The Stable.

SUBMISSION TO THE PRODUCTIVITY COMMSSION – AUSTRALIA'S MARITIME LOGISTICS SYSTEM – S221006

6th October 2022

WWW.THESTABLE.GROUP
ABN 87 651 027 931 | 98 Macquarie Street Dubbo NSW 2830 | +61 468 800 625

The Stable.

STABLE

~adjective

not likely to give way or overturn; firmly fixed.

~ noun

a group of people who perform a similar activity or are employed by the same organization.

DOCUMENT CONTROL

Document Summary Information	
Version	2
Version Release Date	6th October2022
Document Security	Nil

Document History				
Version	**Document Type**	**Issued by**	**Issued to**	**Date**
1	Draft Final	Donald Murray	Internal	1st October 2022
2	Final	Donald Murray	Productivity Commission Online	6th October 2022

Australian Government Productivity Commission
Attention: Mr Lou Will
By email: maritime@pc.gov.au

SUBMISSION TO THE PRODUCTIVITY COMMSSION – AUSTRALIA'S MARITIME LOGISTICS SYSTEM

Thank you for the opportunity to make a submission on this important subject. This submission seeks to provide further justification for development of the container port in Newcastle in order to Improve the productivity and economic performance of the economy. The present arrangements at the Port of Newcastle are not based on productivity, but rather on maximising returns from the NSW Government's transactions in recycling its assets. It is recommended that The Commission review its draft on Australia's Maritime Logistics System to recognize the projected failure of the viability of Port Botany as congestion, demand and population exceed the capacity of the Port's logistics architecture.

Yours sincerely,

Donald Murray
Director
Enclosure: The Stable Submission S221006

TABLE OF CONTENTS

1. INTRODUCTION

The Stable is a Dubbo, Newcastle, Canberra and Sydney based consulting company with consultants across Australia. The company maintains a significant panel of expert consultants who have been involved in investigations, consultancies and projects in regional Australia for many years. More recently, the company's principals have been involved with agriculture, transport, logistics and infrastructure developments along the east coast. This has included two Ministerial Task Forces (Regional Intermodal terminals and Central West Freight and Transport), as well as appointment by The NSW premier as the Regional Infrastructure Coordinator. Our consultants include nationally recognised leaders in Finance (Murray Report), maritime and national infrastructure (Chiefs of Navy and Army) as well as business leaders in port infrastructure.

The aim of this submission is to provide further justification for development of the container port in Newcastle in order to Improve the productivity and economic performance of the economy.

2. SCOPE

This proposal will address:

- Projected Freight Volumes in NSW;
- Population Trends and Effects;
- Alternative routes to alternative ports; and
- Shipping.

3. FREIGHT VOLUMES

3.1. NSW FREIGHT AND TRANSPORT STRATEGIES

The Productivity Commission provided conclusions relating future port infrastructure needs to existing plans, as shown below.[1] However, the NSW Government freight and transport strategies suggest that greater consideration is needed for the changing nature and volumes

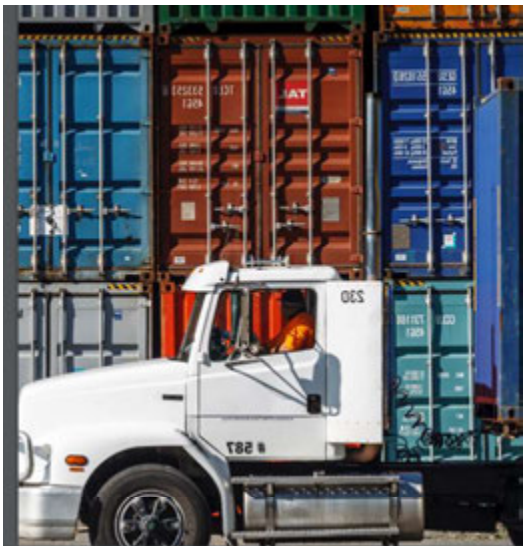
> *"……All state governments have freight and transport strategies that cover future port infrastructure needs. Evidence does not suggest that more plans are required or existing plans will not be implemented……"* (Government, 2022)

[1] Productivity Commission, *Lifting productivity at Australia's container ports: between water, wharf and warehouse*, Australian Government, Sep 22, p1.

for freight over the next forty years. Notwithstanding these projected increases in freight volumes, the constraints on development of the Port of Newcastle through the Port Commitment Deed of 2013 remained in place. Through this deed the Port of Newcastle is required to compensate NSW's other port operator if more than 30,000 containers are transported through Newcastle annually. The requirement is a function of clauses in the NSW Government's agreements for the commercialisation of the state's ports. Although the ACCC is appealing a Federal Court decision that would preserve these contractual terms, which reduce the competitiveness of a container terminal at Newcastle, it is quite evident that freight and transport strategies of the NSW Government had little to do with decisions about existing or future plans and more to do with maximising returns from recycling the port assets in 2013.

3.1.1. FUTURE TRANSPORT 2056: SHAPING THE FUTURE

Future Transport 2056 sought to set out the 40-year vision, directions and principles for freight, transport and mobility in NSW, guiding transport investment over the longer term. The supporting Services and Infrastructure Plans set the customer outcomes for Greater Sydney, and regional and outer metropolitan NSW for the movement of people and freight. In these documents, "…freight volumes are estimated to double in the Greater Sydney area and increase by 25 per cent in regional and outer metropolitan NSW…"[2]



From these documents, containers at Port Botany, the preferred container port of the NSW government, were forecast to increase to a range of 7.5 million to 8.4 million containers by 2045. At this point, Port Botany is believed to have reached capacity, with future increases to be accommodated by development of a container port at Port Kembla, the other port owned by NSW Ports.

In order to accommodate this increase, the Port Botany Rail Optimisation Group (PBROG) continued to develop plans to increase the numbers of containers delivered to Port Botany by rail. As far back as 2005, the NSW Government has pursued increased rail share into Port Botany with submissions to the Productivity Commission's Enquiry in Road and Rail Freight

[2] Transport for NSW, *Future Transport Strategy 2056*, NSW Government, Mar 2018, p8

Infrastructure Pricing indicating a 40% rail share was required to accommodate future freight volumes.[3]

During the period from 2014/2015 to 2018 the rail mode share of freight into Port Botany increased from 13.5% to approximately 22%. Noting this encouraging trend, PBROG aspired to 25% rail mode share. However, for the following four years through to July 2022 the trend has continued to indicate a significant decline in rail freight share[4] to similar levels of 2013 despite the billions of dollars specifically invested into rail infrastructure to support this objective.

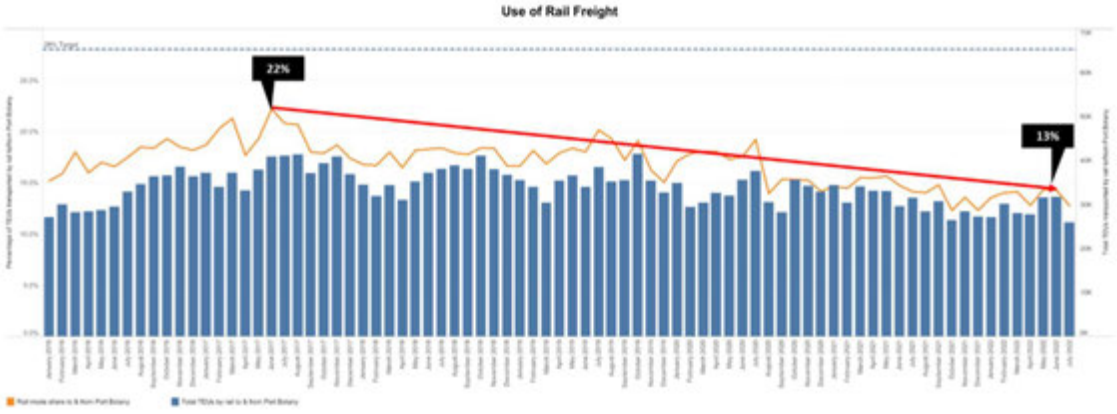


Figure 1 Port Botany Use of Rail Freight (TfNSW 2022)

Even if the current goal of 25% was achieved, by 2045 this could mean that 1.875million - 2.1 million containers will be moved by rail. This also means that 5.6 – 6.4 million containers will be moved by road. This number of containers on Sydney's roads could well be quite contentious.

It is obvious there are other factors outside of infrastructure constraints that are influencing the decisions of business to avoid rail or to avoid Port Botany.

3.1.2. FUTURE TRANSPORT STRATEGY: OUR VISION FOR TRANSPORT IN NSW

The NSW Future Transport Strategy, published in draft in 2022, replaces Future Transport 2056: Shaping the Future, which was published in 2018. *"We analysed key data including population growth, projected growth in passenger trips and freight volumes, emerging megatrends, and the changing needs and values of our customers and communities. We considered future land use scenarios, whole-of government priorities, and how transport*

[3] Productivity Commission 2006, Road and Rail Freight Infrastructure Pricing, Report no. 41, Canberra, December.
[4] Transport for NSW, Freight Performance Dashboard retrieved 11 Oct. 22

solutions can strengthen communities and improve neighbourhoods, cities, towns and regions."[5]

One of the major changes to prediction of freight volumes concerns regional freight. The revised strategy (extended to 2061 from 2056), notes that *"...coal currently accounts for around 75 per cent of regional freight by volume, but this share is expected to decline in coming decades and other major commodities such as grain, beef, steel and cotton are expected to increase by more than 40 per cent by 2061."*[6] These predictions indicate an increase in regional freight and in freight through Port Botany but a significant decrease in overall freight because of a massive reduction in the export from the Port of Newcastle, the world's largest coal port. As the Strategy points out *"… [this] shift in the structure of demand will result in changes to infrastructure requirements in regional areas"*[7]

3.1.3. INFRASTRUCTURE REQUIREMENTS

As the Future Transport Strategy points out and contrary to the conclusions of the Productivity Commission shown above, further infrastructure plans are required in regional NSW to accommodate the Strategy. Current plans for PBS 2B HML vehicle approvals for the Golden Highway, New England Highway and Pacific Highway are consistent with the Strategy but reliance on Port Botany as the primary container port is inconsistent with this trend. A recent Ministerial Task Force led by LTGEN Ken Gillespie (Retd)', concluded that increased freight flows from the North and North West will further justify development of the Port of Newcastle as a container port and dissolution of the Port Commitment Deed.

Figure 1 below depicts flows which presently exist for some bulk products but which will comfortably accommodate greater volumes as predicted, particularly as capacity at Newcastle increases with the reduction of coal exports. Additionally, as NSW develops its linkages with Inland Rail, volumes will increase as producers seek the easiest, cheapest and quickest routes to market. However, improvements must be made to the regional NSW Rail Network to ensure there is a uniform infrastructure standard which meets the various supply chain requrements. These rail standards (and subsequent plans and resultant expenditure) should take into account complete economic cost including rolling stock and locomotives to ensure accurate productivy analysis can be undertaken.

[5] Transport for NSW, *Future Transport Strategy: Our vision for transport in NSW*, NSW Government, 2022, p7
[6] Ibid, p43
[7] Ibid

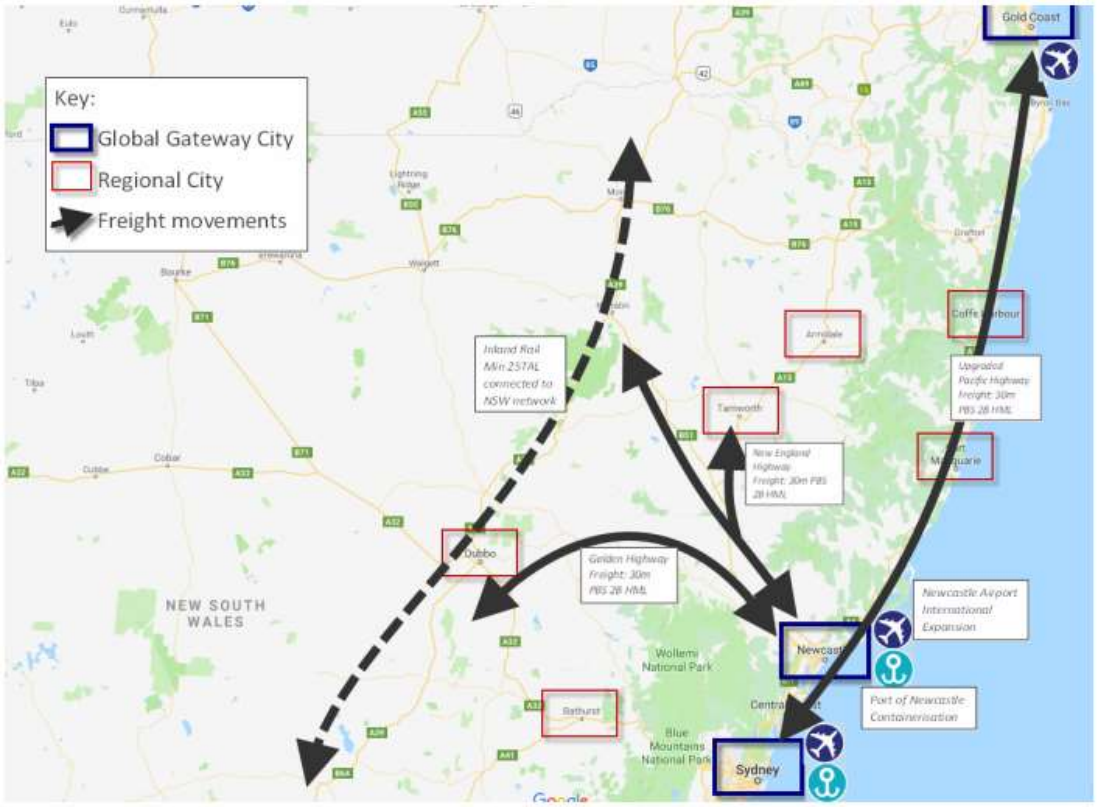


Figure 1: Freight flows North and North West

4. POPULATION TRENDS AND EFFECTS

4.1. NSW GOVERNMENT STRATEGIES AND PREDICTIONS

4.1.1. FUTURE TRANSPORT 2056: SHAPING THE FUTURE

Future Transport 2056 predicted that the population of NSW would increase to 12 million people by 2056, with 8 million people in Greater Sydney. The Strategy noted that"". [over] the next 40 years, Greater Sydney will grow as a global tourist and skilled worker destination, and as Australia's gateway to Asia. It will be supported by growth in its three cities – the Eastern Harbour City, the Central River City and the Western Parkland City. By 2056, economic and housing growth around Greater Sydney will drive integration across the city's hinterland, establish Gosford and Wollongong as 'satellite cities' and Newcastle, Canberra and the Gold Coast as 'global gateway cities' – the key entry points to NSW.[8] In conjunction with observations in Section 3 above regarding the increase in containers at Port Botany, this means that prior to capacity there will be a mix of 8 million containers and 8 million people competing in Sydney. Furthermore, *"...[this] has a direct implication for the availability of*

[8] Transport for NSW, *Future Transport Strategy 2056*, NSW Government, Mar 2018, p8

freight paths on the shared rail network and will particularly affect the metropolitan portions of the Main Western and Illawarra Lines."[9]

4.1.1. FUTURE TRANSPORT STRATEGY: OUR VISION FORTRANSPORT IN NSW

The Future Transport Strategy: our vision for transport in NSW replaces *Future Transport 2056 Shaping the future* and updates its approach to population trends and effects. *"The Six Cities Region is a newly defined global city region that delivers education opportunities and industry growth and reflects and supports new ways of living and working, accelerating the change and revitalisation already occurring across the six cities. The Six Cities Region includes the Lower Hunter and Greater Newcastle City, the Central Coast City, the Illawarra-Shoalhaven City, the Western Parkland City, the Central River City and the Eastern Harbour City. It encompasses 43 local government areas."*[10] Projections of population changed slightly with a total of 11.5 million people in NSW by 2061, but with faster growth by 16% than earlier predicted in regional NSW.

It is clear from this strategy that growth in the northern most two of the six cities (Central Coast and Lower Hunter ad Greater Newcastle) will be best served by the most proximate freight and transport infrastructure. The current population of these two cities is approximately 900,000 people and can be expected to rise to 1.5 million by 2061. The population of northern and north-western NSW to the Queensland border will be of a similar number. This population is greater than cities which currently boast the need for container ports. Furthermore, the projected increase in Sydney, although slightly below previous projections, does little to ease the challenges of congestion on Sydney's roads and railways.

[9] Ïbid
[10] Transport for NSW, *Future Transport Strategy: Our vision for transport in NSW*, NSW Government, 2022, p16

4.1.2. CONGESTION

Road Congestion

The Productivity Commission made observations about congestion as shown below.

> *"Within and outside the maritime logistics system, the case is frequently made for increasing the rail mode share. Rail brings a range of nonmarket benefits — reduced road congestion, carbon emissions and other pollutants, noise and accidents. And forecasts of substantial growth in Australia's freight task over the coming decades have contributed to most port authorities planning to substantially increase their rail mode share to slow the growth in road congestion. However, mode share targets have been set by state governments and not met in the past. Increased use of rail is only likely to be achieved with significant (and possibly uneconomic) investment in dedicated rail lines and intermodal terminals."*

Sydney and Port Botany

Based on the projected data of the NSW Government, this submission has shown that increases in freight movements through Sydney to Port Botany, combined with projected increase in population, will create potentially unmanageable congestion. As discussed earlier, the improvements by PBROG combined with the new rail line from Moorebank will likely achieve rail mode share of 2 million containers through Port Botany by 2045, but this will leave over 5 million containers to move by road (570 per hour). With a simple time past a point traffic density calculation, it is clear that this is not possible. However, the challenge is somewhat exacerbated by the congestion of increased passenger vehicles in and around Port Botany. The increases in population will mean that the freight task by road into and out of Port Botany will be insurmountable.

Wollongong and Port Kembla

Port Kembla is one of NSW's international trade gateways, servicing industry in the Illawarra region, as well as broader freight movements including cars, coal, steel, grain and other bulk commodities to and from Sydney and regional NSW. The Port transfers to ship 12.5 million tonnes of bulk products per annum, but State Environmental Planning Policy (SEPP) Infrastructure 2007 (formerly SEPP 7, 1982) has limited the hours in which the Port is permitted to receive coal deliveries by public road. Effectively, the port is limited to 120,000 truck movements for bulk products per year, representing 5.2 million tonnes per year. The shortfall must be made up by rail, but the current lines to meet this demand are inadequate. By the time that Port Botany capacity is reached, Port Kembla will be required to increase its rail capacity to accommodate further freight of extraordinary proportions and with revised environmental authorisations.

Port of Newcastle

The Port of Newcastle has exceptional rail and road access and significant free land holdings with direct deep water port access.

While the NSW Government has identified that billions of dollars in new supply chain infrastructure is needed to facilitate container growth at Port Botany and Port Kembla, the road and rail access at Newcastle provide an opportunity to reduce the number of trucks on the metropolitan road network in Sydney, thus improving road safety. Importantly, road access to a container port in Newcastle will ease road and rail congestion in Sydney by reducing freight movements through Sydney.

Rail Congestion

"*Freight movement by rail is constrained on many key corridors by having to share infrastructure with passenger rail, particularly those with suburban and intercity services. Sharing of the rail corridors compromises the network's ability to fully meet customer needs, reducing the ability to deliver increased off-peak passenger frequencies, or increased freight capacity to support long-term needs."*[11]

Projected increases in populations in the six cities concept will mean significant increases in suburban and intercity train services with the potential to further inhibit the success of freight to port by rail. The Strategic Environmental Assessment for the Western Sydney Freight Line Corridor released on 26 March 2018 noted that:

- *Freight services are constrained to off-peak and overnight periods as legislative requirements provide priority for passenger services on the shared network.*
- *By the mid to late 2020s rail freight on the Main West Rail Line will be constrained as passenger needs continue to take priority. Without new rail freight capacity, more goods will be transported by road to and from Regional NSW.*

[11] Transport for NSW, *Draft Freight and Ports Plan 2018*, NSW Government, p

- *Regional and interstate freight using the Main West Rail Line would shift from rail to road from 2025 onwards without an increase of available rail capacity for freight movements, and the quantity of freight transported by rail would diminish.*

The further effects of a mode shift from rail to road on the Main West Line would threaten the viability of intermodal terminals in Bathurst, Kelso, Blayney and Lithgow, with attendant loss of productivity.

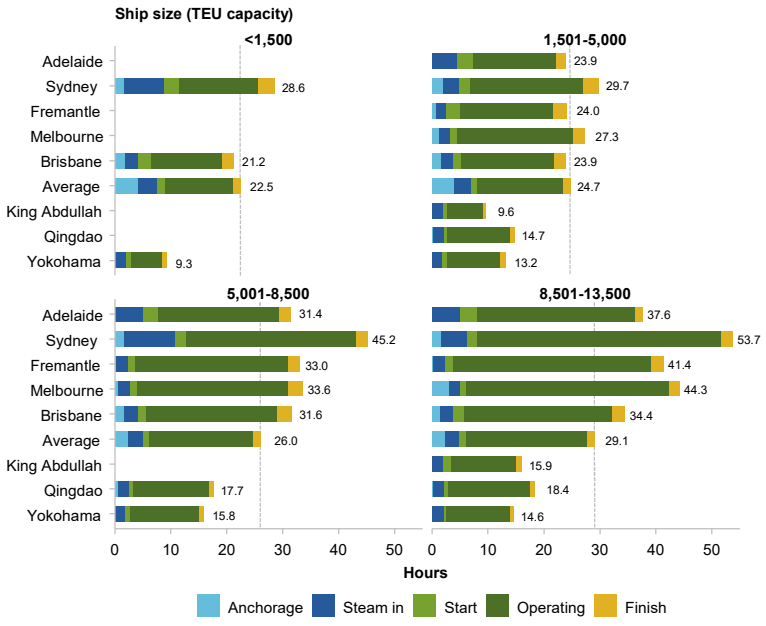
Similar effects of congestion will occur on the Main North Line, bringing containers from the North and North-West through Sydney Trains.

In addition to passenger traffic interactions a critical rail capacity constraint is the berth side rail sidings situated at Port Botany. These sidings are limiting the train size capable of being accepted into these terminals to a maximum of 600m, effectively preventing economically efficient rail services from regional NSW from direct port access resulting in double handling and increased train cycle times.

A container port in Newcastle would provide an opportunity for these less productive rail movements to be eliminated.

5. ALTERNATIVE ROUTES TO ALTERNATIVE PORTS

5.1. PORT PERFORMANCE



The Productivity Commission noted that *"A recent World Bank study benchmarked performance of 351 ports. Australia's major container ports with the exception of Brisbane ranked among the worst performing 20 per cent of ports, and Brisbane ranked in the bottom 30 per cent."*

Although the Productivity Commission reflects accurate comparisons of the number of cranes in operation and other inputs to deduce that faster turnaround times are a good thing but

not at any cost. The Commission was referring to capital utilisation rates, but the overall performance of Australian ports has not improved against international best practice in the last two decades.

Australia's freight operators and infrastructure providers have excelled over recent decades in extracting more efficiency and capacity from our existing logistics networks. Innovations like larger trucks with multiple trailers, and automation at port terminals have meant we can do more, with less. But with a 26 per cent forecast growth in freight over the next 12 years, these isolated, incremental improvements will be insufficient. The strains on Australia's freight networks, and in turn our economy, are already beginning to be felt. A range of macro indicators, coupled with feedback from customers and industry, show that Australia is falling behind on freight. These declining indicators of Australia's global competitiveness are not theoretical or remote. They expose an everyday reality for Australian producers, exporters and consumers. They are indicative of the higher costs and longer lead times that make Australian businesses less competitive, and see Australian consumers pay higher prices."[12]

Thus it appears that, contrary to the Productivity Commission's conclusions that "…*Evidence does not suggest that more plans are required…" and "…forecasts of substantial growth in Australia's freight task over the coming decades have contributed to most port authorities planning to substantially increase their rail mode share to slow the growth in road congestion…",* this submission has shown that these conclusions should be reviewed, particularly with regard to development of alternative routes to alternative port in NSW.

5.2. FREIGHT FLOWS

In Section 3, Figure 1 displayed the natural flow of freight from the North and the North-west of NSW funnelling to the Port of Newcastle. Stronger rail lines are being developed in both the CRN, the ARTC network and Inland Rail in northern NSW, while complementary higher productivity vehicles are being authorised on major highways leading to Newcastle. This presents a case for a coordinated export import infrastructure network based on the Port of Newcastle.

Freight into Sydney is constrained a shown in Section 4.1.2. However, other factors inhibiting freight flows into Sydney include:

Paths. It is unlikely that paths will be available by day on the Main West Line after 2025 and at any time by 2029.

[12] Infrastructure Partnerships Australia, *Fixing Freight: Establishing Freight Performance Australia,* 2018, p3

Passenger Network. Available paths to Sydney from the Central West and from the North are often held up at Cowan and Lithgow in favour of intercity and suburban passenger services.

Track Possessions, Breakdown and Natural Disaster. The gradients, weather and frequency of stoppages on the Main West are unproductive, with little alternative routes to the one container port in operation.

The data contained in the Future Transport Strategies demonstrate that these factors in the Sydney Basin will continue to challenge the delivery of the freight and passenger services required by Government. Indeed, the data show that without major infrastructure investment and a revised port strategy, the situation will become untenable in the next decade and beyond. While freight flowing to Newcastle from the North will assist, freight from the Central West and beyond must move around and not through the Blue Mountains.

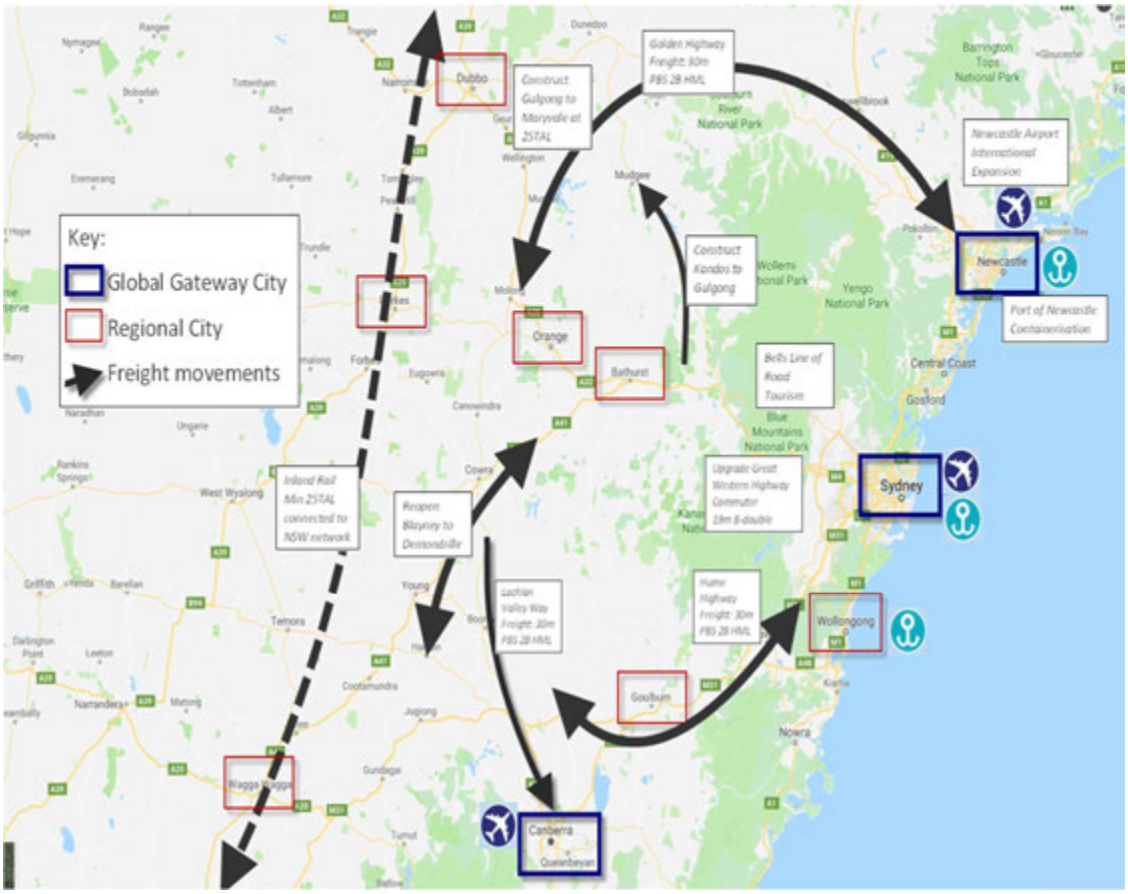


Figure 2: Freight flows Central West Around The Blue Mountains

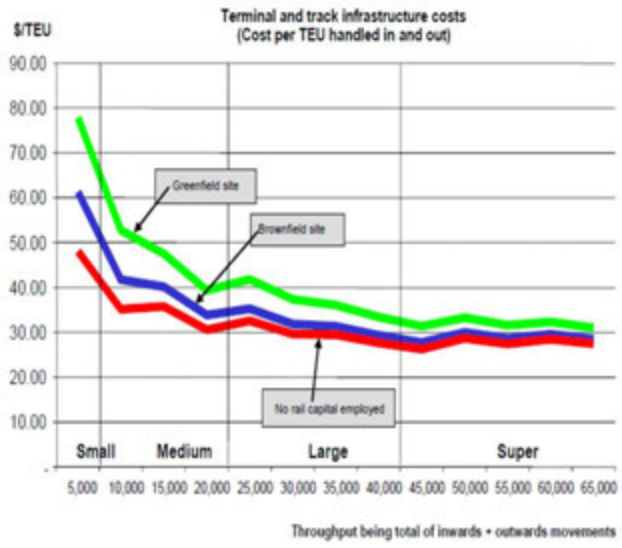
5.3. INTERMODAL TERMINALS

The effects of congestion, population growth and an increase in the freight task across NSW will also affect intermodal terminals both in metropolitan centres and regionally.

In 2004 the Sea Freight Council of NSW completed a study into the indicators for sustainability of regional intermodal terminals.[13] The study summarised six key drivers of viability and sustainability as:

- Volume,
- Distance from Ports,
- Initial Investment and Terminal Capacity, including cost of facilities establishment and operating methods,
- Seasonality,
- Competing Channels, and
- Economic and Social Impact.

5.3.1. VOLUME



As a general rule, an intermodal terminal requires a minimum volume throughput of 10,000 loaded TEUs per annum to be viable.[14] Volume is the most critical driver for commercial sustainability. Indicative terminal unit costs are shown in Figure 2 below[15]. Terminals which operate with volumes of 8,000-10,000 TEUs may operate profitably but often not with sufficient profit to reinvest and grow. Reinvestment and growth are generally associated with 15,000 TEUs or more per annum.

[13] Sea Freight Council of NSW Inc, "Regional Intermodal Terminals – Indicators for Sustainability", Sydney, January 2004

[14] Sea Freight Council of NSW Inc, "*Developing Freight Hubs: A Guide to Sustainable Intermodal Terminals for Regional Communities, op cit, p 3*

[15] Sea Freight Council of NSW Inc, "*Regional Intermodal Terminals. op cit, p 27*

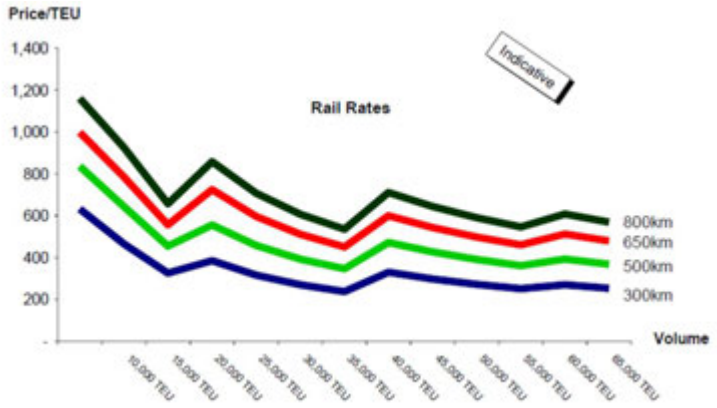
Figure 2 – Indicative Terminal Unit Costs by Volume and Investment Level

Further analysis by the Sea Freight Council determined that an annual throughput of 15,000 to 20,000 TEU's per year is likely to be necessary to attract a viable and regular rail service and make a significant profit.

The Sea Freight Council also noted that ". operating three terminals in a catchment area where volumes are sufficient to sustain only two, for example, can dilute individual terminal volumes to a point where none of the three is viable."[16] It is evident that a reduction in freight paths across the Blue Mountains will threaten the viability of regional intermodal terminals in Bathurst, Kelso, Blayney and Lithgow (emerging). On the other hand, alternative routes may well open opportunities for other regional intermodal terminals to thrive in Dubbo, Narromine, Narrabri, Gunnedah, Tamworth and New England. The natural destination for these regional intermodal terminals is Newcastle.

5.3.2. DISTANCE FROM PORTS

Rail and road transport costs vary with distances travelled. Generally, given a volume of 10000-15000 TEU, road-based movements are more cost effective over shorter distances. They provide greater flexibility in markets not accessible by rail. Where the distance travelled approaches or exceeds 300 kilometres[6], rail operations through intermodal terminals may not be at a cost disadvantage to direct road services. Given the type of market demand, a train normally travels loaded in the export direction, and therefore, the operating cost of the journey from port to rural terminal (or vice versa) must be offset by an efficient return (loaded journey).



The figures below demonstrate the differences between rail rates and modelled road rates under certain common assumptions.[17]

Figure 3 - Average Rail Based Unit Costs for Varying Volumes and Distance to Port

[16] Sea Freight Council of NSW Inc, "*Regional Intermodal Terminals – Indicators for Sustainability", op cit, p 7*
[17] Ibid, p 34-35

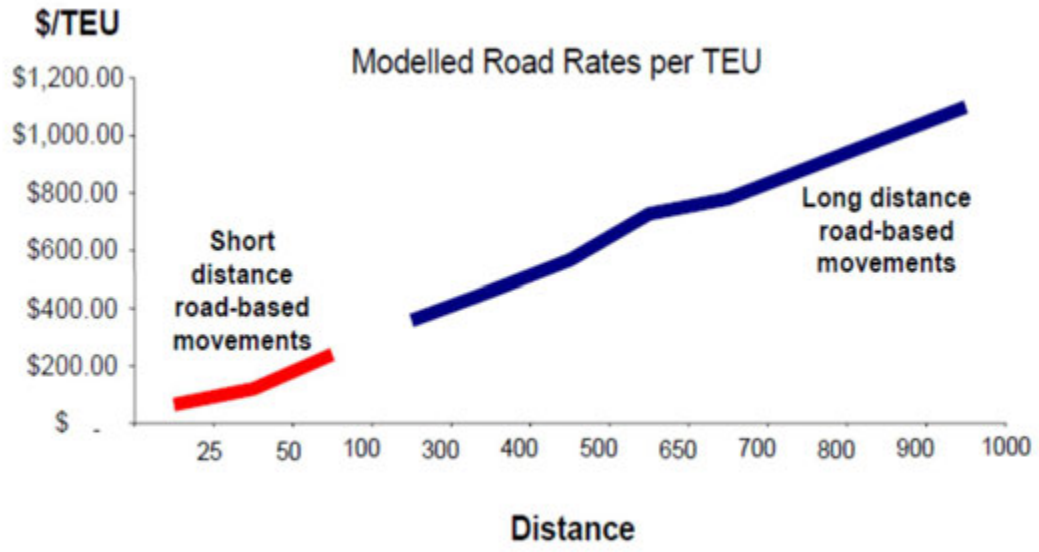


Figure 4 - Indicative Road Rates

Rail operations are not constant and their costs will be influenced significantly by a number of factors including:

- Payload, horsepower and topography (e.g., The Blue Mountains),
- Single and multiple loading impacts,
- Paths and delivery windows,
- Fixed operating cycles and available dwell time and
- Rail shunting costs[18] and 'take or pay' regimes.

Finally, regional terminals within a 24-hour train cycle of a port will tend to offer a more cost-effective service than locations that require a 48-hour train cycle. This factor needs to be balanced with the efficiencies gained from long trains carrying double-stacked containers over long distances. It is inconceivable that a 24-hour train cycle will be possible from anywhere within NSW to Port Botany while metropolitan terminals and shunts are required. It is perfectly conceivable that a 24-hour train cycle is possible from Dubbo to Newcastle with an improved network.

Metropolitan intermodal terminals remain an important component for distribution of materiel and fast-moving consumer goods imported from elsewhere. However, as the populations of the six cities demonstrate, this distribution can occur to current metropolitan terminals from Newcastle without great time penalties or from new terminals established as the need arises.

[18] Ibid p 46-50

5.4. ALTERNATIVES TO THE MOUNTAINS

5.4.1. MARYVALE TO GULGONG

Transport for NSW recently completed The Gulgong to Maryvale Line[19] Construction Feasibility Study and found that the project is economically viable. Completing the section between Gulgong and Maryvale would provide a more direct route from Dubbo to Newcastle, reducing the distance from 472km via Merrygoen to 412km via Maryvale. It would also avoid the need to shunt at Merrygoen and avoid the existing line from Dubbo to Gulgong, which is limited to 20.25 tonne axle load. The feasibility study considered four scenarios, namely:

- Scenario 1 – Improved Access to Markets
- Scenario 2 – Alternate Export Gateway Opportunities
- Scenario 3 – Mode Shift
- Scenario 4 – Growth and Induced Demand

All scenarios were considered economically feasible at a discount rate of 4 per cent, but the Cost Benefit Analysis, although economically feasible, was based upon bulk freight with suggestions that it would provide substantial operational benefits and cost savings for transport of grain, minerals, fertiliser and mine-related chemical products to/from the Dubbo and Mid-Western regional areas, and steel from the broader ARTC rail network. Should the Port of Newcastle become a deep-water container port, then the movement of containers along this line will enhance the freight flows and the resultant benefit cost ratio.

Although the route from Dubbo to Sydney via Maryvale would avoid the 1:40 grade on the Up on the Main West Line between Zig Zag and Lithgow, trains would still face 1:40 grades on

[19] The Sandy Hollow to Maryvale line was originally surveyed as a more easily graded crossing of the Great Dividing Range than the Blue Mountains line nearer to Sydney. Construction on the Sandy Hollow to Maryvale rail line commenced in 1936 but was subsequently abandoned in 1951. The line from Sandy Hollow to Gulgong was completed in the 1980s, but the section between Gulgong and Maryvale remains unfinished. Some earthworks between Gulgong and Maryvale were completed, along with several bridges and a tunnel.

the Up on the Main North Line between Sydney and Gosford. On the Down, travelling via Maryvale would avoid the 1:33 between Valley Heights and Katoomba on the Main West Line. The ruling grade for Down trains via Maryvale is 1:40 between Sydney and Newcastle. Of course, if the Port of Newcastle is the destination, then the ruling grades of the Up and the Down between Sydney and Newcastle become irrelevant, a clear advantage in moving around and not through the Blue Mountains.

5.4.2. THE GOLDEN HIGHWAY

The Golden Highway between Dubbo and the Hunter has recently been approved for Performance Based Standards (PBS) Level 2 Access Class B. This means that b-Double vehicles of 30 metres in length can use the highway and thus carry two FEUs. As an alternative to the Great Western Highway and the Bell's Line of Road, this route provides significantly higher productivity, through speed, payload and reduced time. This alternative to the Blue Mountains provides a further compelling reason to synchronise freight flows from the North, North-Wet and Central West to the Port of Newcastle as a container port.

5.4.3. FURTHER ALTERNATIVES

Further alternatives exist in the NSW rail network and its connections to Inland Rail. They include reopening of non-operational lines, development of regional international airfreight and inter-regional freight flows.

5.5. SHIPPING

"Shipping conferences refers to shipping companies that have formed an association to agree on and set freight rates and passenger fares over different shipping routes. There are different shipping conferences for different regions of the world. Shipping conferences, aside from setting rates, adopt a wide number of policies such as allocation of customers, loyalty contracts, open pricing contracts, etc."[20]

Notwithstanding the collusion provided by shipping conferences, there are supply and demand issues which also affect freight rates and ports at which ships will dock.

"*The container industry has experienced the most profitable two years in shipping history in 2021-22. Right on cue, owners ordered more new container ships than ever before. Even now, as freight rates tumble, they're still ordering more.*
"A huge number of new large container ships are going to hit the water at a time of stagnating demand," warned Alphaliner in a report on Tuesday. "The market could struggle to absorb all these new ships. Shipping lines are "entering a period of managed decline," it said. "Following consolidation and alliance restructuring, carriers are better placed now to tackle the 'danger' years than ever before" and to "pull the right capacity levers to ensure a soft landing for the market.""[21]

[20] OECD Glossary of Statistical Terms
[21] TIDAL WAVE OF NEW CONTAINER SHIPS: 2023-24 DELIVERIES TO BREAK RECORD

Opportunities now exist for industries to demand that shipping conferences use specific ports. An example is the delivery of diesel into Australia, whereby moving delivery from Port Botany to the Port of Newcastle (Stolthaven, Park) resulted in a reduction on the road between Sydney and Newcastle of 6500 tankers per year. So similarly, as shipping lines face more intensive competition, industries such as chilled meats, containerised grain, oilseeds and cereals might also demand that ships dock at the port which most favours their estimated freight rates.

in International Shipping News October 2022