep things running. In its 1998 report *Tracking Australia*, the Standing Committee on Communications, Transport and Microeconomic Reform posed a similar challenge:

On the eve of the 21st century, the committee is conscious that concerns about the environment and other externalities mean that rail in Australia is being seriously considered as a viable transport option. Australia's rail therefore has 'to lift its game' and perform at international best practice levels...¹²⁷

4.159 The Committee then added:

...bearing in mind the Australian Transport Council ...decisions to promote rail, the committee supports an invigorated role for passenger and freight rail in the national transport network. The committee believes that where rail has demonstrated its reliability, timeliness, safety and service orientation, rail provided a successful service. There is an important role for rail in the national transport network, in particular the national interstate rail traffic...¹²⁸

The Committee believes that the need for rail to fulfil the role outlined in *Tracking Australia*, has grown and is now more important than ever.

4.160 Over the years, the argument has been that the way to preserve regional and rural roads is to increase the share of freight moved by rail. As this is not happening quickly enough to offset the growth in

126 Trans Bulk Haulage Pty Ltd and Australian Trucking Association, Transcript, 7 April 2006, Toowoomba, p.61.

127 House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform, *Tracking Australia*, Canberra, July 1998, p.xxv.

128 House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform, *Tracking Australia*, July 1998, Canberra, p.4.

the use of B-doubles, B-triples and other heavy road transport, not only is rail failing, but so are the country roads. Unless serious funding is put into one or the other, both will continue to fail.

- 4.161 Now, almost ten years later, the only freight rail lines running at world's best practice are the iron ore lines in the Pilbara.
- 4.162 The Committee considers that the Australian and State Governments should take up this challenge to raise Australia's rail transport to world's best practice, and quickly. The task will not be cheap but the economic benefits will be widespread. In *Tracking Australia*, the report emphasised the overall benefits of a modern, high-standard, rail system:

Evidence to the inquiry emphasised that increased investment in rail infrastructure, together with continued improvements in performance by rail operators, would lead to more effective and efficient use of the nation's rail assets, generating economic benefits for rail users and the wider community.¹²⁹

- 4.163 The Committee believes that if governments take a similar funding approach to that given to roads over the last two or three decades, the economic and social benefits would amply repay the effort. Australia would have a high-performance rail network, the freight burden on the roads would be reduced, and the external effects of increased transport usage would also be reduced: effects on the environment, congestion, accidents, air and noise pollution and greenhouse gas emissions.

Committee Assessment

- 4.164 State governments have established policies to increase the share of rail in the freight task. The Committee is convinced that this will only be achieved to a substantial level if infrastructure funding is concentrated on strengthening and straightening tracks and the removal of obstacles, to allow the widest possible use of 1,800 metre trains and the double-stacking of containers.
- 4.165 The condition of the grain lines is a problem in several states. The Committee considers that the type of structure outlined by Mr Zsombor is worth closer examination in Australia. The concept of

¹²⁹ House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform, *Tracking Australia*, Canberra, July 1998, p.150.

local businesses and authorities arranging to take over the short regional lines, with some help from the State or Australian governments, could be a useful way of keeping the infrastructure available.

- 4.166 On the East Coast there are many problems facing the rail network. The ARTC, however, is making good progress on dealing with some of the worst problems. The Committee was pleased to find that during the course of the inquiry, approvals were given on some very important projects: for example, the Southern Sydney Freight Line and the announcement on the Goonyella line in Queensland.
- 4.167 The biggest problems lie around access to Sydney. The congestion in the city area, leading to conflict for time slots between freight trains and passenger services, and the poor access to the city from the north, combine to make this a planner's nightmare. The Southern Sydney Freight Line will help considerably, but access to Sydney will continue to be a problem for some time yet.
- 4.168 The Committee has a great deal of respect for Mr O'Rourke's views. It endorses his recommendation that we do one major project, and do it extraordinarily well, so it can be used as a template for greater rail productivity and efficiency.
- 4.169 The Committee considers that it is time that Australia made a national commitment to sharply raising the standard of the rail network to provide a fast, modern, flexible and efficient system.
- 4.170 The losses to the national economy through the delays at Newcastle and Port Dalrymple are simply the highest profile problems - there are many other examples at all levels. Overcoming these difficulties would not only assist exporters to maximise their opportunities, but would encourage the establishment of new industries once it was seen that reliable transport was readily available.

Road Infrastructure

- 5.1 A substantial proportion of AusLink funding is being applied to the improvement of Australia's main road networks. In this chapter the Committee examines road connections, in areas other than port precincts, brought to its attention during this inquiry – either in evidence or during site visits – where funding of road improvements was demonstrated to be a priority.
- 5.2 As with rail links in the last Chapter, where the road issues relate directly to a port, they have been dealt with in Chapter 3.
- 5.3 It is obviously vital for the main highways to be brought up to an acceptable international standard. However, the Committee received evidence from a wide range of sources indicating that there are bottlenecks and “missing links” in other parts of the freight transport system, that are holding back its overall expansion and efficiency.
- 5.4 In many areas, the infrastructure needed is a section of road that is not covered by either funding from the AusLink program, or by State government funding. The chapter highlights some of these areas, where a project would make a marked difference to the efficiency, and/or safety, of the freight network and, in some instances, the GDP of a region.
- 5.5 This Chapter also refers to some problems of inconsistency between states and territories and the regulations they apply to freight transport by road.

Road Weight Limits

- 5.6 The question of increasing allowable road weight limits and axle loadings was raised by a number of participants in the inquiry. The difficulties caused by varying regulations between states were also raised.
- 5.7 In the face of the anticipated growth in container movements over the next twenty years, evidence cited difficulties caused by:
- different limits in different states; and
 - limits set too low to allow the widespread use of 40 foot containers.
- 5.8 The Australian Meat Industry Council (AMIC) commented that having different limits between states poses particular problems for NSW regional processors. The council said:
- The legal limit in NSW is generally 3 tonnes less than all other States at 42.5 tonnes gross weight. This is an unfair limitation on NSW processors vis-à-vis their fellow processors in other States.¹
- 5.9 The problem of load limits leads into consideration of the trend towards the use of 40 foot containers. The meat industry is quite conscious of the difficulties the larger containers will pose, because meat is a heavy mass product. AMIC calculates that a 50 tonne gross weight limit should be the aim:
- Modern 40 foot units are rated at up to 34 tonnes cargo weight. As a result, the ideal practical objective would be a 50 tonne gross weight limit comprising 34 tonnes cargo, plus 4.5 tonnes container tare, plus 11.5 tonnes for prime-mover and trailer.
- If the objective ...is to place the industry in a competitive position over the next decade, an objective of 50 tonnes gross weight should be adopted as the ultimate goal.²
- 5.10 AMIC went on to say that the global trend is to 40 foot containers. Australia only accounts for about 2.5 to 3 per cent of total world container movements and AMIC said: "...We cannot resist the global trends that are appearing". This means, in turn, that the Australian

1 Australian Meat Industry Council, Submission 31, p.1.

2 Australian Meat Industry Council, Submission 31, p.2.

transport system will need the capability to move the larger containers freely.³

- 5.11 Trans Bulk Haulage in Toowoomba claimed that its trucks can never use the allowable weight limit. The company said:

...we find that we can never use our mass limits as we never load our grain on a Federal Funded Highway (Mass limits cannot be used off a federal funded highway).⁴

- 5.12 Strong arguments are, of course, made against the widespread application of higher load limits. Residents are concerned about factors such as noise, pollution and safety. As heavy vehicle traffic has grown, local councils have become concerned about the increasing cost of road maintenance. For example, a joint submission from local authorities in the Esperance region, said:

The Shire has a strategic plan to address future transport-related impacts on these roads. However, given current funding levels, the road asset will deteriorate as expenditure is not meeting status quo costs. Reliance on road freight to deliver goods to the Port is also causing the road assets to deteriorate quickly, as well as compromise the safety of road users especially on school bus routes and in tourism areas.⁵

New South Wales

Hunter Valley – F3 Freeway and Golden Highway

- 5.13 In the Hunter valley, the most important infrastructure project, according to the Hunter Business Chamber, is a proposed extension of the F3 Freeway (Sydney to Newcastle), from Seahampton to Branxton.⁶
- 5.14 This link would provide improved freight connections to Newcastle and also between the North West, the Central West, the Hunter Valley, the Central Coast and Sydney. The estimated cost is \$750 million. The Hunter Business Chamber said:

3 Australian Meat Industry Council, Submission 31, p.2.

4 Trans Bulk Haulage Pty Ltd, Submission 3, p.1.

5 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission, Submission 27, p.6.

6 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.47.

...this piece of road infrastructure is something that the whole region and north-western and western New South Wales want put in place. It takes out the urban parts of Maitland right through Lochinvar and all of those parts in the valley to give us a freeway, which is very important.

We have promoted getting this project constructed to government at different levels. We seriously ask that the funding for this project be accelerated and that the federal government encourage the state government to make it a higher priority than what they currently have made it.

It is an important project. It has been going for some time. I believe that [those] costings probably need revisiting, but it is a very important project.⁷

- 5.15 The Chamber said that some allocation of funds had been made under AusLink but that negotiations on the project had stalled because of increasing costs. The NSW government has agreed to provide 20 per cent of the total cost.⁸
- 5.16 The Committee was pleased to note the inclusion of an allocation of \$20 million in the 2007-08 Federal Budget towards the cost of linking the F3 to Branxton.⁹
- 5.17 Another priority identified for the Hunter region was an upgrade for the Golden Highway, between the Hunter and Dubbo.¹⁰

Shoalhaven Region - Main Road 92

- 5.18 The Shoalhaven City Council has worked hard to gain approval for improvements to Main Road 92, between Nowra and the Southern Highlands. In 1997, the route was designated a "Road of National Importance". Later, the NSW government added its support to the proposal for improvements. However, there have been delays in planning and other approvals, and the budget has been reduced from \$80 million to \$65 million (in 1997 terms).¹¹

7 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.46.

8 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, pp.46-7.

9 Deputy Prime Minister and Minister for Transport and Regional Services, Mark Vaile, and the Minister for Local Government, Territories and Roads, Jim Lloyd, Joint Media Release 002TRS/Budget, 7 May 2007.

10 Hunter Business Chamber, Submission 131, p.8.

11 Shoalhaven City Council, Submission 44, p.4.

- 5.19 The Council, in company with the Goulburn Mulwaree Council, is seeking assistance from the AusLink program to fund an assessment of the most efficient route. The Council noted that, in addition to its value to the Shoalhaven region, this road would also provide a link to Gippsland via the Monaro Highway, and Northern Victoria and the Riverina via the Hume Highway.¹²
- 5.20 The Council also noted that to complete the link, it would be necessary to upgrade the Princes Highway between Nowra and Port Kembla.¹³

Figure 5.1 Main Road 92



Source: Shoalhaven City Council, Submission 44, p.8.

Illawarra and South Coast - Princes Highway

- 5.21 The Shoalhaven region, 160 km south of Sydney, has a substantial and diversified industrial base. The Shoalhaven City Council expressed concern that the area has no rail link to Port Botany and Port Kembla, and is consequently reliant on the Princes Highway for the movement of freight.

12 Shoalhaven City Council, Submission 44, p.5.

13 Shoalhaven City Council, Submission 44, p.5.

5.22 The Council said in its submission to the Committee:

With the Princes Highway being the main artery for the South Coast, the inadequacy of this transport corridor to service the needs of the communities along its route both in Southern NSW and in the Gippsland became obvious to Shoalhaven City Council.¹⁴

5.23 The Council initiated a Transport Strategy Study in 2000, that:

...highlighted the inadequacies of the current highway system in a north/south direction, as well as the east/west escarpment crossings, which are vital to moving produce and freight between the coastal [plain] and the tablelands of Southern NSW.¹⁵

5.24 Later, in 2003, the Council was the instigator for the formation of a group called PHocus, which consists of representatives from the Southern Councils Group, NRMA, SEATS¹⁶, the Road Transport Association, the Illawarra Business Chamber and Tourism Task Force Australia.

5.25 The aims of the PHocus group were concentrated on improvements to the Princes Highway. The group set out to gain funding commitments that would lead to:

- a four-lane dual carriageway to 100kph standard, north of the Jervis Bay turnoff, by 2010;
- B-double access to the Victorian border;
- eliminate areas of major constraint in bad weather conditions; and
- bring the remainder up to current standards; provide overtaking lanes every five km and local rest areas and parking.¹⁷

5.26 SEATS agreed that there is an urgent need for better transport arrangements in this region:

- you cannot take a rail trip from anywhere south of Nowra to Bairnsdale. No train transportation exists.
- there are no passenger shipping opportunities between Melbourne and Sydney.

14 Shoalhaven City Council, Submission 44, p.3.

15 Shoalhaven City Council, Submission 44, p.3.

16 The South East Australian Transport Strategy.

17 Shoalhaven City Council, Submission 44, pp.3-4.

- the only avenue available to a would-be traveller or transporter of goods from or to this part of Australia is to drive.
- the Princes Highway is the only route available to those living in south east Australia.¹⁸

5.27 SEATS commented that while there is connectivity between the road, rail and ports in this region: "It cannot easily or economically be utilised, however, because of the poor state of the Princes Highway between Bairnsdale and Nowra." The group added:

The road system is sub-standard and is shown to be one of the most dangerous in the whole road network in Australia.¹⁹

5.28 The Bega Valley Shire Council drew attention to the need for completion of several projects in its district, to enable B-doubles to use more of the Princes Highway and to reduce the danger to other drivers in difficult sections. The Council proposed:

Imlay Road: The completion of the Imlay Road to a level where the use of B-doubles and heavy vehicles on a regular basis does not impede the use of this road for other vehicles.

Bega Bypass: The main reason for the Bega Bypass is to remove heavy vehicles from the CBD...Currently there is no B-double route in both directions. South bound and north bound B-doubles have to uncouple and couple outside Bega's CBD. The movement of heavy vehicles through ...Bega township raises concerns for pedestrians and vehicle drivers.

Heavy vehicles have to negotiate a tight turn from Gipps Street onto Carp Street or vice versa. The traffic movement quite often means that other road users are required to back up or move to the side of the road to allow the heavy vehicles to negotiate the turn.²⁰

Other problems are: noise levels, wear and tear on the main streets, and heavy vehicles travelling past a school and several churches.

Brogo Pass: ...a winding, narrow and patched surfaced section of the Princes Highway. This winding gorge road has rock falls that can close the road for several hours. ...The Brogo Bridge is a two-lane bridge...approached by a tight

18 South East Australian Transport Strategy, Submission 59, p.3.

19 South East Australian Transport Strategy, Submission 59, p.4.

20 Bega Valley Shire Council, Submission 77, pp.2-3.

corner. Heavy vehicle drivers will radio ahead to other truck drivers to advise when they will be on the bridge.

...the Princes Highway at Brogo river bridge and Narooma Wagonga Inlet are delaying the use of B-doubles along this southern section of Highway.²¹

- 5.29 The Committee was troubled by the arrangement between Gipps and Carp Streets in Bega and raised the prospect of a safety audit under the Black Spots program.

Other Projects brought to the Committee's Attention

- 5.30 The Northern Rivers Regional Organisation of Councils (NOROC) was mainly concerned with improvements to the Pacific Highway when its submission was lodged. Since then provision has been made for giving priority to the completion of the upgrade to that highway.
- 5.31 Other roads of concern to NOROC were the Summerland Way, from Grafton to Casino and the Woodenbong to Warwick road. NOROC said these roads should be upgraded to at least a high standard single carriageway. The Summerland Way could then act as a major alternative link to western Brisbane and beyond, and the other road as a major link to Warwick, Toowoomba and the proposed north-south railway.²²
- 5.32 A member of the Committee has inspected the Woodenbong to Warwick Road and concurs with the need for a major upgrade.

Victoria

- 5.33 Most of the evidence given to the Committee about road issues in Victoria, related to access to a port or an intermodal terminal and these have been dealt with in Chapters 3 and 6. The following issues, however, were also brought to the Committee's notice.
- 5.34 In conjunction with its plans for an intermodal terminal at Thurla, the Mildura Rural City Council has plans to include a road upgrade. The Council would like to reroute the Sturt Highway around Mildura, to provide easy access to the Thurla facility, and a new Murray River crossing to reconnect with the Sturt Highway. This alternate route

21 Bega Valley Shire Council, Submission 77, pp.2-3.

22 Northern Rivers Regional Organisation of Councils, Submission 119, p.7.

- and the new bridge, would allow passage of heavy vehicles between South Australia, New South Wales and Victoria, without passing through central Mildura.²³
- 5.35 The Australian Chamber of Commerce and Industry (ACCI) called for the duplication of the Calder Freeway between Melbourne and Bendigo.²⁴
- 5.36 The ACCI also called for construction of the Geelong Bypass. Work has already commenced on that task, and in the 2007-08 Budget the Australian Government earmarked \$60.1 million to continue the project. This funding is part of a total of \$186 million that the Australian Government has agreed to provide.²⁵
- 5.37 The Gippsland Councils, the Gippsland Area Consultative Committee and SEATS jointly raised with the Committee their concern about the capacity of the Princes Highway between Traralgon and Bairnsdale. The group pointed out the need for a dual carriageway between Traralgon and Sale and the removal of accident black spots on the remainder of the route.²⁶
- 5.38 Included in their concerns were issues relating to heavy traffic through Bairnsdale and Sale, which will require heavy vehicle bypasses in the future, and the potential need for through traffic arrangements in Traralgon as traffic on the M1 grows. The councils also reported several impediments on the South Gippsland Highway that contribute to its high accident rate. The group considered that if these issues were addressed it would "...enable Gippsland to achieve greater efficiency on their arterial road network".²⁷
- 5.39 This group of local government bodies from Gippsland also told the Committee that the area's "...economic development, particularly along the Princes Highway East spine, is restricted by the lack of a

23 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board, Submission 22, pp.1 and 5.

24 Australian Chamber of Commerce and Industry, Submission 57, p.25.

25 Deputy Prime Minister and Minister for Transport and Regional Services, Mark Vaile, and the Minister for Local Government, Territories and Roads, Jim Lloyd, Joint Media Statement TRS03/Budget Joint, 8 May 2007, pp.2 and 4.

26 Gippsland Councils, Gippsland Area Consultative Committee, and the South East Australian Transport Strategy, Submission 62, pp.3 and 28-9.

27 Gippsland Councils, Gippsland Area Consultative Committee, and the South East Australian Transport Strategy, Submission 62, pp.3 and 27-8.

suitable highway connection to the ACT and New South Wales market". The group commented:

On the section of Highway from Cann River to the NSW border the road conditions and the narrow and windy alignment of the road are not adequate. The highway currently operates as a two lane, narrow two way rural highway...

Consultation and review reiterated the problems to users of tight alignment and narrowness of the highway pavement and shoulders restricting overtaking opportunities along the highway.²⁸

Queensland

Ipswich Motorway

5.40 The Ipswich Motorway provides a traffic and freight corridor from Rocklea to Dinmore, a total of about 19 km. It is the main traffic connection between Ipswich and Brisbane. It also connects the Warrego Highway, Cunningham Highway, Logan Motorway and Centenary Motorway to the Brisbane traffic network.²⁹

5.41 Two major projects are under way:

Ipswich/Logan Interchange: Involves an upgrade to the interchange and 2 km of the Motorway. It began in February 2007; expected completion date is early 2009. The Australian Government has allocated \$255 million to this project.

Wacol to Darra Upgrade: Involves an upgrade of this stretch of the Motorway, including a major upgrade of the Centenary Highway Interchange and two new bridges. Construction should begin in late 2007 and completion is expected by mid-2010. The Australian Government has allocated \$320 million.³⁰

28 Gippsland Councils, Gippsland Area Consultative Committee and the South East Australian Transport Strategy, Submission 62, pp.2 and 25-6.

29 Queensland Government, Department of Main Roads, <http://www.mainroads.qld.gov.au/MRWEB/PROD/Content.nsf/DOCINDEX/Ipswich+Motorway?OpenDocument>, accessed 2 July 2007.

30 Queensland Government, Department of Main Roads, <http://www.mainroads.qld.gov.au/MRWEB/PROD/Content.nsf/DOCINDEX/Ipswich+Motorway?OpenDocument>, accessed 2 July 2007.

- 5.42 On 5 March 2007, the Australian Government announced a further allocation of \$2.3 billion for construction of the Goodna Bypass between Dinmore and Gales. This involves a 9km route. It will be a six-lane road and will separate long distance traffic from local traffic. Construction should begin in late 2008.³¹

South East Queensland

- 5.43 The Queensland Government listed a number of projects as priorities for the development of the freight transport network. In South East Queensland it included the Toowoomba Range crossing and the Ipswich Motorway. It also listed projects on the Brisbane-Darwin corridor. Those projects included: a grade separated interchange at Minden (estimated at \$11 million), a Toowoomba Bypass (\$585 million), and a four-lane road from Toowoomba to Oakey (\$38 million).³²
- 5.44 The Warwick Shire Council called attention to the need for development of the road from Legume to Woodenbong. This is the worst section of the Woodenbong-Warwick Road, referred to by NOROC in paragraph 5.31. Strong convergent opinion from both sides of the border should mark this section in particular, and the Woodenbong-Warwick Road, for urgent attention under State and AusLink programs.
- 5.45 This road then connects to the Lindesay Highway to Rathdowney, and also the road to Kyogle. The council said that improving this road would divert both tourist and freight traffic and let it bypass some of the bottlenecks through the Gold Coast and Brisbane. The Council added:
- Fifty years ago that was one of the best roads in our locality; today it is without a doubt the worst. It is an arterial road that connects the northern rivers of New South Wales to the Darling Downs. ...It is an alternative route from Lismore-Casino...³³
- 5.46 The road was described as in good condition except "...that section of the road from Woodenbong to Legume is extremely poor. It needs a

31 Queensland Government, Department of Main Roads, <http://www.mainroads.qld.gov.au/MRWEB/PROD/Content.nsf/DOCINDEX/Ipswich+Motorway?OpenDocument>, accessed 2 July 2007.

32 Queensland Government, Submission 95, pp.11-12.

33 Warwick Shire Council and Cunningham Rail Link Committee, Transcript, 7 April 2006, Toowoomba, pp.12-13.

significant injection of capital to bring it up to ...standard". While no current costing was available, the Council said it had been valued at over \$30 million about 2001 - "...to upgrade that section of road to a standard that would be acceptable for heavy traffic".³⁴

Central Queensland

- 5.47 The Central Queensland Area Consultative Committee indicated that in the Central Western region, adjacent to the coast:

...a number of arterial roads need to be upgraded... This would reduce the congestion and demand on the existing road networks on the coastal strip and existing and proposed resource projects in the Bowen Basin.

The example mentioned, was 30 km of road between Duaringa and Bauhinia.³⁵

- 5.48 The Gladstone Area Promotion and Development Limited said that, while significant upgrades to the Dawson Highway have been funded, there is still a need for further development to bring the Highway up to national highway standard.³⁶

- 5.49 The Monto Shire Council sought support for the upgrading of the Gladstone to Monto road. The road is 57 km shorter than the current sealed link via Biloela. Approximately 36 km of the road remains unsealed. The Council said that much of the unsealed section: "...is characterised by sharp curves, steep gradients, inadequate sight distances, flood-ways and narrow formation width".³⁷

North Queensland

- 5.50 The Mackay Area Industry Network set out as its priorities the upgrading of several important roads in the area: Moranbah to Dysart (which passes or links to five coal mines); Middlemount to Capella (passes two coal mines); and the Peak Downs Highway between Moranbah and Clermont. The evidence on the Peak Downs Highway confirmed comments made to Committee members in Mackay:

It is seen as imperative that both the State and Federal Government assess the current Peak Downs Highway and

34 Warwick Shire Council and Cunningham Rail Link Committee, Transcript, 7 April 2006, Toowoomba, p.13.

35 Central Queensland Area Consultative Committee, Submission 4, p.7.

36 Gladstone Area Promotion and Development Ltd, Submission 84, p.10.

37 Monto Shire Council, Submission 76, pp.1-2.

seek alternative routes, particularly around residential towns in the Pioneer Valley.

...The most critical...appears to be Walkerston where, for example, trucks carrying millions of litres of fuel are forced to navigate an intricate road over a narrow bridge and around a sharp corner, whilst passing within metres of a school, a shopping centre and residences.³⁸

- 5.51 The Committee saw this as another area of concern and suggested that it should be subjected to a Black Spot audit.

South Australia

- 5.52 The Australian Chamber of Commerce and Industry proposed the duplication of the Dukes Highway between Adelaide and Melbourne, from the Victorian border to Tailem Bend. The Chamber estimated the cost at \$600 million and said that:

Traffic volumes particularly between Tailem Bend and Keith, warrant the duplication of this road.

Principal route to Melbourne, which carries high volumes of freight moving to market or export exit points (and imports). Key regional areas such as the Murraylands and South East of the State funnel traffic onto this route.³⁹

- 5.53 The Australian Chamber also proposed further investigation of the possible routes to bypass Adelaide, by connecting Murray Bridge and Port Wakefield. The estimated cost would vary up to about \$100 million depending on the route chosen. Another proposal was an extension of the duplication of the Princes Highway to Port Augusta, at an estimated cost of \$600 million.⁴⁰

Green Triangle Region

- 5.54 The South East Local Government Association (SELGA) said that:

38 Mackay Area Industry Network, Submission 101, p.1.

39 Australian Chamber of Commerce and Industry, Submission 57, p.21.

40 Australian Chamber of Commerce and Industry, Submission 57, p.22.

...without investment in an integrated plan...the transport system in the Green Triangle region⁴¹ will remain dependent upon road transport. Truck congestion is likely to increase in Mt Gambier and at the Port of Portland as the existing infrastructure struggles to cope with the projected increase in wood flow traffic, particularly to Portland.⁴²

- 5.55 When the increasing timber movements are added to the grain shipments already in the system, and the expected mineral sands production, the pressure on the road system can be expected to increase rapidly:

It is estimated that in the period 2005-2009, over 2 million tonnes of wood product will be transported to Portland each year. This is projected to increase in the following five years to over 5 million tonnes per annum.

In addition to the timber and wood chip traffic, the ongoing movement of grain and the commencement of mineral sands mining and processing in the region, will extend the pressure on transport infrastructure, particularly at the Port of Portland.⁴³

- 5.56 SELGA noted a point that was of concern to most local government bodies in rapid growth areas:

Road transport is very flexible, however truck traffic volumes of this size will generate significant road deterioration, crash costs and environmental impacts. There will be a significant need for additional road investment and maintenance, and investment in the Port, to reduce inefficiencies and improve road safety.⁴⁴

- 5.57 The Riddoch Highway, in the south east of South Australia, is quite congested and a proposal has been developed by SELGA, to relieve some of that congestion, and offer an alternative route for timber trucks, by building a "Border Road". There is considerable support

41 Midway between Melbourne and Adelaide - it includes the South East of South Australia and the Western District and Wimmera Regions of Victoria. South East Local Government Association Inc, Submission 40, p.5.

42 South East Local Government Association Inc, Submission 40, p.3.

43 South East Local Government Association Inc, Submission 40, p.3.

44 South East Local Government Association Inc, Submission 40, p.3.

for this project, particularly from major logging contractors and wood chip hauliers.⁴⁵

5.58 The proposal is to build a road running along the South Australia/Victoria border, for a distance of about 72 km, from Wrattontully to the Princes Highway east of Mt Gambier. Cost of the project was estimated at \$15 million in 2001. A benefit-cost analysis of the project showed a very positive outcome.⁴⁶

5.59 SELGA said that local governments on both sides of the border believe:

...the freight infrastructure in this region is not adequate to deal with the increase in freight movements expected to occur over the next 10 years.⁴⁷

Eyre Peninsula

5.60 The Eyre Peninsula/Spencer Gulf region has almost 14,000 km of roads, about 94 per cent unsealed. These roads are maintained by nine councils that have an average revenue base of \$3.3 million, compared to the state average of \$14.5 million. Some councils spend almost all of their revenue on road works; most of them spend up to half:

...there are serious limitations on local government's capacity to maintain existing levels of road maintenance, let alone manage a serious escalation in the task by way of a partial or full demise of the region's rail system.⁴⁸

5.61 Details have not yet been released on the funding allocations to this region in the 2007-08 Budget, but one specific allocation was made – funds to seal 13 km of the Kimba to Buckleboo Road, to assist grain haulage in that area.⁴⁹

45 Limestone Coast Regional Development Board, Submission 39, p.4.

46 Limestone Coast Regional Development Board, Submission 39, p.3.

47 South East Local Government Association Inc, Submission 40, Letter to Deputy Prime Minister, p.1.

48 Eyre Peninsula Local Government Association, Submission 1, pp.3 and 8.

49 Deputy Prime Minister and Minister for Transport and Regional Services Mark Vaile and the Minister for Local Government, Territories and Roads Jim Lloyd, Joint Media Release 005TRS/Budget, 8 May 2007.

Western Australia

5.62 The Eastern Metropolitan Regional Council (EMRC) in WA proposed that the Perth-Adelaide National Highway should be extended to allow road trains to "...continue straight through to key industrial precincts saving considerable time and therefore costs". The Council said that at present, the road trains must break down their loads at Northam.⁵⁰

5.63 The Council's suggestion was that the road be upgraded to national highway standard from Clackline (near Northam) to the high standard Roe Highway in Midland. It said that there would also be safety benefits:

The safety benefits would also be significant as the new...section would take much of the truck traffic and through traffic from Great Eastern Highway as it would be to a much higher standard.⁵¹

The South and South West

5.64 This area of WA is a good example of the difficulties being experienced by local government in dealing with the damage caused to local roads by large trucks and road trains. The Great Southern Timber Industry Road Evaluation Strategy Group (TIRES) pointed out that:

One of the biggest issues local government has with smaller local roads is ...that they originally serviced a couple of farms ...the biggest vehicle you saw was a semi-trailer. ...Now we have an industry that is carting road train configurations all the year round.

...in the last twelve months, 2005, we had a 40-inch rainfall... We had log trucks working on dirt and gravel roads right through the year, so you can imagine the damage and problems we are having. Even bitumen roads are sinking badly under those conditions.⁵²

50 Eastern Metropolitan Regional Council, Submission 41, p.6.

51 Eastern Metropolitan Regional Council, Submission 41, p.6.

52 Great Southern Timber Industry Road Evaluation Strategy Group, Transcript, 8 March 2006, Albany, p.19.

5.65 TIRES also said that:

They have basically tried to re-fund local government roads in the same way as in the past. Then a whole new industry is dumped on top of that. TIRES was trying to attract funding to address the new export industry on top of what is normally in place.

The problem with the state funding is that it just keeps on funding what has happened in the past. There is no influx of new money to address the new industry, and that is where I think the federal and state governments could help.

Federally, there are the main roads, which need upgrading, and the local shires are really struggling to keep up with the impact of the new industry. Somehow we have to get some more infrastructure funding to upgrade that to allow the shires to keep up with their normal road maintenance.⁵³

5.66 The TIRES group highlighted the problems caused on the highways by mixing tourist vehicles and heavy transports. It also noted some particular problem areas:

The region's highways play an important role for not only the timber industry but also the tourist and grain industries. The use of these roads by both heavy haulage and tourist vehicles is a major safety concern.

Consideration needs to be given to additional investment in, particularly, the Muirs Highway, Chester Pass Road and Hassells Highway to widen the seal and provide passing opportunities. Additional pavement strengthening is also required to accommodate the intense heavy loading of the timber haulage vehicles.⁵⁴

5.67 TIRES added that the result of the intensive use of these roads will be substantial structural damage:

Logs and woodchips will be hauled on the lower standard local roads in the region...throughout the year, including the winter period when road sub-grades may be saturated. Heavy usage during these periods could cause substantial structural damage to lower standard roads. This contrasts to

53 Great Southern Timber Industry Road Evaluation Strategy Group, Transcript, 8 March 2006, Albany, p.26.

54 Great Southern TIRES Group, *Five Year Regional Transport Plan for the Timber Industry*, Prepared by Peece Consulting, Exhibit 33, p.7.

the grain industry where the transport is within a narrow seasonal band and most often during a dry time of the year. The timber haulage will have a much greater impact on the local road system than the grain industry or any other industry in the region.⁵⁵

- 5.68 The Great Southern Development Commission also referred to these problems and estimated that about \$7.66 million was needed from the Australian government to restore the timber roads to operating condition.⁵⁶
- 5.69 Near Bunbury, several major highways converge at the Eelup Roundabout. This poses problems of congestion for both freight movements and tourist traffic (up to 3 million visitors a year).⁵⁷
- 5.70 The area generated 14.6 million tonnes of freight in 2004-05. Of this total, 14 per cent went to Fremantle in containers, 34,000 in all, and all by road.⁵⁸
- 5.71 BHP Billiton (BHPB) is developing a nickel mine near Ravensthorpe, 155 km west of Esperance. It will supply a refinery 25km from Townsville.⁵⁹
- 5.72 The nickel will be transported by road to Esperance along the South Coast Highway, and then by ship to Townsville. Half a million tonnes of sulphur is imported through Esperance and trucked to the mine site. BHPB estimated that the mine traffic will make 54 one-way movements each day. The problem part of the journey is part of the road between Ravensthorpe and Esperance.⁶⁰
- 5.73 BHPB is seeking recognition of the road as being of national and economic importance. The Shire of Ravensthorpe is also asking that the road be funded "...as a road of national importance and/or be categorised within the Auslink network".⁶¹ The Committee endorses this view.
- 5.74 The Shire said that the road from Esperance to the Munghlinup River:
-

55 Great Southern TIRES Group, *Five Year Regional Transport Plan for the Timber Industry*, Prepared by Peece Consulting, Exhibit 33, pp.6-7.

56 Great Southern Development Commission, Transcript, 8 March 2006, Albany, pp.60-63.

57 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.15.

58 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.15.

59 BHP Billiton, Transcript, 9 March 2006, Esperance, p.55.

60 BHP Billiton, Transcript, 9 March 2006, Esperance, pp.57 and 60.

61 BHP Billiton and Shire of Ravensthorpe, Transcript, 9 March 2006, Esperance, pp.57 and 79.

...is a good, wide and reasonably maintained road. Once you go west of the Munglinup River ...the road deteriorates to a narrow road which is extremely rough and in extremely bad condition.⁶²

5.75 The traffic load for the road is mixed. BHPB estimates that nearly two million tonnes of grain is produced in the South West region. A large proportion of that comes from the Munglinup - Jerdacuttup - Ravensthorpe area and is transported by the South Coast Highway to Esperance. Added to that are the tourists, school buses, general freight (much of which comes from Perth to supply Esperance) and, in future, the mine workers and their families living at Hopetoun on the coast.⁶³

5.76 Both BHPB and the Shire of Ravensthorpe said that the road is too narrow for the traffic that will use it:

The Ravensthorpe Road is not wide enough to even get two white lines on either side...

Both parties were concerned at the mix of normal traffic, tourists and farm tractors all sharing the road with 88 tonne B-double trucks carrying a net load of 70 to 75 tonnes.⁶⁴

5.77 The Shire and BHPB mentioned that \$10-11 million had been set aside by Main Roads WA to put in some passing lanes and upgrade a bridge. However, since then Main Roads have advised that the regulations have changed and that the funding allocated will no longer be enough. The road can no longer simply be widened but must be rebuilt:

They are not able to do that under the new process. That was the process that was going to be used...now, because of the new road specifications, they have to remove all the road and rebuild it completely out to the new configuration. It has to be completely new road.⁶⁵

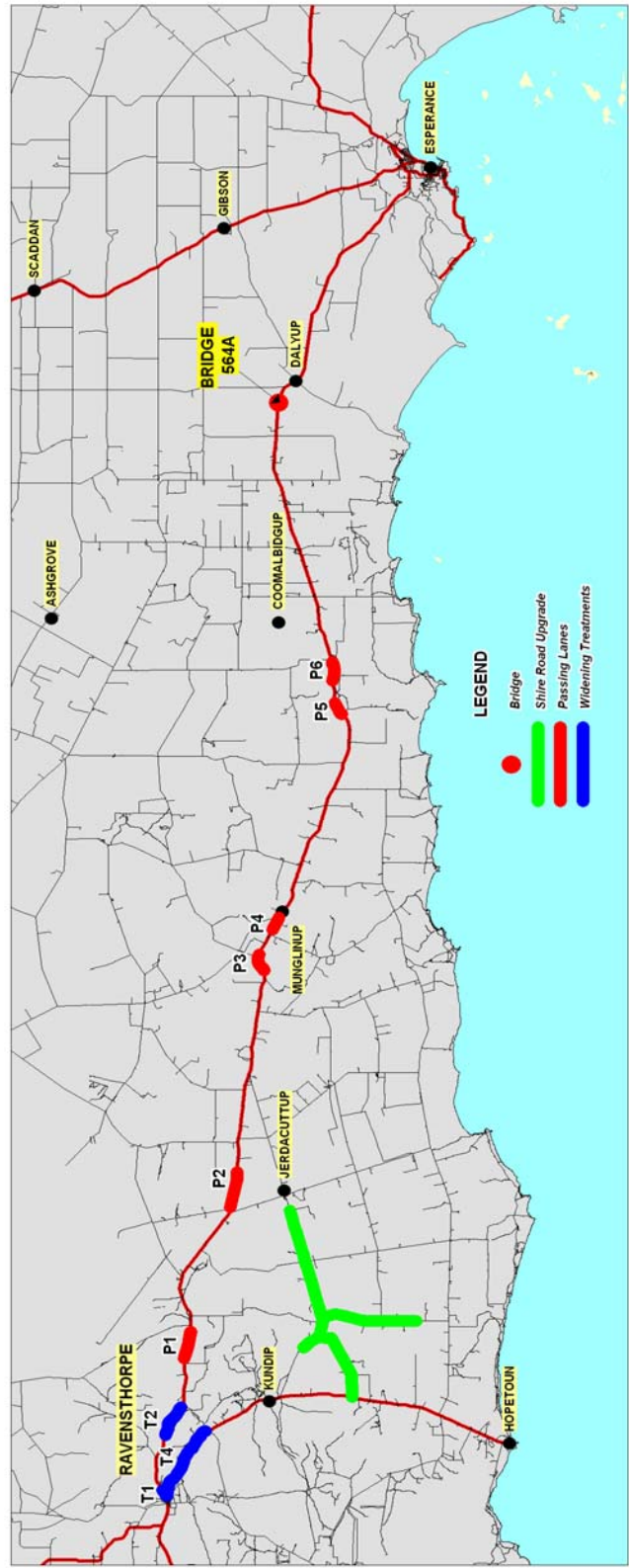
62 Shire of Ravensthorpe, Transcript, 9 March 2006, Esperance, p.79.

63 BHP Billiton and Shire of Ravensthorpe, Transcript, 9 March 2006, Esperance, pp.56 and 78.

64 BHP Billiton and Shire of Ravensthorpe, Transcript, 9 March 2006, Esperance, pp.60 and 79.

65 BHP Billiton and Shire of Ravensthorpe, Transcript, 9 March 2006, Esperance, pp.60 and 79-80.

Figure 5.2 Ravensthorpe to Esperance Road



Source: Shire of Ravensthorpe, Supplementary Submission 152, p.1.

- 5.78 Recent advice from BHPB indicates that some widening has been undertaken on the critical stretch of road from the Munghlinup River to the mine.

Recommendation 9

- 5.79 **The Committee recommends that the Minister for Local Government, Territories and Roads give urgent consideration to assisting the state and local governments to fund an upgrade of the road between Ravensthorpe and the Munghlinup River.**

Goldfields and Kalgoorlie-Boulder

- 5.80 The City of Kalgoorlie-Boulder told the Committee that there are two important road issues in this area. The highway at Lake Raeside, near Leonora, is subject to regular flooding. When this happens, the City said "...it closes off that portion of the state to its closest road route".⁶⁶ It has come to the Committee's attention, that the WA Government has made a commitment in the 2007-8 Budget to proceed with upgrading and flood-proofing this road.
- 5.81 The other road problem is the need for a road link north from Wiluna, to join the Great Northern Highway north of Meekatharra and south of Newman (probably around Doolgunna). The distance is about 150 to 170 km, depending on the route, and the anticipated cost is \$80 to \$100 million.⁶⁷ The City said that this road would "...open up the Pilbara-Goldfields link":
- With its common mining industries, that could be a very important freight route.⁶⁸
- 5.82 The Government of Western Australia is strongly in favour of this development:
- ...the notion of having that connection, the Goldfields Highway, north to connect through to the Great Northern Highway is something that we would strongly support.

66 City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, p.22.

67 Government of Western Australia, Transcript, 10 March 2006, Perth, p.30.

68 City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, pp.22-3.

...we will be coming up with a plan recommending that framework which may well have that link in it as a prospective link rather than looping into Meekatharra.⁶⁹

The Pilbara

5.83 Road access to the Pilbara from southern WA is via the Great Northern Highway or the Brand Highway/North West Coastal Highway. The main road issue in the Pilbara region is the omission of the Brand Highway/North West Coastal Highway from the AusLink Network. The WA Government maintains that this is a key link in the national transport network.⁷⁰

5.84 Commenting on the omission of the North West Coast Highway, the WA Chamber of Commerce and Industry said:

...the Great Northern Highway...bypasses the port of Dampier, whereas the North West Coastal Highway better accesses that particular infrastructure. For the sake of connecting to the Great Northern Highway, we thought that might be worthy of inclusion in the AusLink plan.

The Great Northern Highway is the identified corridor of importance for AusLink yet it bypasses the port of Dampier. ...There are clear reasons for that being identified, and we have no objection to that other than that it does not link to the port of Dampier.⁷¹

5.85 The WA Local Government Association said that the Great Northern Highway, which is listed:

...bypasses major industrial areas such as the Burrup Peninsula and the Port of Dampier, where a number of projects considered to be of national significance are located.

The Brand Highway/North West Coastal Highway is the main link between regional centres at Geraldton, Carnarvon, Karratha and Port Hedland, as well as the access road to various tourist destinations and coastal, mining and pastoral communities. It is also a major freight haul route operating 53.5 metre long combinations north of Carnarvon.⁷²

69 Government of Western Australia, Transcript, 10 March 2006, Perth, p.30.

70 Western Australian Local Government Association, Submission 35, p.6.

71 Chamber of Commerce and Industry of Western Australia, Transcript, 10 March 2006, Perth, p.3.

72 Western Australian Local Government Association, Submission 35, pp.6-7.

5.86 The Association added:

The route is critical in servicing the growing industry and coastal communities between Perth and Port Hedland. Three of the top six tonnage ports in Australia (...Port Hedland, Port of Dampier and Port Walcott) are all located on the North West Coast highway and provide significant tax revenues to the nation.

The WA State Government considers that both the Great Northern Highway (the inland route from Perth to Darwin) and the Brand Highway/ North West Coastal Highway (the coastal route from Perth to Darwin) should be ...in the National Land Transport Network.⁷³

5.87 The WA government said that for AusLink 1 it had been asked to choose between these highways for inclusion:

We said, "No, we think both are important in the national sense because both of them are doing a task." They said that we had to choose one or the other. We maintain once again that we are not asking the Commonwealth to pay for everything. We are happy to make the case, but we want each of those routes to be eligible - and at that time there was Dampier, the second biggest iron ore port in the country behind Port Hedland, just down the road effectively but not on the network.⁷⁴

High, Wide Load Corridors

5.88 The WA Chamber of Commerce and Industry referred to difficulties faced in moving high, wide loads in WA. The chamber said that there is a growing trend in construction, to fabricate modules of infrastructure in workshops and assemble them on site. The technique provides cost savings and helps to offset the growing shortage of skilled labour. A reduced need for having that skilled labour on site also helps save on costs.⁷⁵

5.89 The Chamber pointed out that:

Local fabricators are, however, currently restricted in their ability to compete for this work due to power line and road furniture impediments within the metropolitan area and

73 Western Australian Local Government Association, Submission 35, p.7.

74 Government of Western Australia, Transcript, 10 March 2006, Perth, p.30.

75 Chamber of Commerce and Industry Western Australia, Submission 19, p.7.

along the key corridors from the metropolitan area to the regions.

There is an urgent need to establish a high, wide load corridor network in Western Australia by clearing away these impediments to the movement of over dimension loads.

If acceptable routes are not available to allow local fabricators to compete for this work, these modules will be fabricated overseas, off-loaded at regional ports and transported to the project site, bypassing the bulk of the transport impediments facing local companies.

Alternatively, the higher construction costs in comparison with those available elsewhere, may preclude resource development from occurring in Australia.⁷⁶

Northern Territory

5.90 The Territory has unique road transport problems, linked directly to seasonal conditions and sparse population. Because most roads are not sealed, the wet season causes severe access problems. The Northern Territory Department of Planning and Infrastructure (NTDPI) commented that many of those roads were laid down in the 60s and are now showing their age.⁷⁷

5.91 The NTDPI also commented that the Territory Government had allocated \$10 million to upgrade the beef roads. It said they are:

...a series of principally dirt roads that provide access to the main arterial, the Stuart Highway. They need to be capable of running triple road trains because that is the most cost-effective way of shifting product over long distances and of countering the effects of isolation.⁷⁸

5.92 NTDPI added that the main highways are generally in good condition, but:

76 Chamber of Commerce and Industry Western Australia, Submission 19, p.7.

77 Northern Territory Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, pp.1-2.

78 Northern Territory Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, p.2.

...once you get off the national and state highway network, the level of access degrades considerably, whether you look at a single-seal beef road constructed in the 1960s or one of the many other arterial roads that go out to sparsely populated areas. The Port Keats Road and the Central Arnhem Road are examples – and there is a very long list of roads like those.

In the top end of the Territory, if you have a heavy wet season a lot of those roads are closed – for example, the Daly River Crossing, which you must go across to access the Port Keats Road. Port Keats ...is closed for six or seven months of the year simply because of water levels in the Daly River. So that area is isolated.⁷⁹

- 5.93 On the Tanami road, running 700 km from the Stuart Highway to the WA border, when the road is flooded the mines on that road are effectively shut down; the fuel tankers and re-supply vehicles are cut off from the mines.⁸⁰
- 5.94 Further south, the problem is the opposite: not enough rain. In those areas only dry-grading can be carried out and the road quickly returns to its original state.⁸¹
- 5.95 Because of the access issues, the cattle industry has had to structure itself around the seasonal road access. It structures its breeding program around that timing, assembles stock shipments in holding yards, and then moves them to the port on road trains.⁸²
- 5.96 When asked whether improving the rail network would assist the cattle industry to overcome the access problems, the Port Corporation said it would not:

...there is this inherent problem of the quality of the beast ...when it gets to the port, because it would involve a truck operation to rail, then a rail operation, then a truck operation off the rail again to a holding yard and then back to the port.

79 Northern Territory Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, p.5.

80 Northern Territory Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, p.16.

81 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.16.

82 Darwin Port Corporation and Northern Territory Department of Transport and Infrastructure, Transcript, 27 September 2005, Darwin, p.16.

...Every time you put it on a different mode of transport there is an impact on the quality of the beast.⁸³

5.97 AustAsia Export Services explained:

Basically, the more times you handle cattle, the more the risk of injury. We try to minimise all the stresses involved in handling livestock. If you have to load livestock on a truck to get them to a railhead, you may as well leave them on a truck – you are actually going to do them more good than unloading and then reloading. The rail goes nowhere near the port itself, so the cattle would have to be dumped into the trucking yard...⁸⁴

5.98 The Committee noted that cattle are moved by rail in other areas and asked AustAsia Export Services whether an improved rail connection would solve some of the access problems. AustAsia replied:

...The average property size is 3½ thousand square kilometres. Once the cattle are on a truck and have settled into their positions, you take them straight to the induction-export facility.

The issue is that on some of these properties it is 40, 50 or 60 kilometres before they get to the front gate of the property. Then they hit the really bad roads, the regional roads. Then it is 300 or 400 kilometres before they get to a highway... They then take them to a railhead, unload them and settle the animals down.

Alternatively, perhaps they would co-ordinate a lift of 3,000 head to meet the timetable of a train. They would put them in a facility, move them to Darwin, unload at the railhead..., transfer back to a set of yards, do the induction for the boat, settle the animals down – because now they have been moved three or four times – then put them onto a boat.

That does everything to reduce the weight of the cattle, and the stress is increased. Let's face it we make money out of weight on cattle. Losing weight does not do a lot for us.⁸⁵

83 Darwin Port Corporation, Transcript, 27 September 2005, Darwin, p.17.

84 AustAsia Export Services, Transcript, 27 September 2005, Darwin, p.42.

85 AustAsia Export Services, Transcript, 27 September 2005, Darwin, p.42.

- 5.99 Representatives of the NT Cattlemen and Livestock Associations, reported that to bring the roads up to an all-weather standard and allow year round shipping of cattle:

...We are looking at around \$300 million, with an injection on top of that of between \$100 million and \$200 million over a five-year period to bring them up to speed. That is talking about regional roads and some local roads.

We would need in excess of \$600 million for arterial upgrades and \$300 million for local roads – that is, secondary roads.

Realistically, that would have to be over a longer period, because of getting contractors and whatever else, so I daresay it would be over about five or 10 years.

We would hope it would be some sort of shared arrangement between the federal government and the Northern Territory government.⁸⁶

- 5.100 The industry moves over 200,000 cattle through Darwin each year, and expects to get up to 230,000 or 240,000. However, the industry moves even greater numbers (approximately 300,000 a year) within Australia.⁸⁷

Committee Assessment

- 5.101 The Committee recognises that the increasing use of larger vehicles will pose a problem for local government. Against this, must be weighed the efficiencies and cost reductions made available by the use of such vehicles.
- 5.102 What is needed is a joint effort between the Australian Government and the state governments, to assist local governments to extend the B-double capable network. It is a task that will require a high level of planning and co-operation, because due care must be taken to preserve the safety and social amenity of regional districts. It may require an extensive program to by-pass many country towns and small cities.

86 AustAsia Export Services, Transcript, 27 September 2005, Darwin, p.46.

87 Northern Territory Cattlemen's Association Inc and the Northern Territory Livestock Exporters Association, Transcript, 27 September 2005, Darwin, pp.40 and 47.

- 5.103 The task must begin soon. The trend to the use of 40 foot containers will steadily force importers to unpack the larger containers close to the port. That, in turn, will require the goods to be repacked into 20 foot containers for movement further afield. The additional costs involved in this sequence of events will soon erode Australia's competitive position.
- 5.104 The Committee considers that Australia must keep pace with the world trend to larger containers. The increasing use of 40 foot containers reinforces the urgency of shifting a substantial proportion of freight from road to rail.
- 5.105 That alone will not solve the problem, however, and it is essential that Australia's main freight routes are able to move the larger containers freely. Even if a substantial proportion of freight is moved from road to rail, the freight task is growing so quickly that there will still be an increase in the volume on the roads. As that occurs, the transport companies will be pressured by their managements and their customers to use larger, more cost-effective, trucks.
- 5.106 The Committee recognises that a more extensive use of B-doubles and similar large transport vehicles will increase the road maintenance problems for local governments. It believes that this problem must be addressed quickly.
- 5.107 The Committee considers that COAG is best situated to determine how that funding gap could be overcome – it is a problem that is not simply confined to a few areas, but is faced by local authorities all over the country.
- 5.108 The road infrastructure projects mentioned in this chapter all have the potential to lift the productivity of the transport network itself and have a downstream effect on the efficiency and productivity of rural enterprises (as described in paragraph 5.94). In many cases they also offer improvements to road safety and reductions in the noise and congestion in residential areas.
- 5.109 The standardisation of regulations between states and territories stands out as one of the most urgent tasks facing transport authorities. An example brought out in evidence is the difference in mass limits applied to vehicles in NSW in comparison to the adjoining states.
- 5.110 The burden of complying with different regulations for various parts of a journey, reveals itself in: delayed deliveries, extra handling and the need for additional equipment – all of these translate into additional transport cost.

- 5.111 If Australia's transport industry is to be internationally competitive, the alignment of regulations across the country must be achieved without further delay.

Recommendation 10

- 5.112 **The Committee recommends that the Minister for Transport and Regional Services refer to COAG the question of how local government can be assisted with the extra cost of road maintenance caused by the increasing use of heavy transport vehicles.**

Recommendation 11

- 5.113 **The Committee recommends a spending program (subject to the outcome of recommendation 2), of not less than \$100 million a year for 5 years, to address key arterial roads, major feeder roads and community bypass roads in the Northern Territory and on connector roads into Western Australia and Queensland.**

Recommendation 12

- 5.114 **The Committee recommends that the Minister for Transport and Regional Services ask COAG to urgently progress the alignment of transport regulations between all the states and the mainland territories.**

Intermodal Facilities

- 6.1 The Committee began this inquiry with the expectation that there would be a strong trend to the development of intermodal hubs in regional areas. It came as a surprise when the evidence revealed a trend towards urban hubs. Consequently, the Committee examined a variety of hub locations to best assess how to achieve greater efficiency in the freight transport network.
- 6.2 An intermodal facility is any site or facility along the supply chain that contributes to an intermodal movement by providing efficient transfer of goods from one mode of transport to another. Facilities may range from transfer points that provide a limited set of services, to purpose-built terminals or hubs, designed for transfers, storage, distribution and a host of associated services:¹
- The intermodal terminal is where the commercial and operational needs of many parties to an individual cargo movement come together.²
- 6.3 An Australia-wide survey conducted by Meyrick and Associates in 2002, identified 93 intermodal sites (17 transfer points and 76 terminals). These sites generated \$200 million in revenue that year. However, it is their strategic value as a component of transport networks that make consideration of Intermodal Terminals (IMTs) an essential part of this inquiry.³

1 Department of Transport and Regional Services, Submission 103, p.7.

2 Latrobe City Council, Submission 58, p.4.

3 Department of Transport and Regional Services, Submission 103, p.7.

- 6.4 In recognition of this strategic importance, DOTARS commissioned the *National Intermodal Terminal Study*. Previously, there was only limited information documented on IMTs and their connectivity with transport networks.⁴ There is now wide recognition that:

...intermodal terminals play a pivotal role in the supply chains of Australia's exports, imports and interstate cargo.⁵

- 6.5 The possibility was raised by Railway Project Engineering that emerging technology⁶ could lead to a fundamental reassessment of national IMT needs. However, evidence to the Committee indicated that IMT development is now accepted as one of the routine infrastructure improvement tasks required to support freight transport networks.⁷

Significance of IMTs

- 6.6 The intermodal sector consists of two subsystems; one servicing import and export (port oriented) movements and the other supporting interstate freight movements. In many ways these operations are independent of each other, but some terminals cater to both port-oriented and domestic movements.⁸
- 6.7 Intermodal terminal facilities are likely to be one of the areas most affected by growth in the freight task in urban areas.⁹ The National Transport Commission acknowledged that:

While the demand on the interstate corridors is growing it is really at the hub points where increased freight will be seen as an issue.¹⁰

4 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.1.

5 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.3.

6 Railway Project Engineering, Submission 11, p. 1. The submission discusses the railway wagon underframe and/or road vehicle chassis that can be used to support containers, which enable the containers to be lifted from ground level and facilitate an easier transfer of containers between the transport modes.

7 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.100.

8 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.ii.

9 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.2.

10 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.87.

- 6.8 When considering growth predictions for container movements through the ports, it is essential to take into account:
- ...that in general each twenty foot equivalent unit (TEU) ... implies two TEU of intermodal terminal capacity: one at the port end of the journey and one at the remote end. The 1.25 million TEU through the port of Sydney, for example, will require a total of 2.50 million TEU/year in intermodal capacity.¹¹
- 6.9 The Logistics Manager for Fremantle Ports, suggested that hubs will assist states' plans to increase rail's share of the freight task by introducing a "...further step of handling and transfer into the road transport function", which was previously considered the most direct route from port or exporter to importer.¹²
- 6.10 Freight Link made the point that:
- Hubs become more important when there is more volume on rail. That is pretty much how North America works. You use hubs not only to unload trains at terminals but also to cut off half the train and replace it with another half that is going to a different point.¹³
- 6.11 In the *National Intermodal Terminal Study*, an IMT of national significance is defined as "...a facility at which in excess of 10,000 TEUs per year (or the equivalent of general cargo) was transferred between road and rail, or between rail and a seaport terminal".¹⁴
- 6.12 The Australian Government recognises that efficient intermodal facilities are an important component of the overall effectiveness of regional transport services.¹⁵ Ernst and Young, in the *North-South Rail Corridor Study*, commented that if key intermodal facilities are not operating efficiently, this would actually negate gains made from improving infrastructure along the corridor.¹⁶
- 6.13 The Chairman of the Australian Logistics Council (ALC) has called for greater development of intermodal facilities, at which freight can
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11 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.62.

12 Fremantle Ports, Transcript, 10 March 2006, Perth, p.37.

13 Freight Link, Transcript, 14 June 2006, Canberra, p.20.

14 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.i.

15 Department of Transport and Regional Services, Submission 103, p.20.

16 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.9.

be unloaded and then distributed, irrespective of whether freight movements are by road or rail.¹⁷

Benefits

- 6.14 An efficiently functioning IMT will increase modal options for freight movements. The Australian Chamber of Commerce and Industry suggested that this increase in modal choice may reduce freight rates as more competition enters the industry.¹⁸
- 6.15 IMTs will play a crucial role in road to road interchange activities. Facilities can act as staging posts to improve the predictability of pick-up and delivery times. This should help to address the difficulties that road transport faces in coordinating clients' opening hours and routes, in particular for long distance freight movements.¹⁹
- 6.16 Hubs can help to address congestion and the wear and tear on city roads. The ALC envisions change in the vehicle mix as a key impact of strategically located IMTs:
- The larger vehicles will travel between urban centres and from manufacturing through to the distribution centres and then smaller distribution trucks will move in and out of the cities.²⁰
- 6.17 Environmental benefits can also be derived through reductions in greenhouse gases, as the number of semi-trailers moving single cargoes is reduced and rail options are taken up. Hubs located in regional centres can also help benefit local economies through job creation and growth in associated industries, such as the construction, housing, commercial and retail sectors.²¹

Performance issues

- 6.18 Despite the reportedly lower performance of Australian IMTs against the standards in other countries, overall terminal performance "...has been assessed as fair to good from a user's perspective, and as good to excellent from an operator's perspective".²²

17 Australian Logistics Council, Transcript, 13 September 2006, Canberra, p.6.

18 Australian Chamber of Commerce and Industry, Submission 57, p.21.

19 Meyrick and Associates, Submission 190, p.3.

20 Australian Logistics Council, Transcript, 13 September 2006, Canberra, p.7.

21 Glen Innes Section 335 Transport Committee, Submission 87, pp.5-6 and City of Albany, Transcript, 8 March 2006, Albany, p.48.

22 Department of Transport and Regional Services, Submission 103, pp.8-9.

6.19 However, Latrobe City Council claimed that intermodal terminals are:

...often regarded by transport practitioners as the weakest link in the supply chain ... because it is the location where cargo damage is most likely to occur and where lack of planning will expose weakness in inter-company communications and scheduling coordination.²³

6.20 The National Transport Commission stressed that:

Performance is frequently determined by weak points in a network, and weak links. Lack of targeted investment in the most important areas and projects to comprise these networks and links can have major impact.²⁴

6.21 A poorly performing intermodal hub will impede the operation of freight transport networks in that region and may impact more widely on the efficient operation of particular supply chains. Therefore, it is vital to address constraints on hub operations and development; they have an important role to play in the development of strategies to optimise the use of all transport modes, and better manage the growing freight task.²⁵

6.22 The Committee was pleased to note:

Operators of intermodal terminals are reportedly addressing performance issues with both hard and soft infrastructure investments, particularly in response to pressures from major users.²⁶

6.23 However, it is also important to consider Meyrick and Associates' view, that failure to develop effective new intermodal facilities as part of the national transport network will be costly.²⁷

23 Latrobe City Council, Submission 58, p.4.

24 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.132.

25 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, pp.109-110.

26 Department of Transport and Regional Services, Submission 103, p.10.

27 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.12.

Viabale terminals

6.24 As government and industry recognise the potential of intermodal facilities to enhance freight logistics performance, interest in developing hubs has increased significantly.²⁸ The reality, however, is that not all hub proposals will be feasible. Efforts and investment that are not part of a coordinated logistics strategy may be futile endeavours. DOTARS commented that:

...on the basis of efficiency and financial sustainability, not every town or regional city should or can be a national intermodal freight hub.²⁹

6.25 Similarly, the New England North West Area Consultative Committee observed:

Over the last five to 10 years, substantial public and private investment has been made in the development of intermodal terminals, with many regional councils and businesses establishing an erroneous belief that such infrastructure is integral to the improvement of transport links within a region.³⁰

6.26 As the appeal of regional hubs grows, there are many examples of unsuitable and unsustainable proposed developments. In Western Australia for example, an assessment of the feasibility of setting up an inland freight terminal at the Mirambeena Industrial Estate, revealed that it was not an economic proposition. For instance, it could not supplement its proposed blue gum chip movements with grain, as the latter's rail movements through the area were already in place.³¹

6.27 In the Northern Territory, the notion of moving freight from Darwin to the Southern States via a Kununurra hub may not be practical. The volumes on the network may not warrant it, and it could mean extra handling costs and time lags.³²

28 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.13.

29 Department of Transport and Regional Services, Submission 103, p.16.

30 New England North West Area Consultative Committee, Submission 159, Attachment 1, p.5.

31 Great Southern Timber Industry Road Evaluation Strategy Group and Albany Plantation Export Company, Transcript, 8 March 2006, Albany, p.25.

32 Mr Goed, Transcript, 27 September 2005, Darwin, p.81.

In another example, from the point of view of bulk commodity producer, Portman Ltd, stopping at a hub proposed 14 km from Esperance would be an unnecessary and costly interruption in getting the iron ore to the Port.³³

6.28 Cases like these show that the introduction of a hub into a supply chain may not always be appropriate. WestNet Rail said that:

...the last thing we want is to have our industries, particularly our developing industries, burdened by higher logistics costs.³⁴

6.29 One of the recommended measures in the *Twice the Task* report supports research to determine the necessary conditions for a successful intermodal terminal.³⁵ Reliable information in this area is crucial, to temper the enthusiasm with which many regions across Australia embrace the idea of establishing a regional hub.

6.30 Some worthwhile information on the necessary characteristics of sustainable IMTs is already available. For example, Meyrick and Associates identified factors that are increasingly common in intermodal design:

- positioning the rail siding, spur or loop so that it is capable of accessing nearby warehousing and distribution facilities
- having facilities for storage and handling of perishable goods
- co-locating road-to-road cross-docking activities to facilitate the dispatching of consignments into smaller loads for local delivery
- co-locating at the site, train support functions such as wagon storage, fuel, and maintenance, cleaning and crew facilities
- providing customer support services that reduce cargo handling and increase supply chain efficiency.³⁶

33 Portman Ltd, Transcript, 9 March 2006, Esperance, p.51.

34 City of Albany, Transcript, 8 March 2006, Albany, p.48.

35 National Transport Commission, "*Twice the Task*" A Review of Australia's freight transport tasks, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, pp.109-110.

36 Meyrick and Associates, Submission 190, p.2.

6.31 Six key criteria³⁷ to assess the sustainability of regional intermodal terminals have been identified in recent studies as:

...volume; distance; investment in site; seasonality (back up freight options if moving seasonal freight); competition with other supply chains (needs to offer competitive advantage for users over other supply chain options); economic and social impacts.³⁸

6.32 The Committee also received valuable information from a number of witnesses, on key determinants of IMT success. Based on this evidence, it concluded that if an intermodal facility satisfies certain key criteria, it is likely that it will be a successful and sustainable enterprise. The Committee believes that an IMT should:

- have sufficient *volume*: an annual throughput of at least 10,000 TEUs, but ideally 15,000 to 20,000 TEUs, to realise a profit;³⁹
- be *located strategically* in a catchment area that will provide adequate volumes, but not in proximity to other facilities to saturate the IMT market.⁴⁰ However, the relative scarcity of land for hub expansions and new developments is often a major challenge, especially in metropolitan areas. Ultimately, the availability – or otherwise – of land will be a principal determinant of hub location;
- operate as a business entity and provide adequate financial returns to attract private *investment* and operators;⁴¹
- have appropriate *access* arrangements – possibly multi-user access – to maximise its contribution to freight movement efficiencies;⁴²
- have complementary freight sources, so it is not entirely reliant on cargoes that may be of a *seasonal* nature;⁴³

37 These criteria have been translated into an *Intermodal terminal viability checklist*. Sea Freight Council of NSW:
http://www.freightcouncils.com.au/downloads/Developing_Freight_Hubs.pdf, accessed 18 September 2006.

38 New England North West Area Consultative Committee, Submission 159, Attachment 1, p.5.

39 Southern Distribution Business Park, Exhibit 37, p.3.

40 Department of Transport and Regional Services, Transcript, 17 August 2005, Canberra, p.3 and Wingecarribee Shire Council, Submission 176, p.5.

41 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.15.

42 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.31, Riverina Eastern Regional Organisation of Councils, Submission 92, p.4 and Australian Rail Track Corporation, Submission 68, pp.11-12.

- address *community amenity* and *environmental issues* by going beyond minimising negative impacts – such as noise levels, traffic congestion and environmental issues – and facilitate positive benefits such as job creation and other economic and social development;⁴⁴
- add to core terminal functions, storage, distribution and a range of associated *value-adding* services:⁴⁵

What makes major hubs work is accumulating as much logistics and distribution activity as you can in the immediate proximity of your intermodal terminal.⁴⁶; and

- have efficient *connections to transport networks* and ports.⁴⁷

Empty Containers

6.33 The Australian freight transport industry moves significant numbers of empty containers, which also require a lot of storage space. Unfortunately, this issue is not always addressed as part of logistics planning.⁴⁸ Shipping Australia warns that:

...the repositioning of empty containers is an integral part of the efficient function of the through transport chain and serious disruption will occur if this is not managed properly.⁴⁹

6.34 The Australian Rail Track Corporation observed:

There are 100,000 empty containers sitting around Sydney that are taking up space that could be used for other activities. It has major interest for Melbourne, and we are starting to think about how we can try to do that in a positive way. It obviously has significant interest in Queensland. QR

43 P&O Ports Limited, Submission 54, p.4.

44 Southern Distribution Business Park, Exhibit 37, p.3 and Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.32.

45 NSW Department of Planning:
http://www.planning.nsw.gov.au/plansforaction/pdf/fiab_report.pdf, accessed 3 November 2006.

46 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.3.

47 Freight Link, Transcript, 14 June 2006, Canberra, p. 20. See also NSW Department of Planning, http://www.planning.nsw.gov.au/plansforaction/pdf/fiab_report.pdf, accessed 3 November 2006.

48 National Transport Commission, Transcript, 13 September 2006, Canberra, p.9.

49 Shipping Australia, Submission 49, p.8.

and others have been coming down and looking at the method of approach. But it requires all the parties to be motivated.⁵⁰

6.35 There is growing awareness of the value of addressing empty container issues as part of IMT planning.⁵¹ Intermodal hubs have a role to play in facilitating exchange and storage of empty containers. The *National Intermodal Terminal Study* found that empty container storage is one of the key value-adding activities crucial to IMT viability.⁵²

6.36 Fremantle Ports argued that IMTs can take pressure off ports, allowing:

...containers that have been emptied, if you like, by the importer to be de-hired back to that point rather than being brought all the way back into the port. Equally an exporter can then access a box at that inland point rather than having to come into the port to actually pick up an empty box.⁵³

6.37 In some regional areas, rather than dealing with high volumes of empty containers, the export demand for containers is much higher than the number of containers made available by imports to the area. For example, Fremantle exporters are paying for a round trip journey; empty containers in and containers with exports out.⁵⁴ Tasmanian shippers are also adversely affected because Tasmanian Freight Subsidies do not cover the backhaul of empty containers.⁵⁵

6.38 The availability of empty containers may be a factor in the current preference for metropolitan IMTs. In its submission, the Australian Wheat Board stated:

Presently it is very expensive and difficult to locate and transport empty food grade containers to upcountry locations for packing. It is much easier to locate and pack these in a metropolitan or port location.⁵⁶

50 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, p.13.

51 For example, Esperance Port Authority, Transcript, 9 March 2006, Esperance, p.17.

52 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.10.

53 Fremantle Ports, Transcript, 10 March 2006, Perth, p.37.

54 South West Development Commission, Transcript, 7 March 2006, Bunbury, p.16.

55 Productivity Commission, *Tasmanian Freight Subsidy Arrangements*, Draft report, September 2006, pp.75-76.

56 Australian Wheat Board, Submission 97, p.28.

- 6.39 In fact, Shipping Australia considers “...the ability to efficiently deliver empty containers in large volumes to the port at relatively short notice”, as one of the criteria for an effective metropolitan hub.⁵⁷ In Sydney, for example, 85 per cent of containers are packed or unpacked within 40 km of Port Botany.⁵⁸
- 6.40 Shipping Australia said that more and more imported containers are the 40-foot size. Australian exporters, on the other hand, prefer to use the 20-foot size. The result of this imbalance is an expensive process of storing and re-exporting empty 40-foot containers.⁵⁹ Shipping Australia suggested that as the international standardisation to 40-foot containers proceeds, it may help address excess container issues. However, Australia must deal with the problem of the need for higher road weight limits, before that can happen on a wide scale.⁶⁰
- 6.41 Developments in intelligent tracking technology may help to improve the coordination of empty container movements. For example, the Victorian Government’s Smart Freight initiative includes a Container Triangulation module, which involves collecting information from Importers and Exporters on the availability of, and demand for, empty containers. This information could then be shared so that empty container movements coincide with export demand.⁶¹
- 6.42 It is clear that Australia must have a national plan for the uptake of 40-foot containers. Axle-load restrictions in NSW and urban congestion issues militate against road movement.
- 6.43 The Committee is of the strong view that intermodal hubs, connected to dedicated freight lines, offer the only viable way to manage this challenge in the short to medium term.

57 Shipping Australia, Submission 49, p.8.

58 New South Wales Government, *Railing Port Botany’s Containers: Proposals to Ease Pressure on Sydney’s Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.14.

59 For example, half of Sydney’s container exports are empty containers.

60 Shipping Australia, Transcript, 21 November 2005, Sydney, pp.54 and 58.

61 Victorian Department of Infrastructure, <http://www.doi.vic.gov.au/DOI/Internet/Freight.nsf/AllDocs/A336F278D410B711CA257035001DAD48?OpenDocument#3>, accessed 1 May 2007. Also mentioned in the discussion of intelligent tracking technology in Chapter 10.

Recommendation 13

- 6.44 **The Committee recommends that the Australian Government investigate the most efficient method of storing and distributing empty cargo containers.**

Recommendation 14

- 6.45 **The Committee recommends that the Minister instruct the Department of Transport and Regional Services to undertake a timely strategy for the movement, unloading and storage of 40-foot containers, as an integral part of the transport freight task, in line with world trends.**

Planning

- 6.46 The best strategy to employ to satisfy many of the criteria for IMT success is the use of effective planning mechanisms. The intermodal terminal sector is fragmented. The AusLink White Paper released in June 2002 noted:

... industry and government concerns about the intermodal terminals sector. The location of intermodal freight facilities, in both urban and regional areas, was seen as largely ad hoc. It was concluded that all levels of government and industry would benefit from a better framework for planning and promoting intermodal terminals.⁶²

- 6.47 Four years later, DOTARS commented that:

...major users and the activities of the major logistics operators are driving greater integration and better specialisation in some circumstances.⁶³

- 6.48 However, it is arguable that, to some extent, competition legislation is an impediment to supply chain collaboration. The Hunter Valley Coal Chain arrangement – recognised as a success story in supply chain management and optimisation (at least until recent events) – required special permission from the ACCC. The Australian Logistics Council, therefore asserted that:

62 Department of Transport and Regional Services, Submission 103, p.9.

63 Department of Transport and Regional Services, Submission 103, p.7.

The challenges of developing a similar level of collaboration in more complex and fragmented supply chains, such as intermodal container movements, are immense. Additionally, finding ways to meet these challenges will require a long process of systematic engagement between government and industry.⁶⁴

6.49 DOTARS aims to achieve a more coordinated planning approach with the States in the future, in an effort to avoid some of the difficulties facing current and potential IMTs and the intermodal hub industry.⁶⁵

6.50 A co-operative approach to planning should address such problems as the ad hoc placement of IMTs. Ad hoc decisions can lead to inappropriate location of terminals and having too many terminals in a catchment area. This, if it occurs, threatens the viability of all terminals in that region.

6.51 At the planning stage, it is important to carefully consider and match the expected freight throughput with the (planned) capacity, if an IMT is to adequately support its connecting transport network.⁶⁶

6.52 DOTARS maintained that:

...there is an opportunity to adopt a properly planned system where intermodal terminals develop around a few major confluences of highways and rail lines.⁶⁷

6.53 It also suggested that:

...a more predictable planning process might encourage increased investment in existing and new facilities.⁶⁸

6.54 Planning is crucial, since the outcome of the process "...is not only the identification of needed infrastructure but also the financing arrangements":⁶⁹

Strategic development of suitable sites would ensure maximum returns for both public sector funding and private sector investment. It would also allow the planned

64 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.18.

65 Department of Transport and Regional Services, Transcript, 17 August 2005, Canberra, p.6.

66 Latrobe City Council, Submission 58, p.4.

67 Department of Transport and Regional Services, Submission 103, p.15.

68 Department of Transport and Regional Services, Submission 103, p.9.

69 Parkes Shire Council, Submission 28, p.10.

development of sites away from major infrastructure, community and environmental conflict.⁷⁰

- 6.55 Corridor strategies must also take into account availability of land and access issues:

Available land and proper transport planning will be important to ensure that future increases in intermodal capacity necessary to support the development of the Corridor are achievable in the period 2009-2014.⁷¹

- 6.56 The NSW Government commented on the need for:

Substantial improvements in the efficiency/organisation of freight services, in particular the coordination of activities by participants in the freight chain. For example... more efficient operating protocols and configuration for intermodal terminals that will allow loading/unloading and [receipt] of up to 600m container trains clear of running lines.⁷²

- 6.57 The Committee noted with concern, that in some cases terminal capacity improvements and the timing of projects are being considered independently of rail corridor development options. The expectation seems to be, that the cost and timing of IMT improvements will be an issue for terminal providers and operators alone.⁷³

- 6.58 Meyrick and Associates indicated:

...that the role for industry in developing intermodal terminals for surface transport is well defined.⁷⁴

- 6.59 Industry driven IMT development is crucial. P&O Ports, for example, plans to be an increasingly active participant in the development of intermodal operations.⁷⁵ The City of Albury observed:

Those social and environmental benefits that you can get from an intermodal hub obviously can balance with the economic ones as well. That is something we believe industry

70 Department of Transport and Regional Services, Submission 103, p.15.

71 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.4.

72 New South Wales Government, Submission 96, p.12.

73 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.10.

74 Department of Transport and Regional Services, Submission 103, p.15.

75 P&O Ports Limited, Submission 54, p.1.

should drive, because industry at the end of the day will be the ones that will be beneficiaries of it.⁷⁶

- 6.60 P&O Ports explained the importance of integrating the transport corridors into the planning process:

I would give an absolute priority to establishing rail paths for strategically located intermodal rail facilities to take the congestion away from the cities. They would have to have rail paths and be given priority, if necessary, over some of the passenger services. Then you could take existing infrastructure and make it work much, much better than it works today.⁷⁷

- 6.61 The Committee recognised that the AusLink integrated network approach should enable better planning for intermodal facilities. Under this arrangement, existing and proposed sites can be examined and prioritised within the context of the national network.
- 6.62 Funding has been provided for a number of intermodal and related infrastructure projects in the AusLink first National Plan, covering 2004–05 to 2008–09.⁷⁸ This includes improvements to intermodal facilities in Sydney, Melbourne, Adelaide and Perth.⁷⁹ Government investment based on AusLink priorities, will also serve as a guide to the private sector.
- 6.63 Intermodal facilities cannot be considered in isolation. For example, in the case of the Sydney region, even if the major Enfield development is completed, the Sea Freight Council argued that there will still be a capacity shortfall of 150,000 TEUs, as container movements through the State's ports grow to 2.8 million by 2020.⁸⁰
- 6.64 It is vital that the merits of each (proposed) facility be considered within the context of wider sector operations, and regional and national network requirements. Therefore, any investment in terminal construction and infrastructure should be prioritised in this way.

76 City of Albany, Transcript, 8 March 2006, Albany, p.43.

77 P&O Ports Limited, Transcript, 21 November 2005, Sydney, p.31.

78 For information see AusLink, <http://www.auslink.gov.au>.

79 The Chartered Institute of Logistics and Transport (ACT and SE NSW), Submission 64, p.12.

80 Supply Chain Review, <http://www.chainmail.com.au/old/index.cfm?storyid=29069&li=displaystory>, accessed 20 December 2006.

Recommendation 15

- 6.65 The Committee recommends that the Australian Government ensure that intermodal facility planning is given high priority in the AusLink Corridor Strategies. This planning should include consideration of financing options for IMT developments and upgrades, and, where necessary, the provision of targeted funding for essential projects.

Recommendation 16

- 6.66 The Committee recommends that, within AusLink, a guaranteed pool of funding for intermodal facilities is made available annually, on an ongoing basis, to leverage IMT developments, not only in parallel with other road and rail developments and upgrades, but as an integral part of them.

National intermodal priorities

- 6.67 The *National Intermodal Terminal Study* and the Australian Logistics Council's *Infrastructure Action Agenda 2006*, outline Australia's existing facilities, capacity constraints and proposals for new terminals. In addition, the growing interest in IMTs throughout Australia has generated numerous regional, local and hub specific studies.
- 6.68 There is no need for the Committee to replicate these substantive reports by a discussion of all existing facilities or proposals. Instead, the Committee has focused on national intermodal priorities, areas in which there are immediate constraint problems, and areas where the greatest growth in freight demand is anticipated.
- 6.69 The *National Intermodal Terminal Study* found that demand for intermodal terminals will be driven by the level of container trade passing through Australian ports, the increasing non-bulk freight demands on the North-South and East-West freight routes, and trade volumes across Bass Strait.⁸¹

81 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p. 54.

- 6.70 Many submissions to the Committee presented cases supporting particular projects or proposals for new hubs in their regions.⁸² However, existing hubs, proposed expansions and new developments along these routes, all need to be assessed against the criteria for a viable intermodal facility.⁸³ The Committee focused on IMT development or expansion projects that could potentially provide the greatest benefits to the capacity of transport networks.
- 6.71 The priorities assigned to specific terminal proposals will be influenced by other significant developments in transport network arrangements. In particular, the route selected for the proposed North-South inland rail, and the timing of its construction, will influence development and expansion opportunities for IMTs in the adjacent regions.
- 6.72 When considering proposed new developments or expansions to existing facilities, P&O Ports argued that:
- ...the market will be provided with more efficient and lower cost services through the increasing utilisation of the potential capacity of the existing container terminals rather than through the development of additional facilities that will only lead to deferral in the introduction of progressive (automated) technology.⁸⁴
- 6.73 However, the Latrobe City Council observed that altering the capacity of existing terminals will often involve considerable cost and disruption to services.⁸⁵
- 6.74 These views are illustrative of many brownfield versus greenfield development debates. However, the Committee felt that there was no practical value in pursuing these generalisations; the case for any IMT project must be considered individually, based on its potential to contribute to the efficiency of freight movements in the region and on wider transport networks.
- 6.75 Where such a case is made, the Australian Government should leverage the involvement of State, local government and/or private industry, with an appropriate contribution.

82 For example, Glen Innes Section 335 Transport Committee, Submission 87, p.5.

83 See Sea Freight Council of NSW, http://www.freightcouncils.com.au/downloads/Developing_Freight_Hubs.pdf.

84 P&O Ports Limited, Submission 54, p.5.

85 Latrobe City Council, Submission 58, p.4.

- 6.76 The Committee noted the Australian Government's five year, \$550 million commitment, under the AusLink program, for improvements to rail and intermodal facilities in Sydney, Melbourne, Adelaide and Perth.⁸⁶
- 6.77 Although the Committee found a strong case for this in the Sydney, Melbourne, Perth and Brisbane basins, it believes that a proportionate amount should be allocated to inland locations.

North-South corridor

6.78 The major intermodal facilities for the North-South corridor are located in Sydney, Melbourne and Brisbane. Unfortunately, evidence indicates that freight movements through Sydney, Brisbane and Melbourne hubs will become more difficult as freight demand continues to grow. Issues constraining these facilities include: sizes and configurations that restrict the access of longer trains; height restrictions preventing double stacking; operating curfews due to proximity to residential areas; and poor rail connections.⁸⁷

6.79 The ARTC commented:

If I were doing a prioritisation of intermodal hubs on a national basis, I would say we have a major crisis in Brisbane, Sydney and Melbourne. I do not think people realise the catastrophic framework of intermodal hub problems for Sydney, Brisbane and Melbourne that they are going to come across in the next 10 years.⁸⁸

New South Wales

6.80 To achieve the New South Wales Government's target of 40 per cent of container movements by rail by 2011, an effective IMT network is essential.⁸⁹ NSW currently has a network of regional intermodal terminals that has contributed to freight logistics efficiencies in the State.⁹⁰ However, with the growing freight demand, there is still

86 The Chartered Institute of Logistics and Transport (ACT and SE NSW Section), Submission 64, p.5.

87 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.9.

88 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, p.16.

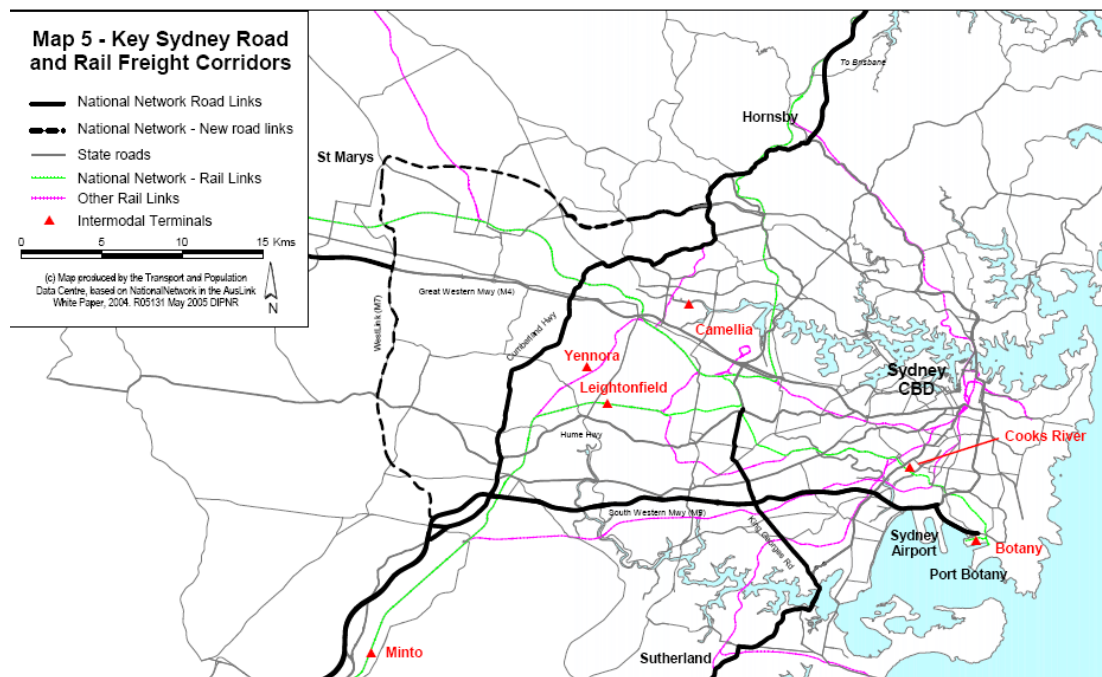
89 New South Wales Government, Submission 96, p. 11; P&O Ports Limited, Submission 54, p.3.

90 Southern Distribution Business Park, Exhibit 37, p.2.

much to be done to enhance the role of urban and regional facilities and the IMT sector.

- 6.81 Ernst and Young were sceptical about the capacity of existing terminals to make a significant contribution to meeting the NSW Government's rail target. They claimed that all the existing terminals, with the exception of Minto, are "...constrained sites with limited capacity for growth".⁹¹
- 6.82 The NSW Government's *Ports Freight Plan* outlines a number of measures required to efficiently manage anticipated freight increases. These include:
- a network of additional IMTs in Sydney's west;
 - enhanced rail links between Port Botany and major terminals;
 - improved road connections between the Port and arterial routes to regional terminals; and
 - substantial improvements to freight chain coordination.⁹²

Figure 6.1 Existing Intermodal Facilities, Sydney



Source: New South Wales Government, Submission 96, Map 5.

91 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.14.

92 New South Wales Government, Submission 96, pp.11-12.

- 6.83 DOTARS has identified the Port Botany, Chullora, Yennora and Minto intermodal terminals as important to the corridor.⁹³ Also, Meyrick and Associates noted good opportunities for developing some IMTs into “...fully fledged freight logistics and distribution” centres. For example, urban terminals with this potential include Moorebank and Enfield in Sydney, and in the regional areas, the Albury-Wodonga development.⁹⁴

Sydney

- 6.84 Sydney has an extensive network of urban and regional IMTs.⁹⁵ However, in 2004, the combined annual capacity of Sydney’s six main metropolitan terminals – Chullora, Cooks River, Yennora, Camellia, Leightonfield and Minto – was only 500,000 TEUs. Given estimates that Sydney will require an aggregate intermodal terminal capacity of at least 1.2 million TEUs annually by 2020, the existing intermodal network will soon face significant capacity constraints.⁹⁶
- 6.85 Many of these urban – and regional – terminal operations focus on freight flows to and from Port Botany.⁹⁷ Chapter 3 explores the range of issues, such as road capacity and congestion, constraining port functionality and the port’s freight transport connections.⁹⁸ Current and anticipated problems necessitate careful consideration of the State’s intermodal facility options.
- 6.86 The NSW Freight Infrastructure Advisory Board (FIAB) found that over the next fifteen years, a larger network of IMTs will be needed. In its *Railing Port Botany’s Containers* report, it recommended that “...intermodal terminals be treated as critical infrastructure under NSW planning provisions”.⁹⁹
- 6.87 The Sydney area presents planners with a potential crisis¹⁰⁰ but also an opportunity, to utilise the growth of the IMT sector to improve port-oriented freight flows.¹⁰¹ Professor Philip Laird contended that

93 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.5.

94 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, pp.3–4.

95 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.63.

96 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.65.

97 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.63.

98 Wingecarribee Shire, Submission 176, p.14.

99 New South Wales Government, *Railing Port Botany’s Containers: Proposals to Ease Pressure on Sydney’s Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.15.

100 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, p.16.

101 Maritime Union of Australia, Transcript, 1 February 2006, Wollongong, p.66.

increased IMT capacity in urban Sydney would enhance freight movement efficiencies in the region.¹⁰²

6.88 The Warren Centre said that it viewed:

...the establishment of modern freight terminals across the Sydney Region as a vital element in establishing an effective sustainable transport system for Greater Sydney. It is intended that these terminals be linked by rail to the ports to optimise rail use in freight movement. This is a critical element in addressing the rail/road balance, and facilitating urban freight friendly operations.¹⁰³

6.89 The expectation that current container throughput at Port Botany will more than double by 2020, has already motivated planning for the construction of at least five new intermodal terminals within the metropolitan area.¹⁰⁴ This reflects the emerging trend towards developing hubs in urban areas. However, as the Wingecarribee Shire observed:

Major hubs will remain in Sydney itself but it is recognised that strategically located regional terminals will also play an increasingly important role.¹⁰⁵

6.90 Currently in the Sydney region, private sector operated IMTs handle domestic cargoes and around 135,000 TEUs a year of the import-export market, accessing Port Botany, Minto, Yennora, Villawood, Camellia and Cooks River by rail.¹⁰⁶ Regional multi-user facilities are currently in place at Moree, Narrabri, Tamworth, Newcastle, Dubbo, Blayney, Parkes, Griffith, Wagga Wagga, Cootamundra and Hillston. There are also private or single commodity facilities located in Wee Waa, Warren, Manildra and Narrandera.¹⁰⁷

6.91 In its *Railing Port Botany's Containers* report, FIAB recommended that "...Sydney's future network of intermodal terminals be connected to Port Botany by way of dedicated freight rail lines".¹⁰⁸

102 Professor Philip Laird, Supplementary Submission 181, p.12. See also The Warren Centre, Submission 43, p.3.

103 The Warren Centre, Submission 43, p.3.

104 Australian Rail, Tram and Bus Industry Union, Submission 132, p.21.

105 Wingecarribee Shire, Submission 176, p.14.

106 New South Wales Government, Submission 96, p.5.

107 New South Wales Government, Submission 96, p.5.

108 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.15.

- 6.92 The Southern Sydney Freight Line (SSFL) proposal is part of a number of ARTC improvements planned to enhance the efficiency and cost-effectiveness of freight movements along the North-South rail corridor. In particular, it will help to address major bottleneck issues in southern Sydney.¹⁰⁹
- 6.93 When the SSFL project goes ahead it should help to address many of the rail network connectivity issues that are hindering the development or expansion of IMTs in the region.

Chullora and Yennora

- 6.94 Chullora, located 18 km from the CBD, is the main intermodal freight terminal in Sydney. The terminal is owned and operated by Pacific National, and has an annual throughput of 200,000 TEUs.¹¹⁰ The draft *Sydney-Melbourne Corridor Strategy* suggests that redevelopment or expansion of Chullora will be necessary if the desired increase in rail's share of freight movements is to be achieved.¹¹¹
- 6.95 Currently a single rail line connects Chullora to Port Botany, leading to congestion and conflict with passenger movements. Improvements to the freight rail line between Port Botany and the Enfield and Chullora IMTs are included in AusLink planned works.¹¹²
- 6.96 The Yennora terminal facilitates both import-export and interstate freight movements, with an annual throughput of approximately 50,000 TEUs. It is a Patrick owned and QR National operated facility, located 23 km west of the Sydney CBD. Like Chullora, this facility faces congestion problems and conflict with passenger train operations.¹¹³
- 6.97 However, the *North-South Corridor Study* suggested that even when the SSFL is completed, congestion between Chullora, Yennora, Strathfield and Gosford will still be a problem.¹¹⁴

109 For more information see <http://www.ssfl.artc.com.au/> and relevant discussion in Chapter 4.

110 Australian Rail Track Corporation, Submission 68, p.2.

111 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.17.

112 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.16.

113 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.16.

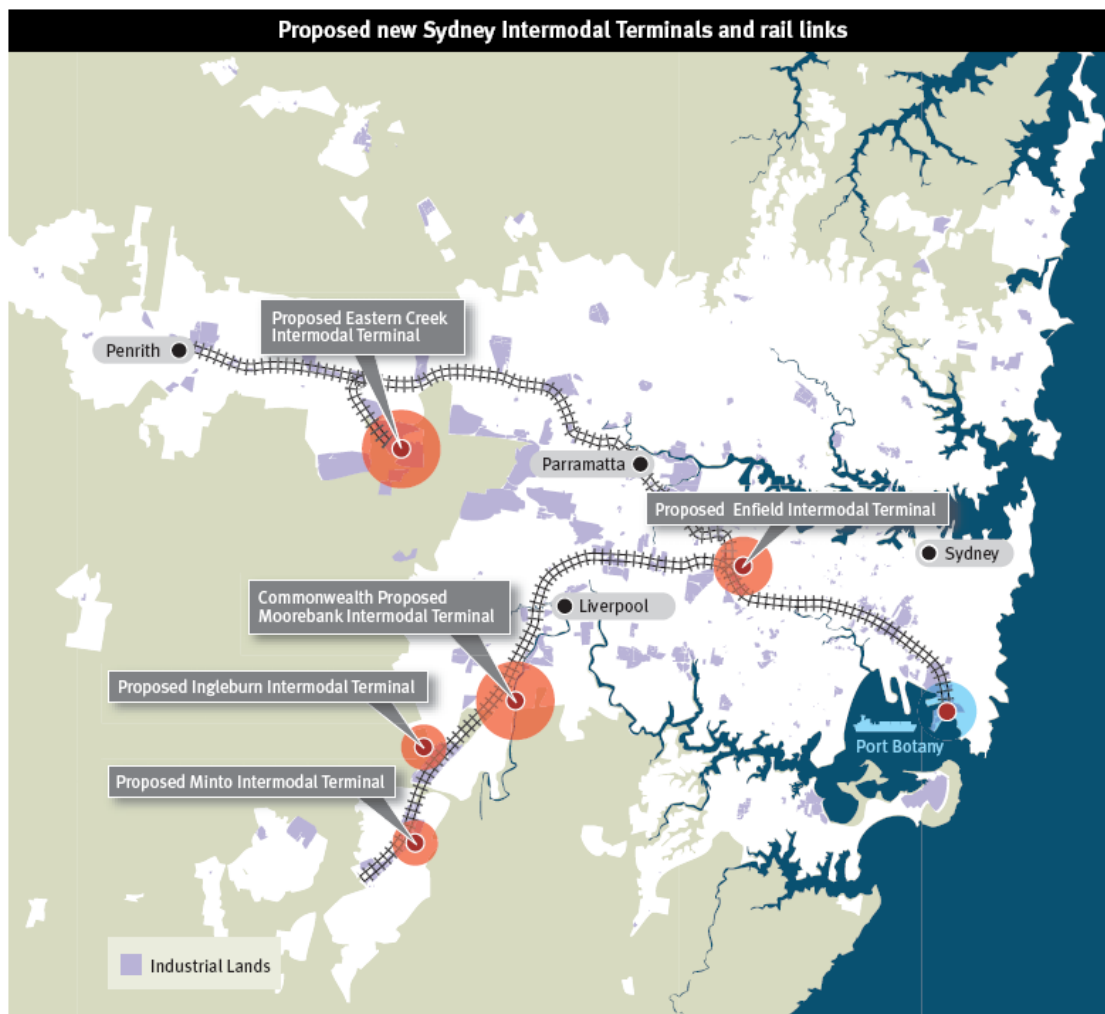
114 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.47.

Minto

- 6.98 The Macarthur Intermodal Shipping Terminal (MIST) at Minto, currently has an annual rail throughput of approximately 45,000 TEUs. It is located 35 km South-West of the Sydney CBD, and is adjacent to the main Sydney to Melbourne rail line.¹¹⁵ A dedicated rail shuttle operates from the Minto terminal to Port Botany.

Proposed facilities

Figure 6.2 Proposed Intermodal Facilities, Sydney



Source: Freight Infrastructure Advisory Board, *Railing Port Botany's Containers*, p.8.

- 6.99 While the Minto terminal does have shortcomings, such as restricted rail sidings of 350 m, it differs from its urban counterparts in its expansion potential. The MIST and Austrak plans to extend onto

115 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 5, p.18.

adjacent land could result in a capacity increase of around 200,000 TEUs.¹¹⁶

- 6.100 In its *Railing Port Botany's Containers* report, FIAB concluded that the proposed expansion and associated development at Minto can assist Sydney in meeting future intermodal demands.¹¹⁷

Enfield

- 6.101 While some redevelopment work is required at existing facilities, the *North-South Rail Study* found that facilities such as Chullora and Yennora do not have sufficient expansion potential to accommodate longer trains and increased freight demands. Consequently, development proposals such as Enfield may have a significant role to play, complementing existing operations and increasing New South Wales' terminal capacity.¹¹⁸
- 6.102 There is a proposal to develop an Intermodal Logistics Centre at the former Enfield marshalling yards. The Sydney Ports Corporation (SPC) has progressively purchased a site next to the marshalling yards. However, a NSW government review in 2003 concluded the plans were too big for the site. SPC has since refined its concept in keeping with the review recommendations.¹¹⁹
- 6.103 The current Enfield proposal outlines a 60 hectare development, operating 24 hours, seven days a week. The terminal – smaller than originally planned – would be linked to on-site empty container storage facilities and port related warehousing. An annual operating capacity of 300,000 TEUs is anticipated, to be derived mainly from shuttling freight between the terminal and Port Botany.¹²⁰
- 6.104 Currently, 75 per cent of freight movements on this route to Port Botany utilise trucks. The Sydney Ports strategy sees the Enfield facility as a key element in facilitating freight movements by rail, and

116 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.20.

117 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.20.

118 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 5, p.4.

119 Sydney Ports Corporation, *Intermodal Logistics Centre at Enfield: Environmental Assessment – Executive Summary*, October 2005, Sinclair Knight Mertz, pp.2-3.

120 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.4. Details of the proposal are available on the Strathfield Council's website: www.strathfield.nsw.gov.au/page/planning-and-development/enfield-intermodal-terminal, accessed 12 April 2007.

thereby moderating the anticipated growth in truck movements as freight demand increases.¹²¹

- 6.105 There is good access from the proposed site to Port Botany and the general rail network. Two 920 m sidings are planned and 600 m trains will be accommodated at the site.¹²² Road infrastructure improvements will also be required.¹²³
- 6.106 The proposal has received opposition from community action groups. The site is surrounded by residential suburbs, and because of plans for 24 hour operations, there are concerns about adverse community and environmental impacts from more trucks, congestion, air and noise pollution, and associated health risks.¹²⁴ The ALC contends that Enfield is an example of how environmental and community impact concerns can hinder the development of a proposed – and arguably much needed – terminal:

Although the area has been identified as a critical zone for the construction of a new intermodal terminal (this has been endorsed by the recent Freight Industry Advisory Council Report), the local government has continuously resisted the proposals on the basis of ... [aesthetic, environmental and community amenity] issues.¹²⁵

- 6.107 In 2005, the Sydney Ports Corporation conducted an Environmental Impact Assessment of the proposal.¹²⁶ It concluded that this development would contribute towards achieving the State's goal of a 40 per cent modal share for rail, and provide financial and social benefits to the community. It also concluded that the development would not detrimentally affect the health, diversity and productivity of the environment.¹²⁷

121 Sydney Ports Corporation, *Intermodal Logistics Centre at Enfield: Environmental Assessment – Executive Summary*, October 2005, Sinclair Knight Mertz, p.1.

122 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 5, p.19.

123 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.16.

124 Information on this campaign is available at <http://www.noportenfield.org/>, accessed 20 March 2007.

125 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.32.

126 New South Wales Government, Submission 96, p.11.

127 NSW Department of Planning, http://www.planning.nsw.gov.au/asp/pdf/enfield/chapter_22.pdf, accessed 20 March 2007.

- 6.108 In May 2007, the Premier of New South Wales announced that it would endorse plans for a new intermodal facility at Enfield, under its Freight Initiative. Consequently, the assessment of the site that had been on hold was resumed.¹²⁸

Moorebank

- 6.109 The Department of Transport and Regional Services is currently considering the development of an intermodal facility on Commonwealth land at Moorebank in South-Western Sydney.
- 6.110 The proposed site is currently used by the Defence Force, but could be surplus land if land force training operations are relocated to Victoria.¹²⁹ The Charter Institute of Logistics and Transport maintains that the release of this land for an intermodal development "...could have a major influence on the efficiency and capacity of the East rail corridor". It could also, by extension, enhance the freight distribution efficiencies of the regional rail networks.¹³⁰
- 6.111 The proposal is for a multi-user facility with an annual 500,000 TEU capacity. There is sufficient land to accommodate longer trains and greater throughput than other facilities in the Sydney area. The site is close to the M5 motorway, which connects to the port, the M7 motorway and the planned Southern Sydney Freight Line.¹³¹ The facility would be a loading, unloading and distribution point for freight moved by rail.¹³²
- 6.112 NSW FIAB considered Moorebank critical to the development of the region's intermodal terminal capacity, and its ability to meet its rail freight target.¹³³ The NSW Government has since agreed with a number of FIAB's recommendations in relation to Moorebank, including:
- that the NSW Government should pursue AusLink funding for an ARTC rail connection to the site;

128 NSW Ministry of Transport, <http://www.transport.nsw.gov.au/news/media/2007/07-05-31-premier-ports-freight-strategy.pdf>, accessed 21 June 2007.

129 The Department of Defence has indicated that, subject to Commonwealth agreement, the site could be available by 2011.

130 Chartered Institute of Logistics and Transport (ACT and SE NSW sections), Submission 64, p.13.

131 New South Wales Government, Submission 96, p.12.

132 National Transport Commission, Transcript, 13 September 2006, Canberra, p.8.

133 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.17.

- ensuring that access to the site does not compromise future expansion of the East Hills passenger line; and
- using design buffers to ensure that site development is separated from any residential development and future expansion of the East Hills passenger line.¹³⁴

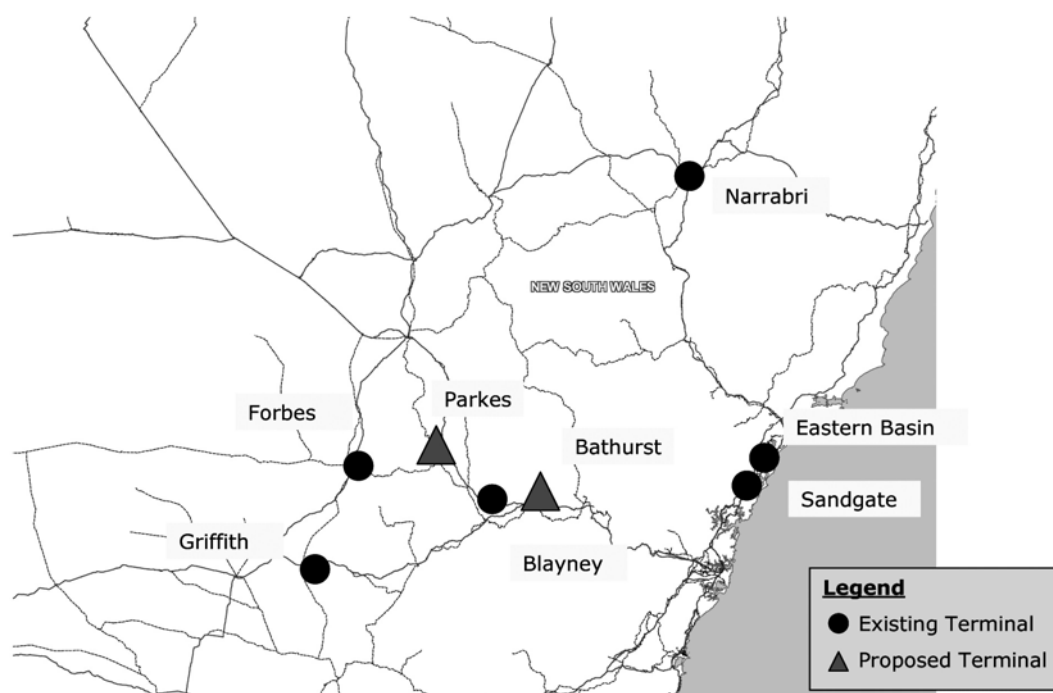
6.113 An intergovernmental Working Group has been established to assess the site and plan for the development of an intermodal facility at Moorebank.¹³⁵

Eastern Creek

6.114 A site at Eastern Creek in Western Sydney has been identified by FIAB as one with potential for IMT development. The privately owned site currently consists primarily of agricultural land. However, FIAB envisages a development with future capacity of 500,000 TEUs each year.

Regional Hubs

Figure 6.3 Intermodal facilities, Regional New South Wales



Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p. 17.

134 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.18.

135 New South Wales Government, *Review by the Infrastructure Implementation Group of the Freight Infrastructure Advisory Board Report and Recommendations*, May 2007, p.7.

6.115 The Westlink M7 and M4 arterial roads intersect at Eastern Creek, providing access from the terminal to main economic and industrial areas in the region. However, an 18 km rail line construction would be required to connect Eastern Creek to the SSFL, but once completed the site could accommodate longer trains.¹³⁶ NSW FIAB suggests that the site warrants further consideration.¹³⁷

6.116 FIAB supported Eastern Creek as a preferred site for future intermodal development:

It is our view that the Eastern Creek site should be reserved for the development of an intermodal terminal to service Western Sydney. Unless the site is protected, there is a significant risk that it may be developed in a way that compromises its use as an intermodal terminal servicing the Western Sydney industrial markets.¹³⁸

6.117 The NSW Government agreed that:

Eastern Creek is a key location for warehousing and distribution in western Sydney – it is important that the long term option of locating an intermodal terminal at Eastern Creek in the future should not be compromised.¹³⁹

Parkes

6.118 Parkes is located at the junction of the Newell Highway, the North-South national highway linking Melbourne with Brisbane, and the Transcontinental railway from Sydney to Perth. It is also the closest point to the eastern seaboard that allows containers to be double stacked for the Transcontinental railway.¹⁴⁰ A hub at this site could service freight movements on the East-West corridor and potentially on a future North-South inland rail.¹⁴¹

136 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 5, p.20.

137 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.22.

138 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.21.

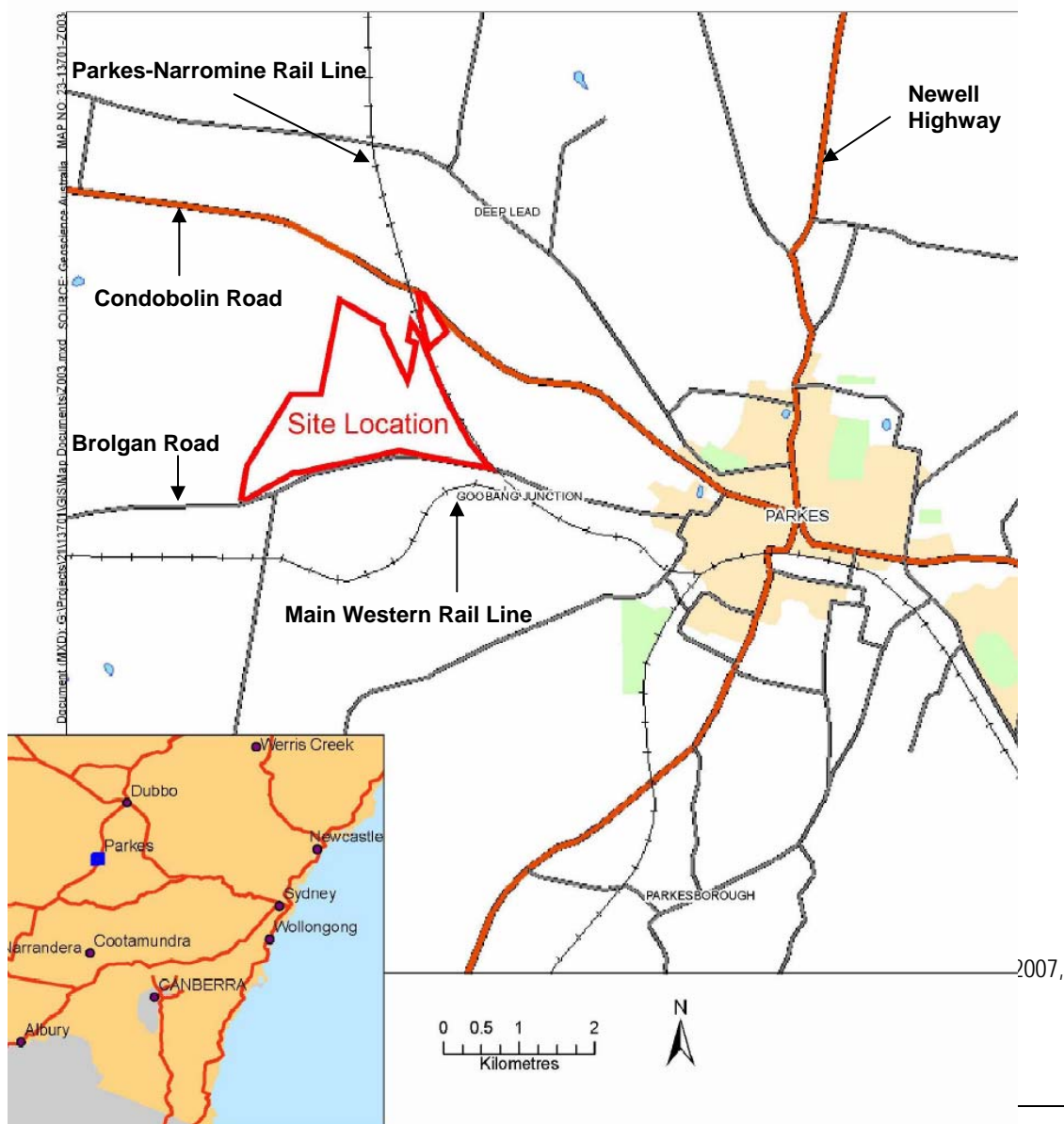
139 New South Wales Government, *Review by the Infrastructure Implementation Group of the Freight Infrastructure Advisory Board Report and Recommendations*, May 2007, p.10.

140 Parkes Shire Council, Submission 28, p.4.

141 Hunter Area Consultative Committee, Transcript, 30 January 2006, Newcastle, p.44.

- 6.119 The Parkes intermodal hub proposal has been developed by the Parkes Shire Council, in conjunction with the private sector.¹⁴² Terminals Australia has acquired over 300 hectares of land for the proposed \$400 million development.¹⁴³ The Council has conducted extensive investigations and consultations to arrange the appropriate industrial zoning for a 500 hectare area encompassing the site. The completed hub would be a 24 hour, 7 day a week, multi-modal transport facility, with a capacity potential of 530,000 TEUs.¹⁴⁴

Figure 6.4 Proposed Parkes Intermodal facility site



142 Parkes Shire Council, Submission 28, p.1.

143 Hunter Area Consultative Committee, Transcript, 30 January 2006, Newcastle, p.44.

144 Information on the project is available on the Parkes Shire Council's website:
<http://www.parkes.nsw.gov.au/planning/5677/5762.html>, accessed 12 March 2007.

- 6.121 The site is on disused agricultural land and the Parkes region is not a significant producer of any major products requiring transportation. Rather, the value of the Parkes proposal lies in its location as a meeting point for rail and road corridors and the availability of land.
- 6.122 Some business have already recognised these benefits and have established facilities at Parkes, these include FCL, Australian Wool Handlers and Silverton Rail.¹⁴⁵ The Parkes facility will also include container storage, warehousing, administration and rail service facilities and associated infrastructure.
- 6.123 Inland rail options outlined in the North-South Rail Corridor study involve linking Melbourne to Brisbane via Parkes.¹⁴⁶ If the far West route is selected, Parkes' strategic value and intermodal hub potential, already high, will increase significantly. It also has potential for Melbourne to Sydney freight movements, using shuttle services for the Parkes to Sydney segment.¹⁴⁷ The Parkes Shire Council claimed:
- There are no other locations in inland Australia that could provide the same storage and interchange services for long distance road and rail haulage if the inland rail is developed.¹⁴⁸
- 6.124 Infrastructure plans include the construction of three heavy vehicle access roads, and regional road and rail upgrades. The purpose built heavy vehicle roads from Brolgan Road, to connect with the Newell Highway south and north of Parkes, will involve a high level of access control. The Council estimates a cost of \$8.1 million for the 7.9 km of road for these connections.
- 6.125 This plan also includes a new Southern By-pass from Orange Road, east of Parkes, to the Newell Highway, and linking the new By-pass to the Newell Highway south of Parkes. A cost of \$4.6 million is estimated. Upgrades to the Brolgan and Condobolin Roads, at a cost of \$1.2 million, will improve heavy vehicle access. The proposed rail upgrade involves increasing the curvature of the rail link between the Southern Railway line and the Northern and Western lines.¹⁴⁹

145 Parkes Shire Council, Submission 28, p.5.

146 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 1, p.17.

147 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 4, p.19.

148 Parkes Shire Council, Submission 28, p.6.

149 Parkes Shire Council, Submission 28, pp.11-13.

- 6.126 The Council proposed that cost sharing arrangements to facilitate these infrastructure requirements could involve:
- the Commonwealth government entirely funding the national road network (Newell Highway) connections (\$8.1 million),
 - ARTC funding the rail component (\$1.5 million), and
 - the remaining regional road network upgrades (\$5.8 million) jointly funded by the State government (50 per cent), Commonwealth (25 per cent), Parkes Shire Council (15 per cent), and the private sector (10 per cent).¹⁵⁰
- 6.127 The Council sees the Parkes hub as a valuable tool in addressing congestion, improving access to ports,¹⁵¹ and taking the pressure off existing hubs, which are already approaching capacity.¹⁵² Community benefits are also anticipated, in the form of job creation, regional prosperity and by reducing truck numbers through residential areas.¹⁵³
- 6.128 Overall, the Parkes proposal satisfies many of the criteria¹⁵⁴ for an effective intermodal facility. While evidence suggests that the most immediate need is for IMTs in metropolitan areas, Parkes should not be dismissed as a future development option.
- 6.129 In February 2007, the NSW Department of Planning released the Environmental Assessment Report on the Parkes hub project.¹⁵⁵ The report concluded that the "...proposal is in the public interest and should be approved". It found that:
- the project was consistent with the NSW Government's objective to encourage opportunities for freight movements by rail;
 - traffic impacts would be manageable provided a range of upgrades of the surrounding road network were implemented (particularly the Hartigan Avenue/Forbes Street/Bogan Street intersection); and

150 Parkes Shire Council, Submission 28, p.13.

151 Parkes Shire Council, Submission 28, p.7.

152 Australian Transport and Energy Corridor, Submission 122, p.5.

153 Parkes Shire Council, Submission 28, p.3.

154 As identified by Meyrick and Associates in Submission 190 and in evidence to the Committee.

155 New South Wales Department of Planning, *Major Project Assessment: Terminals Australia, Parkes Intermodal Terminal*, Director-General's Environmental Assessment Report, February 2007, pp.19-20.

- adverse environmental impacts could be mitigated to an acceptable level.¹⁵⁶
- 6.130 In March 2007, the NSW Government approved initial plans for the terminal, which is expected to attract \$135 million in capital investment. It is estimated that this first stage development will be completed within five years and will handle 240,000 TEUs a year.¹⁵⁷
- 6.131 On 15 June 2007, the Minister for Transport and Regional Services announced that the inland rail would run through Parkes. The Parkes Shire Council saw the inclusion of Parkes on the proposed North-South inland rail line as reinforcing "...the status of Parkes as the National Freight Logistics Hub and consolidated the interest now being shown in Parkes by the transport industry for the efficient and effective movement of freight across Australia".¹⁵⁸

Goulburn

- 6.132 The Southern Distribution Business Park (SDBP) proposes to build an intermodal hub 4 km from Goulburn. The proposal is an initiative of the Mariner Property Group. An integrated industrial, logistics, service, warehousing and distribution hub is planned on a site of approximately 426 hectares, adjacent to the Hume Highway. The full development should cover around 200 hectares and will be completed over a 15 year period.¹⁵⁹
- 6.133 Project developer, Southern Distribution Hub, claimed that this prime location on the Hume corridor makes it "...one of the most strategic and important in Australia in terms of freight and distribution for the eastern seaboard". It would link directly with Port Kembla, Port Botany and Pyrmont, facilitating the distribution of general freight and bulk goods throughout the Eastern States. This project is also an opportunity to reduce freight congestion on Sydney's southern corridors.¹⁶⁰

156 New South Wales Department of Planning, *Major Project Assessment: Terminals Australia, Parkes Intermodal Terminal*, Director-General's Environmental Assessment Report, February 2007, pp.19-20.

157 Hon. Frank Sartor, Minister for Planning, New South Wales Government, Media Release FS200070306_524, 6 March 2007.

158 Parkes Shire Council, *Feds Prefer Inland Rail Route through Parkes*, 15 June 2007. Source: <http://www.parkes.nsw.gov.au/news/pages/6570.html>, accessed 21 June 2007.

159 Southern Distribution Business Park, Submission 180, p.1. For more information on the project see <http://site.sdh.net.au/project.php>.

160 Southern Distribution Business Park, Submission 180, p.1.

- 6.134 The project proposal includes construction of a new highway interchange at Goulburn and associated road infrastructure. The planning emphasis is certainly on road connections to access the hub, however the feasibility of rail connections will also be explored. A dedicated rail spur is being considered, that would accommodate freight and seek to maximise connections to existing rail infrastructure in the region, in particular the Sydney-Canberra-Melbourne connections and the lines to the Ports of Wollongong and Sydney.¹⁶¹ SDBP is working with the ARTC to develop a plan on how best to utilise – currently underutilised – rail lines that are within 1.5 kilometres of the proposed hub site.¹⁶²
- 6.135 Planning, land acquisition and engineering studies for the project are already advanced. It is predicted to be operational within two years of receiving development consent.¹⁶³ A concept plan application for the development is with the NSW Government.¹⁶⁴
- 6.136 A pre-feasibility study conducted by the Logistics Association Australia, found – despite a lack of available demand data – sufficient evidence to support the commercial feasibility of the project.¹⁶⁵
- 6.137 Proponents argue that projects of this type are in keeping with the State government’s recommendations to pursue the development of low job-density logistics activities in regional areas.¹⁶⁶ Expected benefits include \$170 million annually to the State economy, \$100 million in public infrastructure, and job creation.¹⁶⁷
- 6.138 Mariner Financial contended that the project satisfies all of the criteria outlined by the NSW Sea Freight Council, for a feasible intermodal facility.¹⁶⁸ The company also argued that the site has industry support.¹⁶⁹ Southern Distribution Hub estimated private investment of \$1 billion over the first 15 years of operation.¹⁷⁰

161 Southern Distribution Business Park, Submission 180, pp.2-3.

162 Mariner Financial Ltd, Transcript, 6 September 2006, Canberra, p.26.

163 Southern Distribution Business Park, Submission 180, p.1.

164 As at 12 February 2007, see http://www.marinerfunds.com.au/clippings_summary.asp.

165 Southern Distribution Business Park, Exhibit 36, p.38.

166 Southern Distribution Business Park, Exhibit 36, p.38.

167 The project is expected to create 300 jobs in the construction phase and 2500 jobs in transport and associated services in the first 15 years of operation. Southern Distribution Business Park, Submission 180, p.1.

168 Mariner Financial Ltd, Transcript, 6 September 2006, Canberra, p.28.

169 Southern Distribution Hub Pty Ltd, Transcript, 6 September 2006, Canberra, p.25.

170 Southern Distribution Business Park, Submission 180, p.1.

Southern Highlands

- 6.139 The Southern Highlands Intermodal concept is a strategic co-operative effort between the Port Kembla Port Corporation (PKPC) and the Wingecarribee Shire Council.¹⁷¹ The site would connect to Sydney, Canberra, Illawarra and the South Coast of New South Wales.¹⁷²
- 6.140 Demand for the IMT will be driven by the level of container trade through Ports Botany and Kembla, the increase in non-bulk freight demand between Melbourne and Sydney, and vehicle imports in the region. Project proponents argued that this is the only location that offers a 'whole of industry' solution to dealing with immediate demand and the anticipated shortfall in Sydney's intermodal capacity over the next 10 to 15 years.¹⁷³
- 6.141 It has a competitive advantage over other regional developments because the major infrastructure is already in place and currently underutilised. For example, the M7 provides direct access to Sydney. This hub could also handle longer trains than its metropolitan counterparts.¹⁷⁴
- 6.142 Port Kembla could be directly accessed from the hub by rail and by road on the Hume Highway via Wilton.¹⁷⁵ Only 1 km of the main Southern line would be used for rail movements to the port and they should not interfere, unduly, with current line operations.
- 6.143 The Wingecarribee Shire Council maintains that the terminal would far exceed the 10,000 TEUs that the *National Intermodal Terminal Study* adopted as the annual requirement for an IMT ranking of "nationally significant".¹⁷⁶
- 6.144 The Southern Highland hub would not suffer some of the constraints faced by many of the urban Sydney hubs. For example, there would be less road and rail restriction and large, relatively low cost, industrial sites are available in the region.¹⁷⁷ This project could assist NSW in meeting its rail mode share target and also reduce urban
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171 For general information on the Southern Highland Intermodal concept see <http://www.southernhighlandsbusiness.com/purpose.html>, accessed 2 April 2007.

172 Wingecarribee Shire Council, Submission 176, p.6.

173 Wingecarribee Shire Council, Submission 176, p.3.

174 Wingecarribee Shire Council, Submission 176, p.5.

175 Wingecarribee Shire Council, Submission 176, pp.5-6.

176 Wingecarribee Shire, Submission 176, p.11.

177 Wingecarribee Shire, Submission 176, p.6.

congestion in Sydney. The Council's submission highlights the potential for value-adding, for example with educational facilities to support the logistics industry.

- 6.145 In 2006, development and logistics companies evaluated the viability of the Southern Highlands, and began seeking land for development.¹⁷⁸ In 2007, a Memorandum of Understanding was signed between the Wingecarribee Shire Council and PKPC, to work together on strategic growth and development of the Southern Highland and Illawara regions. The development of the Southern Highland intermodal facility will be a key project for this partnership.¹⁷⁹
- 6.146 As at June 2007, two large institutional investors have been secured. They have taken up 110 hectares in land options for the planned Stage One development. Consultants have been engaged and project managers appointed. The Council has received an Infrastructure Study report on the project and a Development Control Plan is due to be completed in July 2007. Once approved, the Council anticipates that development could begin in as little as two weeks. The Council also highlighted the importance of rail access for hub viability, and is considering a number of options for rail infrastructure, including talking with larger companies that have an interest in extending rail connections.¹⁸⁰

Other proposed facilities

- 6.147 Time constraints have forced the Committee to restrict its focus to urban facilities and some regional areas where there is a more pressing need for IMTs. However, there are certainly other new development and expansion proposals that merit consideration by Government and industry, when exploring future intermodal facility options. Proposed facilities of note in the Sydney area include Ingleburn and Menangle.
- 6.148 The Patrick Corporation has proposed an IMT in the Ingleburn industrial area. The facility would have a 54,000 TEU annual capacity and would be aimed at supporting Patrick's Autocare business.¹⁸¹

178 Wingecarribee Shire, Submission 176, p.13.

179 Port Kembla Port Corporation, <http://www.kemblaport.com.au/index.pl?page=140>, accessed 3 April 2007.

180 Advised by the Wingecarribee Shire Council on 2 April and 20 June 2007.

181 New South Wales Government, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*, July 2005, prepared by the Freight Infrastructure Advisory Board, p.21.

Despite being delayed by court proceedings before the Land and Environment Court in 2005, a favourable outcome now means that the project can proceed under the normal planning approval process.¹⁸²

- 6.149 There is also potential in Menangle for the development of a terminal and a transport and logistics business park on a 60,000 m² site close to both the Main Southern line and the M5.¹⁸³ However, FIAB and the NSW Government agreed that the Menangle site's potential is in servicing interstate freight movements, rather than import- export container movements.¹⁸⁴
- 6.150 Another opportunity worth exploring in the longer-term is Moree. It is a major grain growing area, with agricultural produce of around \$900 million each year.¹⁸⁵ In August 2006, the Committee heard that Moree was experiencing around 3,000 truck movements each day through the town and region.¹⁸⁶
- 6.151 Moree already has a role to play in warehousing – storage of containers brought in for product to be moved out of the region – and facilitating rail movements of these containers. During 2005, 1,200 40-foot containers were moved out of Moree in a six month period, and it was estimated that with a reliable rail service this figure could have been 2,500 containers.¹⁸⁷ The Cunningham Rail Link Committee proposed an extension of the standard gauge rail, which may pass through Moree and Warwick, to join the rail at Rathdowney and potentially onto the proposed Bromelton IMT. Also, if the far west inland rail route for the North-South corridor is selected, the rail will pass through Moree. Consequently, subject to the reopening or upgrade of certain rail connections:

Moree could act as an important and busy freight hub. Local produce could be collected and transported from the silos to Moree while imported fuels and fertilisers distributed from Moree to local regional towns ...

182 New South Wales Government, *Review by the Infrastructure Implementation Group of the Freight Infrastructure Advisory Board Report and Recommendations*, May 2007, p.8.

183 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, pp.64-65.

184 New South Wales Government, *Review by the Infrastructure Implementation Group of the Freight Infrastructure Advisory Board Report and Recommendations*, May 2007, p.7.

185 Moree Plains Shire Council, 7 April 2006, Toowoomba, p.32.

186 Mr Vincent O'Rourke, Transcript, 1 August 2006, Sydney, pp.20-21.

187 Dunavant Enterprises Australia, Transcript, 7 April 2006, Toowoomba, pp.30-31.

With freight hubs local trains could quickly move along the branch lines on a regular basis providing fast local movement of freight. Much larger trains assembled at the hubs would then move the goods to the required shipping port. From Moree for example freight could be moved to Newcastle or Brisbane or if the Inland Rail Line as mooted was constructed then to Melbourne, Adelaide or Perth.¹⁸⁸

Victoria

6.152 Victoria is geographically positioned to facilitate export freight movements from South Australia, New South Wales and Tasmania, and act as a distribution point for imports. In particular, DOTARS has identified the Port of Melbourne, Dynon, Altona and Somerton intermodal facilities as important to the corridor.¹⁸⁹

6.153 The Port of Melbourne Corporation's submission noted the industry trend towards the vertical integration of logistics chains. This is discernible in:

- the purchase of trucking and rail terminal operations, particularly in regional areas,
- the use of information and management systems to link components of the supply chain, and
- the control of regional intermodal centres.

The Corporation argued that these trends allow vertically integrated operators to control the movement of freight from distribution centres to ports and achieve efficiencies through aggregated movements rather than multiple trips.¹⁹⁰

6.154 The Victorian Government has set a target that by 2010, 30 per cent of cargo movements through the State's ports will be on rail. The current level is 17 per cent. As is the case with its neighbouring states, intermodal terminals will have a part to play in realising this target. The Port of Melbourne sees the existing Somerton facility and potential future developments at Altona and Dandenong, as significant elements of a solution to constraints in the port.¹⁹¹

188 Mr Bernard Griffin, Submission 33, p.3.

189 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.5.

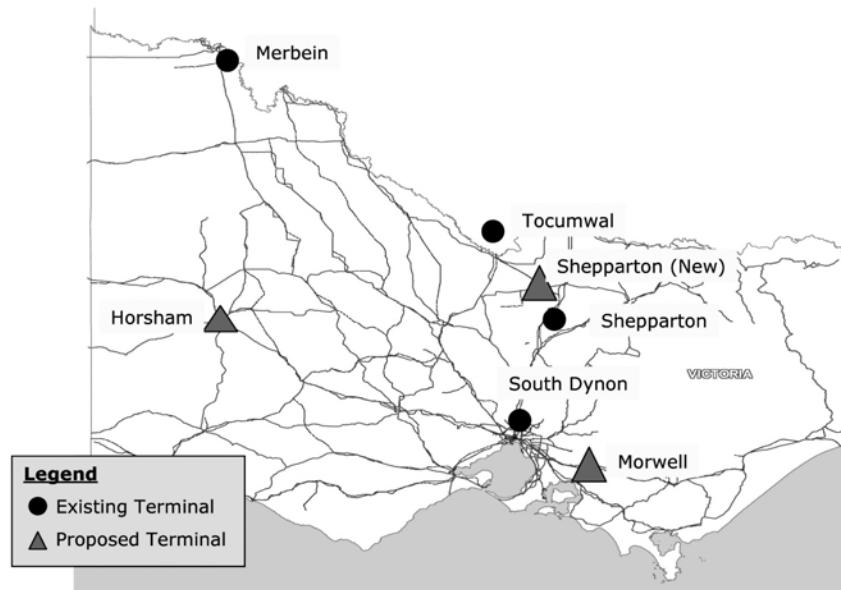
190 Port of Melbourne Corporation, Submission 67, p.6.

191 Port of Melbourne Corporation, Transcript, 27 July 2005, Melbourne, pp.21-22.

- 6.155 IMT activity in Victoria is more centralised than in urban Sydney. South Dynon handles 900,000 TEUs annually, while other smaller terminals only have a combined capacity of around 40,000 TEUs.¹⁹² However, with most facilities there is scope for expansion.¹⁹³

Metropolitan terminals

Figure 6.4 Intermodal facilities, Victoria



Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.26.

Port of Melbourne and Dynon

- 6.156 Poor quality rail access to intermodal facilities at the Port of Melbourne has been an impediment to freight operations. However, a \$2.1 million allocation by the Victorian Government for an uninterrupted rail link to the port should help address this problem.¹⁹⁴
- 6.157 A number of metropolitan terminals have been established, serviced by short-haul rail services. The Australian Logistics Council said industry opinion is split between those concerned that the distances between urban terminals and the Port are too short to be

192 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.8.

193 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.14.

194 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.65.

commercially viable, and others convinced that this obstacle can be overcome.¹⁹⁵

- 6.158 Melbourne Port@l is a strategic planning initiative for the Port of Melbourne that extends to the development of a “...single world class intermodal hub” at the adjacent Dynon rail precinct.¹⁹⁶ It has been established to enhance road and rail access, use information technology to improve logistics-chain performance, reduce road congestion around the port, and encourage growth in outer metropolitan IMTs servicing the port.¹⁹⁷
- 6.159 Dynon is located close to the Port and a number of interstate rail lines converge at the hub. It services interstate and intrastate container movements.¹⁹⁸ AusLink projects underway to address the major rail deficiencies in the area, include constructing a new rail link between Dynon and the Port of Melbourne. The Australian Government has committed \$110 million for this link.¹⁹⁹
- 6.160 The *North-South Rail Corridor Study* found that the Dynon intermodal precinct has a good network of road connections to arterial roads and major freeways adjacent to the terminals, which enable distribution to regional and metropolitan areas.²⁰⁰ However, even with the Dynon Port Rail Link upgrades, there is a medium to long term need for the overall road and rail mix to be addressed.²⁰¹

Altona and Somerton

- 6.161 The Altona North facility is a base for Queensland Rail National’s interstate rail freight services. It has an annual rail throughput of 35,000 TEUs and 40,000 TEUs by road. Freight throughput for this terminal is expected to more than double within five years.²⁰² The SCT Altona facility primarily handles interstate movements of non-bulk goods by truck and some containerised freight. It has rail lines with

195 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.65.

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

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

198 Victorian Freight and Logistics Council, Transcript, 25 July 2005, Canberra, p.14.

199 Department of Transport and Regional Services, *AusLink: Sydney-Melbourne Corridor Strategy*, Draft, p.16.

200 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.4.

201 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.38.

202 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.36.

1,500 metre train capacity and annual rail throughput of 13,000 TEUs.²⁰³ Container numbers are growing slowly, but non-containerised cargo movements are expected to increase at a faster rate.

- 6.162 Established in 2005, the Somerton terminal was constructed by Austrak and is P&O Ports operated. Located 20 km north of the Port of Melbourne, the facility is within a regional catchment area of around 200,000 TEUs.²⁰⁴
- 6.163 P&O Ports commented that the Somerton facility is a very good example of "...an intermodal facility that is guaranteed to succeed". The establishment of a large Coles Myer distribution centre, and fruit and vegetable markets, close to Somerton certainly add value to the site.²⁰⁵ If current expansion plans are completed, Somerton will have an annual 600,000 TEU rail capacity.²⁰⁶
- 6.164 Even with redevelopments of metropolitan hubs, it is likely that Altona and Somerton may be the best options to accommodate the loading and unloading of 1,800 metre freight trains.²⁰⁷

Regional terminals

- 6.165 The route selected for the North-South inland rail project will influence IMT development in regional Victoria. Two of the route alternatives for the Melbourne to Junee sub-corridor could see the rail line connecting through Albury or Shepparton.²⁰⁸ These alternatives are outlined and discussed in Chapter 9 of this report.
- 6.166 Studies suggest that the Albury route would be a quicker and less expensive option, with an optimal transit time of 20.4 hours and a capital expenditure requirement of \$3.1 billion. The route via Shepparton would have a longer transit time of 21.3 hours, at a cost of \$3.6 billion. There are considerable additional costs for the latter route due to the level of new rail infrastructure construction required.

203 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, pp.13-14.

204 Port of Melbourne Corporation, Transcript, 27 July 2005, Melbourne, p.37 and P&O Ports Limited, Transcript, 21 November 2005, Sydney, p.23.

205 P&O Ports Limited, Transcript, 21 November 2005, Sydney, p.32.

206 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.14.

207 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.12.

208 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 1, p.9.

However, the Shepparton route offers other advantages. It would accommodate trains of 1,800 metres and longer, and would allow double stacking of containers.²⁰⁹ If the route via Albury is selected, containers could not be double-stacked until they reach Juneec.

Albury

- 6.167 Located on the Hume Highway corridor, Albury is well situated to service Eastern seaboard freight movements. A national distribution centre, Logic Wodonga,²¹⁰ is currently located 14 km West of Wodonga.²¹¹ It is designed and purpose built to attract major businesses in distribution, warehousing, transport and logistics, and manufacturing. Woolworths, Toll, and national transport company Border Express have already committed to services at the site.²¹² The total area is over 440 hectares and is owned by the Council, except for portions of land already sold to current tenants.²¹³
- 6.168 A rail line directly adjacent to the south boundary links directly to the Port of Melbourne and Port Botany. The terminal is also capable of handling B-doubles and connects to Melbourne and Sydney on the Hume Freeway and Adelaide via the Murray Valley Highway.²¹⁴ The proposed rail terminal is expected to have an annual operating capacity of 100,000 TEUs.²¹⁵
- 6.169 The Victorian Government has granted the project State significant status and has provided \$6 million in funding towards constructing the proposed rail terminal and contributing to services. The Wodonga Council has invested more than \$20 million in Stage One of the project; purchasing the site, and providing utility services and roads. A further expenditure of \$20 million has been committed for developing Stage Two, which includes developing the rail terminal.²¹⁶
- 6.170 A range of economic and social benefits are anticipated with the development of the rail terminal. These include: supporting a modal

209 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, pp.11 and 15-17.

210 Information on the Logic Wodonga project is available at <http://www.logicwodonga.com.au>, accessed 2 April 2007.

211 Wodonga City Council, Submission 78, p.1.

212 Wodonga City Council, Submission 78, p.3.

213 Wodonga City Council, Submission 78, p.2.

214 Wodonga City Council, Submission 78, p.2.

215 Wodonga City Council, Submission 78, p.3.

216 Wodonga City Council, Submission 78, p.3.

shift to rail, reducing truck movements, more efficient linking of road, rail and ports, local employment and regional economic growth.²¹⁷

6.171 The Wodonga City Council stressed that:

To enable Logic Wodonga and other like regional initiatives the partnership of Commonwealth and State Governments is essential in providing establishment funding.²¹⁸

Shepparton

6.172 The Victorian food industry is facing transport infrastructure and logistics challenges due to the industry's high growth rate.²¹⁹ The Shepparton region boasts a large concentration of manufacturing businesses, which are significant exporters of canned and processed food products.

6.173 The Maroopna rail yard facility, located 5 km outside of Shepparton, is the main urban terminal servicing the import-export system. The current facility takes 24,000 TEUs annually, of which 90 per cent travel to Melbourne for export and the remainder to the Western Australian domestic market.²²⁰ However, this Patrick owned terminal is limited in size.²²¹

6.174 The Greater Shepparton City Council has proposed a new IMT development, as an opportunity to pursue economic growth and ensure that regional freight needs are met. The development of the Goulburn Valley Freight and Logistics Centre is part of Greater Shepparton's economic development strategy. The Council is working with the Victorian Government, the Port of Melbourne, freight operators and industry on this project.²²² The Victorian Government and the Council have each provided \$50,000 for an economic analysis of the proposed Shepparton hub.²²³

217 Wodonga City Council, Submission 78, p.5.

218 Wodonga City Council, Submission 78, pp.3-5.

219 Business Victoria, http://www.business.vic.gov.au/BUSVIC/STANDARD/1001/PC_60174.html, accessed 3 April 2006.

220 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.37.

221 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.66.

222 Transport.Industry-News.net, *Shepparton freight hub on track*, 4 September 2006.

223 Department of Premier and Cabinet, Minister for State and Regional Development, *Study into Proposed Shepparton Freight Hub*, Media Release, 31 August 2006.

- 6.175 The City of Shepparton is already a significant location for road freight movements. However, because of the lack of rail connectivity within Victoria and its neighbouring states, container movements from Shepparton cannot access Port Melbourne directly by rail. Freight heading to the port from Shepparton and parts of South Australia, must make at least part of the journey by road.²²⁴ Consequently, significant investment in rail infrastructure to connect the hub to the port and into the national network is required to ensure the viability of a Shepparton hub.
- 6.176 The Alliance of Councils for Rail Freight Development argued that there is considerable merit in an inland rail route via Shepparton. Riverina producers, in particular, are keen to see rail reinstated in the region to offer an alternative to increasing road movements.²²⁵

Thurla

- 6.177 The Mildura and Riverland region is well positioned for servicing NSW, Victoria and South Australia. Eighty per cent of the Australian population is located within one day's land transport of the City of Mildura. Estimates indicated that 10 per cent of national agricultural exports originate from this region.²²⁶ Accordingly, the Mildura corridor has been recognised as a corridor of national economic importance under the AusLink program.
- 6.178 The current Merbein facility's long-term capacity is limited by size and a location that restricts expansion. Thurla has been identified as a potential site for a new intermodal facility. The plan includes relocating the region's major freight operations to Thurla. The Mildura Rural City Council has arranged appropriate zoning of the industrial land and pursued mechanisms to minimise impact on surrounding residential areas. This 24 hour facility and industrial park, could create a centralised point to attract produce from the entire region. It would provide efficient freight handling and turnaround, and associated storage, refrigeration and container park services.²²⁷

224 Alliance of Councils for Rail Freight Development, Submission 26, p.1.

225 Alliance of Councils for Rail Freight Development, Transcript, 26 July 2005, Portland, p.26.

226 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board, Submission 22, p.1.

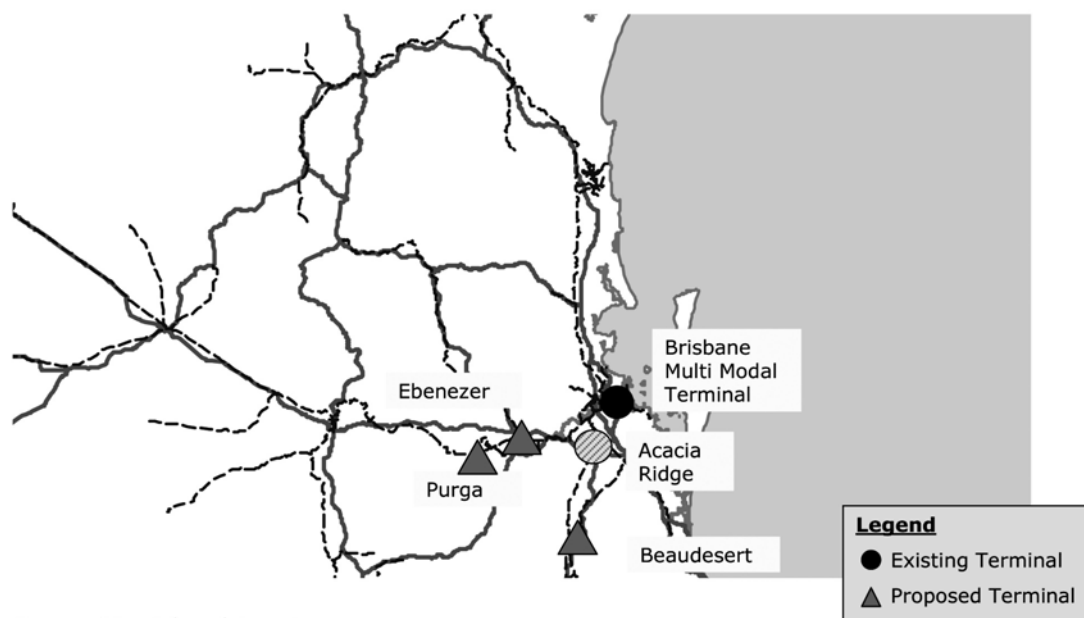
227 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board, Submission 22, p.5.

- 6.179 A feasibility study into the Mildura Transport Strategy – which includes the IMT proposal – was completed in May 2005. It revealed that developing the Thurla intermodal facility would provide significant economic advantages.²²⁸
- 6.180 However, the Mildura area has low quality road and rail infrastructure and transport infrastructure upgrades would be an essential part of this intermodal development.²²⁹

Queensland

Metropolitan terminals

Figure 6.5 Intermodal facilities, Metropolitan Queensland



Source: Meyrick and Associates

Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.22.

- 6.181 Two IMTs operate in the Brisbane area; the Acacia Ridge terminal and the Brisbane Multimodal Terminal (BMT) at Port Brisbane, which is also connected to a well-developed system of regional terminals.²³⁰ However, while there are currently no major physical impediments to

228 ABC Online, *Study offers support to Mildura transport plan*, posted 27 May 2005.

229 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board, Submission 22, p.1.

230 Queensland Transport, Transcript, 6 April 2006, Brisbane, p.12.

the Brisbane port-oriented system, it is anticipated that future growth will be limited by the availability of train paths into the facility.²³¹

- 6.182 Queensland Transport said it believed that there is probably sufficient capacity for the next five to ten years, but beyond that a third or fourth terminal would be needed.²³² The Committee noted that work is already being done to address this eventuality, with the Queensland Government exploring Purga and Bromelton as possible future IMT sites.²³³ In evidence to the Committee, the Ipswich City Council stressed the complementary nature of the Purga and Bromelton proposals.²³⁴

Brisbane Multimodal Terminal

- 6.183 The BMT currently has an annual throughput of around 100,000 TEUs. However, cargo levels are expected to grow between 7 and 10 per cent a year. The BMT primarily services international cargo movements and does not provide empty container storage or ancillary services. Meyrick and Associates suggested that further development of this facility could lead to an increase in annual capacity to 500,000 TEUs.²³⁵

Acacia Ridge

- 6.184 Brisbane's intermodal terminals are currently centred on the Acacia Ridge terminal, which is located 15 km from the Brisbane CBD. The *North-South Corridor Study* revealed:

The Queensland government is planning to increase rail capacity through the Brisbane metropolitan network to the Port of Brisbane with signalling upgrades and crossing loops. This will increase the capacity for freight movement between Acacia Ridge and Fisherman Islands.

The proposed grade separation of Beaudesert Road will enable the Acacia Ridge facility to expand southwards to provide two tracks 1,500 metres long. The estimated total throughput at Acacia Ridge is in the order of 380,000 TEU per annum for combined narrow gauge and standard gauge activities although industry sources advise that there is scope

231 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.66.

232 Queensland Transport, Transcript, 6 April 2006, Brisbane, p.13.

233 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.9.

234 Ipswich City Council, Transcript, 7 April 2006, Toowoomba, p.49.

235 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.43.

to increase capacity at the terminal to at least 750,000 TEU per annum.²³⁶

- 6.185 However, the Acacia Ridge facility is constrained by residential encroachment. King and Co. commented:

Acacia Ridge has a use-by date. It is as simple as that.²³⁷

- 6.186 The QR owned terminal at Acacia Ridge is managed by P&O Ports, as an independent operator. This arrangement requires other rail operators to seek access to the existing facilities.²³⁸ Access arrangements to the terminal were the subject of court proceedings last year. Consequently, the Beaudesert Shire Council suggested it is one of the factors motivating Pacific National to explore other options, such as Bromelton.²³⁹

Regional terminals

Bromelton

- 6.187 Bromelton is located 50 km south of Acacia Ridge on a standard gauge rail line and has direct access to the Port of Brisbane. It is being considered as a potential site for an intermodal facility in large part due to the lower cost and ready availability of land, in sharp contrast to Acacia Ridge.²⁴⁰

- 6.188 Mr Vince O'Rourke, former Queensland Rail CEO, observed:

Acacia Ridge still has a lot of capabilities, but I think that around Bromelton there could be a major inland port that would feed the Port of Brisbane. We have already seen QR and P&O get together.²⁴¹

236 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.67.

237 King & Co. Property Consultants, Transcript, 6 April 2006, Brisbane, p.44. See also Submission 156, pp.5 and 7.

238 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.9.

239 Beaudesert Shire Council, Transcript, 6 April 2006, Brisbane, p.60.

240 Australian Trucking Association, Transcript, 7 April 2006, Toowoomba, p.52.

241 Mr Vince O'Rourke, Transcript, 1 August 2006, Sydney, p.19.

- 6.189 The Southern Regional Organisation of Councils considers Bromelton to be the most logical gateway for freight movements in the South Eastern Queensland Region. The Beaudesert Shire Council has reserved land for this development and has been examining potential and compatible road transport corridors, to complement existing standard gauge rail connections.²⁴²
- 6.190 Double stacking is possible on the interstate rail line to Bromelton. The surrounding area is zoned for industrial purposes and so will not have the problems of residential proximity that other facilities are experiencing. The Queensland Government suggests that development of a hub at Bromelton could commence by 2010.²⁴³
- 6.191 The *National Intermodal Terminal Study* stated:
- Information provided by the Queensland Coordinator General's office indicates that there is significant private sector interest in developing an intermodal terminal in the Bromelton region, with at least four project proponents. The Queensland Government, together with the local council, is currently developing a master plan for the area which will determine which (if any) of these projects will proceed.²⁴⁴
- 6.192 The *North-South Corridor Study* indicated that the extra freight capacity that an IMT at Bromelton would offer the region "...may partially offset future constraints at Acacia Ridge".²⁴⁵

Purga

- 6.193 Purga is also being investigated as a potential intermodal facility site to service the freight needs of the South Eastern Queensland region and the Port of Brisbane.²⁴⁶
- 6.194 According to King & Co., Purga's location in Ipswich places it "...within an ideal triangle of the sites that are going to be the most dominant in the next 10 years, as serviced industrial land is running out in Brisbane".²⁴⁷ King & Co. could see an opportunity to integrate

242 Southern Regional Organisation of Councils, Submission 60, p.2.

243 Queensland Office of Urban Management, <http://www.oum.qld.gov.au/?id=469>, accessed 10 April 2007.

244 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.22.

245 Department of Transport and Regional Services, *North-South Rail Corridor Study - Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 5, p.25.

246 Ipswich City Council, Submission 160, p.1.

247 King & Co. Property Consultants, Transcript, 6 April 2006, Brisbane, p.44.

road transport into the facility's operations in a way that may not be possible at the Acacia Ridge terminal. The company depicted:

...a 24 hour seven day a week operation that can store or on/off load an almost unlimited number of containers via an automated system, including double stacked, which would be available via the Toowoomba Range bypass.²⁴⁸

- 6.195 It predicted that the development of an IMT at Purga would diminish the dominance of the Acacia Ridge terminal and eventually see the latter relegated to servicing secondary and tertiary trucking.²⁴⁹
- 6.196 King & Co. claimed that investigations into the viability of the terminal indicate that this development "...would more than pay for itself".²⁵⁰ The company strongly recommended land banking²⁵¹ to ensure sufficient land is available for associated services, buffer zones and rail corridors.²⁵² The relatively flat topography and size of the site could accommodate the sidings required by long distance trains.²⁵³
- 6.197 The Queensland Department of State Development is already investigating additional rail freight corridors to link Purga to the existing Brisbane-Sydney line. However, the routes being considered seem to have considerable impediments. King & Co. is proposing a link from Purga to the Port and the construction of on-off ramps at Larapinta Junction, to allow sufficient height for double stacking.²⁵⁴
- 6.198 However, the Beaudesert Shire Council argued that a significant investment would be required to extend the standard gauge rail line to Ebenezer or Purga.²⁵⁵

Other suggested facilities

- 6.199 It has been suggested that there is potential to develop Gladstone as a non-bulk intermodal terminal that could link into a future inland rail.²⁵⁶ RTSA contended that with Gladstone's long-standing as a

248 King & Co. Property Consultants, Submission 156, p.9.

249 King & Co. Property Consultants, Transcript, 6 April 2006, Brisbane, p.45.

250 King & Co. Property Consultants, Transcript, 6 April 2006, Brisbane, p.47.

251 Land banking is the strategic acquisition of land, which is then held for use in the future.

252 King & Co. Property Consultants, Submission 156, p.10.

253 King & Co. Property Consultants, Submission 126, p.3.

254 King & Co. Property Consultants, Submission 156, p.10 and Submission 126, pp.2-3 and 8.

255 Beaudesert Shire Council, Transcript, 6 April 2006, Brisbane, p.63.

256 Mr Vincent O'Rourke, Transcript, 1 August 2006, Sydney, p.20 and Railway Technical Society of Australasia, Transcript, 1 August 2006, Sydney, p.12.

transport hub and associated traditions of transport management, it is well-placed to tackle the planning and practical requirements of a substantial intermodal facility.²⁵⁷

- 6.200 The Western Downs Regional Organisations of Councils highlighted the need for a rail link from the Darling Downs to Gladstone, through Wandoan and past Taroom. They considered this to be a “missing link” in Queensland’s transport infrastructure.²⁵⁸ This link would provide opportunities to integrate the area into regional and wider networks.
- 6.201 Toowoomba has also been suggested for a potential development, with a site chosen at Charlton, as an intermodal interface already exists there.²⁵⁹ Also, if the far western route is selected the proposed inland rail could pass through Toowoomba (or Warwick), thus positioning it on a major corridor network.²⁶⁰
- 6.202 However, ATEC suggested that the cost and associated problems of linking Toowoomba to the Port of Brisbane are significant obstacles:²⁶¹

The high cost of obtaining an acceptable route through the Toowoomba ranges is a major inhibitor to the Sub-Corridor. Modelling suggests that it is possible to achieve a transit time of less than 27 hours without the Toowoomba range rail deviation, albeit with a line subject to significant speed restrictions in key sections that will adversely influence its operational viability and competitiveness.²⁶²

Inland rail

- 6.203 An inland rail would significantly change North-South and East coast transport networks. Hubs would be a necessary part of this development.²⁶³
- 6.204 The Association of Australian Ports and Marine Authorities considers it inevitable, that if the North-South inland rail goes ahead, hubs will

257 Railway Technical Society of Australasia, Transcript, 1 August 2006, Sydney, p.12.

258 Western Downs Regional Organisation of Councils, Transcript, 7 April 2006, Toowoomba, p.62.

259 Australian Trucking Association, Transcript, 7 April 2006, Toowoomba, p.51.

260 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 1, p.9.

261 Australian Transport and Energy Corridor, Transcript, 9 November 2005, Canberra, p.6.

262 Department of Transport and Regional Services, *North-South Rail Corridor Study – Detailed Study Report*, Ernst and Young, ACIL Tasman and Hyder Consulting, Chapter 1, p.15.

263 Australasian Railway Association, Transcript, 10 August 2005, Canberra, p.15.

be built along it, in places like Shepparton, Parkes, Moree and Toowoomba.²⁶⁴

Terminals along an inland rail line, for example, are imperative because you have great efficiencies by bringing short-haul distances to a terminal and then putting it on rail to distribute it to other places.²⁶⁵

- 6.205 Ernst and Young suggested that an inland route – if complemented by strategically located hubs – may reduce the amount of additional terminal capacity required in the Sydney area.²⁶⁶
- 6.206 Overall, the *North-South Rail Corridor Study* found that regional terminal capacity should not be an impediment to the development of the corridor.²⁶⁷

East-West corridor

- 6.207 New South Wales and Victorian intermodal facility arrangements also impact upon East to West freight movements. The intermodal priorities for these States have been covered in preceding discussion of the North-South route.

264 Association of Australian Ports and Marine Authorities, Transcript, 21 November 2005, Sydney, p.20.

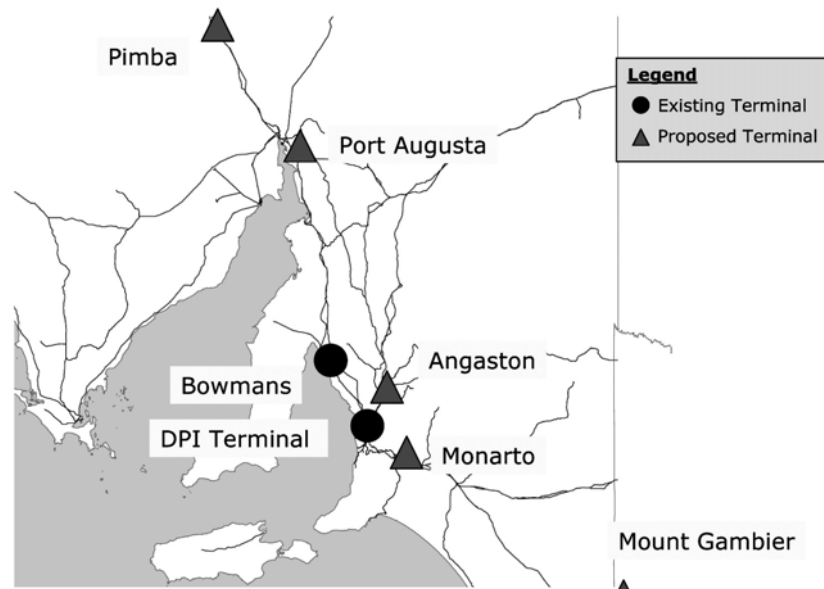
265 Association of Australian Ports and Marine Authorities, Transcript, 21 November 2005, Sydney, p.20.

266 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.10.

267 Ernst & Young, et al, *North-South Rail Corridor Study – Detailed Study Report*, 30 June 2006, Chapter 5, p.28.

South Australia

Figure 6.6 Intermodal facilities, South Australia



Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.24.

- 6.208 South Australia's intermodal facilities are located at Outer Harbour in Port Adelaide and at the Bowmans terminal, which is approximately an hour North-West of Adelaide. The Dubai Ports World-owned Outer Harbour facility, is used by Patrick and Great Southern Rail for import and export freight movements. Outer Harbour is accessed by a single track, which leads to some track congestion.²⁶⁸ Chapter 3 discusses the constraints and project requirements of Port Adelaide.
- 6.209 The *National Intermodal Terminal Study* indicated that there are several prospects for future terminal development in South Australia. Potential sites include Pimba, Port Augusta, Angaston and Monarto. However, current and future regional terminals generally, would have limited scope for backhaul cargos, with the exception of the Olympic Dam and Barossa Valley areas.²⁶⁹
- 6.210 Work is currently being undertaken by local government and industry at the Port Augusta site.²⁷⁰ It certainly merits consideration,

268 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.68.

269 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, pp.23 and 68-69.

270 Department of Transport and Regional Services, *AusLink: Perth-Adelaide Corridor Strategy*, Draft, p.11.

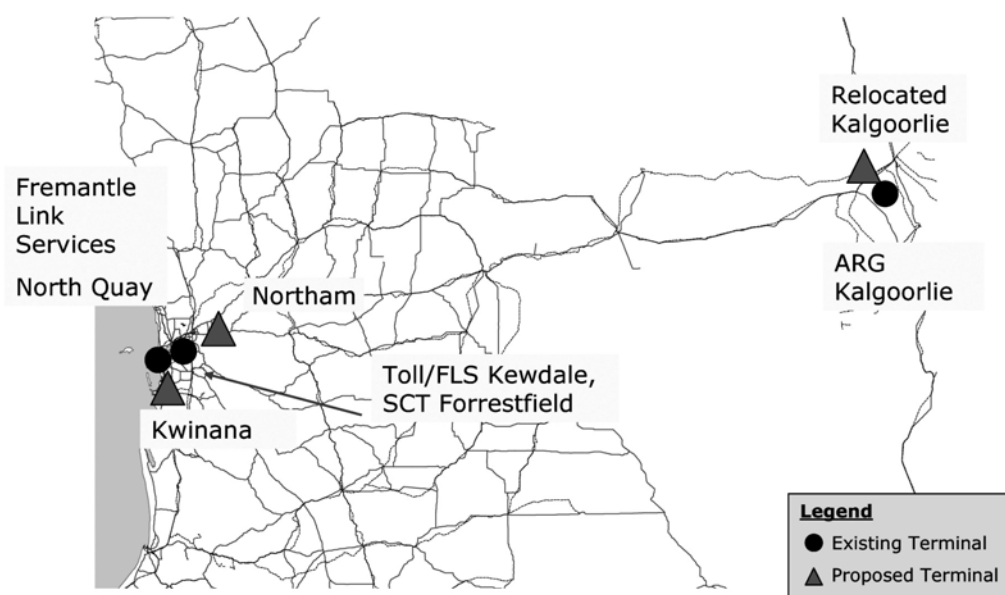
as it is well positioned to service East-West freight movements and future South-North movements to and from Darwin.

- 6.211 At this stage, however, evidence received and other relevant reports, have not revealed any urgency for developing further intermodal facilities in South Australia.

Western Australia

- 6.212 A number of IMTs, planned and coordinated as part of a state and national freight transport network strategy, may be an effective approach to addressing the difficulties caused by the considerable distances between Western Australia's regional centres.²⁷¹
- 6.213 The Committee notes that the WA Government already plays a role in intermodal terminal development, which includes strategic land use planning and the development and implementation of transport policy. However, there are obstacles to IMT and rail development in the State, including relatively low levels of freight and issues surrounding the viability of the grain rail networks.²⁷²

Figure 6.7 Intermodal facilities, Western Australia



Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.23.

271 Western Australian Local Government Association, Submission 35, p.11.

272 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.49.

Metropolitan

6.214 The draft *Perth Urban Corridor Strategy* forecast:

Road freight activity between major existing and planned intermodal terminals and freight nodes along the corridor is expected to increase by between 3 and 4 per cent per year to 2018, and then by between 2 and 3 per cent to 2025. Rail freight is expected to increase by between 3.5 per cent and 4.5 per cent per year.²⁷³

6.215 DOTARS acknowledged that:

There is an issue in Perth – as there is in other major cities – about the future terminal situation, access to the terminals and the capacity of the terminals.²⁷⁴

6.216 One of the short-term (by 2015) strategic priorities of the draft strategy is to:

Facilitate the development of the intermodal network and associated infrastructure to increase capacity and operational efficiency for both road and rail freight in areas such as Hope Valley/Wattleup, Fremantle Ports Outer Harbour, the Kewdale/Forrestfield/Hazelmere area, and Perth Airport.²⁷⁵

Kewdale

6.217 Five of the six terminals identified in Western Australia as terminals of national significance, are urban facilities based in the Kewdale area. There is the Sadleirs terminal, the co-located Pacific National Kewdale and Fremantle Link Services, Freight Link Services in North Fremantle and SCT Forrestfield. The SCT and Sadleirs terminals are private operations, while the others are on land owned by the WA Government.²⁷⁶

6.218 A significant portion of Western Australia's raw materials, minerals, agricultural products and dry bulk goods movements travel through the Eastern metropolitan region. They move by both road and rail, to

273 Department of Transport and Regional Services, *AusLink: Perth Urban Corridor Strategy*, Draft, p.i.

274 Department of Transport and Regional Services, Transcript, 17 August 2005, Canberra, p.6.

275 Department of Transport and Regional Services, *AusLink: Perth Urban Corridor Strategy*, Draft, p.23.

276 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.49.

the major grain handling facility and the Kewdale and Forrestfield terminals.²⁷⁷

- 6.219 Meyrick and Associates informed the Committee that the Pacific National Kewdale terminal is one of the most efficient intermodal facilities in Australia.²⁷⁸ Pacific National is undertaking a \$10 million upgrade of the facility, with a view to better managing the forecast increase in freight demand. These road, rail and terminal infrastructure improvements are expected to triple its current capacity.²⁷⁹
- 6.220 However, other Kewdale terminals are not all so effective. For example, the Fremantle Link Services terminal is constrained by rail siding limitations that require significant on-site shunting.²⁸⁰
- 6.221 A forecast rise to 31,000 TEUs within five years has prompted Sadleirs Kewdale to redesign and restructure the terminal. This includes additional rail lines, the conversion of some narrow gauge lines, and expansion of their complementary terminal facilities servicing non-containerised goods.
- 6.222 The possibility of an IMT in Kewdale, linked to the wharf, is also being explored.²⁸¹

Kwinana

- 6.223 The *National Intermodal Terminal Study* suggests that a number of factors – the overflow at Kewdale, demand from the industrial facilities in the area and the development in the Outer Harbour – have motivated the WA Government to investigate additional terminal sites.²⁸²

277 Eastern Metropolitan Regional Council, Submission 41, pp.2-3.

278 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.4.

279 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.75.

280 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.51.

281 Fremantle Ports, Transcript, 10 March 2006, Perth, p.37.

282 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.73.

- 6.224 Meyrick and Associates commented that Kwinana or the Hope Valley area, are the only metropolitan locations outside of Kewdale potentially suitable for a new intermodal facility.²⁸³ The WA Government is exploring possible site options in Kwinana.²⁸⁴

Regional (Kalgoorlie-Boulder)

- 6.225 Kalgoorlie's location at the junction of the Lenora to Esperance rail line and the Trans-Australian East-West artery, recommends it as a strategic intermodal site. The Shire of Esperance supports the concept of a hub in the Kalgoorlie region:

[It] seems obvious and logical. It is a crossroads to what is happening. It seems ridiculous to me how much product goes to Perth. We get it carted back here and back into Kalgoorlie even, so we fully support the intermodal project up there.²⁸⁵

- 6.226 There are two main IMT options for the Kalgoorlie-Boulder region; the development of a complementary facility near to the existing ARG terminal, or the construction of a new terminal at Parkeston.²⁸⁶

- 6.227 The *Kalgoorlie Inter-modal Freight Facility Study* report was released in June 2006. It considered the merits of these alternative sites and selected West Kalgoorlie as the preferred site, if a second terminal is to be developed in the region.²⁸⁷ But the Kalgoorlie-Boulder City Council and other stakeholders referred it back to the authors for review.

- 6.228 Subsequently, it was reported that the West Kalgoorlie facility was constrained, to the extent that it was unable to carry out the future freight task. Furthermore, stakeholders concluded that Parkeston was the preferred option.

Kalgoorlie

- 6.229 The Kalgoorlie IMT is the only non-urban terminal in Western Australia identified by Meyrick and Associates and ARUP as a

283 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.9.

284 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.73.

285 Shire of Esperance, Transcript, 9 March 2006, Esperance, p.17.

286 City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, p.24.

287 Department for Planning and Infrastructure, WA, *Kalgoorlie Inter-modal Freight Facility Study*, Final Report, ARRB Group and SD&D, June 2006, pp.46-47. The report contains a useful table comparing the Kalgoorlie and Parkeston options.

terminal of national significance. Facility operator, ARG, is predicting freight movements through the site to double within five years.²⁸⁸

6.230 The Kalgoorlie-Boulder hub services the Goldfields-Esperance region of Western Australia. This IMT is centrally located in the region and is in proximity to the Perth-Adelaide National Highway. It acts both as a transport hub and a provider of industrial and technical services to the mining industry.²⁸⁹

6.231 In particular, it links the region to the Port of Esperance. Mining and agricultural products are transported by rail to the port. Significant increases in nickel and iron ore freight movements are anticipated from the development of nickel projects in the Goldfields region and expansion of the Koolyanobbing project.²⁹⁰

6.232 The redevelopment proposal would involve construction of an intermodal facility and local and regional road and rail link upgrades, to facilitate access.²⁹¹

6.233 The *National Intermodal Terminal Study* noted that it would be possible to increase the capacity of the facility to three times its current operational level. This could be achieved by increasing operating hours (currently 12 hours per day), the site area, and by improving on-site technology.²⁹² However, the City of Kalgoorlie-Boulder was sceptical about whether planned upgrades will lead to any real efficiency improvements.²⁹³

6.234 The City of Kalgoorlie-Boulder commented:

We are being told by the industry that there is no incentive for them to offload in Kalgoorlie-Boulder because, once they are on the rail network, they are basically paid to go down to Perth.²⁹⁴

6.235 The Committee noted advice received that:

288 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, pp.49 and 72.

289 Chamber of Commerce and Industry Western Australia, Submission 19, p.6.

290 Chamber of Commerce and Industry Western Australia, Submission 19, p.6.

291 Western Australian Local Government Association, Submission 35, p.12.

292 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.72.

293 City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, p.23.

294 City of Kalgoorlie-Boulder, Transcript, 9 March 2006, Esperance, p.24.

...it would be important for the committee to understand and get the opinions of what the above-rail operators think about dropping off freight in Kalgoorlie, leaving wagons there and then having to pick them up, potentially empty, and take them back to the eastern states. I think that is a key issue that would need to be considered.²⁹⁵

Parkeston

- 6.236 The proposed site at Parkeston is located 8 km East of Kalgoorlie-Boulder, and is the junction at which trains must stop to refuel for trans-continental trips.²⁹⁶
- 6.237 Project proponents argued that a Parkeston hub would reduce costs for transporters.²⁹⁷ However, additional freight from the proposed hub would be a further strain on the ageing rail link to Esperance, already under pressure from Koolyanobbing iron ore movements.²⁹⁸
- 6.238 The Esperance Shire Council, Esperance Port Authority and Goldfields Esperance Commission, all argued for the development of a new common user access facility in Kalgoorlie. They envisaged non-discriminatory access for all road and rail users. While initially a small terminal, they claimed that it should be able to deliver competitive charges and efficiency gains.²⁹⁹ However, the ARRB Group suggest that a truly 'common user' terminal is unlikely:

A true 'common user' terminal would need to be owned and operated by a government agency, but would still possibly encounter pressure from its rail operator 'partners' for exclusive rights in order to gain favourable terms.

In practice, the second terminal may need to be run explicitly in partnership with Pacific National, since it dominates national freight, and AWR/QR will be [serviced] by its own facility.³⁰⁰

295 WestNet Rail, Transcript, 9 March 2006, Esperance, p.64.

296 Goldfields Esperance Area Consultative Committee, Submission 163, pp.1-3.

297 Goldfields Esperance Area Consultative Committee, Submission 163, p.2.

298 Goldfields Esperance Area Consultative Committee, Submission 163, p.4.

299 Esperance Shire Council, Esperance Port Authority and Goldfields Esperance Development Commission – Joint Submission, Submission 27, p.14.

300 Department for Planning and Infrastructure, WA, *Kalgoorlie Inter-modal Freight Facility Study*, Final Report, Executive Summary, ARRB Group and SD&D, June 2006, p.2.

- 6.239 The ARTC currently controls the land, but does not rank a potential Parkeston facility high on its list of intermodal hub priorities.³⁰¹ The proposal strategy outlines a land transfer from the ARTC to a port authority-style management structure.³⁰²
- 6.240 In June 2006, the feasibility study was completed on the scale and nature of current and future freight demand and the suitability of current intermodal facilities serving the Kalgoorlie-Boulder region. The study revealed that a new intermodal development at either site would cost around \$6 to \$7 million and that the terminal may operate at a loss. The report concluded that there was currently no strong case for the development of a new intermodal freight terminal:³⁰³
- There is no clear consensus in the community on whether to develop a second terminal, how it should be funded and operated, and where it should be sited.³⁰⁴
- 6.241 The report did find that a second terminal in the region may be necessary in the future, but that it would be dependant on the ongoing competitive behaviours of new rail operators.³⁰⁵
- 6.242 The Committee was pleased to note that the WA Government is working with the City of Kalgoorlie-Boulder to ensure that, if the freight industry or local stakeholders decide to develop a second terminal in the future, land can be made available for this development.³⁰⁶

Other IMT possibilities

- 6.243 The Eastern Metropolitan Regional Council stated:

The Perth Airport Master Plan (2004) identifies the opportunity for a 'greenfield' intermodal development in the airport precinct. Considering the forecast increase in containerised freight, international and interstate air freight

301 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, p.16.

302 Goldfields Esperance Area Consultative Committee, Submission 163, p.2.

303 Department for Planning and Infrastructure, WA, *Kalgoorlie Inter-modal Freight Facility Study*, Final Report, ARRB Group and SD&D, June 2006, p.46.

304 Department for Planning and Infrastructure, WA, *Kalgoorlie Inter-modal Freight Facility Study*, Final Report, ARRB Group and SD&D, June 2006, p.ii.

305 Department for Planning and Infrastructure, WA, *Kalgoorlie Inter-modal Freight Facility Study*, Final Report, ARRB Group and SD&D, June 2006, p.ii.

306 As advised by the WA Department for Planning and Infrastructure on 22 May 2007.

and doubling of interstate rail freight, this option should be seriously considered.³⁰⁷

- 6.244 A study by the WA Government revealed that the proposed Albany Inland Freight terminal – despite its potential to significantly reduce truck movements within Albany – is not a commercially attractive option.³⁰⁸ However, the Albany Port Users Liaison indicated that this project may still be on the agenda.³⁰⁹

Bass Strait corridor

Tasmania

- 6.245 The *National Intermodal Terminal Study* found that growth in container movements across Bass Strait is expected to remain strong. However, due to the uncertainty of intermodal operations in Tasmania, Meyrick and Associates and ARUP were reluctant to speculate on future intermodal volumes for the State.³¹⁰ They described Tasmania's intermodal sector as:

...characterised by complex relationships between different trading ports in northern Tasmania, with an oversupply of both shipping capacity and port infrastructure, and a modern road network competing with a run down rail network between the north and south of Tasmania.³¹¹

- 6.246 Tasmania has three major IMTs, located in Hobart (Macquarie Point), Burnie and Bell Bay.³¹² Each terminal handles more than 10,000 TEUs annually. However, they are all constrained by poor rail access, and inadequate rail layouts that require excessive shunting and double handling.³¹³ Further, the *National Intermodal Terminal Study* argued:

The fragmented nature of port and shipping services, and the lack of efficient rail freight paths in each of the three ports,

307 Eastern Metropolitan Regional Council, Submission 41, p.4.

308 Timber 2020, Submission 18, pp.5-6.

309 Albany Port Users Liaison Group, Transcript, 8 March 2006, Albany, p.34.

310 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.iv.

311 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.24.

312 There is also a private terminal (with a private rail siding) at Boyer that handles a variety of input commodities, for example coal and logs.

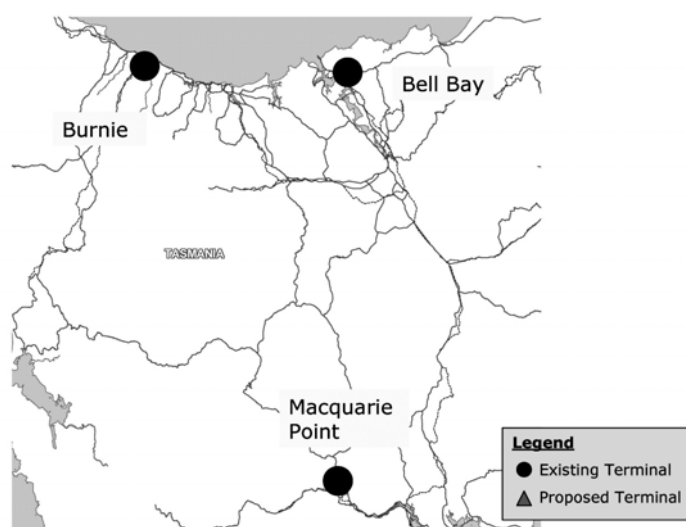
313 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.47.

also pose significant challenges for the development of new intermodal terminals.³¹⁴

6.247 The Study also noted:

[T]here are no specific policies framing the future development of Tasmanian freight transport infrastructure including intermodal terminals. The Tasmanian Government has very little direct role in the intermodal sector. In its view, intermodal planning is managed by the private sector.³¹⁵

Figure 6.8 Intermodal facilities, Tasmania



Source: Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.24.

Brighton

6.248 A new IMT has been proposed for Brighton, north of Hobart. Pacific National Tasmania maintains that an effective intermodal hub servicing Hobart is essential for state competitiveness.³¹⁶ The Area Consultative Committee Tasmania saw this as an opportunity to “...enable rail transport, particularly for containerised cargo, to become a more viable and attractive transport choice”.³¹⁷

314 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.46.

315 Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.83.

316 On a per capita basis, Tasmania is two and a half times more dependent on intermodal connections than other Australia States or Territories. Pacific National, Submission 48, Attachment 1, p.iii.

317 Area Consultative Committee Tasmania, Submission 82, p.3.

- 6.249 In AusLink's draft corridor strategy for Tasmania, the Brighton facility and associated road and rail connections were identified as short-term strategic priorities for the State for 2008-15.³¹⁸
- 6.250 Pacific National and Toll Holdings have purchased land and conducted a feasibility study into the proposed hub.³¹⁹ The site would allow twenty-four hour train turnaround, which would double locomotive asset utilisation.³²⁰
- 6.251 Anticipated benefits of the proposed facility include: increased efficiency in cargo movements entering and leaving the State, and reducing reliance on road freight on the National Network and arterial roads.³²¹
- 6.252 Construction costs for freight forwarding industry facilities, including onsite cross docking and warehousing, are estimated at between \$15 and \$20 million. Additional rail infrastructure is also required. Estimates indicated that the rail component alone will cost approximately \$9 million.³²² Negotiating access arrangements with the Midlands Highway, which is part of the National Network, will also significantly affect the viability of the venture.³²³
- 6.253 However, Pacific National claimed that this site cannot go ahead if it has to continue to fund rail network maintenance and upgrades and service the three ports.³²⁴
- 6.254 In the 2006-07 Budget, the Australian Government committed \$441.7 million for land transport funding in Tasmania over the first five years of AusLink, under the National Land Transport Plan. This meant \$77.3 million for land transport infrastructure in Tasmania in the 2006-07 financial year.
- 6.255 AusLink projects include upgrades to the East Tamar and Bass Highways, and mainline railway network. The Australian Government also indicated a possible further contribution of \$3.7 million towards the cost of road and rail terminal expansions at Bell
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318 Department of Transport and Regional Services, *AusLink: Tasmanian Corridor Strategy*, Draft, p.32.

319 Government of Tasmania, Submission 53, p.4.

320 Pacific National Tasmania, Submission 7, p.2 and Pacific National, Submission 48, Attachment 1, p.ii.

321 Pacific National Tasmania, Submission 7, p. 2 and Pacific National, Submission 48, Attachment 1, p.ii.

322 Pacific National Tasmania, Submission 7, p.7.

323 Government of Tasmania, Submission 53, p.4.

324 Pacific National Tasmania, Submission 7, p.2.

Bay, and \$5 million for the development of the Brighton facility.³²⁵ To date, only a small portion of the \$77.3 million allocation has been spent, however, a capital investment program is expected to be underway in August 2007.³²⁶

- 6.256 The Tasmanian Government, in its 2007-08 Budget, has committed to pursuing the development of the Brighton hub. It anticipates that this hub will significantly increase efficiency of road and rail movements, halve the rail travel time between Hobart and Burnie, and reduce vehicle congestion on the Brooker Highway.³²⁷
- 6.257 The Tasmanian Government's National Transport Network Investment Program for 2007-15 is providing \$70 million over the period 2007-11 for the development of the Brighton intermodal facility and \$146 million for the Brighton Bypass and upgrade to the East Derwent Highway (approximately 9.5 kilometres). However, the State Government stresses that this funding only represents 20 per cent of the first construction phase.³²⁸

Northern Territory

Darwin

- 6.258 While not currently a priority concern, the Freight Link terminals at Berrimah and East Arm may warrant attention in the future, if rail connections between Darwin and the rest of Australia are further developed and the port attracts more import and export freight movements.
- 6.259 The Berrimah terminal is a basic freight transfer facility, with a few ancillary services. It can accommodate 1800 m trains and handles between 80,000 and 100,000 TEUs each year, made up primarily of domestic freight.

325 Source:

http://www.dotars.gov.au/departments/statements/2006_2007/media/008trs.aspx, accessed 12 April 2007.

326 As advised by the Tasmanian Department of Infrastructure, Energy and Resources on 21 June 2007.

327 Source:

<http://www.premier.tas.gov.au/publications/budget07/At%20A%20Glance%2007.pdf>, accessed 21 June 2007.

328 Government of Tasmania, *Southern Tasmania, National Transport Network Investment Program 2007-2015*, Department of Infrastructure, Energy and Resources, June 2007, p.3.

- 6.260 However, recent advice indicated that the terminal is now handling additional manganese (an estimated 600,000 tonnes each year) from the Bootu Creek mine near Tennant Creek, and iron ore from the Frances Creek mine south of Darwin will begin moving in mid-July (an estimated 1.5 million tonnes). Freight Link has the capacity and plans to expand to accommodate this increased demand.
- 6.261 The East Arm terminal is used as a land bridge for container volumes, as the demand has not yet warranted connecting the train directly to the port.³²⁹
- 6.262 Currently Freight Link's infrastructure is being guided by demand. However, they contended that there is an opportunity to develop a mini-hub and distribution centre in Darwin to facilitate freight movements to and from Southern Asia. Freight Link also suggested that these imports may be an opportunity to utilise empty containers, by transferring products that have arrived in international containers into empty containers for distribution to other locations around Australia.³³⁰

Committee Assessment

- 6.263 The Committee strongly believes that improving the efficiency of road and rail infrastructure and intermodal facilities cannot be handled separately; they are interdependent. The Committee endorses the Meyrick and Associates' observation that:
- ...we do need to take seriously the task of building an effective intermodal network.³³¹
- 6.264 The Committee agrees that strategic intermodal facilities will have a crucial role to play in this network, and in supporting planned increases in rail's share of the freight task.
- 6.265 Evidence reflected that urban, port based and regional intermodal facilities, are all important to the transport network. It is a matter of determining which combinations of terminals will best contribute to the efficient operation of freight movements, taking into account financial, social, and environmental considerations. However, the Committee also feels that neither should situations like Kalgoorlie in

329 As advised by Freight Link on 22 June 2007 and Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.52 and

330 Freight Link, Transcript, 14 June 2006, Canberra, pp.16-17.

331 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.13.

Western Australia and Brighton in Tasmania be allowed to languish in indifference.

- 6.266 The Committee agrees that the Australian Government should take a lead role in intermodal facility planning and development, given that many of these facilities are on national highways, key arterial road or rail systems, and have a symbiotic relationship with Commonwealth responsibilities under AusLink.

Recommendation 17

- 6.267 **The Committee recommends that, in cases where private investment options have been exhausted, any urgently required intermodal facilities of national or substantial regional significance, should be developed through joint contributions from the Commonwealth (50 per cent), State (30 per cent) and local authorities and/or industry (20 per cent). Paramount in any such consideration would be a viable ownership model, providing open access.**

Recommendation 18

- 6.268 **The Committee recommends that the Australian Government:**
- **investigate strategic land banking;**
 - **where appropriate, secure land for future intermodal facility developments and expansions; and**
 - **encourage State and local governments, and the private sector to explore land banking options for future hub development.**

Coastal Shipping

- 7.1 Moving more freight by sea may be an option to alleviate some of the growing pressure on land transport networks.¹ This potential to assist Australia's capacity to meet the challenge of the growing freight task warranted consideration by the Committee.
- 7.2 Australia is necessarily reliant on international shipping for its import and export needs. However, the coastal shipping option for transporting freight between Australian cities is overshadowed by road and rail. The Maritime Union of Australia has noted the lack of focus on shipping in the national transport policy debate.²
- 7.3 In response to the release of the NTC's *Twice the Task* report, the Australian Shipowners' Association Canberra Director commented:
- ...it is remarkable that such a comprehensive review of environmental, safety, infrastructure and cost implications for freight transport has overlooked sea transport altogether.³
- 7.4 Road and rail are the dominant modes for the movement of freight within Australia. Road, in particular, is anticipated to make substantial gains in its modal share as the freight task grows.⁴

1 Timber 2020, Transcript, 8 March 2006, Albany, p.25 and Shipping Australia Limited, Submission 49, p.2.

2 Maritime Union of Australia, Transcript, 1 February 2006, Wollongong, p.56. See also Amstead Marine Limited, Submission 34, p.2.

3 Australian Shipowners Association, <http://www.asa.com.au/news.asp#topic88>, accessed 11 September 2006.

4 National Transport Commission, "*Twice the Task*" A Review of Australia's freight transport tasks, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.84.

However coastal shipping still has an important part to play in the domestic freight task.

- 7.5 The European experience suggests that coastal shipping has significant potential to curb anticipated increases in heavy vehicle road traffic, rebalance modal shares, bypass land bottlenecks and provide a sustainable transport option.⁵

Sea freight⁶

- 7.6 When measured in tonnes, only a small proportion of freight between Australian cities is transported by sea.⁷ However, the tonne kilometres⁸ measurement better reflects coastal shipping's share of the freight task.⁹
- 7.7 The coastal shipping industry, like road and rail, is moving increasing amounts of freight. However, it now ranks third in terms of market share of the domestic freight task, as distributors have increasingly opted for the greater timeliness and reliability of road – and to a lesser extent – rail services.¹⁰ Sea transport's share of non-urban domestic freight has dropped significantly, from 44 per cent in 1984–85 to 28 per cent in 2002–03.¹¹ This trend is expected to continue, with a further decrease to 23 per cent forecast by 2020.¹²
- 7.8 The Committee is aware that forecast movements may be curtailed by the current and anticipated constraints on Australia's ports. However, given the crucial nature of export and import markets for the Australian economy, the Committee feels that port constraints are an issue that government and industry cannot afford to ignore.¹³

5 Adsteam Marine Limited, Submission 34, p.4.

6 The term for goods transported by sea is cargo, however for consistency this section will refer to these goods as freight.

7 For example, only 2 per cent of the domestic freight task in 2001-02. Department of Transport and Regional Services, Submission 103, p.3.

8 The tonne kilometres (tk) measurement is the product of the number of tonnes moved between two ports and the sea route distance between these ports, for example 800 tonnes of freight moved a distance of 1000 kilometres is 800,000 tonne kilometres.

9 Bureau of Transport and Regional Economics, *Australian Transport Statistics*, August 2006, p.9, *Freight Measurement and Modelling in Australia*, Report 112, March 2006, pp.29-30 and *Australian Sea Freight: 2003–2004*, Information Paper 56, March 2006, p.20.

10 Mode share calculations are based on billion tonne kilometres (btk).

11 Australian Shipowners Association, Submission 13, p.1.

12 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.84.

13 See Chapter 3 for a discussion of The Ports.

- 7.9 Overall, the Committee considers it important to highlight that despite this anticipated decrease, and any potential impacts if port constraints are not addressed, coastal shipping will still be carrying around a quarter of domestic freight¹⁴ in 2020. Consequently, the role of coastal shipping should not be overlooked when examining existing transport network operations and prospects for future freight efficiencies.
- 7.10 The primary task of the domestic shipping industry is transporting bulk cargo, in particular bauxite,¹⁵ alumina, crude oil, petroleum products, steel products and sugar.¹⁶ Much of the shipping task is in-house, with commodity suppliers owning and operating the service that transports their product.¹⁷
- 7.11 The *Twice the Task* report made the following forecasts for the growth in sea freight¹⁸:

Table 7-1 Predicted growth in domestic sea freight

Segment	% change per annum	Billion tonne km (btk) change between 2000–2020
<i>Intercapital movements (short-haul)</i>		
Melbourne – Sydney	-7.73%	-0.04
Sydney – Brisbane	-1.43%	-0.01
Melbourne – Adelaide	3.53%	0.01
Sydney – Adelaide	2.05%	0.01
<i>Intercapital movements (long-haul)</i>		
Eastern states – Perth	5.46%	3.54
Melbourne – Brisbane	-10.87%	-0.09

Source: "Twice the Task" A Review of Australia's freight transport tasks, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, pp.80-81.

- 14 Measured in tonne kilometres.
- 15 The intrastate shipment of bauxite from Weipa to Gladstone constitutes the single largest component of coastal trade.
- 16 Bureau of Transport and Regional Economics, *Australian Sea Freight: 2003–2004*, Information Paper 56, March 2006, pp.22 and 25.
- 17 Webb, Richard, *Coastal shipping: an overview*, Research Paper No. 12, 2003–04, Information and Research Services, Parliamentary Library of Australia, p.2 and Amstead Marine Limited, Submission 34, pp.2-3.
- 18 Taken from statistics provided in National Transport Commission, "Twice the Task" A Review of Australia's freight transport tasks, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, pp.80-81.

- 7.12 Overall, projections for the coastal shipping freight task indicated growth of approximately 1.5 per cent per annum between 1999 and 2025.¹⁹

East-West corridors

- 7.13 Coastal shipping particularly has a role to play in transporting freight between the Eastern States and Western Australia. Sea transport has been increasing its share of these freight movements since 1997.²⁰
- 7.14 In particular, a dramatic reversal in mode share is evident in freight moved by sea from Western Australia to Melbourne. Victorian Government findings indicated a mode share of 71 per cent in 2000, of total tonnage (not tonne kilometres) moved along this route.²¹ The Victorian Freight and Logistics Council observed that:
- At various peak times during the year it is becoming extremely difficult to get rail slots from Adelaide and from Perth across to the eastern states, so coastal shipping presents quite a good option there.²²
- 7.15 In 2004, coastal shipping moved 39 per cent of total tonnage of regional freight between Western Australia and South Australia, and roughly half of the freight task between Perth and Brisbane. Ernst and Young suggested that:
- The impending introduction of new coastal shipping services between Fremantle, Melbourne, Sydney and Brisbane indicates the viability and competitiveness of sea for distances of around 3,000 kilometres and above.²³
- 7.16 Forecasts for domestic freight movements between the Eastern States and Perth represent an increase of more than double its 2000 rate of 1.87 btk.²⁴ Table 7-1 indicated an annual rise of over 5 per cent in intercapital freight movements along these routes between 2000 and 2020.

19 Bureau of Transport and Regional Economics, *Demand Projections for AusLink Non-urban Corridors: Methodology and Projections*, Working Paper 66, February 2006, p.29.

20 National Transport Commission, *Impediments to Improving Efficiency in the Area of Intermodal Transport*, Discussion Paper, August 2004, p.70.

21 Victorian Department of Infrastructure, *The Freight Task in Victoria*, November 2002, p.16.

22 Victorian Freight and Logistics Council, Transcript, 25 July 2005, Melbourne, p.26.

23 Ernst & Young, *North-South Rail Corridor Study – Detailed Study Report*, Commissioned by the Department of Transport and Regional Services, June 2006, Chapter 4, p.64.

24 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.91.

7.17 These predictions support industry arguments that, although carrying only a small portion of total market volume, coastal shipping is a good option for long haul bulk freight movements.²⁵ The National Transport Commission acknowledged that there are opportunities for modal shift to coastal shipping on the longer corridors.²⁶

North-South corridors

7.18 Sea freight movements for 2004, along the North-South corridor are also worth noting.

Table 7-2 Sea freight movements on North-South corridor

Segment	Modal share of corridor ²⁷ (%)
Intercapital movements (short-haul)	
Melbourne – Sydney	2
Sydney – Melbourne	1
Sydney – Brisbane	7
Brisbane – Sydney	17
Intercapital movements (long-haul)	
Melbourne – Brisbane	9
Coastal region freight (not intercapital)	16

Source Drawn from various sections of *Ernst & Young, North-South Rail Corridor Study – Detailed Study Report, 2006*

7.19 However, forecasts for the Melbourne to Brisbane route indicated coastal shipping will lose freight to other modes; dropping from one million tonne kilometres in 2000 to 100,000 tonne kilometres by 2020.²⁸

7.20 Despite these predictions, the *North-South Rail Corridor Study* acknowledged that the expected freight increases in the region justify some consideration of coastal shipping.²⁹ Estimates suggested that,

25 Industry Steering Committee of the Freight Transport Logistics Industry Action Agenda, *Freight Logistics in Australia: An Agenda for Action*, March 2002, p.24.

26 National Transport Commission, *“Twice the Task” A Review of Australia’s freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.2.

27 These share estimates are calculated based on total tonnage of freight moved.

28 National Transport Commission, *“Twice the Task” A Review of Australia’s freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.90.

29 Ernst & Young, *North-South Rail Corridor Study – Detailed Study Report*, Commissioned by the Department of Transport and Regional Services, June 2006, Chapter 2, p.16.

even with the introduction of an inland rail, there will still be a role for coastal shipping in the movement of freight in this region.³⁰

Industry limitations

- 7.21 The Australian coastal shipping industry does face a number of operational challenges, including a decline in the number of Australian-registered vessels, an ageing fleet, cabotage³¹, potential skills shortage, industrial issues and foreign competition.³²
- 7.22 In June 2004, Australia's coastal fleet comprised 40 vessels, four less than the previous financial year. Five of these vessels were registered overseas.³³
- 7.23 One significant challenge is the range of legislation that regulates the operation of the Australian coastal shipping industry.³⁴ For example, Part VI of the *Navigation Act 1912* regulates the transportation of freight by ship between ports in the states and Northern Territory, including the provision of licenses for ships to engage in coastal trade. Registered ships must adhere to a number of conditions, particularly on wages and other employment benefits for seafarers.
- 7.24 It is arguable that these, and related requirements, have been valuable in developing a domestic industry with quality, reliability and safety records that are high by world standards.³⁵ These standards are in sharp contrast to the condition of some foreign vessels operating on the Australian coast. Two reports by the predecessor of this Committee, *Ships of Shame* (1992) and *Ships of Shame – A Sequel* (1995), drew attention to the number of ships of substandard safety and

30 Ernst & Young, *North-South Rail Corridor Study – Detailed Study Report*, Commissioned by the Department of Transport and Regional Services, June 2006, Chapter 4, p.7.

31 Cabotage restricts the domestic transport of goods to carriers of that country.

32 Webb, Richard, *Coastal shipping: an overview*, Research Paper No. 12, 2003–04, Information and Research Services, Parliamentary Library of Australia, p.4 and Australian Shipowners Association, Submission 13, p.7.

33 Bureau of Transport and Regional Economics, *Australian Sea Freight: 2003–2004*, Information Paper 56, March 2006, p.45.

34 Legislation affecting Australian domestic shipping includes: the *Navigation Act 1912*, *Customs Act 1901*, *Migration Act 1958*, *Workplace Relations Act 1996*, *Seafarers' Rehabilitation and Compensation Act 1992*, *Occupational Health and Safety (Maritime Industry) Act 1993*, and *Shipping Registration Act 1981*.

35 Webb, Richard, *Coastal shipping: an overview*, Research Paper No. 12, 2003–04, Information and Research Services, Parliamentary Library of Australia, p.4.

- seaworthiness that were operating on coastal shipping routes under permits, and highlighted the need for improvement in this area.³⁶
- 7.25 The Independent Review of Australian Shipping (IRAS), in its *A Blueprint for Australian Shipping* report, contended that the interaction of different pieces of legislation has created a competitive disadvantage for Australian operators. Cabotage does protect the industry for Australian-registered ships, but the costs associated with meeting the various legislative requirements reduce the attractiveness of the sea freight option. Unlicensed vessels operating under the single and continuous voyage permit systems are not similarly constrained.³⁷
- 7.26 Non-licensed ships can be exempted from cabotage restrictions if they are issued a single voyage permit (SVP) or a continuous voyage permit (CVP). The SVP allows an unlicensed ship, including foreign ships, to carry specified cargo for a single voyage between designated ports. The CVP extends this permission for an ongoing specified period, usually six months. These permits enable coastal shipping tasks to be undertaken by vessels in the course of scheduled international shipping visits.
- 7.27 The Department of Transport and Regional Services issues single and continuous voyage permits in cases where no licensed ship is available, or the existing services are unable to meet the freight needs of certain ports or coastal routes.³⁸
- 7.28 In 2003-2004, 31 per cent of the total coastal freight task was transported by ships operating under single or continuous voyage permits. BTRE maintained that the use of permits is irregular, and used for the longer coastal routes rather than the shorter routes where road and rail competition is fiercer.³⁹
- 7.29 However, the *Twice the Task* report suggested promoting greater use of coastal shipping for foreign flagged ships.⁴⁰ The domestic shipping

36 These reports are available from the website of the current Committee:
<http://www.aph.gov.au/house/committee/trs/reports.htm>.

37 Australian Shipowners Association, Exhibit 4, p.2, Australian Shipowners Association, Submission 13, pp.4-5 and Transcript, 25 July 2005, Melbourne, p.47.

38 Bureau of Transport and Regional Economics, *Australian Sea Freight: 2003-2004*, Information Paper 56, March 2006, p.35.

39 Bureau of Transport and Regional Economics, *Australian Sea Freight: 2003-2004*, Information Paper 56, March 2006, pp.36-37.

40 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.28.

industry is likely to face increased foreign competition for coastal shipping routes if this initiative is pursued.

- 7.30 Ultimately, the significant growth in freight demand may require optimising the use of both Australian registered and foreign vessel freight capacities. However, the continued and necessary role for coastal shipping of freight, combined with the levels of domestic freight being moved by foreign shipping lines, strongly suggest to the Committee an opportunity to foster the national shipping industry for domestic freight movements. When examining the viability of the coastal shipping option, the Government will need to consider what, if any, protection or support the domestic shipping industry warrants.

Bass Strait

- 7.31 Generally, coastal shipping has not been a feature of Australia's freight logistics planning. However, an exception is in the movement of non-bulk freight across Bass Strait.
- 7.32 Tasmania relies more heavily on sea transport than the mainland states. However, shipping non-bulk cargo does not offer the cost-efficiencies of bulk cargo. Non-bulk items, such as fruit, vegetables and wheat require more attention and careful handling than, for example, bauxite. To alleviate this cost disadvantage, the Australian Government provides subsidies to operators shipping selected non-bulk goods between Tasmania and mainland Australia. This is administered under the Tasmanian Freight Equalisation Scheme (TFES) and the Tasmanian Wheat Freight Scheme (TWFS).
- 7.33 In its most recent assessment of the program, the Productivity Commission argued that the benefits to the Tasmanian economy are outweighed by the overall costs to Australia. In its current draft report on Tasmanian Freight Subsidy Arrangements, the Commission found that there was no sound underlying economic rationale for freight assistance, and recommended that TWFS be abolished and TFES be phased out from July 2007. It suggested that the Australian government pursue alternatives to address Tasmania's freight disadvantage.⁴¹
- 7.34 In response, the Australian Government indicated that while it will continue to review freight subsidy arrangements, it is committed to

41 Productivity Commission, *Tasmania Freight Subsidy Arrangements*, Draft Report, September 2006. Available at <http://www.pc.gov.au/inquiry/tasfreight/draftreport/index.html>.

continuing the schemes.⁴² This was reaffirmed in the recent 2007-08 budget, with the Australian Government providing \$130.1 million for Tasmanian freight and passenger vehicle subsidies during the financial year.⁴³

Environmental considerations

- 7.35 The International Maritime Organisation identified shipping as a significant contributor to the development of environmentally sustainable transport. In 2000, it released the *Study of Greenhouse Gas Emissions from Ships*. Overall, shipping was found to be only a small contributor to total world carbon dioxide emissions (1.8 per cent in 1996). The study also indicated that if available technical and operational measures were to be introduced on ships, further emission reductions would be possible.⁴⁴
- 7.36 In Australia, the transport sector generates 14 per cent of national carbon dioxide emissions. However, shipping generates only two per cent of the total transport sector emissions in Australia. Sea transport consumes 0.2 megajoules of energy per tonne kilometre, in contrast to rail's 0.4 and road's 1.4.⁴⁵
- 7.37 It is therefore logical to argue that even a small modal shift in favour of domestic shipping should reduce transport sector energy consumption and emissions.⁴⁶

42 Prime Minister John Howard, *Tasmanian Freight Equalisation Scheme*, Media Release, 7 September 2006,

http://www.pm.gov.au/media/Release/2006/media_Release2120.cfm accessed 12 September 2006 and Intermodal, *Howard rejects call to scrap Tasmanian freight subsidies* at <http://www.intermodal.com.au/article/>, accessed 12 September 2006.

43 Minister for Transport and Regional Services, Minister for Local Government, Territories and Roads and Parliamentary Secretary to the Minister for Transport and Regional Services, *Building a strong future for Regional Australia 2007-08*, Joint Statement, 8 May 2007, p.98.

44 International Maritime Organisation (IMO), *Study of Greenhouse Gas Emissions from Ships*, Final Report, Issue no. 2, 2000, Marintek, ECON Centre for Economic Analysis, Carnegie Mellon and Det Norske Veritas (DNV), pp.8-9.

45 Australian Shipowners Association, Submission 13, Attachment 1, p.1.

46 The Intermedia Group, *Australasian Freight Logistics*, October/November 2006, pp.32-33. The article draws on the findings of the IMO Study into greenhouse emissions from international shipping.

A viable option

- 7.38 Coastal shipping's potential lies in transporting less time critical freight. It represents an environmentally beneficial and cost effective alternative to rail and road modes, for bulk cargo shipped over long distances. Sea transport does not require the same infrastructure investment or maintenance:⁴⁷
- ... at the end of the day shipping is still the cheapest way to run large volumes of cargo long distances – by a mile. You do not have to construct a highway. You have to have a channel but once you get out to sea it is blue water. You do not have to maintain anything, apart from your channel.⁴⁸
- 7.39 Sea freight certainly has environmental advantages over road and rail, with lower gas emissions per tonne kilometre of freight moved. Rising fuel costs also present an opportunity for coastal shipping. Fuel constitutes around 20 to 30 per cent of total road freight costs, compared with between 7 and 10 per cent for rail and sea.⁴⁹
- 7.40 The Australian Logistics Council strongly supported the development of coastal shipping for domestic freight and emphasised the need to pursue efficiencies in both land and sea transport.⁵⁰ The Victorian Freight and Logistics Council argued that there is strong interest emerging in coastal shipping.⁵¹
- 7.41 Similarly, IRAS maintained that there is a future for the domestic shipping industry, but it would require the commitment and co-operation of industry and government.⁵²
- 7.42 A clearer government framework for the industry would help to combat perceptions that act as a barrier to investment.⁵³ The Maritime Union of Australia believed that government policy needs to support the emerging investment initiatives in coastal shipping. This could involve exploring new taxation policy options, including tonnage tax

47 Australian Shipowners Association, Submission 13, pp.6-7 and Freight Link, Transcript, 14 June 2006, Canberra, p.16.

48 Port of Brisbane Corporation, Transcript, 6 April 2006, Brisbane, p.27.

49 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.62.

50 Australian Logistics Council, Transcript, 13 September 2006, Canberra, p.15 and *Infrastructure Action Agenda 2006*, p.34.

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

52 Australian Shipowners Association, Exhibit 4.

53 Australian Shipowners Association, Transcript, 25 July 2005, Melbourne, p.47.

regimes under which, for example, shipping companies pay a flat rate of tax or profits are derived based on net tonnage moved.⁵⁴

- 7.43 Overall, sea transport is not in a position to compete with road and rail.⁵⁵ However, there is considerable potential for sea freight services to complement land transport networks.

Committee Assessment

- 7.44 The Committee noted comments by the Chair of the International Commission on Shipping:

For the largest island continent in the world to be determining a land transport strategy to the exclusion of its own interstate shipping services is irresponsible.⁵⁶

- 7.45 It also noted evidence from the Australia Shipowners Association that:

... all transport modes should form a total transport package for Australia and should be the subject of a consolidated transport policy framework, not a framework that tends to concentrate on the land transport modes.⁵⁷

- 7.46 It is the Committee's view that it would be a natural extension of existing corridor strategies to include coastal routes. The Committee agreed with the *Twice the Task* report's recommendation that cost effective coastal shipping options be considered as an extension to the use of rail.⁵⁸
- 7.47 The Committee recognised that improving port facilities has already been highlighted as part of wider infrastructure requirements to

54 Maritime Union of Australia, Transcript, 1 February 2006, Wollongong, pp.58 and 63 and Supplementary Submission 171, pp.5-8.

55 However, the possibility has not been completely ruled out in the case of selected routes, for example East-West routes to Fremantle. See Ernst & Young, *North-South Rail Corridor Study - Detailed Study Report*, Commissioned by the Department of Transport and Regional Services, June 2006, Chapter 4, p.41 and Department of Transport and Regional Services, *National Intermodal Terminal Study*, Final Report, Meyrick and Associates and ARUP, February 2006, p.59.

56 Supply Chain Review, <http://www.supplychainreview.com.au/index.cfm?storyid=22198&li=displaystory>, accessed 12 September 2006.

57 Australian Shipowners Association, Transcript, 25 July 2005, Melbourne, p.42.

58 National Transport Commission, *"Twice the Task" A Review of Australia's freight transport tasks*, Sinclair Knight Merz Pty Ltd and Meyrick and Associates, February 2006, p.27.

enhance Australia's transport networks.⁵⁹ The Committee anticipates that the completion of necessary port infrastructure improvements, combined with strategies to better facilitate road, rail and international shipping connections, will also provide the foundation for an efficient domestic shipping industry.

7.48 The Committee considers that the coastal shipping industry warrants examination by the Australian Government. This consideration should include whether changes are required to ensure legislative arrangements are commercially appropriate, and consistent with measures applicable to investment and taxation of road and rail modes.⁶⁰

7.49 The Committee concluded that if Australia is to ensure it is in a position to meet the challenge of the growing national freight task, it must engage all transport sectors in logistics planning. With almost a quarter of the freight task predicted to be moved by sea in 2020, it is essential to take into account the coastal shipping industry and its capacity to share the freight task, as part of a comprehensive national transport strategy.

59 See Chapter 3.

60 Australian Shipowners Association, Submission 13, p.8.

Role of the Three Tiers of Government

- 8.1 During this inquiry the Committee conducted wide-ranging discussions and considered evidence from 30 public hearings and almost 200 submissions from transport industry stakeholders. It has seen for itself the urgent need for co-operation between all parties, if the industry is to cope with the anticipated demands for freight services.
- 8.2 The greater part of the evidence given on this subject pointed in that single direction – the need for greater co-operation and co-ordination between the three levels of government. It also highlighted the value of close private sector involvement – so that all parties are moving in the same direction in the development process.
- 8.3 The Committee found that there is a deepening sense among stakeholders in the transport industry, that freight movements are growing so quickly, that only close co-operation between private enterprise and all levels of government will enable the task to be managed efficiently.
- 8.4 Local government representatives, in particular, expressed concern about the increasing strain on their revenue base, as freight moves from rail onto the roads. Their complaint is that the additional wear and tear on the local road networks cannot be properly repaired from normal rates revenue. Local governments see this process operating as a cost-shifting mechanism; moving funding responsibilities from state governments to local authorities.¹

¹ For example: Riverina Eastern Regional Organisation of Councils, Submission 92, p.4.

- 8.5 Inevitably, the Australian Government is often seen as simply a funding source. Despite that, however, many stakeholders can see that the Government is in an excellent position to co-ordinate major infrastructure developments. It is also in a unique position to act as “honest broker” in disputes and disagreements between state and local governments, or with private enterprise.

The Need for co-ordination and co-operation

- 8.6 An Infrastructure Action Plan, prepared by the Business Council of Australia, stressed the importance of co-ordination and long-term planning for infrastructure needs:

While the issue has been rapidly prioritised as a major impediment to sustained prosperity, a single or even consistent database of information that might account for the quality and quantity of Australia’s infrastructure does not exist.

Instead, the information required for strategic, long-term and cost-effective decision-making on infrastructure is scattered across a plethora of federal, state and local Government agencies. The absence of any coherent or consistent baseline of information in itself points to a fundamental lack of planning and coordination of infrastructure provision.²

- 8.7 Meyrick and Associates reported that the lack of a consistent interface with government authorities is a continual irritation to private investors:

...I get this message so persistently from industry ...these things need ... an interface between industry and government to get done. One of the continual complaints that I get from industry is about the churn rate in government institutions and the rate of institutional change and the deskilling of government. That has left them often with nobody to whom they can talk sensibly.³

- 8.8 The BHP Billiton Mitsubishi Alliance said that the government’s most important role would be one of liaison and co-ordination. It added that the construction and operation of infrastructure was up to the commercial interests that would use it:

2 Business Council of Australia, *Infrastructure Action Plan for Prosperity*, 2005, p.10.

3 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.6.

We see the role of government as being facilitating and enabling. That is, where necessary helping to facilitate feasibility assessments, getting behind proper planning and, where necessary, providing the proper framework for even handed negotiations between the parties who actually need to make the decisions, that is, the infrastructure providers and the infrastructure users. They are the parties who ultimately use and pay for those facilities. In terms of language, what can governments do to facilitate and enable rather than create? Creation is up to the people – the commercial parties – directly involved.⁴

- 8.9 Similarly, XStrata Coal pointed out that private enterprise, particularly in the bulk commodity fields, does not rely on government to establish major infrastructure projects:

We do not see a role for government investing in the construction of infrastructure developments. However, we do see a role for government in facilitating good planning and coordination between the infrastructure providers so that the coal industry can be confident that it is presented with the range of options and able to make efficient investments.⁵

- 8.10 Other organisations took the same line and further suggested that the Australian Government should play a leading role in instigating and co-ordinating transport strategy:

A firm strategy ... to be employed by the Commonwealth in taking a lead in defining the role of the tiers of government in all transport strategies and directly engaging industry at both a sector and inter regional level.⁶

- 8.11 The Hunter Valley Coal Chain Logistics Team considered the role of government as a shareholder in the ARTC, to be as important as its role as regulator:

The first is as regulator, to ensure that, particularly through the ACCC, we get an appropriate access regime for the track that does not delay investment decisions through bickering around rates of return and the like, as we have seen happening in Queensland; to ensure that we get fair and equitable access that also supports competition; but mainly to

4 BHP Billiton Mitsubishi Alliance, Transcript, 6 April 2006, Brisbane, p.39.

5 Xstrata Coal Queensland, Transcript, 9 June 2005, Gladstone, p.2.

6 New England North West Area Consultative Committee, Submission 159, p. 3.

ensure that we get timely decisions made to ensure that there are no competitive regulator delays or constraints to expansion.

The second role for government is clearly as the major shareholder of the track infrastructure – particularly the federal government, which has the ARTC to ensure that the appropriate shareholder pressure is brought to bear to keep the commitment to the investment being delivered ...in a timely fashion in support of the rest of the coal chain investment that is actually occurring.⁷

- 8.12 Xstrata Coal agreed and said that government could bring to negotiations a wider grasp of the logistics picture:

I would see that as a role for government. In overall master planning you have the infrastructure providers looking at their corridors and you have the ports looking at their ports, but who is looking at the whole logistics of the state? Then we get into interstate issues like the inland railway and things like that. They need to be brought into the master planning.⁸

- 8.13 These comments confirmed the findings of the Exports and Infrastructure Taskforce. In its report to the Prime Minister in May 2005, the Taskforce said:

A consistent theme ...was the need for greater co-operation and co-ordination between the three levels of government and the private sector to ensure the provision of appropriate infrastructure on a timely basis.⁹

- 8.14 The Taskforce report commented that the Business Council of Australia blamed the shortfalls in infrastructure capacity on “...convoluted institutional arrangements and poor policy choices – not ...the demands of higher economic growth or a scarcity of resources or funding”.¹⁰

- 8.15 The Taskforce also referred to a comment in the AusLink White Paper, which said:

7 Hunter Valley Coal Chain Logistics Team, Transcript, 30 January 2006, Newcastle, p.18.

8 Xstrata Coal Queensland, Transcript, 9 June 2005, Gladstone, p.9.

9 Exports and Infrastructure Taskforce, *Australia's Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.22.

10 Exports and Infrastructure Taskforce, *Australia's Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.22.

Australia cannot afford poor and uncoordinated infrastructure decisions that impose high costs on the community, the economy and the environment.

The existing planning and decision making framework is short-term, ad hoc and fragmented across transport modes and jurisdictional boundaries. The development and implementation of a national vision for critical land transport links is vital.¹¹

Long-term planning of transport corridors

8.16 The AAPMA said that long-term planning of transport corridors is essential, so that 24 hour, 7 days a week operations, such as ports, can be buffered from the residential areas:

In general, there is a lack of objective land use planning covering the short, medium and long term needs of freight transport requirements. There is a conflict between urban developments and port expansion. There is little recognition of the need for adequate environmental buffer zones around port activities and transport corridors. Often buffer zones can be adaptively developed to bridge the gap between port operations and transport corridors and urban (residential) development.

Crown land should be specifically zoned or made available where appropriate for freight transport needs using a long term approach. It is not reasonable to withhold making decisions in relation to land use until the demand is proven for the specific need, as much of this infrastructure is required over a long term and the level of demand cannot be quantified to the extent that some regulatory agencies require in the short term. The absence of such decisions may allow such land to be given to other purposes, which may not be compatible with transport use, or even deny future essential transport use.

The effects of urbanisation on capital city and many regional ports is well documented and is having a severe effect on essential port and transport chain expansion plans.

Urbanisation, tourism and ports can live and work together if

11 Exports and Infrastructure Taskforce, *Australia's Export Infrastructure*, Report to the Prime Minister, Canberra, May 2005, p.22.

there is long term land use planning at state and local government level.¹²

8.17 The Victorian Freight and Logistics Council commented:

Government also has a responsibility to most efficiently utilise public infrastructure. Industry has been requesting government to nominate freight hubs for inter-state and intra-state freight operations, which optimise public infrastructure investment and enable industry to invest in a climate of certainty. This guidance has not been available, and it is likely that inefficient investment patterns will emerge over the next decade.¹³

8.18 Meyrick and Associates explained the private enterprise outlook on planning for large scale investments:

...we helped with a bit of work done by the Australian Logistics Council – an industry infrastructure action agenda. Amongst the top four priorities they pick planning. ...We need to understand the framework within which that investment is being made. That can only come from laying down a clear plan. Then when we know where we are going with the planning we can sensibly evaluate our own private investment decisions.¹⁴

8.19 Meyrick and Associates also noted that private enterprise needs guidance from the government sector on the priority areas in the future freight networks:

But while things are very fluid and uncertain with respect to the overall framework within which we are making an investment we are going to be extremely cautious about putting our money on the line because quite often it is irrecoverable. The sort of investment you make in an intermodal terminal, once you have spent it you cannot pick it up and take it elsewhere.¹⁵

8.20 The Hunter Area Consultative Committee (HACC), indicated that, at present, the planning phase is occurring far too late in the life of a project:

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

13 Victorian Freight and Logistics Council, Submission 89, p.4.

14 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.6.

15 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.6.

All too often planning is only undertaken after capital funding has been programmed. The future transport challenges have to be met regardless of the timing of capital funding; by identifying and dedicating the required corridors, clear messages are given to the community, industry and government organisations enabling better utilisation of resources.

Without this planning the list of integration issues and problems will grow due to environmental and population pressures and the ability of the Port of Newcastle to make a substantial contribution to Australia's future economic growth will be diminished.¹⁶

8.21 When it comes to the financial role of governments, effective planning is essential; as Meyrick and Associates commented: "...what we do not want to do is spray-gun money all over the place – because that would be a disaster".¹⁷

8.22 Xstrata Coal said that better guidance is needed from the government sector in the development of transport infrastructure. Clear indications of government thinking on transport networks would be an encouragement to private sector investors:

At this stage we have been saying that we believe that the coal industry is mature enough to undertake feasibility studies where it believes they are warranted. We have raised these issues with government. We note that some of the government submissions to the recent task force have stated that they believe that government has a role in undertaking these feasibility studies. However, the construction will still have to be underwritten.

We are willing to conform to that government philosophy and way of thinking. We have had discussions with government. We would like to reach a consistent approach with government. ... There needs to be an understanding as to what the government will do consistently and what the proponents are prepared to do consistently.¹⁸

8.23 The Australian Rail Track Corporation views land use planning as one of the biggest long-term issues for rail. In particular, it argues that

16 Hunter Area Consultative Committee, Submission 136, p.2.

17 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p. 13.

18 Xstrata Coal, Transcript, 9 June 2005, Gladstone, p.5.

corridor planning and excising of land, is essential to meet expected freight growth in Brisbane, Sydney and Melbourne, and in port movements. Careful planning is needed to avoid potentially significant problems in future urban land use in these areas.¹⁹

- 8.24 Referring more generally to transport corridors, the South Australian Freight Council explained the situation very neatly. It set out core principles and policy issues for freight transport infrastructure, and said:

Freight corridors, infrastructure and precincts must not subsequently be encroached upon or be denigrated or down graded by urban sprawl and inappropriate adjacent developments.²⁰

- 8.25 The Hunter Valley Consultative Committee claimed that private investors rely on government action to ensure that priority transport corridors and hubs are identified:

Substantial expenditure, both private and public, has already been made in port facilities and future expenditure can be expected but will require the role of government to ensure that transport corridors and transport hubs are identified and dedicated. This will enable the private sector, in particular, to undertake long term planning in the knowledge that the transport infrastructure support system is in place.²¹

- 8.26 The Southern Regional Organisation of Councils said that long term planning is the only answer:

Freight corridor planning should be undertaken over a long time frame of 20-50 years and where opportunities are identified all three (3) levels of government need to take action to identify, secure and protect these corridors.²²

- 8.27 The Victorian Freight and Logistics Council called for a strong government role. It referred to the conflict that occurs when long-term planning needs clash with the prospect of short-term profitability:

Management of land use is a key area in which government at the State and local level can facilitate the development of

19 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, pp. 9-10.

20 South Australian Freight Council, *Moving Freight – Setting a Strategic Framework for the Future*, South Australia's Freight Transport Infrastructure, March 2006, p.3.

21 Hunter Area Consultative Committee, Submission 136, p.2.

22 Southern Regional Organisation of Councils, Submission 60, p.4.

regional intermodal hubs. Ports, hubs and their connecting corridors are a specific use which requires a 24/7 operating environment in order to be effective and to manage the freight task. There are presently few state level protections for freight places and their effectiveness is constantly being eroded by a lack of recognition of their vital role at the local level.

Numerous instances of land use conflicts are reported across the State. This issue must be tackled on a consistent, systematic basis, with buffering to protect non-freight uses abutting freight places and articulation of protection for freight places within local planning schemes and policy instruments.²³

- 8.28 The Hunter Business Chamber, in discussing a proposed new rail link, emphasised the importance of planning ahead. Resuming land for transport corridors, after allowing it to be developed for another purpose, may be either impractical or simply too expensive to contemplate:

Even with the Fassifern to Hexham corridor that we are talking about, we need to be planning now for that future growth, in 20 years time, we will not be able to come back and say: 'We should have set that corridor aside back then. We knew it was coming but we didn't do it.'²⁴

- 8.29 The Hunter Area Consultative Committee, when asked about its priorities for transport and infrastructure, put the preservation of transport corridors at the top of its requirements:

Our No.1 priority is to see the arms of government dedicate the routes that are going to be used into the future.²⁵

- 8.30 The Committee agrees that planning for freight corridors cannot be delayed. Delays now may mean that the necessary land is unavailable when most needed.

- 8.31 The Committee also believes that planning for freight corridors must be based on the longest possible time scale. The rapid growth in the freight task, and advances in transport technology, mean that the planners must look ahead as far as possible and try to anticipate what

23 Victorian Freight and Logistics Council, Submission 89, p.4.

24 Hunter Business Chamber, Transcript, 30 January 2006, Newcastle, p.53.

25 Hunter Area Consultative Committee, Transcript, 30 January 2006, Newcastle, p.64.

will be required in thirty to fifty years time – or be condemned to a long-term game of trying to catch up.

Recommendation 19

- 8.32 **The Committee recommends that COAG adopt a standard that requires infrastructure planning authorities to plan transport corridors on a time frame of at least 30 years.**

Recommendation 20

- 8.33 **The Committee recommends that the Australian Government encourage transport departments and larger local authorities to acquire and zone freight transport corridors as soon as possible.**

Intermodal facilities

- 8.34 The planning and development of IMTs is an area that seems to present considerable difficulty for government. However, the Committee believes it is the inherent difficulty in determining the proper locations for these hubs that makes the government role all the more important.
- 8.35 Governments at all levels recognise the vital role that hubs will play in future transport network arrangements.²⁶ Generally, the Australian Government has not been directly involved in the decision-making processes for the development of intermodal terminals or ports. However, the states have had some involvement in investigating, planning and developing particular intermodal terminals.²⁷
- 8.36 DOTARS acknowledges that there has been “...a recurring industry theme of government failure to respond to the needs of developing terminals and facilitate sound planning”.²⁸ However, it argues that:

It is very difficult for governments to dictate how the freight flows should be broken up at terminal points, and we have

26 Warwick Shire Council, Submission 8, p.2.

27 Department of Transport and Regional Services, Submission 103, p.4.

28 Department of Transport and Regional Services, Submission 103, p.10.

avoided doing that. We have focused on facilitating the availability of terminals at those key points for the industry.²⁹

8.37 The Queensland Government considered that governments have considerable influence over the placement and operation of intermodal facilities:

...the location of any intermodal hub would have to be strongly influenced by the commercial need, and you would take that into consideration. A government, through policy means, should have an influence on not only where it is but how it is used and how access to and from that hub – in particular, access through urban areas – is controlled. There has been an underestimation of the influence of policy on managing the transport network in that regard.³⁰

8.38 The Latrobe City Council agreed that governments have an important role to play in the planning process:

...there is a role for government in strategically placed intermodal terminals to improve the capacity of the infrastructure that we already have – the rail lines and ports that these terminals would service – and the logistics outcomes and export competitiveness where there is a growing container freight task in particular.³¹

8.39 Evidence suggests that the Australian Government is seen by industry to have a responsibility to guide them in the planning process.³² According to Meyrick and Associates, one of the consultants for the National Intermodal Terminal Study, aspects of the government's role could involve:

- leading the industry through sound planning processes;
- bringing together state and federal governments in joint initiatives;
- ensuring that land is available for development;
- achieving a consistent access and regulatory environment for rail; and
- committing funds alongside commercial operators and developers.³³

29 Department of Transport & Regional Services, Transcript, 17 August 2005, Canberra, p.6.

30 Queensland Department of Main Roads, Transcript, 6 April 2006, Brisbane, p.14.

31 Latrobe City Council, Transcript, 25 July 2005, Melbourne, p.38.

32 See for example, Department of Transport and Regional Services, Submission 103, p.15.

33 Department of Transport and Regional Services, Submission No. 103, p.15.

- 8.40 Government action is also needed at the state, territory and local levels, to select appropriate locations and undertake the necessary land use planning.³⁴
- 8.41 Evidence to the Committee suggests that:
- ...what local government needs from the Commonwealth, is guidance and a clear investment framework ... about the priorities from the Commonwealth perspective, particularly in the ports and the road and rail infrastructure.³⁵
- 8.42 In particular, evidence strongly supports a role for all tiers of government in preserving land for potential IMT developments in the future:
- Protecting [potential intermodal] sites for the future is the first thing that the government has to make sure it does.³⁶
- 8.43 Queensland Transport argued that, while it may be costly, identifying and preserving sites for intermodal hubs should be a core government role:³⁷
- Development of them may well be a commercial issue for both road and rail freight carriers. But actually finding the sites for those things can be as difficult as identifying the corridors themselves, because they need a fair bit of land and they need it in strategic locations.³⁸
- 8.44 The Australian Logistics Council (ALC) argues that government assistance may be necessary to ensure that terminals are not constrained by their land access links.³⁹ It believes that despite relative land scarcity for development or expansion, consideration of initiatives such as the proposed Enfield terminal, demonstrate "...the government's willingness to address the need to cater for future freight volumes".⁴⁰

34 Department of Transport and Regional Services, Submission No. 103, p.16.

35 Latrobe City Council, Transcript, 25 July 2005, Melbourne, p.33.

36 Queensland Transport, Transcript, 6 April 2006, Brisbane, p.13.

37 Queensland Transport, Transcript, 6 April 2006, Brisbane, p.12.

38 Queensland Transport, Transcript, 6 April 2006, Brisbane, p.12.

39 Australian Logistics Council, Transcript, 13 September 2006, Canberra, p.2 and Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.3.

40 Australian Logistics Council, *Infrastructure Action Agenda 2006*, p.63.

- 8.45 Meyrick and Associates reported that the lack of a strategic planning framework acts as a barrier to industry investment in intermodal facilities:⁴¹

I am very confident – because industry people tell me this – that the lack of clear signals from government about where they see priority freight networks developing, and consistency over time for that initiative, is an impediment to private sector investment.⁴²

- 8.46 The ALC explained the importance of the government role in establishing intermodal facilities. It also outlined the effect that the Australian Government aimed for with AusLink:

Generally the organisation of the intermodal supply chain occurs in a decentralised way. Co-ordination occurs in a manner that is not in the best interests of the intermodal system as a whole, but suited to the interests of private operators. In recent times this has changed with national initiatives such as AusLink demonstrating that the government, along with industry groups, is willing to adopt a more centralised approach to the planning and operation of intermodal infrastructure.

AusLink's corridor strategies are intended to create a cooperative planning process with state governments in order to better develop the understanding of the current and future role of intermodal terminals and their inter-relationship with road and rail networks.⁴³

- 8.47 The Council also reviewed the problems being encountered in state planning arrangements. It indicated that comprehensive plans are being delayed by uncertainties over funding allocations:

At a state planning level there has been considerable recent work aimed at identifying future terminal needs, including the work of the Freight Infrastructure Advisory Board in NSW, and the South East Queensland Intermodal Freight Terminal Study.

Many states are rethinking their planning frameworks and processes to facilitate a more coherent approach to the development of an effective intermodal system. But no state,

41 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.6.

42 Meyrick Consulting Group, Transcript, 16 August 2006, Canberra, p.6.

43 Australian Logistics Council, *Infrastructure Action Agenda*, Sydney, 2006, p.76.

as yet, has a comprehensive and fully articulated plan for future intermodal development. The disparate views held by intermodal stakeholders regarding the source, level and conditions surrounding funding, when evaluating the case for or against the development of intermodal terminals, are one of the factors impeding public planning.⁴⁴

Government Funding

8.48 Government action cannot stop at the planning level. Evidence to the Committee, as expected, strongly advocated the funding role of governments. One example of this was a call for government investment in infrastructure to support access to IMTs.⁴⁵

8.49 Some evidence proposed a role for government in actively encouraging private investment, but with the usual expectation of government funding appended:⁴⁶

Currently, investment by the private sector in regional infrastructure is minimal; changes to this investment culture will be slow and can only occur with encouragement from all three tiers of government. Business can rightly question why they should invest in regional infrastructure when the government isn't prepared to do the same.⁴⁷

8.50 The Riverina Eastern Regional Organisation of Councils (REROC), explained that local government in regional areas can supply expertise, capability and willingness to joint ventures with other levels of government and/or the private sector – but it is hampered by lack of funds. REROC said that governments need to recognise that infrastructure investments do not yield instant returns:

Our members also see opportunities to create public-private partnerships through projects such as regional intermodal hubs and the provision of rail services. However it is likely that such partnerships will only develop where governments recognise that returns on investment in transport infrastructure only occur over long periods of time, government funding support needs to reflect this reality.⁴⁸

44 Australian Logistics Council, *Infrastructure Action Agenda*, Sydney, 2006, p.76.

45 Parkes Shire Council, Submission 28, p.1.

46 Parkes Shire Council, Submission 28, p.7.

47 Riverina Eastern Regional Organisation of Councils, Submission 92, p.4.

48 Riverina Eastern Regional Organisation of Councils, Submission 92, p.4.

8.51 These expectations, and the needs of the regional areas, sometimes put the government sector in a difficult position. The Victorian Freight and Logistics Council observed that:

Government's facilitative role vis-à-vis intermodal hubs, highlights a difficult balance between potential distortion of markets and efficient expenditure to manage public costs incurred through freight movement.

Shifting port cargoes to rail will generate significant public goods in terms of avoidance of accidents, congestion, greenhouse emissions and road expenditure demands. However, provision of infrastructure or regulatory support for a privatised hub may be viewed as anti-competitive. Where hub infrastructure is publicly owned, common user policy and regulation may be the only means to facilitate public support. Management of land use is a key area in which government at the State and local level, can facilitate the development of regional intermodal hubs.⁴⁹

8.52 A branch of the Chartered Institute of Logistics and Transport summarised the situation in its submission to the inquiry:

The Commonwealth and State Governments have already taken or are implementing specific initiatives to address under-investment in transport and to improve transport planning and coordination at a national level. These initiatives include:

- Auslink as a vehicle for national transport planning, Commonwealth/State co-operation, funding and a more rigorous approach to transport investment and administration
- the creation of the National Transport Commission to provide recommendations on the regulation of both road and rail
- the use of ARTC to develop the interstate rail system and improve the movement of coal in the Hunter Valley. Projects planned by the ARTC will improve connectivity to ports and port efficiency.

49 Victorian Freight and Logistics Council, Submission 89, p.4.

The success of these initiatives will rest on the active cooperation of all levels of Government and the private sector.⁵⁰

- 8.53 Rio Tinto Coal acknowledged that there are times when the government sector needs to provide funding to ensure that strategic projects are completed:

I think that it would be valuable if the government could access funds to support projects it thought were overwhelmingly in the national interest.⁵¹

- 8.54 The Government must also take account of factors beyond the question of whether the project is economically sustainable. Other issues such as health, public planning, safety and the environment are all areas where government has a role and a responsibility. In taking its decisions, these (and other) aspects of social amenity must be taken into consideration.

Committee Assessment

- 8.55 The Committee considers that the evidence given to this inquiry shows clearly that:

- close co-operation between the three levels of government, and between government and private enterprise, is essential if the transport network is to keep pace with the growth of the transport task;
- there is an expectation in the industry that the Australian Government must set the lead in infrastructure planning and development; and
- it is also essential that, in this field, the barriers of state, territory and regional borders must be broken down. The need is to treat the whole country as one complete transport network.

- 8.56 The Committee is convinced that improving co-operation between the three levels of government, and between government and the private sector, is the biggest challenge facing the Australian transport industry. A lack of co-operation, and delays caused by complex administrative processes, were described in evidence at almost every place the Committee visited.

50 The Chartered Institute of Logistics and Transport, ACT and S.E. NSW Section, Submission 64, p.14.

51 Rio Tinto Coal Australia, Transcript, 9 June 2005, Gladstone, p.32.

- 8.57 The evidence also shows that the private sector looks to government, especially the Australian Government, for guidance. Consequently, despite its central role in planning and in funding transport infrastructure, the Government's most important role may be in co-ordinating and facilitating the implementation of infrastructure investment.
- 8.58 Experience has shown that planning for the establishment of transport corridors and intermodal terminals requires a long-term perspective. To even keep pace with the expected transport demand, will require planning now for the situation 30 years ahead. This underlines the difficulty of the task Australia faces to overcome the present infrastructure backlog, especially in the railway sector.
- 8.59 Government funding of infrastructure has expanded in recent years, notably with the establishment of AusLink. However, the Committee found that there are essential projects that should be given priority in government funding decisions – as discussed in Chapters 3, 4 and 5.

Recommendation 21

- 8.60 **The Committee considers that only COAG is in a position to achieve the necessary co-operation between jurisdictions. It recommends that COAG undertake, as a matter of urgency, consultations with state and local government authorities, to seek agreement that transport networks should be treated as a single Australia-wide system, as further described in Chapter 11.**
- 8.61 There is a long-standing feeling, supported by the Committee, that the Department of Transport and Regional Affairs requires a planning and engineering arm, to allow it to co-operate more fully with the State departments.
- 8.62 The Committee does not envisage a large bureaucracy, but a tight unit, high in engineering and planning expertise.

Recommendation 22

- 8.63 The Committee recommends that the Minister for Transport and Regional Services establish a small infrastructure development unit in his department, to enable it to co-operate fully with the State departments on infrastructure planning and development. The unit should be staffed by qualified transport engineers, supported by people experienced in planning transport projects.

Recommendation 23

- 8.64 The Committee recommends that, in recognition of the situation of small cities and shires hosting projects of national significance, with infrastructure requirements beyond the capacity of their rate base to finance, that the criteria for access to the AusLink Strategic Regional Programme be revised to take account of their situation.

Eastern States' Inland Rail Corridor

- 9.1 During this inquiry, the Committee was told that several consortia are examining the feasibility of an inland rail freight corridor, to link Melbourne with the Queensland ports.
- 9.2 The concept of an inland freight route has been seriously discussed for at least a decade. Each time it has been brought forward, however, any real progress has been stopped by a combination of factors, such as: high infrastructure cost, different rail gauges, the need for close co-operation between the State governments and with the Australian Government, and doubts about the level of demand.
- 9.3 In the last few years, the intensity of discussion has increased. The rapid expansion of minerals exports, in particular, has brought the weaknesses of the current rail infrastructure to public attention. Adding to the public disquiet has been a rapid increase in the number of large trucks on the roads, due to the growing share of the freight task held by road transport.
- 9.4 The Committee heard evidence from two of the consortia: the Australian Transport and Energy Corridor Ltd (ATEC) and the Great Australian Trunk Rail System (GATRS). Each group is keen to see the proposed rail system completed as soon as possible. Their main differences lie in the routes proposed. ATEC also envisages the link being continued to join the line first to Gladstone through the Surat Coal Basin, and on to Darwin at some future stage.
- 9.5 Mr Everaldo Compton of ATEC, in his evidence to the Committee, claimed that the rail line from Melbourne to Toowoomba could be built for \$800 million. He said the problem lay in getting from there to

Brisbane, through the ranges. That section, he said, would cost another \$2 billion.¹

- 9.6 ATEC favours taking the line from Toowoomba through to Gladstone. That section could be built for another \$800 million, Mr Compton said. In addition to the lower cost, it has the advantage of providing a direct link to a major port for the Surat coal basin.²
- 9.7 In December 2006, the Queensland Government granted a mandate to an ATEC-led consortium to build or upgrade 700km of rail line from Toowoomba to Gladstone. ATEC said the new line would give sixteen coal mines in the Surat Basin a rail link to Gladstone – and a minimum of twenty million tonnes of additional coal exports through that port.³
- 9.8 Toll Holdings, owners of Pacific National, said that the project could only work if the major stakeholders worked together on it. The company said that :

It cannot be done without the federal government, it cannot be done without Queensland and Queensland Rail and it cannot be done without Pacific National. We are looking for an environment in which we can bring those key parties together and make sure that we do get the right outcome – so it will work like a Swiss watch and serve us well into the next 20 years. ... We want to try to work this thing forward methodically with the main stakeholders, which are the parties I mentioned.⁴

- 9.9 Toll Holdings also said that the link to Brisbane is an essential part of the concept:

The largest cost in the inland railway project, the infrastructure project, is creating that link into Brisbane. I have heard numbers in the order of \$1 billion, and it is probably more given the way infrastructure costs are rising so dramatically at the moment. By the time we get to it, it might

1 Australian Transport and Energy Corridor Ltd, Transcript, 9 November 2005, Canberra, p.6.
2 Australian Transport and Energy Corridor Ltd, Transcript, 9 November 2005, Canberra, pp. 6 and 8.
3 Australian Transport and Energy Corridor Ltd, *Policy for an Inland Railway*, February 2007, pp.2-3.
4 Toll Holdings, Transcript, 1 August 2006, Sydney, p.39.

be \$2 billion. The railway simply will not work without that connection.

There has been talk in the past of terminating south of the border and running road into Brisbane but it does not make sense at all. We have to come to grips with the need for that connection to be made. That is why I say that this project cannot be completed and it can never work without the support of the Queensland government. I do not necessarily mean by that financial support, but it needs their support and Queensland Rail's support to succeed.⁵

- 9.10 GATRS sees the north-south link as very important, but only a part of the concept of an Australia-wide trunk rail system. In examining the alternatives for the Melbourne to Queensland route, GATRS applied a basic principle, the aim was to have the:

...fastest, flattest and straightest line we could put in because the best lines in the world are fast, flat and straight. We did not want to have to run over hills or a huge number of coastal rivers. ...There have been small changes to what we proposed, but that was based again on being the flattest, fastest and straightest. For instance we did propose to go from Inglewood towards Warwick and Toowoomba initially but then found if we go from North Star to Millmerran it is a straight line. It is flat, straight, out of flood water and out of the hills and would save probably a couple of hundred million.⁶

- 9.11 Mr David Marchant, of the ARTC, acknowledged the difficulty of the problem of access to Brisbane. However, he said that the planners will also have to take into account access to Sydney:

We can never run away from the fact that Sydney and Melbourne are the two largest logistical centres in this country. It is not possible just to ignore Sydney and say we will go from Melbourne to Brisbane and pretend Sydney is not there. It is just not possible to do that. No matter what result comes about, Sydney has to be addressed.

The [DoTARS] report indicates that in the early term there would be substantial expenditure on an inland route between Melbourne and Brisbane and suggests that it would be some

5 Toll Holdings, Transcript, 1 August 2006, Sydney, p.40.

6 Great Australian Trunk Rail System, Transcript, 1 August 2006, Sydney, p.50.

time before the capacity was utilised against the degree of capital spent. There is obviously some risk about whether that would bear fruit for a long period – that is, it would need to be subsidised for operating costs for a long time.⁷

- 9.12 Mr Marchant also indicated that the option of by-passing Brisbane held similar problems:

It would be fair to say, on the market research, that the Toowoomba-alone option, without going into Brisbane, would not attract the same revenue base as the proposal to go to Brisbane. It [the DoTARS report] does not canvass what would happen to the roads if you went to the Toowoomba-alone option, but a previous report mentioned that the number of trucking movements between Toowoomba and the coast would be very significant.

Basically, if you do not go to Brisbane then you are going to have another problem. Firstly, Toowoomba on its own will not attract as much on rail and, secondly, even if it does attract it, the number of road movements between Toowoomba and Brisbane would require a very substantial road program. And you would be dealing with a massive number of B-doubles per hour, which I expect would have some reaction from the community there as time moved on.⁸

- 9.13 The Committee agrees that whatever solution is finally adopted for the inland freight line, it will only be successful if it caters for the substantial Sydney and Brisbane freight traffic.
- 9.14 The projects emphasised by this Committee on the East Coast route, are seen as critical and complementary to the operation of the Inland Rail Corridor.

The DOTARS Study

- 9.15 The Minister for Transport and Regional Services announced on 17 September 2005, that a detailed study of the proposed north-south rail corridor would be carried out:

7 Australian Rail Track Corporation, Transcript, 6 September 2006, Canberra, p.17.

8 Australian Rail Track Corporation, Transcript, 6 September 2006, Canberra, p.17.

...the study will comprehensively examine future freight demand and capacity, and options for the vital Melbourne-Sydney-Brisbane rail corridor.⁹

- 9.16 The study was commissioned by the Department of Transport and Regional Services and was carried out by Ernst & Young, Hyder Consulting Pty Limited and ACIL Tasman Pty Limited (the Study Team).¹⁰
- 9.17 Under the Terms of reference, the Study Team was required to examine:
- route options;
 - environmental issues;
 - market assessment;
 - projected demand;
 - other transport infrastructure requirements; and
 - financial and economic impacts.¹¹
- 9.18 The Study Team's report was released by the Minister on 7 September 2006.
- 9.19 While not making recommendations to the Government, the study examined a wide range of route options. It commented on the advantages/disadvantages of the various options and estimated the costs required to complete them.
- 9.20 The report included an extensive Executive Summary, and a shortened version of it is attached as Appendix A. In essence, the report found that the inland route would need to be in operation by 2019 if Australia was to keep pace with the rapidly growing freight task. It proposed four main alternatives for the route to be followed, with local variations examined for each one.¹²
- 9.21 In the southern section there are two specific alternatives, to go through Shepparton or through Albury. The Albury route would give

9 The Hon Warren Truss MP, Minister for Transport and Regional Services, *Project Manager Appointed for North-South Rail Corridor Study*, Media Release 022WT/2005, 17 September 2005.

10 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.3.

11 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.3.

12 Minister for Transport and Regional Services, The Hon Warren Truss MP, *North-South Railway Corridor Study Released*, Media Release 146WT/2006, 7 September 2006, p.1.

a faster transit time (about $\frac{3}{4}$ of an hour) and cost about \$500 million less than via Shepparton.¹³ Shepparton on the other hand, although slower, would allow the use of longer trains and double stacking of containers. On the Albury line, double stacking could only begin at Junee. Either of the two routes would have a problem in the Bunbury Street tunnel in Melbourne, and this would need to be addressed.¹⁴

9.22 The four main alternative routes are:

- Far Western – via Junee, Parkes, Narromine, Coonamble, Burren Junction, Moree, North Star, Goondiwindi and Toowoomba. Cost is at least \$3.1 billion (of which, \$2 billion is for Toowoomba to Brisbane) and transit time about 21 hours.
- Central Inland – via Junee, Parkes, Dubbo, Werris Creek, Armidale, Tenterfield, and Warwick. Cost about \$8 billion, transit time 24 hours.
- Coastal – following the existing coastal route. Cost \$10 billion, transit time just under 22 hours.
- Hybrid Route – combining elements of the inland options to Muswellbrook, through to Maitland and then joining the coastal route. Cost would be \$6.8 billion, transit time around 26 hours.¹⁵

9.23 The study found that a considerable contribution from government will be needed to enable the project to be completed. Financial analysis carried out as part of the study indicates that subsidies will also be needed.

13 Minister for Transport and Regional Services, The Hon Warren Truss MP, *North-South Railway Corridor Study Released*, Media Release 146WT/2006, 7 September 2006, p.1.

14 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.11.

15 Minister for Transport and Regional Services, The Hon Warren Truss MP, *North-South Railway Corridor Study Released*, Media Release 146WT/2006, 7 September 2006, pp.1-2.

Intelligent Tracking Technology

- 10.1 If Australia is to meet the challenge of its growing freight task, all opportunities to enhance the efficiency of its transport networks must be examined. The Committee felt that the advantages that intelligent tracking technology can offer for improving the coordination of freight movements, made it an essential part of its inquiry.
- 10.2 Intelligent Transport Systems¹ (ITS), of which intelligent tracking technology is an important component, can be used to improve the efficiency of rail, road and sea freight movements. The strategic implementation of ITS could provide a cost-effective means of streamlining transport network operations.
- 10.3 In its *Moving on intelligent transport systems* report in 2002, this Committee highlighted the economic, safety and security benefits of ITS. However, the Committee was concerned by the apparent lack of a coordinated approach to the development of ITS at the Commonwealth level. It concluded that a more active and structured approach was required, to ensure that the industry is able to take full advantage of the economic opportunities offered by this technology.²
- 10.4 In the 2004 *AusLink White Paper*, DOTARS recognised that:

Estimated additional benefits associated with Intelligent
Transport Systems in Australia are forecast to increase to \$2.1

- 1 Intelligent Transport Systems consist of the application of computing, information and communications technologies to vehicles and networks that move people and goods. See <http://www.its-australia.com.au/KMXServer3/Portals/0/ITSAHanbook.pdf>, accessed 10 May 2007.
- 2 This report is available on the Committee's website: <http://www.aph.gov.au/house/committee/trs/itinq/report/contents.htm>.

billion per annum by 2012. The Australian Government will consider technology-based solutions as part of, or as alternatives to, the construction of new infrastructure or as increases to the physical capacity of existing infrastructure.³

10.5 The Australian Government also committed to encouraging:

...the development and take-up of new technologies which can potentially enhance transport efficiency, safety and security and sustainability through a mix of funding, facilitation and promotional measures. It will take a national approach to the application of existing and emerging technologies.⁴

10.6 Since then, many advances have been made.⁵ However, there is still more work to be done on integrating and utilising ITS on Australia's transport networks, especially as the national freight task continues to grow.

10.7 Fremantle Ports observed:

The more efficient systematic movement of containers is going to require much better information systems than we have in place at the moment. It is quite startling to see how much of the system still operates on a paper-trail basis with people conveying information over phones and things like that. That surprisingly even involves some of the large shipping lines, which are very large, sophisticated organisations in many respects. So if we want to achieve the sorts of high levels of efficiencies in the system which we all want to see there will need to be better information systems...

[To achieve] proper control over empty running and those sorts of things. It is going to require some very sophisticated container tracking capability.⁶

10.8 Intelligent tracking technology is an essential element in the Warren Centre's *Sustainable Transport in Sustainable Cities* project. It said:

3 Department of Transport and Regional Services, *AusLink White Paper: Building our National Transport Future*, June 2004, p.67.

4 Department of Transport and Regional Services, *AusLink White Paper: Building our National Transport Future*, June 2004, p.117.

5 See <http://www.nationalits.com.au/> for information on developments in ITS in Australia.

6 Fremantle Ports, Transcript, 10 March 2006, Perth, p.44.

...intelligent tracking technology is a vital component in the transport system to optimize loading, to reduce delays at terminals and to minimise time and journey length on the transport network.

Intelligent tracking also could provide opportunities for a more effective cost recovery from the freight industry, providing a framework for actively relating infrastructure costs (both road and rail) to freight movement. While this is not a dominant aspect in modal choice (delivery timing and interface costs have higher effect on commercial issues), it is an aspect that clouds both industry and community perception of freight activity.

Whether this should be tracking of all activity or only movements where operation conditions have been breached is a matter for private policy.⁷

- 10.9 The ARTC indicated that it "...would welcome initiatives promoting the use of intelligent tracking technology in Australia". It said:

Electronic tracking of transport inventory in supply chain management would ... offer the opportunity for more efficient utilisation of assets, improve industry responsiveness, and provide for more timely consignment tracking.⁸

- 10.10 The Australian Automobile Association (AAA) added its support when it noted:

[I]n AusLink there is funding for transport development and innovation. We think some of that could be directed to a number of technologies to improve freight efficiency. It might be SMS messaging, intelligent signs or traffic information to reduce congestion et cetera.⁹

- 10.11 The Australian Electrical and Electronic Manufacturers' Association (AEEMA) commented:

ITS offers the next major leap forward in transport in improving safety, convenience and productivity for commercial and personal travel. The emerging industry has already delivered practical benefits to transport, such as

7 The Warren Centre, Submission 43, pp.3-4.

8 Australian Rail Track Corporation, Submission 68, pp.12-13.

9 Australian Automobile Association, Transcript, 7 September 2005, Canberra, p.2.

traffic control systems ... it is timely **now** to support the growth of this new sector with appropriate policies and programs.¹⁰

Rail

- 10.12 Australian rail operations remain heavily reliant on voice (radio) communication and trackside signals:¹¹

At present, about 95 per cent of train-driver authorisations are delivered by voice. The new [Advanced Train Management] system will see digital information delivered to a screen in the driver's cabin, essentially transferring train control from track signals to on-board computers linked to a central system by wireless communications.

The system monitors trains constantly and a central computer directs speeds. But it is the efficiency gains that could transform rail's competitiveness to road. ATMS means trains travel in electronic blocks, ensuring a safe distance between other trains. While only one train can occupy prime-time track slots on north-south routes at present, electric blocks will multiply the slots by a factor of up to three.¹²

- 10.13 The current use of ITS in the grain supply chain is generally limited to the use of electronic ID tags on wagons to track movements across certain areas, for weighing and billing purposes. However, the Australian Wheat Board conceded:

Intelligent tracking systems ... would present opportunities for better coordination provided it was cost effective in the regional environment.¹³

- 10.14 When discussing signalling options, WestNet rail observed that:

...there is currently no continuity of voice and data communications along the entire length of the line. That would be a significant part of that \$20 to \$30 million cost. You need continuous communication to have the in-cab signalling...

10 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.6.

11 Business Review Weekly, *The same wavelength*, Vol. 28 (46), 23-29 November 2006, p.38.

12 Business Review Weekly, *The same wavelength*, Vol. 28 (46), 23-29 November 2006, p.38.

13 Australian Wheat Board, Submission 97, p.28.

In-cab signalling would be a new technology in Australia. I am not aware of the cost differentials between that and traditional signalling.¹⁴

10.15 The Great Australian Trunk Rail System commented:

The Australian Rail Track Corporation is doing excellent work on the latest technology in train traffic control. We will certainly be after the best train traffic control. It is probably going to be a GPS based service system.¹⁵

10.16 On the Kalgoorlie to Esperance line, an ITS has been installed, which enables GPS tracking of the location of individual trains.¹⁶

Road

10.17 The Australian Trucking Association (ATA) NT branch, claimed:

...this technology is already in use across much of remote Australia. Demand will drive the development of ITS.¹⁷

10.18 However, P&O Ports commented:

There has been a very poor take-up of technology in the road transport sector, a very limited use of GPS tracking.¹⁸

10.19 Comments by the ATA reflected scepticism about the value of ITS in some regional areas:

We see no real advantage to truckers in a system that can track a container for instance and advise if the refrigeration unit is shut down between Alice Springs and Darwin. The drivers do regular visual checks anyway and attempt to effect repairs on the road. If the same container is on a train the reality is that there is nothing a forwarder can do anyway until the unit arrives in Darwin.¹⁹

10.20 This comment seems to ignore the main objective of using ITS technology – control and more efficient movement of cargo.

14 WestNet Rail, Transcript, 9 March 2006, Esperance, p.70.

15 Great Australian Trunk Rail System, Transcript, 1 August 2006, Sydney, p.52.

16 WestNet Rail, Transcript, 9 March 2006, Esperance, p.70.

17 Australian Trucking Association, Submission 121, p.2.

18 P&O Ports, Transcript, 21 November 2005, Sydney, p.35.

19 Australian Trucking Association, Submission 121, p.2.

- 10.21 However, the Glenn Innes Section 355 Transport Committee saw economic potential in ITS for regional communities. It said:

An advantage of intelligent tracking technology is [the] ability to be located anywhere. Intelligent tracking technology centres could be located in regional Australia thereby stimulating economic growth and development. When coupled with other transport initiatives such as intermodal freight hubs the benefits to regional centres are enormous.²⁰

- 10.22 VicForests saw potential for the application of intelligent tracking technology to improve heavy vehicle productivity in the Gippsland region. It commented:

VicForests sees that a set of fixed log truck scales in the far east of the study region will enable rapid and accurate weighing of the trucks accessing the State and local road networks. This has the ability to enhance the productivity of log trucks and VicForests commercial return, whilst reducing pavement wear. In addition, the weighing of loads will aid invoicing and improve payloads. This in turn will reduce the total number of vehicle movements and the weighing of loads, and assist in meeting mass management schemes in Victoria and where appropriate, in NSW. The likely total cost of a single facility is \$250,000 with possible contributions from VicForest, VicRoads, RTA and AusLink as a demonstration project.²¹

- 10.23 P&O Ports informed the Committee that it had:

...adopted the use of global positioning system (GPS) technology for managing the deployment of its truck fleet. The advantages are mainly in improved productivity and truck utilization, through real time tracking and locating of trucks. This provides real time management information of truck performance, driver working hours, site delays and proof of delivery. Though only recently installed, our intention is to use this technology to optimise container delivery planning and reducing the overall cost of transport for the benefit of our customers.²²

20 Glenn Innes Section 355 Transport Committee, Submission 87, p.6.

21 Councils of Gippsland, Gippsland Area Consultative Committee and South East Australian Transport Strategy Inc., Submission 62, p.30.

22 P&O Ports, Submission 54, p.5.

- 10.24 The AAA said that intelligent tracking technology could play a role in direct pricing regimes:

[H]ave a look at Switzerland and Austria, you will find that they have GPS tracking technology now that can tell you where the truck is, how far it has travelled and what mass it is carrying and charge accordingly. We do that in telecommunications, gas and electricity. We charge access, we charge usage and we charge peak and off-peak. So it can be done.²³

- 10.25 The ARTC argued that the live tracking of trucking systems would provide valuable input to guide road funding decisions. It claimed that:

Certain parts of the existing road fleet have already invested in GPS tracking technology for fleet and supply chain management. This would suggest that, at least on a smaller scale, this adoption of this type of technology can be justified commercially, even in relation to benefits other than pricing and investment.²⁴

- 10.26 Tracking technology could also address safety issues, for example by ensuring that drivers are adhering to the legislated driving hours.²⁵ In 2000, the predecessor of this Committee released its *Beyond the Midnight Oil* report on managing fatigue in the transport industry. The Committee recognised that driver fatigue could lead to significant economic, environmental and human costs. Today, with the combination of driver shortages and ever increasing freight demand, mechanisms to improve safety are important for ensuring the viability of freight movements by road and the safety of those in the industry.

Shipping

- 10.27 The just-in-time philosophy is prevalent in the freight transport industry. Improving coordination²⁶ between ships and reducing delays in arrivals and distribution, will help to challenge perceptions

23 Australian Automobile Association, Transcript, 7 September 2005, Canberra, p.5.

24 Australian Rail Track Corporation, *Submission to Productivity Commission Inquiry into Road and Rail Freight Infrastructure Pricing*, May 2006, p.41.

25 Australian Rail Track Corporation, Transcript, 1 March 2006, Canberra, pp.11-12.

26 Evidence suggests that the degree of co-operation possible is constrained by ACCC and regulatory requirements.

of sea freight as slow and unreliable. Tracking technology can play a role in improving efficiencies in this area.

- 10.28 Tracking technology is being adopted by the shipping industry. However, due to the associated costs of the technology, its use is usually restricted to cargoes requiring security or enhanced control.
- 10.29 Fremantle Ports has in place Automatic Identification (AIS) technology for tracking sea freight movements. It acknowledged tracking technology's potential to improve supply chain efficiencies, including vehicle-booking systems to track expected land transport movements into the port. Fremantle Ports commented:
- ...there will be increased use made of them – and the technologies are constantly improving – but at this stage it is probably not at a rate to make a huge difference, although looking at our port I believe the AIS is going to make a difference in security. Certainly the encouragement of the vehicle-booking systems has resulted in an improvement.²⁷
- 10.30 The Port of Melbourne, as discussed in Chapter 3, is Australia's biggest container port; freight volumes, vehicular movements and information management pose a significant logistical challenge.²⁸
- 10.31 A container tracking system has been introduced in Victoria as a first step towards developing more sophisticated information systems to improve overall efficiencies.²⁹ In 2003, the Victorian Government committed \$4 million for the development of a Port of Melbourne Supply Chain Model under the Smart Freight Initiative:³⁰
- [The Model] is used to map the technologies, users and import and export processes at the Port, demonstrating how and where stakeholders in the chain interact, the transactions which take place and the technology used.³¹
- 10.32 Of particular note, is the potential for the Smart Freight system to assist in the coordination of empty container movements. Smart Freight's Container Triangulation module collects information from exporters and importers about the requirements and availability of
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27 Fremantle Ports, Transcript, 10 March 2006, Perth, p.44.

28 Intelligent Transport Systems Australia, *Annual Review 05/06*, p.34.

29 Fremantle Ports, Transcript, 10 March 2006, Perth, p.44.

30 Victorian Department of Infrastructure, <http://www.doi.vic.gov.au/Doi/Internet/Freight.nsf/AllDocs/DD2F6F969F14B006CA256E050004EC90?OpenDocument>, accessed 23 May 2007.

31 Intelligent Transport Systems Australia, *Annual Review 05/06*, p.34.

empty containers. Consequently, there is potential for that information to be shared, so that empty container movements can be matched and allocated according to export demand.³²

ITS in Australia

- 10.33 One of the leading organisations responsible for the promotion of ITS in Australia, is Intelligent Transport Systems Australia (ITS Australia). It works to facilitate the development and deployment of advanced technologies across all modes of transport. It is a not-for-profit organisation that represents members of the ITS industry including government, consumers and academia. Its charter includes improving transport efficiency through the application of ITS to passenger and freight transport systems.³³
- 10.34 In its 2005-06 Annual Review, ITS Australia acknowledged the efforts of the Australian and state governments in setting policy directions and committing funding to encourage and support ITS initiatives in transport planning.³⁴ ITS Australia's Board of Directors includes specialists from DOTARS and several equivalent state departments.³⁵
- 10.35 The Committee was also pleased to note that ITS Australia was maintaining a close liaison with DOTARS:

ITS Australia maintains regular communications with ...[DOTARS] to monitor program development and to maintain an understanding of the value of ITS inputs in each [AusLink] program area.³⁶

32 Victorian Department of Infrastructure, <http://www.doi.vic.gov.au/DOI/Internet/Freight.nsf/AllDocs/A336F278D410B711CA257035001DAD48?OpenDocument#3>, accessed 1 May 2007. This is also mentioned in the Chapter 6 discussion on empty containers.

33 ITS Australia, <http://www.its-australia.com.au/KMXServer3/Default.aspx?tabid=104>, accessed 23 May 2007.

34 Intelligent Transport Systems Australia, *Annual Review 05/06*, p.30.

35 ITS Australia, <http://www.its-australia.com.au/KMXServer3/Default.aspx?tabid=52>, accessed 23 May 2007.

36 Intelligent Transport Systems Australia, *Annual Review 05/06*, p.31.

Systems and technology

10.36 Various ITS applications are already being used in Australia.³⁷

Examples include, but are certainly not limited to:

- Weigh-in-Motion – using inroad sensors to screen heavy vehicles for mass limits, while on the move, thus reducing stops and improving efficiency;
- Safe-T-Cam – using infrared technology to capture pictures of passing vehicles, allowing license plate information to be recorded and used to track the journey speed and monitor driving hours and compliance of freight vehicles;³⁸
- railway signalling systems – to detect and regulate train movements.

10.37 A significant national initiative is the Intelligent Access Program (IAP):

...a regulatory and technical framework which uses satellite-based telematics (commonly known as Global Positioning Systems) to monitor and enforce the route compliance of heavy vehicles operating under specific permit conditions.³⁹

10.38 The New South Wales Government has been working with Austroads to develop a national intelligent tracking model based on the IAP.

It suggested that the IAP could potentially be used to:

- monitor the use of the road network in real time to ensure compliance with route conditions, and potentially speed and mass limits;
- reduce road safety risks related to fatigue management and driver hours;
- allow higher-productivity vehicles access to specific routes where there are no infrastructure constraints, e.g. bridge capacity limits;
- monitor higher mass limits on national highways and regional roads;
- monitor grain vehicle loading to receival points during the harvest period; and

37 See Appendix A of the *Handbook on Intelligent Transport Systems* for examples of emerging ITS applications, <http://www.its-australia.com.au/KMXServer3/Portals/0/ITSAHanbook.pdf>, accessed 10 May 2007.

38 Source: <http://www.csiro.au/solutions/psah.html>, accessed 16 May 2007.

39 New South Wales Government, Submission 96, p.17.

- develop an innovative approach to heavy vehicle road use pricing.⁴⁰
- 10.39 Another significant project is the National Telematics Industry Initiative (NTII), which involves applying "...computing, information management and communications technologies to the vehicles and networks that move goods and people around Australia":⁴¹
- Telematics includes vehicle systems that combine the functionality of internal vehicle electronics with wireless and spatial communication systems. Such technology makes your transport safer, more secure and more efficient.⁴²
- 10.40 In addition to commercial and safety benefits, telematics can also help reduce fuel consumption and road congestion and to improve the responsiveness of emergency services.⁴³
- 10.41 The AEEMA-led NTII commenced in 2004. It is supported by key stakeholders, including ITS Australia and the Federation of Automotive Manufacturers. Over 130 organisations and businesses are listed on the 2006 Australian Telematics Industry Capacity Register.⁴⁴
- 10.42 The project has received initial funding of \$0.4 million from the Australian Government and up to \$0.8 million of in-kind support from the private sector.⁴⁵
- 10.43 AEEMA observed:
- The multi-dimensional approach taken by the project team to this initiative is commended to the Australian Government as an ideal template for the development of new knowledge-based industries in Australia. It is strongly suggested that any one of these approaches, in isolation, would not create a new

40 New South Wales Government, Submission 96, p.17.

41 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.3.

42 Australian Electrical and Electronic Manufacturers' Association, <http://www.aeema.asn.au/Default.aspx?ArticleID=153>, accessed 10 May 2007.

43 For an outline of telematic services see Global Innovation, <http://www.globalinnovation.com.au/docs/Telematics%20Handbook%202006.pdf>, accessed 14 May 2007.

44 Global Innovation, <http://www.globalinnovation.com.au/docs/Telematics%20Handbook%202006.pdf>, accessed 14 May 2007.

45 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.3.

Australian industry and address the fragmentation issue, a common theme across most Action agendas.⁴⁶

10.44 It recommended a "...holistic industry development 'package'" that included:

- technological roadmap – to set directions and an overall framework for industry to work together on common goals;
- industry-led cluster – to address fragmentation, and enable co-operation and domestic and international knowledge sharing;
- national capability mapping – to assess market capabilities and direct the development of ICT strategies;
- industry demonstrator projects – to demonstrate industry capability, as a means of technology diffusion and gaining industry commitment;
- international benchmarking – linked to the technology roadmap and to identify potential offshore alliance partners;
- using the above activities to attract investment; and
- encouraging industry development and export connections to enhance export activities.⁴⁷

10.45 AEEMA also recommended that:

...due political recognition should be given by Australian and State Governments to the rapid emergence of the transport telematics sector globally and the specific opportunities for Australian industry.⁴⁸

10.46 In its submission, AEEMA said it was confident that:

...a niche market for intelligent transport systems and its associated technology area, telematics, can be established in Australia with appropriate industry and government collaboration.⁴⁹

Committee Assessment

10.47 The Committee supports AEEMA's recommendation that:

46 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.4.

47 Australian Electrical and Electronic Manufacturers' Association, Submission 91, pp.4-5.

48 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.5.

49 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.2.

The Australian Government should consider its role in working with industry to create the 'ultimate solution', through a cooperative system that allows industry access to necessary infrastructure and government-collected traffic data.⁵⁰

- 10.48 The Committee acknowledged ITS Australia's review findings, which were complimentary about the Australian and the state governments' policy and funding commitments for ITS development and application.⁵¹
- 10.49 The Committee also recognised that industries relying on innovative technology tend to change rapidly. Consequently, evidence received on this topic in the course of the inquiry may have already been addressed by government or industry initiatives.
- 10.50 Overall, the Committee felt strongly that ITS has a significant part to play in the future efficiency and safety of the entire Australian transport network. To meet the challenge of the growing freight task, government and industry must explore cost-effective, and regionally appropriate, intelligent tracking technology as part of corridor and national strategies.
- 10.51 In particular, the Committee commends the work undertaken by the NSW Government and Austroads to develop a national model for intelligent freight tracking. It considers that this initiative should be encouraged and supported – with the aim of quickly developing, and implementing, a nationally applicable standard.
- 10.52 The Committee stresses that the collection of freight transport data,⁵² by all levels of government and commercial operators, must be an integral part of these development processes and the ongoing operation of the national freight tracking model subsequently adopted. Further, there must be an onus on all transport operators – including commercial operators – to provide data collected to the Australian and State Governments, to be used to more accurately assess freight task requirements and to facilitate future transport network planning.

50 Australian Electrical and Electronic Manufacturers' Association, Submission 91, p.7.

51 Intelligent Transport Systems Australia, *Annual Review 05/06*, p.30.

52 The discussion on transport data in Chapter 2, highlights the problems that gaps and lack of current data on the freight transport task pose for those trying to assess current movements and capacity and plan for the future.

- 10.53 It is the view of the Committee that the Australian Government will need to take a leadership role, in conjunction with state governments and industry, to bring the development of a national model, with its complementary data collecting role, to an effective starting point.

Recommendation 24

- 10.54 **The Committee recommends that the Australian Government provide financial support for the development and implementation of a national intelligent freight tracking model, and urgent funding for a small number of demonstration projects under the national model.**

Cross-border Issues

- 11.1 It is unquestionably the case that interstate disputes and perceptions of responsibilities at borders have been a blight on the national transport system, both for the freight and passenger sectors.
- 11.2 There is no clear-cut delineation of financial responsibility. The consequences of this impact on efficiency, productivity and downstream costs and safety.
- 11.3 Without impinging on the constitutional prerogatives of the parties, a way must be found to co-ordinate, facilitate and execute projects of regional and national significance and across borders.
- 11.4 The committee has seen at borders some parlous examples of neglect on the one hand and lack of vision on the other. A typical example is the neglect of cross-border grain lines. A rail map of north-western Victoria and its adjoining regions of NSW and South Australia, paints an unmistakable picture.
- 11.5 Some interesting parallels can be drawn from the situation of the Green Triangle region in South-East South Australia and Western Victoria.
- 11.6 Roads shared by shires and across borders, have had a long history of neglect but when this is translated to the national scene and interstate/Federal-State arrangements it becomes little short of a scandal.
- 11.7 During the inquiry the Committee was made aware of many examples of neglect and painfully slow planning, both in evidence and media articles. Typical of these were the Woodenbong-Legume

section of the Casino-Warwick road, the Tugun Bypass, the Princes Highway from Port Kembla to Bairnsdale, road and rail possibilities in the Mildura region, rail potential in connections between Mt Gambier and Penola with Portland, ownership and antiquated signalling arrangements on the Sydney/Brisbane line between the NSW border and Brisbane, and the neglect of cross-border bridges.

- 11.8 The Committee believes there is a case for a new mechanism perhaps in the form of individual Road and Rail Border Commissions, especially at NSW/QLD, NSW/Victoria, Victoria/South Australian borders. A case could also be made for a tripartite commission around the meeting of the three states near Mildura. Further commissions could be structured to cope with NT/Western Australia, NT/Queensland, WA/SA matters as new roads and rail lines are considered.
- 11.9 These commissions, established under complementary State and Commonwealth legislation, should include Ministerial, departmental and engineering expertise. ARTC and the National Transport Commission should also be members.
- 11.10 The Committee recommends an all out effort over the next ten years with an Australian Government contribution of \$500 million with complementary state contributions on a formula of 50/25/25 (or in the case of Mildura and adjoining regions 40/20/20/20).
- 11.11 The Committee believes this sense of urgency and focus is the only way to resolve a long neglected problem.
- 11.12 The Committee felt there was a compelling case for cross-border rail and road connections (or upgrades) from Mt Gambier and Penola to Portland to facilitate the movement of increasing quantities of woodchips, pulp and mineral sands.

Recommendation 25

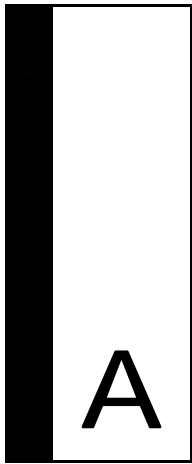
11.13 The Committee recommends that the Australian Government:

- establish Road and Rail Border Commissions, consisting of Australian and State Government representatives (ministerial, departmental and engineering) to advise on, facilitate and execute major border transport projects and cross-border road and rail extensions, in a focused and timely manner.
- fund, over a ten year period, the projects and works identified by the Commissions, on the basis of Australian Government 50 per cent, State Governments 25 per cent each. A lack of co-operation on timely action in the establishment of the Commission should exempt the Australian Government from further responsibility.
- establish a Commonwealth fund of \$1 billion for this purpose over the first five years, distributed on the basis of bids from the Commissions. The program should be reviewed at the end of that period, and possibly extended to ten years.

Paul Neville MP

Committee Chair

11 July 2007



Appendix A – List of submissions

Number	Organisation
1	Eyre Peninsula Local Government Association
2	University of Ballarat
3	Trans Bulk Haulage Pty Ltd
4	Central Queensland Area Consultative Committee
5	New England North West Area Consultative Committee
6	Engineers Australia
7	Pacific National Tasmania
8	Port of Launceston Pty Ltd
9	Shire of Donnybrook
10	Glenelg Shire Council
11	Railway Project Engineering Pty Ltd
12	TMG International (Australia) Pty Ltd
13	Australian Shipowners Association
14	Railway Technical Society of Australasia
15	Council of the City of Botany Bay
16	Australian Council for Infrastructure Development
17	Centre for Railway Engineering
18	Timber 2020 Inc

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- 19 Chamber of Commerce and Industry Western Australia
 - 20 Warwick Shire Council
 - 21 Bundaberg City Council
 - 22 Mildura Rural City Council, Wentworth Shire Council, Sunraysia Area Consultative Committee and Sunraysia Mallee Economic Development Board
 - 23 Wide Bay Burnett Regional Organisation of Councils
 - 24 ABB Grain Ltd
 - 25 Queensland Agricultural Merchants Inc
 - 26 Alliance of Councils for Rail Freight Development
 - 27 Shire of Esperance, Esperance Port Authority and Goldfields Esperance Development Commission
 - 28 Parkes Shire Council
 - 29 Conservation Council of Western Australia Inc
 - 30 Doust, Mr T R - WA
 - 31 Australian Meat Industry Council
 - 32 Green Triangle Regional Plantation Committee Inc
 - 33 Griffin, Mr Bernard - NSW
 - 34 Adsteam Marine Limited
 - 35 Western Australian Local Government Association
 - 36 Regional Development South Australia
 - 37 Bundaberg Port Authority
 - 38 Southern Councils Group
 - 39 Limestone Coast Regional Development Board Inc
 - 40 South East Local Government Association Inc
 - 41 Eastern Metropolitan Regional Council
 - 42 Great Southern Development Commission
 - 43 The Warren Centre for Advanced Engineering
 - 44 Shoalhaven City Council

45	District Council of Grant
46	Wide Bay 2020
47	BHP Billiton Mitsubishi Alliance
48	Pacific National
49	Shipping Australia Limited
50	Western Downs Regional Organisation of Councils
51	Staker, Mr Robert - SA
52	Port of Brisbane Corporation
53	Tasmanian Government
54	P&O Ports Limited
55	Australian Local Government Association
56	Pastalatzis, Mr Nick - VIC
57	Australian Chamber of Commerce and Industry
58	Latrobe City Council
59	South East Australian Transport Strategy Inc
60	Southern Regional Organisation of Councils
61	Townsville Port Authority
62	Councils of Gippsland, Gippsland Area Consultative Committee and South East Australian Transport Strategy Inc
63	Association of Australian Ports and Marine Authorities
64	The Chartered Institute of Logistics and Transport (ACT and SE NSW Section)
65	South West Group
66	Plantations North East Inc
67	Port of Melbourne Corporation
68	Australian Rail Track Corporation Ltd
69	Xstrata Coal
70	Australasian Railway Association Inc
71	Australian Automobile Association

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- 72 Cunningham Rail Link Committee
- 73 Southern & Hills Local Government Association
- 74 Beaudesert Shire Council
- 75 North Queensland Area Consultative Committee
- 76 Monto Shire Council
- 77 Bega Valley Shire Council
- 78 Wodonga City Council
- 79 Hunter Area Consultative Committee
- 80 Northern Territory Government
- 81 City of Kalgoorlie-Boulder
- 82 Area Consultative Committee Tasmania
- 83 City of Casey
- 84 Gladstone Area Promotion and Development Ltd
- 85 Rio Tinto Iron Ore
- 86 Windsor MP, Mr Tony - NSW
- 87 The Glen Innes Section 355 Transport Committee
- 88 Western Australian Government
- 89 Victorian Freight and Logistics Council
- 90 Townsville Enterprise
- 91 Australian Electrical and Electronics Manufacturers' Association
Ltd
- 92 Riverina Eastern Regional Organisation of Councils
- 93 New South Wales Minerals Council Ltd
- 94 Satterley, Mr John - SA
- 95 Queensland Government
- 96 New South Wales Government
- 97 Australian Wheat Board
- 98 CSIRO
- 99 Hervey Bay City Council

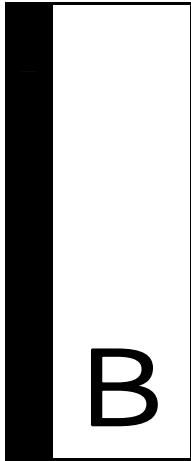
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- 100 Criddle MLC, The Hon Murray
Woodhams MLA, Mr Grant
Midwest Chamber of Commerce and Industry
Shire of Morawa
- 101 Mackay Area Industry Network
- 102 Mid West Development Commission
- 103 Department of Transport and Regional Services
- 104 Queensland Resources Council
- 105 Xstrata Coal [supplementary to submission 69]
- 106 Export Coal Producers Executive
- 107 Port of Portland
- 108 Blue Wedges Coalition
- 109 Ford, Mr Neville - VIC
- 110 Fozzard, Mr Robert A - NSW
- 111 Australasian Railway Association Inc [supplementary to
submission 70]
- 112 Australian Trucking Association
- 113 Toll Geelong Port
- 114 City of Casey [supplementary to submission 83]
- 115 District Council of Grant [supplementary to submission 45]
- 116 Laird, Professor Philip - NSW
- 117 NSW Farmers Association
- 118 Town and Country Planning Association
- 119 Northern Rivers Regional Organisation of Councils
- 120 Gladstone City Council
- 121 Australian Trucking Association - Northern Territory
- 122 Australian Transport and Energy Corridor Ltd
- 123 South Australian Government
- 124 Australian Plantation Products and Paper Industry Council

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- 125 Australian International Container Terminals Ltd
- 126 King & Co Property Consultants
- 127 ECF Engineering Pty Ltd
- 128 P&O Ports Ltd [supplementary to submission 54]
- 129 Maritime Union of Australia
- 130 Australian Chamber of Commerce and Industry
[supplementary to submission 57]
- 131 Hunter Business Chamber
- 132 Australian Rail, Tram and Bus Industry Union
- 133 Laird, Professor Philip [supplementary to submission 116]
- 134 HunterNet Co-Operative Ltd
- 135 Newcastle Coal Infrastructure Group
- 136 Hunter Area Consultative Committee
[supplementary to submission 79]
- 137 Port Kembla Coal Terminal Ltd
- 138 Dawson, Mr Geoff - ACT
- 139 Laird, Professor Philip
[supplementary to submissions 116 and 133]
- 140 Hunter Valley Coal Chain Logistics Team
- 141 Australian Rail Track Corporation Ltd
[supplementary to submission 68]
- 142 Shire of Ravensthorpe
- 143 Mid West Chamber of Commerce and Industry
[supplementary to submission 100]
- 144 Criddle MLC, Hon Murray
[supplementary to submission 100]
- 145 Geraldton Port Authority
- 146 Mid West Development Commission
[supplementary to submission 102]
- 147 WestNet Rail
- 148 Albany Port Users' Liaison Group

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- 149 Great Southern Development Commission
[supplementary to submission 42]
- 150 BHP Billiton
- 151 Shire of Ravensthorpe [supplementary to submission 142]
- 152 Shire of Ravensthorpe
[supplementary to submissions 142 and 151]
- 153 Fremantle Ports
- 154 Rio Tinto Iron Ore [supplementary to submission 85]
- 155 Queensland Government [supplementary to submission to 95]
- 156 King & Co Property Consultants [supplementary to submission
126]
- 157 Albany Port Authority
- 158 Cunningham Rail Link Committee
[supplementary to submission 72]
- 159 New England North West Area Consultative Committee
[supplementary to submission to 5]
- 160 Ipswich City Council
- 161 Geraldton Iron Ore Alliance
- 162 City of Bunbury
- 163 Goldfields Esperance Area Consultative Committee
- 164 Railway Technical Society of Australasia
[supplementary to submission 14]
- 165 New England North West Area Consultative Committee
[supplementary to submissions 5 and 159]
- 166 BHP Billiton Illawarra Coal
- 167 Jaques, Ms Karen - QLD
- 168 Staker, Mr Robert - SA [supplementary to submission 51]
- 169 Southern Regional Organisation of Councils
[supplementary to submission 60]
- 170 Railway Technical Society of Australasia
[supplementary to submissions 14 and 164]

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- 171 Maritime Union of Australia
[supplementary to submission 129]
- 172 Northern Rivers Regional Organisation of Councils
[supplementary to submission 119]
- 173 City of Kalgoorlie–Boulder
[supplementary to submission 81]
- 174 City of Kalgoorlie–Boulder
[supplementary to submissions 81 and 173]
- 175 Queensland Government
[supplementary to submissions 95 and 155]
- 176 Wingecarribee Shire Council
- 177 Laird, Professor Philip
[supplementary to submissions 116, 133 and 139]
- 178 Hunter Area Consultative Committee
[supplementary to submissions 79 and 136]
- 179 Australian Trucking Association
[supplementary to submission 112]
- 180 Southern Distribution Business Park
- 181 Laird, Professor Philip
[supplementary to submissions 116, 133, 139 and 177]
- 182 Railway Technical Society of Australasia
[supplementary to submissions 14, 164 and 170]
- 183 SAMROM
- 184 Southern Distribution Business Park [supplementary to
submission 180]
- 185 Australian Logistics Council
- 186 Australian Rail Track Corporation
[supplementary to submissions 68 and 141]
- 187 Australian Logistics Council
[supplementary to submission 185]
- 188 National Transport Commission
- 189 Australian Logistics Council [supplementary to submissions 185]

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- and 187]
- 190 Meyrick Consulting Group Pty Ltd
- 191 South Australian Freight Council
- 192 El Zorro Transport Pty Ltd
- 193 South West Group [supplementary to submission 65]
- 194 New England Local Government



Appendix B – List of exhibits

- 1 Presentation tabled by Rio Tinto in Gladstone on 9 June 2005.
- 2 Document, *Metropolitan Freight Improvement Projects*, presented by the Victorian Freight and Logistics Council Ltd in Melbourne on 25 July 2005.
- 3 Document, *The Freight Task in Victoria*, presented by the Victorian Freight and Logistics Council Ltd, at a public hearing in Melbourne on 25 July 2005.
- 4 Document, *A Blueprint for Australian Shipping*, presented by the Australian Shipowners' Association in Melbourne on 25 July 2005.
- 5 Document, *Continuing Voyage Permits – Since December 2002*; presented by the Australian Shipowners' Association in Melbourne on 25 July 2005.
- 6 Document, *Investment and Development Snapshot*, presented by Councillor Robert Halliday in Portland on 26 July 2005.
- 7 Document showing the Victorian rail network, presented by the Portland Port Authority in Portland on 26 July 2005.

- 8 Document, *Future Wood Flows Across the Green Triangle Region*, presented by the Green Triangle Regional Plantation Committee in Portland on 26 July 2005.
- 9 Document *Auslink Roads to Recovery, Northern territory Council Funding Allocations*, presented in Darwin on 27 September 2005.
- 10 Draft document, *NT Road Network Brief*, presented by the Northern Territory Cattleman's Association in Darwin on 27 September 2005.
- 11 Maps tabled by the Australian Trucking Association in Canberra on 12 October 2005.
- 12 Aerial photograph of the Port of Melbourne tabled by Australian International Container Terminals Ltd in Sydney on 21 November 2005.
- 13 Documents tabled by the Bureau of Transport and Regional Economics (Department of Transport and Regional Services) in Canberra on 30 November 2005:
 - Traffic in Melbourne
 - The Australian Domestic Freight Transport Task
 - Intercapital Freight
 - Traffic Growth in Australian Cities: Causes, Prevention and Cure
 - Predicting Traffic Growth in Australian Cities
- 14 Covering letter: Rail Transport Infrastructure Improvement
 - The Grose River Railway, 12 July 2001
 - The Karuah River Railway, 2nd Edition, 16 July 2004
- 15 Document, *Port Waratah Coal Services: An Overview* presented by Port Waratah Coal Services in Newcastle on 30 January 2006.
- 16 Document, *Port Waratah Coal Services Limited*, presented by Port Waratah Coal Services in Newcastle on 30 January 2006.

- 17 Map *Menangle to Mittagong: Wentworth Deviation, Maldon to Dombarton line*, presented by Professor Philip Laird in Wollongong on 1 February 2006.
- 18 Document *Princes Highway Economic Report: Phase 1 and 2 Report 2005*, presented by the Southern Councils Group in Wollongong on 1 February 2006.
- 19 Document *Western Australian Resource Locality Map*, presented by the Bunbury Port Authority in Bunbury on 7 March 2006.
- 20 Document presented by the Great Southern Development Commission in Albany on 8 March 2006.
- 21 Map presented by the Cooperative Bulk Handling Group in Esperance on 9 March 2006.
- 22 Document *The Ravensthorpe Nickel Project*, presented by BHP Billiton in Esperance on 9 March 2006.
- 23 Maps presented by the Government of Western Australia in Perth on 10 March 2006.
 - Figure 1: Strategic Freight Routes
 - Major Resource Development Projects: Western Australia
 - Auslink National Network
- 24 Document *Esperance Port Access Corridor Review Report May 2005* presented by the Government of Western Australia in Perth on 10 March 2006.
- 25 Document *Fremantle Ports Outer Harbour Project: Strategic Assessment Guidelines, October 2005* presented by Fremantle Ports in Perth on 10 March 2006.

- 26 Maps, *Port of Brisbane: Here for the Future* presented by Port of Brisbane in Brisbane on 6 April 2006.
- 27 Document, *Mt Lindesay/North Beaudesert Study Area Summary of the Draft Study Report*, presented by the Beaudesert Shire Council in Brisbane on 6 April 2006.
- 28 Document, *Port of Brisbane Annual Report 2004/2005* presented by the Port of Brisbane Corporation in Brisbane on 6 April 2006.
- 29 Document, *Cunningham Rail Link: A dedicated rail freight solution for SE QLD* and an associated map, presented by the Southern Regional Organisation of Councils in Toowoomba on 7 April 2006.
- 30 Document, *Ipswich 2020 and beyond* and two maps, presented by the Ipswich City Council in Toowoomba on 7 April 2006.
- 31 Document, *The Charlton/Wellcamp Regional Industrial Zone*, presented by the Jondaryan Shire Council in Toowoomba on 7 April 2006.
- 32 Reports tabled by the Grain Growers Association in Sydney on 21 November 2005:
- *Case Study on The Regional Impact of Rail Freight Changes on the Boree Creek to the Rock Branch Line*
 - *Grains Industry Study: Analysis and Recommendations for Discussion*
- 33 Document, *Five-Year Regional Transport Plan for the Timber Industry in the WA Great Southern Tires Region*, updated in April 2006, prepared by PEECE Consulting
- 34 Document, *Study Tour – Branch Lines of NSW*, 22 - 25 March 2006, prepared by Engineers Australia.
- 35 Photographs of rail operations presented by Freight Link Pty Ltd in Canberra on 14 June 2006.

- 36 Documents, *Volume 03 Appendices*, presented by the Southern Distribution Business Park in Canberra on 6 September 2006.
- 37 Document, *Developing Freight Hubs*, presented by the Southern Distribution Business Park in Canberra on 6 September 2006.
- 38 Document, Rail Technical Society of Australasia - Letter to NSW Roads and Traffic Authority.
- 39 Document, *SMART trucks by 2008, Information Bulletin July 2006*, National Transport Commission.
- 40 Document, *South Australia's Freight Transport Infrastructure: Moving Freight - Setting a Strategic Framework for the Future*, March 2006, South Australian Freight Council Inc.
- 41 Document, *Road Transferable Locomotives on NSW Rail Lines: Proposal Assessment*, December 2006, Rural Rail Logistics Pty Ltd.
- 42 Document, *Transforming Canada's Rural Railway*, Presentation by Ed Zsombor, Director, Rail Services Unit, Saskatchewan Department of Highways and Transportation, Canada to Symposium on Future Frameworks for Regional Rail in Wagga Wagga, 1 February 2007.
- 43 Document, *South Metropolitan Region: Information at a Glance*, March 2007, South West Group, Western Australia.
- 44 Map and documents on *South West Corridor Regional Transport Planning*, South West Group, Western Australia.



Appendix C - List of public hearings and witnesses

Thursday, 9 June 2005 - Gladstone

Comalco Aluminium Ltd

Mr Greg Rashford, General Manager, Project Services

Mr James Singer, Manager, External Affairs

Rio Tinto Coal Australia Pty Ltd

Mr Thomas Biddulph, Manager, Infrastructure

Mr Graham Taggart, Chief Financial Officer

Rio Tinto Pty Ltd

Mr Lyall Howard, Manager, Government and Corporate Relations

Xstrata Coal Queensland

Mr Stephen Bridger, General Manager, Business Development

Monday, 25 July 2005 - Melbourne

Australian Shipowners Association

Mr Lachlan Payne, Chief Executive Officer

Ms Angela Gillham, Manager, Maritime Environment

Australian Wheat Board Ltd

Ms Jill Gillingham, Group General Manager, Supply Chain,
Technology & Business Processes

City of Casey

Mr Paul Hamilton, Manager, Traffic

Latrobe City Council

Mr Robert Ashworth, Investment Manager

Ms Anya Richards, Consultant , Freight and Transport

Victorian Freight and Logistics Council

Ms Rose Elphick, Chief Executive Officer

Tuesday, 26 July 2005 - Portland**Alliance of Councils for Rail Freight Development**

Mr Phillip Ruge, Secretary

Councillor Geoffrey White, Chairman

District Council of Grant

Mayor Donald Pegler

Glenelg Shire Council

Councillor Robert Halliday, Councillor

Green Triangle Regional Plantation Committee Inc

Dr John Kellas, Executive Officer

Limestone Coast Regional Development Board Inc

Mr Grantley King, Chief Executive Officer

Port of Portland Pty Ltd

Mr Peter Klein, Marketing Manager

Mr Martin Norman, Chief Executive Officer

South East Local Government Association Inc.

Mr Ronald Ellis, Executive Officer

Wednesday, 27 July 2005 - Melbourne

Australian Wheat Board Ltd

Mr John Crosbie, General Manager, Supply Chain Operations

Ms Jill Gillingham, Group General Manager, Supply Chain,
Technology and Business Processes

Mr Keith McNeil, General Manager, Supply Chain Strategy

Ms Peta Slack-Smith, Government Relations Adviser

Port of Melbourne Corporation

Mr Stephen Bradford, Chief Executive Officer

Mr Brendan Power, Executive General Manager, Planning and
Development

Wednesday, 10 August 2005 - Canberra

Australasian Railway Association Inc

Mr Bryan Nye, Chief Executive Officer

Ms Kathryn Rayner, Manager, Policy

Wednesday, 17 August 2005 - Canberra

Department of Transport and Regional Services

Mr Michael Mrdak, Deputy Secretary

Mr Philip Potterton, Executive Director, Bureau of Transport and
Regional Economics

Mr Kym Starr, Section Head, Industry Analysis, Transport Integration
and Reform Branch

Mr Jim Wolfe, General Manager, AusLink Rail Investment

Wednesday, 7 September 2005 - Canberra

Australian Automobile Association

Mr John Metcalfe, Director, Research and Policy

Wednesday, 14 September 2005 - Canberra

Australian Chamber of Commerce and Industry

Mr Michael Potter, Director, Economics and Taxation

Tuesday, 27 September 2005 - Darwin

AustAsia Export Services

Mr Paul McCormick, National Livestock Coordinator

Australian Trucking Association NT

Mr Peter Goed, Executive Officer

Darwin Port Corporation

Mr Barry Berwick, Chief Executive Officer

International Business Council

Mr Greg Bicknell, Manager

Mr Mark Norman, Chairman

Northern Territory Cattlemen's Association Inc

Mr Stuart Kenny, Executive Director

Northern Territory Department Planning and Infrastructure

Mr Chris Bigg, Executive Director, Transport

Mr Steven Sanderson, Economic Adviser

North Territory Livestock Exporters Association Inc

Mr John MacKinnon, Chief Executive Officer

Perkins Shipping Pty Ltd

Mr Peter Hopton, Chief Executive Officer

Wednesday, 12 October 2005 - Canberra

Australian Trucking Association

Mr Christopher Althaus, Chief Executive Officer

Mr Neil Gow, National Manager, Government Relations

Mr Robert Gunning, Chair, Taxes, Charges and Roads Group

Wednesday, 9 November 2005 - Canberra

Australian Transport and Energy Corridor Ltd

Mr Everaldo Compton, Chairman of Directors

Monday, 21 November 2005 - Sydney

Anglo Ports Pty Ltd

Captain Richard Setchell, Chief Executive Officer

Mr Andrew Setchell, Director

Association of Australian Ports and Marine Authorities Inc

Mr John Hirst, Executive Director

Australian Council for Infrastructure Development

Mr Dennis O'Neill, Chief Executive Officer

Grain Growers Association Ltd

Mr Damian Capp, Policy Manager

Mr Tony Eyres, Chief Executive Officer

NSW Farmers Association

Mr Dougal Gordon, Senior Policy Manager - Cropping

P&O Ports, Australia and New Zealand

Mr Sean Barrett, Commercial Director

Mr Timothy Blood, Managing Director

Mr Andrew Davis, Development Director

Shipping Australia Ltd

Mr Llewellyn Russell, Chief Executive Officer

Wednesday, 30 November 2005 - Canberra

Department of Transport and Regional Services

Dr David Gargett, Research Leader, Bureau of Transport and Regional Economics

Mr Philip Potterton, Executive Director, Bureau of Transport and Regional Economics

Monday, 30 January 2006 - Newcastle

Hunter Area Consultative Committee

Mr Mike Almond, Member

Mr Geoff Connell, Public Officer

Dr John O'Brien, Chairman

Mr William Willis, Executive Officer

Hunter Business Chamber

Mr Ian Pedersen, Director

Mr Glenn Thornton, Chief Executive Officer

Hunter Valley Coal Chain Logistics Team

Mr Anthony Pitt, General Manager

HunterNet Co-Operative Ltd

Mr John Coyle, Executive Officer

Newcastle Coal Infrastructure Group

Mr Paul Beale, Operations Manager, Newcastle Coal Export Terminal

Port Waratah Coal Services

Mr Graham Davidson, General Manager

Wednesday, 1 February 2006 - Wollongong

Individuals

Dr Philip Laird

BHP Billiton Illawarra Coal

Mr Keith Grimson, General Manager, Processing and Logistics

Ms Wendy Tyrrell, General Manager, Sustainable Development and External Affairs

Port Kembla Coal Terminal Ltd

Mr John Brannon, General Manager

Ms Debra Murphy, Manager, Business Improvement and External Affairs

Railway Technical Society of Australasia

Mr Andrew Honan, Chair, Government Relations Subcommittee

Mr Max Michell, Member, Government Relations Subcommittee

Southern Councils Group

Mr Gregory Pullen, Manager, Economic Development

Mr Barry Russell, Chairman, PHocus Campaign Working Group

Mr Lesley Scarlett, Executive Officer

Maritime Union of Australia

Mr Rod Pickette, Communications and Research Officer

Wednesday, 1 March 2006 - Canberra**Australian Rail Track Corporation Ltd**

Mr David Marchant, Chief Executive Officer

Monday, 6 March 2006 - Geraldton**Geraldton Port Authority**

Mr Keith Gordon, Chief Executive Officer

Mr Ian King, Chairman

Legislative Council of WA

Hon. Murray Criddle, Member for the Agricultural Region of WA

Mid West Chamber of Commerce and Industry

Mr Craig Patterson, Past President

Mid West Development Commission

Mr Steve Douglas, Chief Executive Officer

Mr Phil McAuliffe, Project Manager, Business and Infrastructure

Shire of Morawa

Mr Gavin Treasure, Chief Executive Officer

WestNet Rail

Mr Paul Larsen, Commercial Manager

Tuesday, 7 March 2006 - Bunbury**Alcoa World Alumina Australia**

Mr David Rees, Bunbury Terminal Manager

Bunbury Port Authority

Mr Gary Crockford, Chief Executive Officer

City of Bunbury

Mr Anthony Brun, Executive Manager City Development

Mr Greg Trevaskis, Chief Executive Officer

South West Development Commission

Mrs Vanessa Lewis, Principal Policy Officer

Mr Donald Punch, Chief Executive

The Griffin Coal Mining Company Pty Ltd

Mr Steve Camarri, Manager, Coal Transport and Logistics

Mr Murray Frangs, Manager, Coal Marketing

Hon. Julian Grill, Consultant

Mr Anthony Lodge, Chief Executive Officer

Western Australia Plantation Resources

Mr Phil Durell, Woodchip Production Manager

Mr Ian Telfer, General Manager, Woodchip Operations

WestNet Rail

Mr Paul Larsen, Commercial Manager

Wednesday, 8 March 2006 - Albany**Albany Chamber of Commerce and Industry**

Mrs Joanne Hummerston, Chief Executive Officer

Albany Plantation Export Company

Mr Denis Sawers, General Manager, Production

Albany Port Authority

Mr Simon Fretton, Project Manager

Mr Bradley Williamson, Chief Executive Officer

Albany Port Users Liaison Group

Mr Ian Peacock, Chairman

Mr David Wettenhall, Consultant

City of Albany

Mr Andrew Hammond, Chief Executive Officer

Great Southern Development Commission

Mr Bruce Manning, Chief Executive Officer

Mr Maynard Rye, Deputy Chief Executive Officer

Great Southern Timber Industry Road Evaluation Strategy Group

Mr Kevin Forbes, Chairman

Mr Denis Sawers, Deputy Chairman

Plantagenet Shire Council

Mr Kevin Forbes, Shire President

Southern Haulage Industries

Mr Christopher Pavlovich, Owner/Manager

Timber 2020

Mr Robert Emery, Board Member

Thursday, 9 March 2006 - Esperance

BHP Billiton

Mr Ford Murray, Community and Government Relations Manager,
Ravensthorpe Nickel Project

City of Kalgoorlie-Boulder

Mr Anthony Chisholm, Director, Community and Development
Services

Mr Darren Wallace, Manager, Engineering Services

Cooperative Bulk Handling Ltd

Mr Robert Voysey, Manager, Logistics Strategy

Esperance Port Authority

Mr Richard Nulsen, Chairman

Goldfields Esperance Development Commission

Mr Bill Witham, Manager, Southern Region

Portman Ltd

Mr Philip Nolan, General Manager, Operations

Shire of Esperance

Mr Ian Mickel, Shire President

Shire of Ravensthorpe

Mr William Auburn, Councillor

Mr Ian Goldfinch, Councillor

Councillor Rusty Lee, Shire President

WestNet Rail

Mr Paul Larsen, Commercial Manager

Friday, 10 March 2006 - Perth**Alcoa World Alumina Australia**

Mr John Oliver, Manager, Transportation and Logistics

Chamber of Commerce and Industry of Western Australia

Mr Trevor Lovelle, Senior Adviser Industry Policy

Mr John Nicolaou, Acting Chief Economist

Department for Planning and Infrastructure, Western Australia

Mr Nick Belyea, Executive Director, Transport Industry Policy

Mr Greg Martin, Director General

Fremantle Ports

Mr Doug Brindal, Manager, Logistics

Mrs Kerry Sanderson, Chief Executive Officer

Main Roads Western Australia

Mr Menno Henneveld, Commissioner, Main Roads Western Australia

Mr Gary Norwell, Executive Director, Technology and Environment

Thursday, 6 April 2006 - Brisbane**Beaudesert Shire Council**

Mr Anthony Martini, Director, Civil Operations

BHP Billiton Mitsubishi Alliance

Mr Charles Klaassen, Manager, External Coal Policy

Mr Noel Leach, Manager, Transport Services and Corporate Affairs

Mr Ross Willims, Vice President, Commercial Relations

Ensham Resources Pty Ltd

Mr John Pegler, Chief Executive Officer

Export Coal Producers Executive

Mr Barry Golding, Project Manager

Gold Coast City Council

Mr Rodney Grose, Manager, Transport Planning

King & Co Property Consultants

Mr Phil Ainsworth, Managing Director

Mr Tom Richman, Manager, Public Relations

Northern Rivers Regional Organisation of Councils

Mr Russell Kelly, Executive Officer

Port of Brisbane Corporation

Mr Jeff Coleman, Chief Executive Officer

Dr Rick Morton, General Manager, Planning and Environment

Queensland Department of Main Roads

Mr Ken Beattie, Acting General Manager, Strategic Policy and Development

Queensland Transport

Mr Dan Hunt, Deputy Director-General, Policy and Strategy

Mr Renny Phipps, Director, Freight Policy

Southern Regional Organisation of Councils

Ms Kim Campbell, Coordinator

Friday, 7 April 2006 - Toowoomba**Australian Trucking Association**

Mr David Simon, Vice Chair

Boonah Shire Council

Mr Robert Smith, Deputy Mayor

Cunningham Rail Link Committee

Mr Ronald Bellingham, Chairman

Mr Gary Hayes, Member and Surveyor

Mr Glen Rogers, Member

Mr Robert Smith, Member

Dunavant Enterprises Australia

Mr Peter Cottle, General Manager, Regional Services

Gilgandra Shire Council

Mr Warwick Moppett, Mayor

Ipswich City Council

Mr Ross Drabble, Works Manager

Mr Gary White, Planning and Development Manager

Moree Plains Shire Council

Mr David Aber, General Manager

New England North West Area Consultative Committee

Mr Kevin Humphries, Former Chairman

Queensland Agricultural Merchants Inc.

Mr Mel Binnington, Executive Officer

Mr Michael Kelly, President

Stanthorpe Shire Council

Mr Glen Rogers, Mayor

Trans Bulk Haulage Pty Ltd

Mr Doug Short, Director

Warwick Shire Council

Mr Ronald Bellingham, Mayor

Mr Rod Ferguson, Chief Executive Officer

Western Downs Regional Organisation of Councils

Mr Edward Hoffmann, Secretary and Treasurer

Councillor Bill McCutcheon, Chairman

Wednesday, 14 June 2006 - Canberra

Freight Link Pty Ltd

Mr John Fullerton, Chief Executive Officer

Tuesday, 1 August 2006 - Sydney

Individuals

Mr Vincent O'Rourke

Queensland Rail

Mr James Noble, Acting General Manager, Business Services

Railway Technical Society of Australasia

Professor Ian Gray, Member, Government Relations Subcommittee

Mr Andrew Honan, Chair, Government Relations Subcommittee

Mr Max Michell, Member, Government Relations Subcommittee

The Great Australian Trunk Rail System Pty Ltd

Mr Francis Donaldson, Strategic Planning Director

Mr John Waugh, Director

Toll Holdings Limited

Mr Robert Jeremy, Commercial Director

Wednesday, 9 August 2006 - Canberra

Tasmanian Ports Corporation

Mr Charles Black, General Manager, Port Services

Wednesday, 16 August 2006 - Canberra**Meyrick Consulting Group Pty Ltd**

Mr Steve Meyrick, Managing Director

Wednesday, 6 September 2006 - Canberra**Australian Rail Track Corporation Ltd**

Mr David Marchant, Chief Executive Officer

Mariner Financial Ltd

Mr Michael Shaw, Executive Director

Southern Distribution Hub Pty Ltd

Mr Robert Stephens, Project Manager

Wednesday, 13 September 2006 - Canberra**Australian Logistics Council**

Mr Ivan Backman, Chairman

Mr Hal Morris, Executive Director

National Transport Commission

Mr Michael Deegan, Chairman

Mr Phil Giltinan, Acting Chief Executive Officer

Mr Barry Moore, Policy Director

Wednesday, 14 February 2007 - Canberra**Individuals**

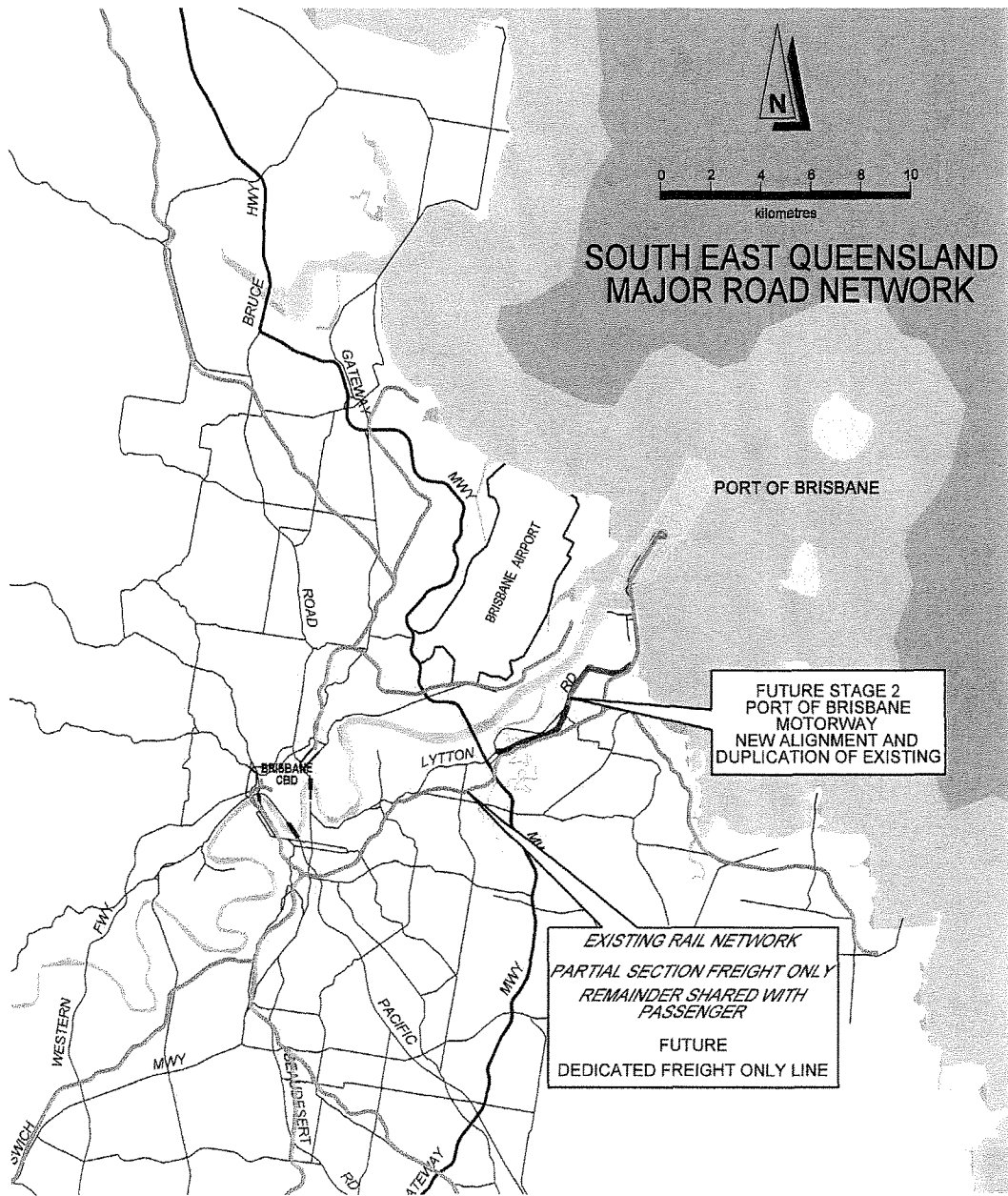
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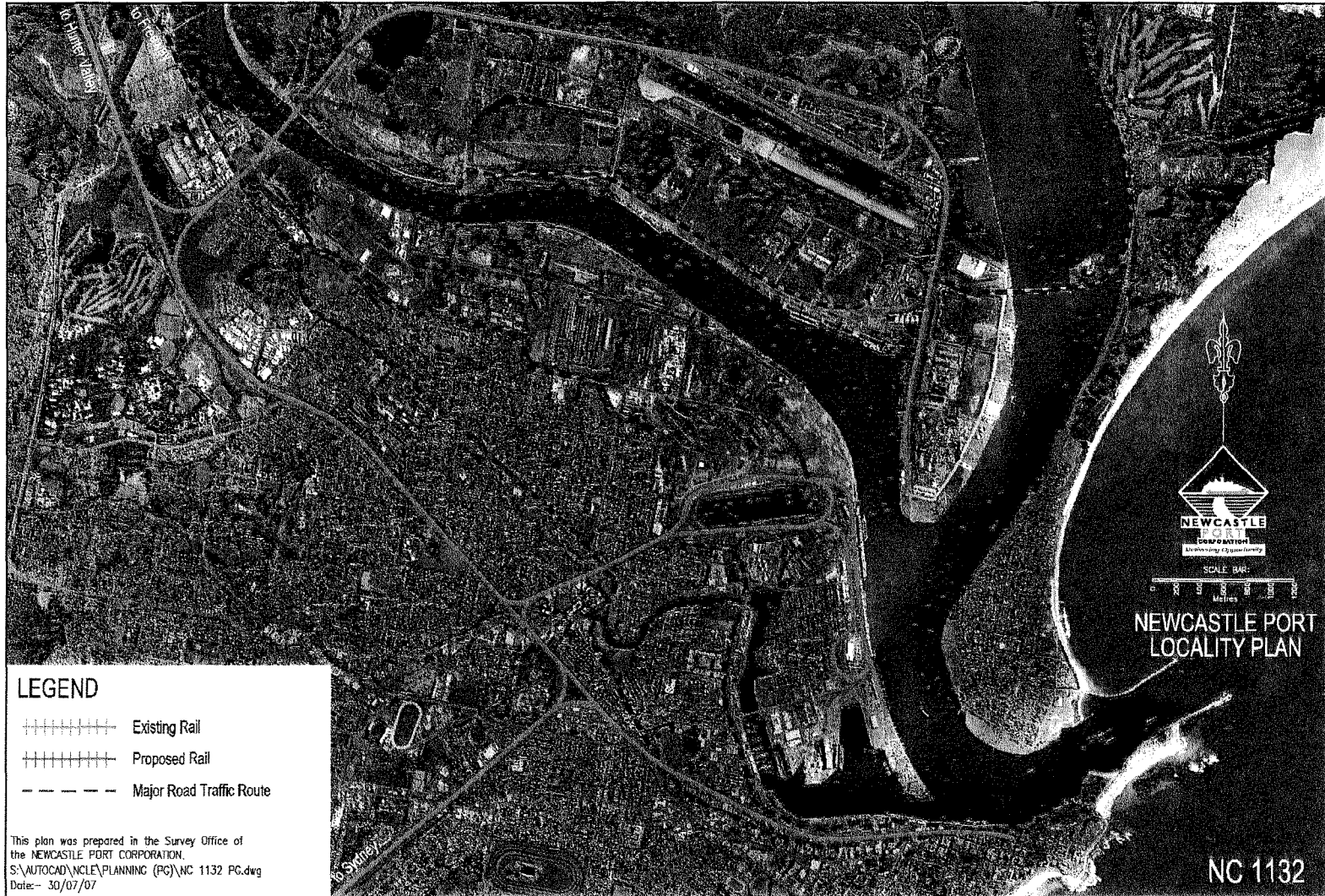
Railway Technical Society of Australasia

Mr Andrew Honan, Chair, Government Relations Subcommittee



Appendix D - Maps of major infrastructure projects






LEGEND

- +++++ Existing Rail
- +++++ Proposed Rail
- Major Road Traffic Route

This plan was prepared in the Survey Office of
 the NEWCASTLE PORT CORPORATION.
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 SCALE BAR:
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NEWCASTLE PORT
LOCALITY PLAN

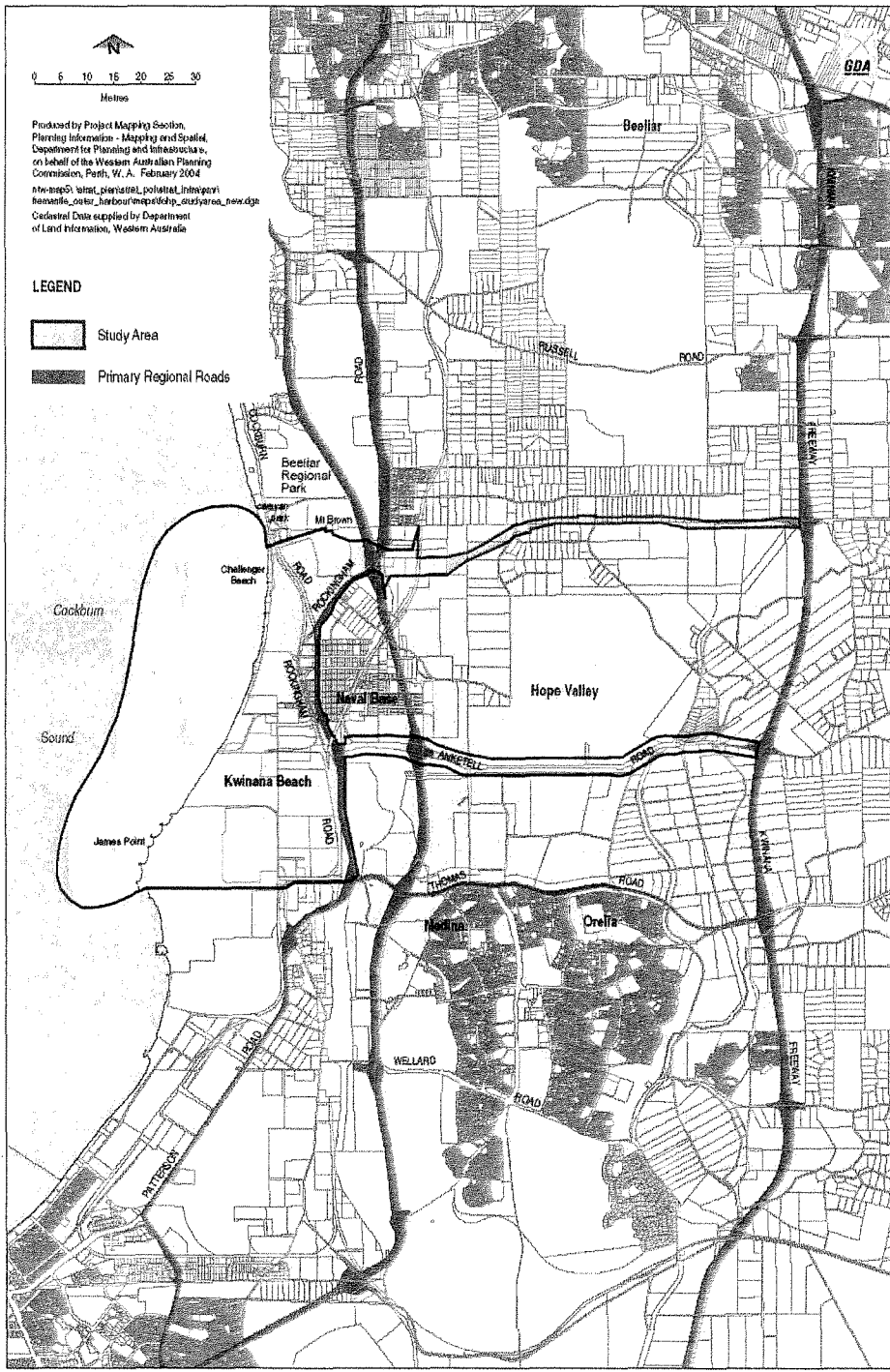
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Gladstone – Australia's 21st Century Industrial City

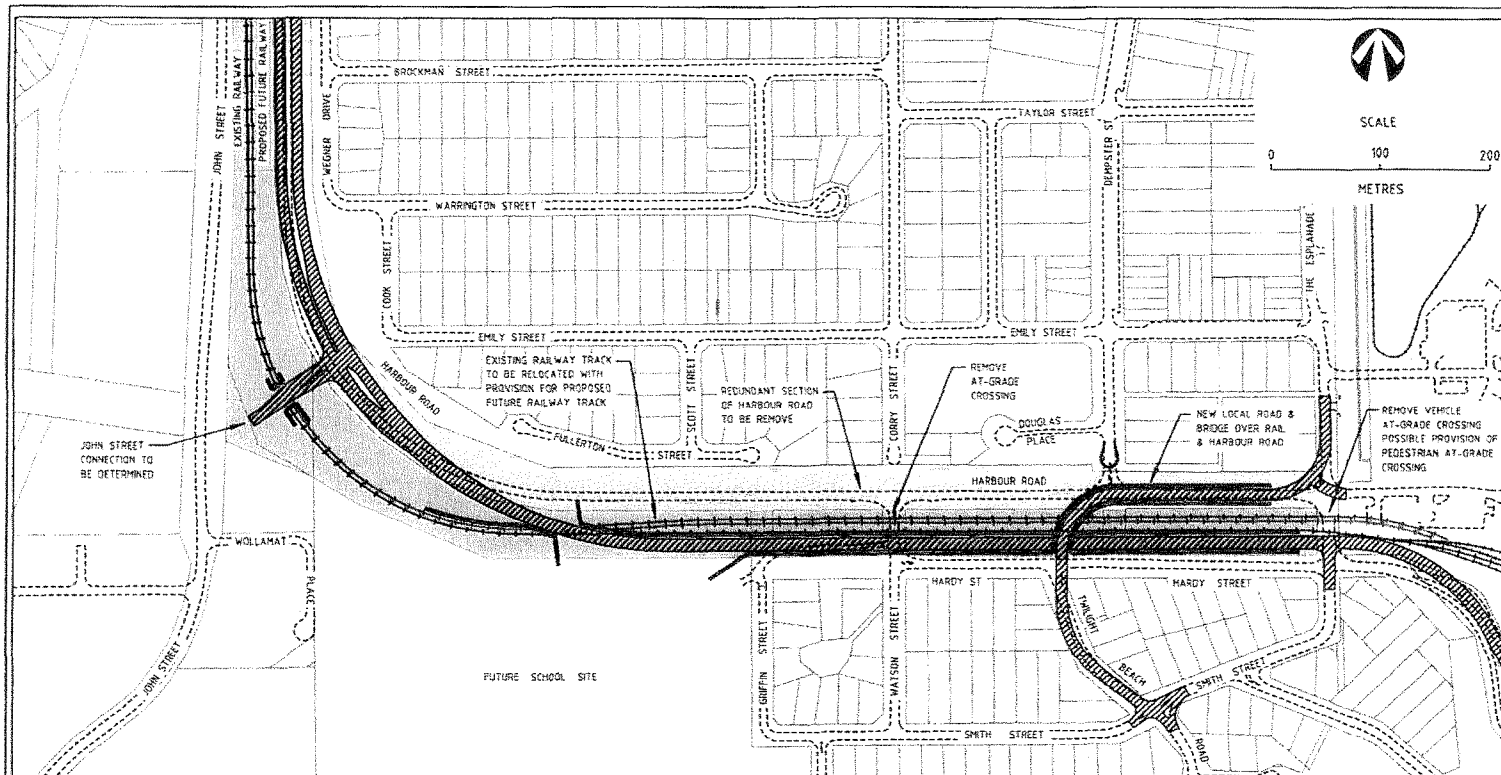
Logistic Infrastructure



Fremantle Ports Outer Harbour Project

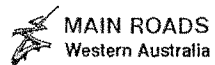


Study Area



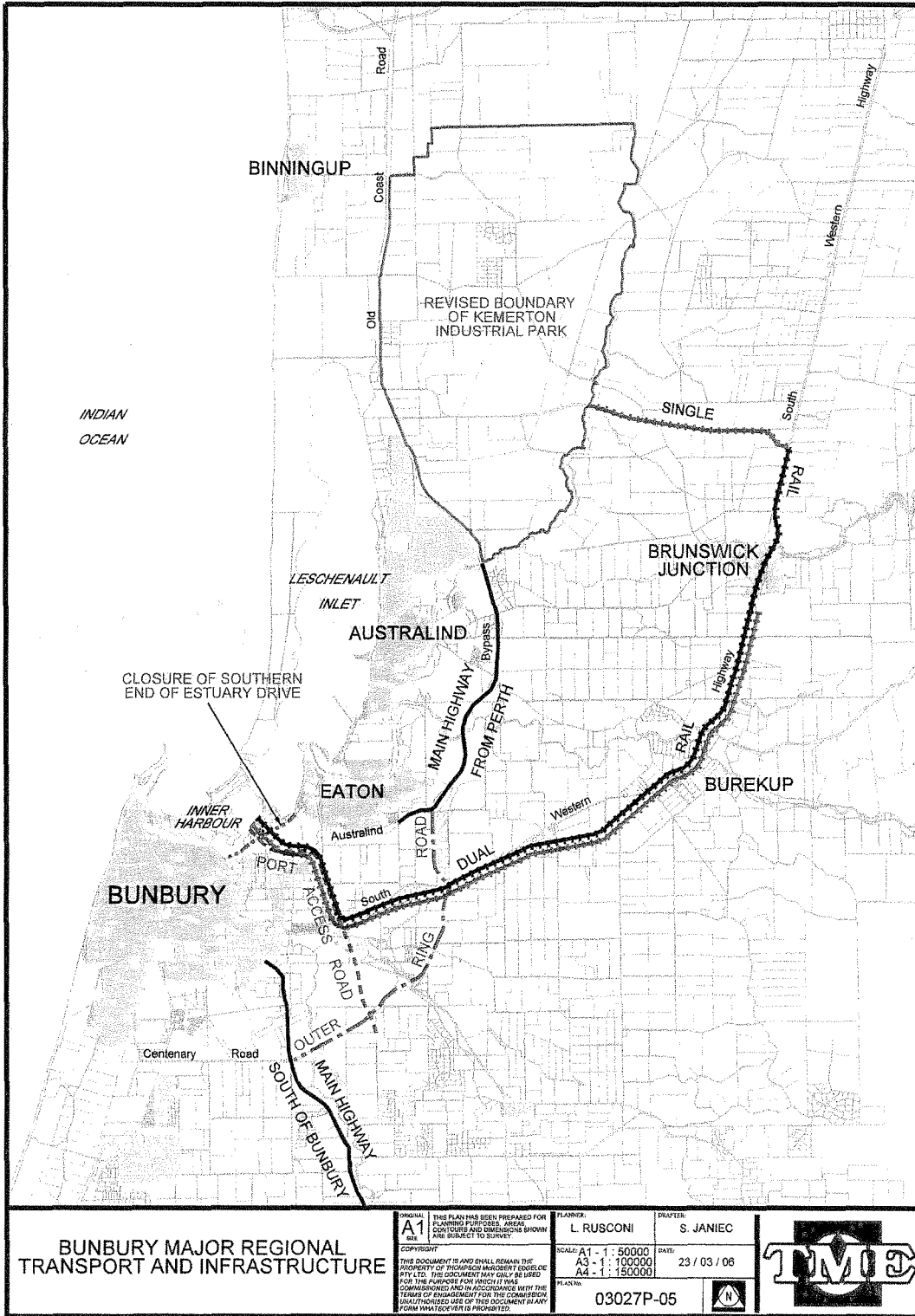
LEGEND

- EXISTING RAILWAY
- POSSIBLE FUTURE RAILWAY
- ▨ EXISTING RAILWAY RESERVE
- ▨ EXISTING ROAD RESERVE
- BRIDGE/RETAINING WALL

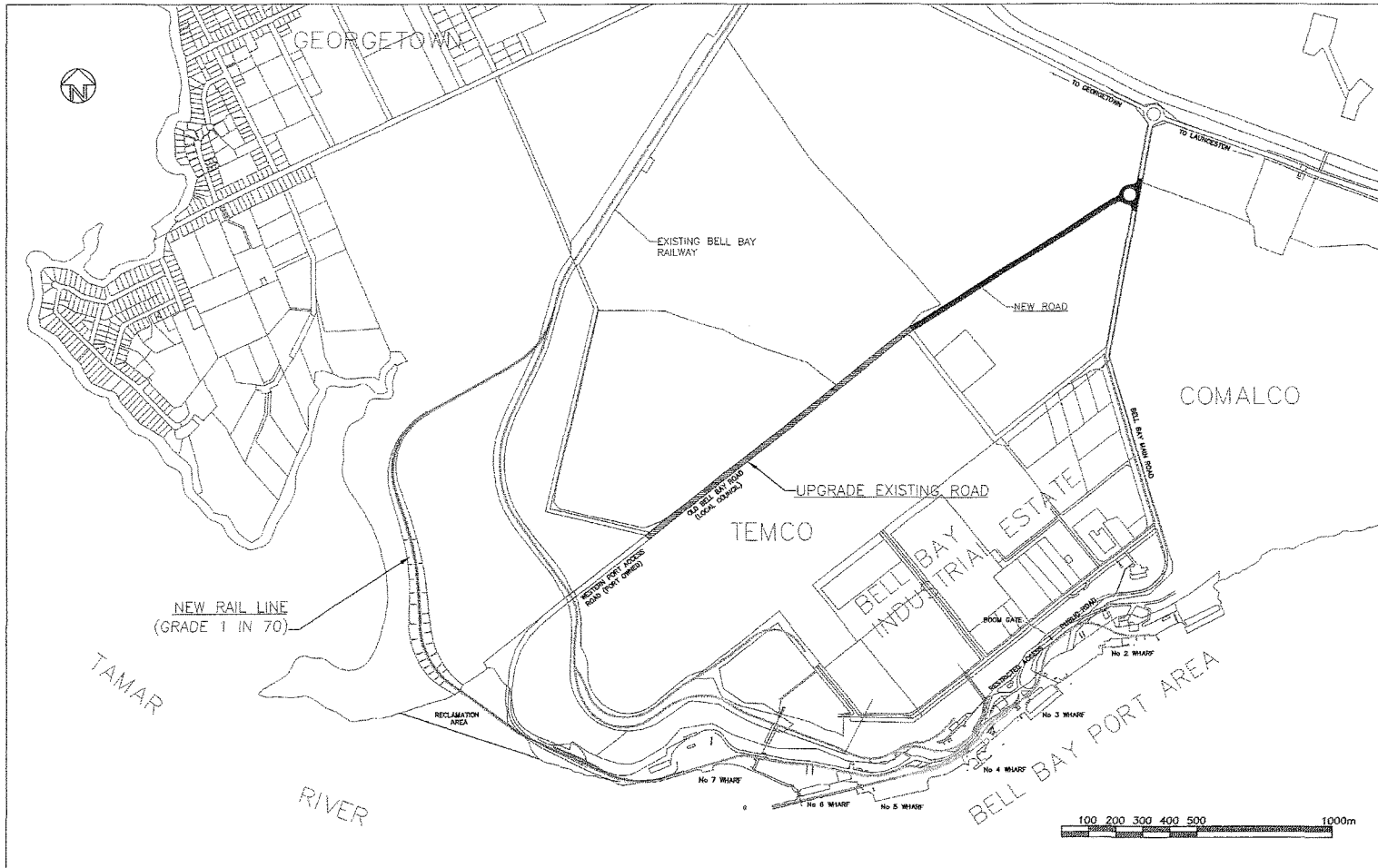


Prepared by the Road & Traffic Engineering Branch
February 2006

ESPERANCE PORT ACCESS
HARBOUR ROAD - OPTION 2B
LONG REALIGNMENT OVER REALIGNED RAIL WITH
TWILIGHT BEACH ROAD/THE ESPLANADE BRIDGE
ATTACHMENT D



THOMPSON SUBSIDIARY DEVELOPMENT PTY LTD, 22 Woodhouse Street, Bunbury WA 6230. Telephone: (08) 951 4411 Email: info@bunburydevelopment.com.au



DESIGN	---	---
DRAWN	R. Bower	143-224-02
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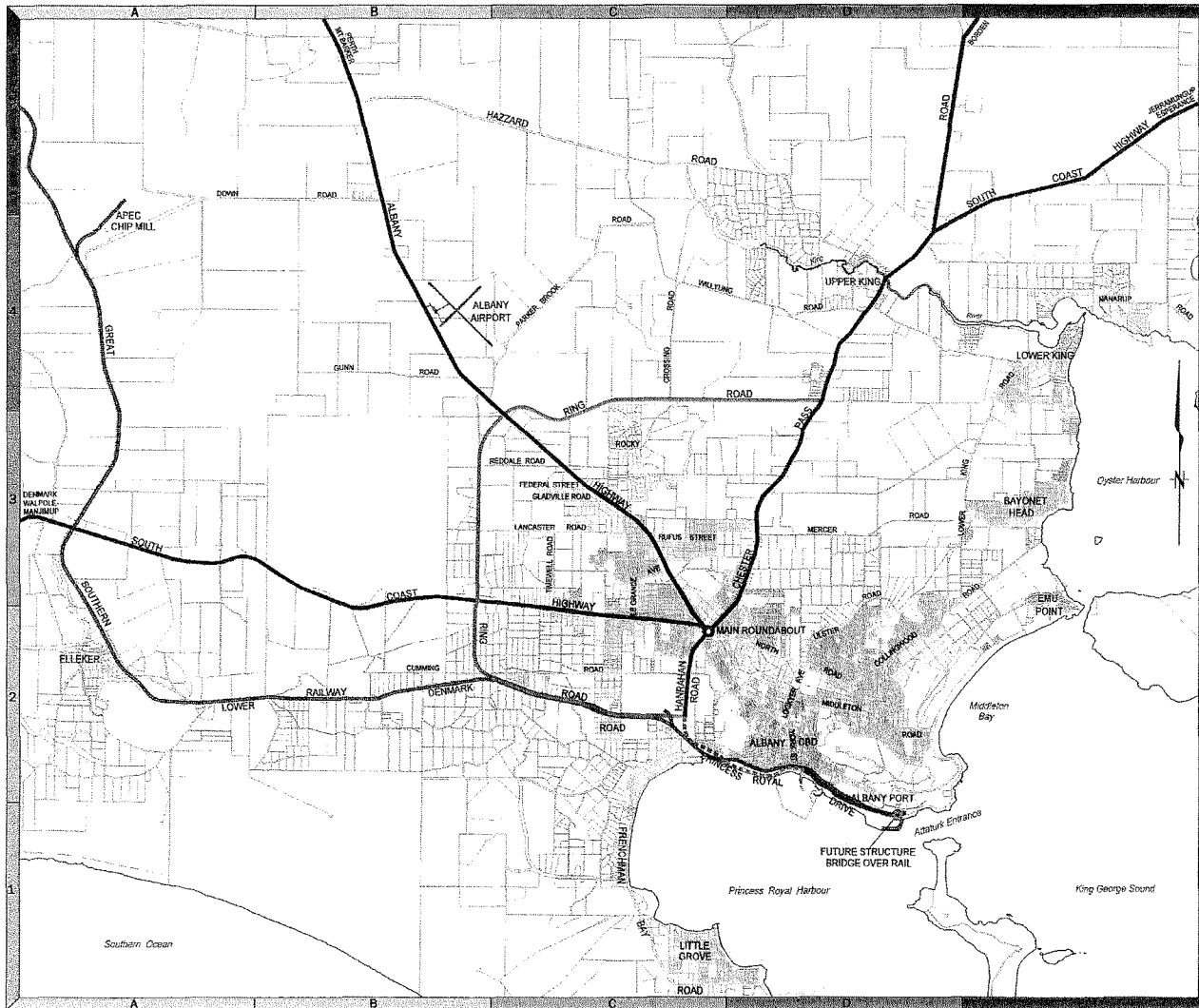
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BELL BAY
BELL BAY PORT AREA
PROPOSED ADDITIONAL ROAD & RAIL ACCESS
 LOCALITY PLAN

SHEET	SCALE
A3	1:12500
DRAWING NO.	REVISION
143-224-02	0

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LEGEND

- EXISTING ROADS
- EXISTING RAILWAY
- FUTURE ROADS
- FUTURE ROAD UPGRADE
- FUTURE ROAD BRIDGE

A	Original drawing	25-05-06
rev	details	date

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Harley Survey Group Pty Ltd
 116 Serpentine Road, ALBANY WA 6330
 T: 08 9841 7333 F: 08 9841 3843
 E: hsgn@harleysurveygroup.com.au

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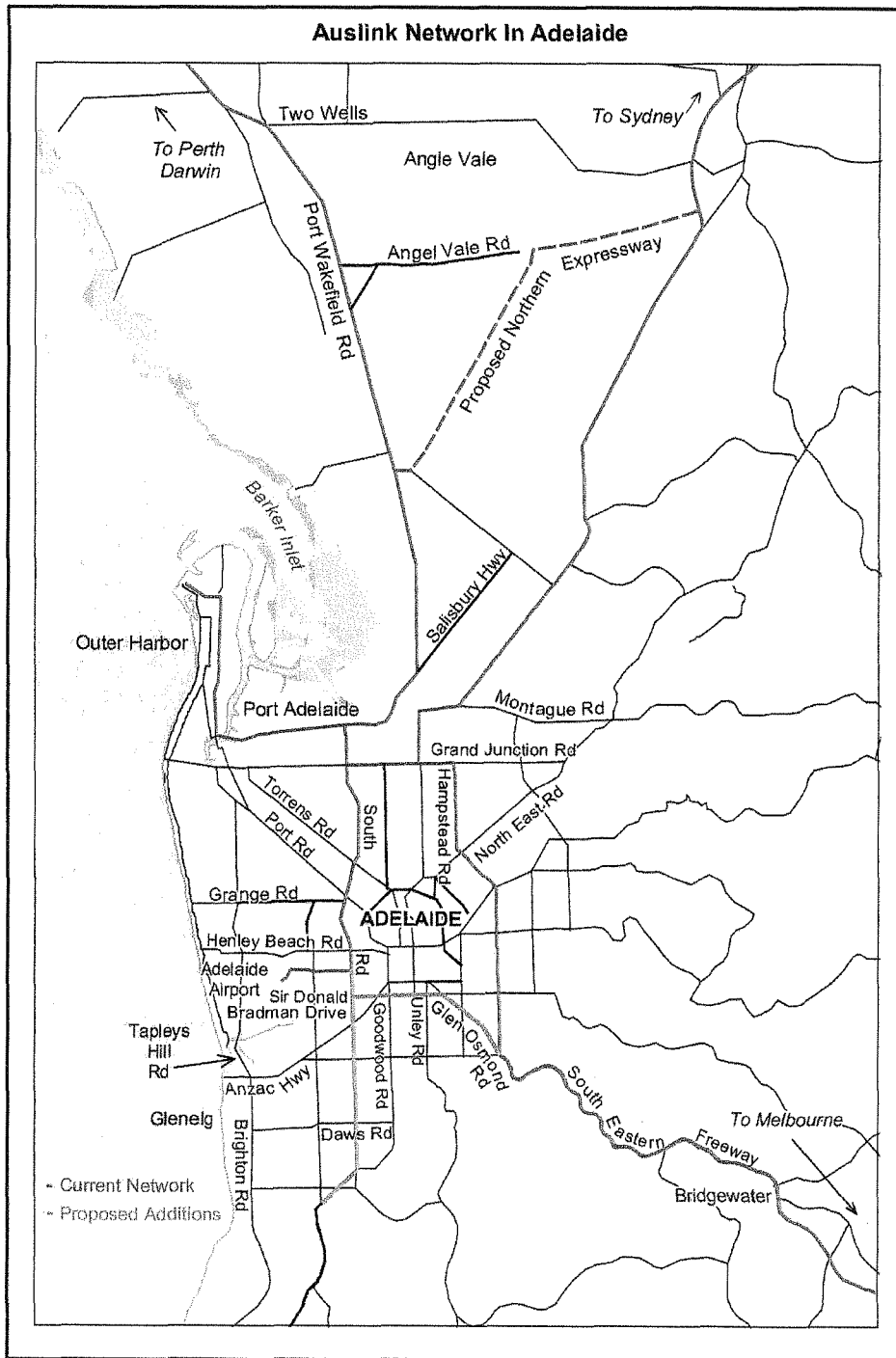
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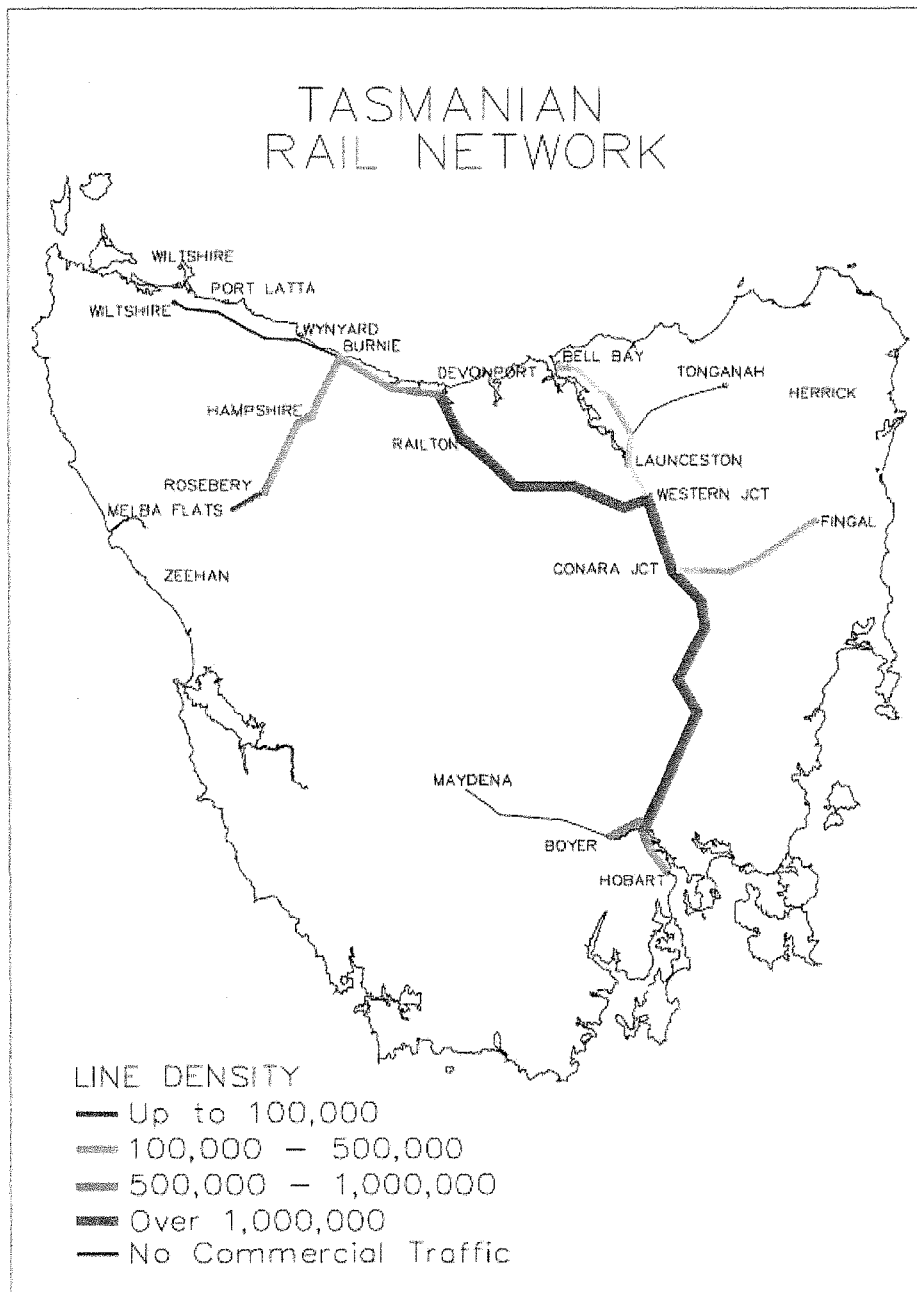
client
PORT OF ALBANY

description
**ALBANY PORT AUTHORITY
 EXISTING AND REQUIRED FUTURE
 TRANSPORT INFRASTRUCTURE**

drawing no
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PYRMONT HOUSE
 ALBANY







Appendix E - North-South Rail Corridor – DOTARS Study

In September 2005, DOTARS commissioned a study of the proposals to build an inland freight railway from Melbourne to Queensland, the Study Team¹ was required to determine:

- route options;
- projected demand;
- environmental issues;
- market assessment;
- financial and economic impacts; and
- other transport infrastructure requirements.²

The Study Team examined 136 possible route options to reach the short-listed group. The alternative routes were compared using an optimisation model developed for the study. In its analysis, the Team applied three different demand scenarios (A, B and C) and three levels of capital expenditure: \$1.5 billion, \$3 billion and an unconstrained budget.³

The Team then examined and compared eight distinct route options, based on four sub-corridors. Each of these could be combined with alternative routes between Melbourne and Junee. The four sub-corridors were:

1 Ernst & Young, Hyder Consulting Pty Limited and ACIL Tasman Pty Limited.

2 Ernst & Young, Hyder Consulting and ACIL Tasman, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.3.

3 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, pp.5 and 7.

- Far Western;
- Coastal;
- Central Inland; and
- Hybrid (which combined inland and coastal elements).⁴

A financial and economic analysis was also applied, which considered: the net budgetary effect of funding optimised routes by government, the commercial feasibility of each route and the wider economic cost/benefit effects in each case.⁵

Far Western Sub-Corridor

This corridor runs from Melbourne to Parkes, Dubbo/Narromine, Coonamble, Burren Junction, Narrabri/Moree, North Star, Goondiwindi, Warwick/Toowoomba and Brisbane. Within the corridor there are 42 possible route alternatives; the total distance is between 1657 and 1926 km.⁶

New track is required in six sections and upgraded track in two more. This corridor provides the shortest journey and avoids the Sydney region rail traffic congestion. However, it does need significant investment in new infrastructure.⁷

The route would provide transit times between 20.4 hours (via Albury) and 21.3 hours (via Shepparton). The Shepparton variant has the advantage that it would allow trains of more than 1,800 metres and double stacking of containers - provided the Bunbury Street tunnel in Melbourne is upgraded.⁸

This corridor would have the potential to capture additional freight from Southern Queensland, travelling west, and from Perth to the east coast. It could also divert some southern and western NSW freight away from other ports, towards Brisbane and Gladstone. The Far Western Corridor is the least developed and generally has a low level of environmental constraints.⁹

The study did not rate this corridor highly for economic and financial viability. A capital expenditure of \$1.5 billion would not be enough to build a

4 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.5.

5 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.7.

6 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.9.

7 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, pp.9 and 10.

8 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.11.

9 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.13.

Class 1 freight line. Transit times would be relatively poor also: 30 hours Melbourne to Brisbane via Shepparton and 26.4 hours via Albury.¹⁰

The \$3 billion capital expenditure case is almost enough to complete a Class 1 freight line and also achieve an acceptable transit time. It would take \$3.1 billion (Albury) or \$3.6 billion (Shepparton). On the route through Albury it would give a transit time of 22 hours. With unconstrained expenditure this corridor would provide both the fastest transit time (21.3 hours via Shepparton and 20.5 hours via Albury) and the lowest cost of any of the four sub-corridors.¹¹

Although the Shepparton alternative could benefit from additional regional freight flows, it requires a considerable amount of new line construction. The team considered that the Albury alternative would provide greater opportunities for improved transit times.¹²

Central Inland Sub-Corridor

The Study Team Looked at 65 possible variations on this route – all passing through Werris Creek, Armidale and Tenterfield. The distance varies from 1,774 to 1,961 km. The corridor is only marginally longer than the Far West corridor, but generally steeper grades would imply higher operating costs. There is also a need for new track between Armidale and Tenterfield and two other sectors. Two sectors require upgraded track.¹³

The fastest possible transit times are 23.1 hours (via Albury) or 24.2 hours (via Shepparton); this is not fast enough to allow overnight transport of freight to Brisbane. In addition, the cost would be higher - \$7.96 billion (Albury) and \$8.48 billion (Shepparton).¹⁴

If the Albury route is used, double stacking of containers will not be possible south of Junee. If Shepparton is used, it will allow trains of more than 1,800 metres and double stacking. However, the Bunbury Street tunnel restriction would have to be addressed.¹⁵

To achieve the required transit times on this route, will need substantial infrastructure investment. Work is needed on the Bethungra Spiral, several

10 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.15.

11 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, pp.15 and 17.

12 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.17.

13 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.19.

14 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.19.

15 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.19.

deviations from the present alignment, and a series of tunnels and viaducts in the Toowoomba Ranges, to bypass low speed curves and steep grades.¹⁶

This sub-corridor also has some major environmental limitations, such as: threatened species, Commonwealth heritage items and a National Park. Further complications arise with the complex of river networks to be crossed; requiring a high number of crossing points.¹⁷

In addition to the north-south traffic, this route could divert some of the traffic moving from regional areas to the ports; although less grain and cotton would be involved than on the western route.¹⁸

The report found that this option was not financially attractive, because of the high capital expenditure needed and the relative inelasticity of freight flows. The \$1.5 billion option would not be sufficient to build a Class 1 freight line. The limit on expenditure would eliminate several major projects and leave the route with significant speed restrictions and uncompetitive transit times.¹⁹

The \$3 billion option would also be insufficient for a Class 1 line and would only make the transit times marginally competitive with road freight. Even unconstrained expenditure would only produce transit times of 24.5 hours (via Shepparton) or 23.7 hours (via Albury). Of the four sub-corridors this would be the second slowest.²⁰

The options on this route would benefit from additional regional freight flows; Shepparton more than Albury. However, the Shepparton option requires more capital investment for new and re-aligned track. The Albury alternative offers more opportunities for improved transit times.²¹

Coastal Sub-Corridor

The route has the same Melbourne to Junee options as the first two sub-corridors. It then deviates to the existing coastal route, via Goulburn, Sydney and Coffs Harbour. Some of the track on this route is already part of the ARTC's work program – expected completion date 2009 – to give a transit time of 27 hours. It is marginally longer than the Far West and Central Inland routes; between 1,740 and 1,938 km.²²

16 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.21.

17 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.21.

18 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.21.

19 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.23.

20 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.23.

21 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.25.

22 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.27.

Between Sydney and Brisbane, there are problems for trains over 1,500 metres and for double-stacked containers. To overcome these problems, and complete this route would require \$10.21 to \$10.71 billion. It would then provide transit times of 21.6 hours (Albury) or 22.4 hours (Shepparton). Even then, the congestion in northern Sydney would remain a serious problem, which could have an influence on transit times. To overcome that problem, the study said "...would require significant tunnelling".²³

The key to this route is the area north of Sydney. Unless a significant level of investment was committed to solving that problem, gains would be marginal. The current ARTC program will produce improvements, but will not solve the congestion problem. The expected increase in demand generated by the ARTC improvements, will soon consume the extra capacity created. The study suggests that, to be viable, an inland route is needed to take pressure off the coastal line.²⁴

This is the most developed corridor, and has the highest number of limitations. Environmental constraints include: five National Parks, a World Heritage area, ten Commonwealth Heritage items, two significant wetland areas and the habitats of 84 threatened species.²⁵

This route is not considered viable under any of its internal options. Capital expenditure of \$1.5 billion would provide a more efficient Class 1 freight line but only marginally enhance the operation of the current route. The \$3 billion option would produce transit times of 26.5 hours (heading north) and 26.8 hours (heading south) via Shepparton. The Albury route would be 25.5 hours either way.²⁶

To achieve the fastest possible transit times of 22.4 hours (Shepparton) or 21.6 hours (Albury), would require capital expenditure of \$10.7 billion. This would be the second-fastest of the four sub-corridors, but these calculations do not take account of congestion delays north of Sydney. The sub-corridor would not benefit from additional freight flows to the extent that the alternative routes could. The Shepparton route suffers from the same difficulties as discussed earlier.²⁷

23 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.27.

24 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.29.

25 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.29.

26 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.31.

27 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.31.

Hybrid Sub-Corridor

This sub-corridor combines elements of the other three. It passes through Junee, Lithgow, Mudgee, Muswellbrook, Maitland, Taree and Coffs Harbour. It is the longest route, between 1,974 and 2,118 km. The track requires substantial upgrading and improvement - study lists four main projects that would be required. Operating costs would be higher than all the other routes.²⁸

The fastest transit time is 25.6 (Albury) or 26.4 hours (Shepparton) and the projected costs are \$6.32 billion and \$6.80 billion respectively. The times are only marginally below the threshold to effectively compete with road transport.²⁹

This sub-corridor requires significant new infrastructure investment; the main projects being a series of deviations between Dubbo and Acacia Ridge. It shares the restraints of the Coastal route north of Sydney. It was included as a possible way of avoiding the Sydney rail congestion; but, in doing so, it also loses the opportunity to capitalise on moving extra freight.³⁰

The route has the additional handicaps of: greater distance to cover, longer transit times, and higher maintenance and operating costs. It also has several environmental constraints in addition to those on the sectors shared with other sub-corridors - overall, it has as many restrictions as the coastal route. The study found that this route is not financially attractive under any of the options analysed.³¹

Spending \$1.5 billion would further enhance the north coast line but transit times would not be competitive with road freight. Anticipated times are: 30.2 hours (heading north) and 30.5 hours (heading south) via Shepparton. For Albury the estimate is 28.7 hours either way. Increasing the investment to \$3 billion would reduce these times only slightly: Shepparton 28.4 and 28.7 hours; Albury 27.4 and 27.3 hours.³²

The third option would require \$6.8 billion to give the fastest possible transit time via Shepparton - 26.4 hours. For Albury, \$6.3 billion would give a time of 25.7 hours. These outcomes are the slowest of all the sub-corridors.³³

28 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.33.

29 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.33.

30 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.35.

31 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.35.

32 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.37.

33 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.37.

The hybrid sub-corridor would benefit from additional freight in the south (especially the Shepparton Route) but would not have the same advantages in northern NSW. The Shepparton route also has the disadvantages mentioned earlier.³⁴

Market Assessment

Summary of Key Findings

Freight in the corridor is dominated by coal traffic (Hunter Valley) and manufactured goods between Melbourne, Sydney and Brisbane.

The size of the freight market in 2004 is estimated at 220.8 million tonnes. Coal is about 114.6 million tonnes or more than half the total – but it does not travel on the North-South corridor.³⁵

The main freight flows for the purpose of this study were:

- manufactured steel and freight between the three capital cities
- steel and agricultural products on the coastal route
- grain and other agricultural products from inland to the ports.

Within the corridor, the total of road and rail freight movements between the capitals is 21.9 million tonnes, 10 per cent of the overall flow. Manufactures make up about one third of this. Agricultural products, grains and oil seeds are suited to rail transport, and steel and metals are moved almost entirely by rail.³⁶

Road held the overwhelming majority of modal share on inter-capital routes in 2004.

Of the 21.9 million tonnes mentioned above, road carried 80 per cent and rail 15 percent:

- rail's share has been declining for decades because of: improving road and truck design, congestion on rail and the time and cost involved in local pickup and delivery.³⁷

On longer routes, such as Melbourne to Brisbane, rail has a chance to be more competitive with road transport – as pickup and delivery are a smaller part of

34 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.37.

35 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.39.

36 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.39.

37 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.41.

overall costs. Over the shorter distances – Melbourne to Sydney and Sydney to Brisbane – it is more difficult for rail to be competitive.³⁸

Rail freight is a weak competitor to road freight for between 65% and 75% of the manufactured freight market.

The study divides the manufactured freight market into three sectors:

- express freight – high value relative to volume; same day, or next day plus one, delivery (Melbourne to Brisbane)
- availability and reliability sensitive – less urgent; sensitive to transport reliability and availability at times to suit customers
- price sensitive freight – lower value relative to volume; more price sensitive; less sensitive to transport reliability.³⁹

It is unlikely that rail will be able to compete in the express sector. This freight (e.g. postal, courier, just-in-time, components) should continue to move by air or overnight truck. Overnight freight offers more hope. This is the biggest category and moves mainly by road. It is sensitive to both reliability and availability. It could switch to rail if services improve.⁴⁰

Freight forwarders and customers have overwhelmingly indicated that rail services are presently too unreliable to attract significant freight volumes outside of the bulk commodity end of the market.

Performance is measured by four factors: price, reliability, availability and transit time. At present rail performs poorly against all of these factors. Rail transport operators have had to offer freight rates well below those of trucks, squeezing margins to compensate for poor service.⁴¹

The greatest hindrance to rail achieving a good reliability on the inter-capital city route is congestion in the Sydney metropolitan network.

In 2005, reliability from Melbourne to Brisbane was only 40 per cent. Delays were due to: a network constrained by congestion; speed restrictions; lack of passing capacity; low reliability of train operations; one-off events and the curfews on freight trains and passenger service priority in the Sydney network. ARTC's Southern Sydney Freight Line will ease this situation but not remove it.⁴²

38 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.41.

39 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.43.

40 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.43.

41 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.45.

42 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.47.

A combination of factors produces the difficult operating environment for freight trains in Sydney.

Competition with passenger services has resulted in curfews being applied to freight services in the Sydney network. Train paths that allow freight trains to pass are as narrow as 10 minutes, any delay on the ARTC network that causes the freight train to miss its path, can mean a delay of 30 minutes waiting for another – or three hours if it is immediately before a curfew.⁴³

A dedicated freight line on the Sydney-Newcastle sector could provide a substantial increase in reliability for Melbourne–Brisbane traffic. The study team considered this factor alone could double the current rail mode share.⁴⁴

Demand Analysis

The first requirement was for freight and passenger projections on the north-south corridor in 5, 10, 20 and 25 years. The second requirement was to estimate the potential to generate new and contestable freight traffic under various pricing, reliability and transit time scenarios.⁴⁵

Summary of Key Findings

Total market tonnage of freight moved by rail along the corridor is expected to increase over the forecast period.

Three 25-year projections were used for these demand estimates:

- A – GDP growth and freight-to-GDP ratio decline modestly
- B – GDP growth and freight-to-GDP ratio do not decline
- C – GDP growth declines to 2.5 per cent by 2029 and freight-to-GDP ratio is uniform throughout.

The report has used the results of Case A, as the most likely to reflect the true outcome.⁴⁶

The study team expects the Melbourne-Sydney and Sydney-Brisbane sectors to grow slowly. The current ARTC upgrade should help the Melbourne-Brisbane sector to respond more quickly:

43 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.47.

44 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.47.

44 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.47.

45 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.49.

46 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.51.

- If there is an inland route, the share on the Melbourne-Brisbane sector will grow further, with some residual traffic on the coastal route.⁴⁷

Door-to-door price is the single most important determinant of mode decision.

In deciding which mode of transport will be used, most decisions are based on one of three criteria: price, reliability and availability. Of these, the most important for all types of freight is price (at 38 per cent of the total).⁴⁸

Price will be influenced by a number of factors: continuing efficiency improvements; competition within, and between, transport modes; fuel prices; labour costs (including the effects of the growing shortage of truck drivers); road user charges and rail access charges.⁴⁹

Rail's handicap is that, although its line charges may be competitive, the final cost is increased by the addition of local pick up and delivery charges. This particularly affects rail's competitiveness on the shorter sectors – such as Melbourne-Sydney or Sydney-Brisbane – as the local charges are a larger percentage of the total.⁵⁰

Using a weighted average of the responses to their survey, the Study Team estimated that on the longer sectors – such as Melbourne-Brisbane – rail's market share could increase from 30 per cent in 2004, to about 63 per cent (upgraded coastal route) or 73 per cent (inland route options), by 2029. On the shorter sectors, the gains over the same period will be less dramatic: from 9 to 18 per cent Melbourne-Sydney; and 11 to 22 per cent Sydney-Brisbane.⁵¹

The most significant growth in rail's market share is likely to be on the Melbourne-Brisbane corridor. The commodities to be carried will stay much the same. Tonnage carried on rail is expected to increase to 7.4 million tonnes (coastal route) or 8.6 million tonnes (inland routes). The Study team considered that the option of rail to Toowoomba and road from there to Brisbane, would not "...meet the expectations and requirements of customers".⁵²

About 20 million tonnes of freight a year is moved to points on the coastal route, other than the capitals. That total is expected to double by 2029 and

47 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.52.

48 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.53.

49 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.53.

50 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.53.

51 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.53.

52 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.55.

rail's share to increase from 10 per cent to 15 per cent. The short distances are likely to limit rail's gains.⁵³

Other movements along the corridor and then on to other areas, such as northern Queensland and South and Western Australia, are also substantial. These too are expected to double by 2029. The rail share of this freight is expected to reach 25 per cent; or 40 per cent if there is an inland route connecting at Parkes. The gains would be at the expense of road freight.⁵⁴

Except for coal, freight to regional areas should remain relatively modest.

In regional areas, agricultural freight is expected to grow gradually and coal more strongly. The biggest rail freight volumes, from the coalfields, move across, not along, the corridor. The anticipation is that gains would only come from freight particularly suited to rail, such as minerals.⁵⁵

Likely gains would be from the diversion of grain and cotton in NSW (and possibly Victoria), an expansion of coal and grain from southern Queensland, and provision for potential coal freight from new areas of NSW.⁵⁶

Passenger service impacts on the north-south rail corridor – largely in the Sydney-Gosford area

Inter-capital and regional passenger services are not expected to be a significant factor. Services are low in both frequency and patronage. The main problems arise in the congestion produced by urban passenger services and freight trains using the same track network.⁵⁷

The main problem area is between Sydney and Gosford, where congested tracks and enforced curfews have serious implications for freight shipments. They prevent movement at optimal times, limit flexibility, and the ability to recover from delays. The flow-on is poor reliability and competitiveness for rail freight. Similar problems south of Sydney will be helped when the new freight line opens.⁵⁸

Brisbane has some problems around Acacia Ridge and the Port but they are less significant than Sydney's problems. Melbourne, with a dedicated freight line, has no similar problems.⁵⁹

53 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.55.

54 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.55.

55 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.57.

56 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.57.

57 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.59.

58 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.59.

59 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.59.

Infrastructure Assessment

The Team was required to: outline current infrastructure investment plans and their timing and describe the planned works and the advantages to be gained. Determine the implications of the short listed route options, including costs, infrastructure needs and connections to ports and intermodal hubs.⁶⁰

ARTC is working through a planned improvement program worth \$1.67 billion on the existing coastal route. It is expected to be completed by 2009. It was adopted as the starting point for that part of the analysis.⁶¹

ARTC also expects that work to remove temporary speed restrictions will be complete by 2009 and the network will be running at design speeds. It also plans to overcome signalling problems by the introduction of in-cab signalling in the next five years. This will improve transit times and capacity across the network.⁶²

Although much of the proposed route would use existing track, there are areas where the condition of the infrastructure is far below the required Class 1 standard. The analysis has therefore included the work required to upgrade sub-standard existing track to connect new route options. Where wide or narrow gauge lines are to be used, the analysis has included provision to convert them to dual gauge.⁶³

Infrastructure - summary of key findings

Improvements to rail access arrangements at terminal and port facilities will also provide flow-on benefits to the interstate rail freight industry. This recognises that the amount of freight that can be captured on rail depends heavily on the capacity of the ports to handle it.⁶⁴

Sydney's existing intermodal network for containers will be subject to significant capacity restraints before 2020.⁶⁵

Brisbane's intermodal network is centred on Acacia ridge, where capacity will be improved by grade separating the existing level crossing at Beaudesert Road. If rail increases its share on the Melbourne Brisbane corridor, it is likely that greater intermodal capacity will be needed. Industry sources say that the

60 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.61.

61 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.61.

62 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.61.

63 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.63.

64 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.65.

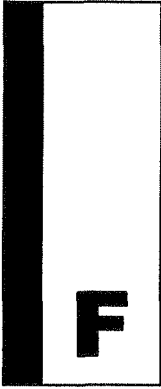
65 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.65.

container throughput could be expanded from 380,000 TEU to a possible 750,000 TEU.⁶⁶

Melbourne's South Dynan terminal is the principal hub of Pacific National's interstate rail network, with total throughput of 680,000 TEU a year. There appears to be scope for expansion, but the terminal is limited to trains of 1,200 metres.⁶⁷

66 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.67.

67 Ernst & Young, et al, *North-South Rail Corridor Study Executive Report*, 30 June 2006, p.67.



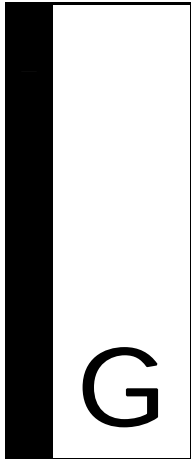
Appendix F - Port Infrastructure Matrix

PORT	Throughput		Depth		Key Infrastructure Projects	
	Current	Projected	Current	Proposed	Rail	Road
VICTORIA						
Melbourne	1.7 million TEUs; Motor vehicles: 298,000 (2005); Other cargo: 8.5 million tonnes	2025: 4.5 million TEUs; Motor vehicles: 534,000; Other: 14.1 million tonnes.	11.12 metres (Appleton Dock)	14 metres	Connection to Webb Dock	Westgate Bridge Dock Link Road
Portland	4 million tonnes	Additional 4 million tonnes by 2008	Channel: 13.5 metres; Berth 1: 12.5 metres	No dredging planned at present.	Standard Gauge connection to East Victoria. Standard gauge link to Mt Gambier	Wellington Road Overpass to separate port and residential traffic. Road upgrades to allow safe usage of B-doubles.
Geelong	9.39 million tonnes (2007-08)	9.64 million tonnes (2008-09)	11.6 metres	Not planned	Dual Gauge Connection	Grade Separation - road to Geelong By-pass
NSW						
Port Botany	26.7 million tonnes 1.445 million TEUs	Additional 1.6 million TEUs	Channel: 15 metres; Brotherson Dock; 15 metres	16 metres at new terminal.	Construction of Southern Sydney Freight Line; rail duplication Cooks river to Botany rail yard; improved rail connections to Port Botany and terminals; duplication Botany freight line; tracks to 3rd container terminal.	Grade separated junction at meeting of Foreshore, Penrhyn and Botany roads; M4 east and M4 tunnel to Botany; Widening of M5 east.
Port Kembla	26 million tonnes	Additional 250,000 cars annually, 50,000 TEUs and 125,000 tonnes general cargo.	12.2 - 15 metres		Completion of Maldon-Dombarton Freight Line.	Easing/removal of road delivery curfew
Newcastle	85.573 million tonnes (93.8% coal)	129 million tonnes (95.3% coal) by 2017-18.	15.2 metres	16 -17 metres		

PORT	Throughput		Depth		Key Infrastructure Projects	
	Current	Projected	Current	Proposed	Rail	Road
QUEENSLAND						
Brisbane	26.74 million tonnes; 766,300 Teus; 173,022 Motor vehicles.	2009-10 31.81 million tonnes; 1.05 million TEUs; 232,505 motor vehicles.	14 metres	Not planned	Separation of freight trains from the passenger network in port approaches; Improve freight access from the west and south-east.	The last 6 km of the road leading to the port.
Gladstone	75 million tonnes	Current expansion plans will take capacity to 104 million tonnes in 2012 and over 150 million by	17 metres; 18.2 metres on high tides.	New by-pass channels and passing lanes; dredging for new	Diversion of some road traffic onto the north coast rail line to ease congestion.	Extension of Kirkwood Road; Completion of the Port Access Road.
Mackay	2.35 million tonnes	4 million tonnes by 2012; If coal shipments begin - an additional 4-10	8.3 - 8.5 metres	Long term: 9.5 -10 metres.	If coal shipments eventuate: rail access to reduce pressure on Hay Point.	Completion of Port Access Corridor
Cairns	1.16 million tonnes (2003-04)	Minimal growth expected.	8.3 metres	Not planned.		
Townsville	9.93 million tonnes	32 million tonnes in 2030 if Bauxite processing proceeds. Otherwise 27 million in 2030.	11.7 metres	Possible channel deepening now being examined.	The need for better rail connections is now being examined.	Port Access Gateway Project
Bundaberg	414,609 tonnes	Depends on the sugar crop - expected to decline in the short term.	9.5 metres	Not planned.	Improved rail link	Road upgrades.
Hay Point	85.5 million tonnes (2006-07)	130 million tonnes by end 2008. 140 million tonnes by 2010.	Channel: 14.7 metres plus 6.5 metre tide. At berth: 19 metres plus tide.	Channel: 15 metres plus 6.5 metre tide.	Greater capacity in rail access.	
Abbot Point	13 million tonnes	21 million tonnes in 2009-10	17.3 metres plus 3 metre tide	Not planned	Rail link to Goonyella	

PORT	Throughput		Depth		Key Infrastructure Projects	
	Current	Projected	Current	Proposed	Rail	Road
WESTERN AUSTRALIA						
Fremantle	25.5 million tonnes	33 million tonnes by 2011-12	Inner Harbour: 13 metres Outer Harbour: 14 metres.	To allow draughts of 13.5 to 14 metres - in two stages to 2009-10. Long-term 16 metres in Outer	Development of intermodal terminal at Kewdale. Clearing obstacles to double stacking of containers on port approaches.	Development of intermodal terminal at Kewdale. Arrangements to better utilise truck movements and minimise movements of empty trucks and containers.
Esperance	7.2 million tonnes	11.2 million tonnes (2010)	19.5 metres	Not planned	Grade separation of road and rail. Rail connection to Shark Lake Industrial Park. Duplication of line from rail siding to port.	Re-alignment of road near port entrance.
Albany	2.97 million tonnes	5 million tonnes (2014); 7 million tonnes more if magnetite project proceeds.	12.2 metres	Discussing plans to dredge to 17 metres for iron ore shipments in Cape-size vessels.	Grade separated rail connection to port. Additional rail loop in the port.	Albany Ring Road.
Geraldton	5.5 million tonnes	17.5 million tonnes (by late 2007)	12.8 metres	New port to be built to take Cape-size vessels	Rail connections to the new port as construction proceeds.	Stage 2 of the Southern Transport Corridor.
Bunbury	12 million tonnes	25 million tonnes in 5-10 years.	12.2 metres	15 metres	Coal siding to separate coal and woodchips when coal exports begin.	Construction of Outer Ring Road and linking it to the Port Access Road.
Dampier	110 million tonnes (81.6% iron ore)	151 million tonnes in 2008-09	14 metres	Planning is to take a second berth down to 14 metres.		
Port Hedland	110 million tonnes (95.6% iron ore)	303 million tonnes in 2011-12.	14.6 metres plus tides of up to 7 metres.	Not planned		

PORT	Throughput		Depth		Key Infrastructure Projects	
	Current	Projected	Current	Proposed	Rail	Road
SOUTH AUSTRALIA						
Adelaide	12.74 million tonnes (2006)	20 - 25 million tonnes in 5 years.	Recently deepened to 14.2 metres	Not planned		
Port Pirie	670,406 tonnes (2006)	Additional 2-4 million tonnes from 2009.	7 - 8 metres			
Port Lincoln	1.96 million tonnes (2006)	Additional 2-4 million tonnes from 2009.	14.7 metres			
TASMANIA						
Bell Bay	5 million tonnes	Not available.	11.5 metres	Not planned	Second rail connection to port area.	Upgrade council road for second port access
Devonport	4 million tonnes	Not available.	10.5 metres	Not planned	Rail access bridge across the river.	
Burnie	3 million tonnes	Not available.	11.5 metres	Not planned	Better rail connection to port.	
Hobart	2.5 million tonnes	Not available.	13 metres	Not planned		
NORTHERN TERRITORY						
Darwin	1.7 million tonnes (2004)	10 million tonnes by 2010.	13 & 14 metres, plus an 8 metre tidal range	Not planned		Grade separation on port access road. Direct road access from Business Park. More efficient weighbridge access & truck parking at port entrance.



Appendix G -The Dalrymple Bay Coal Chain

- 1.1 The Dalrymple Bay Coal Chain operation is used here purely as an example of the operation of a coal delivery chain – the aim is to demonstrate the complexity of the operation.
- 1.2 The operation of this delivery system cannot be directly compared to other coal chains, such as Port Waratah in Newcastle (or to iron ore delivery systems), because the infrastructure and arrangements are unique to each one.

The Terminal

- 1.3 The Dalrymple Bay Coal Terminal (DBCT) is a privately owned operation, supplied by an electrified rail system from the Bowen Basin. It services 11 mines and offers multiple third party access. DBCT is the largest coal export terminal in Queensland.
- 1.4 Three types of coal are exported through the terminal and DBCT uses two reclaimers to each ship-loader – this enables the terminal to blend multiple products out of the stockpiles. Despite this variety of products, all shipments are treated as homogeneous and charged the same infrastructure handling charge for each tonne of throughput.
- 1.5 The coal is sold FOB¹ and so the cost of rail to the port and the port handling charge are included. This means that the customer is responsible for organising shipping. The important point is that neither the terminal users, nor the Operator, can influence the

1 Free on Board.

shipping nominations and arrivals to any great extent. This is known as a “demand pull” or rail to ship operation.

The Delivery Chain

- 1.6 A coal delivery chain involves several elements. In the case of Dalrymple Bay, those elements are: the mine, the railway, the terminal and the shipping arrangements.
- 1.7 The ability of these elements to work together and the flexibility of their arrangements, determines the ability of the system to consistently operate within performance expectations.

The Process

- 1.8 The common perception of the process of loading coal is that of a simple, straightforward procedure. In fact, the process is a complicated one, due mainly to the requirement to supply coal from a particular mine to a particular ship.
- 1.9 An added complication is the requirement to blend loads to individual specifications, intended for highly specific purposes.
- 1.10 The terminal operator calls for cargo from the mines on the basis of estimated ship arrival times. This involves ordering the trains and, once the coal is delivered, assembling the load in the correct loading sequence, as required by the vessel. As throughput at the terminal increases, the stockyard turnover rate becomes a crucial factor in the chain.
- 1.11 At DBCT, to maximise stockpile space, as much cargo as possible is assembled in rows 1 and 2 of the terminal. These rows are serviced by both dedicated stackers and reclaimers and by dual purpose stackers/reclaimers.
- 1.12 The advantage of that arrangement is that - with the dedicated machines - cargo can be stacked and reclaimed simultaneously, as separate operations. This separates the receipt of cargo from the ship loading operation and allows the maximum use of the terminal’s ground area.
- 1.13 If a vessel requires more cargo (shipping contracts allow the vessel the option of 10 per cent more or less than the contracted amount), the terminal operator uses individual user stockpiles to top up the load.

Future Expansion

- 1.14 The terminal operator has decided that separating the receipt and loading processes increases the terminal capacity and helps to maximise the use of existing infrastructure.
- 1.15 Users do not prefer this arrangement because increasing the cargo assembly areas leaves less room for dedicated user stockpiles. The operator has chosen this course to help compensate for the loss of a yard machine that collapsed in February 2004 and could not be replaced until August 2006.

Rail and Terminal Capacity

- 1.16 Below rail capacity is determined by how many cycles the train fleet can achieve within an acceptable level of performance. Above rail capacity is based on the efficiency of filling regulated train paths – the average cycle time of 18.1 hours reflects the current system constraints.
- 1.17 The average nominal net train payload is 9,600 tonnes. The trains are being reconfigured to increase this to 9,800 tonnes.
- 1.18 Using the proposed 9,800 tonne payload and assuming 365 days railing availability, the above rail capacity is estimated at 56.9 million tonnes a year. The total annual rail corridor capacity for the Goonyella Coal Chain is estimated at 94.9 million tonnes.
- 1.19 However, operational data indicates that annual throughput is constrained at 51 million tonnes to DBCT and 88 million tonnes for the corridor.

