

9.0 International gateways

Summary

- Sydney's international gateways of Port Botany and Sydney Airport are considered together in this section due to their close geographic proximity, which has implications for the portside and landside infrastructure of each facility.
- Port Botany and Sydney Airport have plans to accommodate much of the rapid growth forecast for container freight and air travel over the next 20 years. Achieving this primarily requires operational reform to lift productivity, not major capital works.
- The major infrastructure challenge that Sydney's International Gateways face is to the landside infrastructure – the roads and railway lines – that connect them within the metropolitan area and across NSW.
- Emphasis has been placed on getting more port containers to move by rail, taking advantage of available capacity on the rail network. This has proven challenging because road freight has been cheaper and more reliable for the short-haul journeys that make up most port container movements. The forthcoming opening of the Enfield Intermodal Terminal offers a test case for the short-haul rail freight market in Sydney.
- More can be done in the short term to improve travel to the Port and Airport, including providing cheaper rail travel and better bus services to the airport, and investing in key road pinch points.
- Even with more freight and airport customers using the rail network, most travel to and from the gateways will remain by road. Major investment is needed to augment the existing roads that link to Port Botany and Sydney Airport. The WestConnex scheme (refer Section 6) is Infrastructure NSW's principal response to the transport challenges faced by Sydney's International Gateways.
- Once Port Botany reaches capacity, (which is not expected to happen during the timeframe of this Strategy), it is planned for Port Kembla to become NSW's supplementary container port.
- There is no immediate need for supplementary airport capacity in Sydney. The growth of Western Sydney suggests that there is a case for a passenger airport targeting this market by the late 2020s. The RAAF Base Richmond could perform this role for a period while a new facility is under development.

9.1 Snapshot

- All of NSW, (including the regions), relies on containerised imports and exports of industrial and consumer goods moved through Port Botany. Sydney Airport's status as Australia's primary aviation hub benefits the whole state.
- Sydney's international gateways are expected to grow strongly over the next 20 years.
- Passenger numbers at Sydney Airport are forecast to double from less than 40 million in 2010 to over 80 million in 2031.
- Sydney Ports forecasts container movements at Port Botany to grow from around 2 million TEUs in 2011 to 7 million TEUs in 2031.
- Rapid growth in demand for freight and air travel will impact on the landside infrastructure and land use around the precinct.
- Investment in both the State's road and rail networks, including options for investment in intermodal freight terminals, will be needed but must recognise the primary role of road in moving freight around Sydney.
- Supplementary airport capacity is not expected to be needed until the late 2020s, at its earliest. Additional container port capacity is not needed until the 2030s on current forecasts.

9.2 Container freight

9.2.1 Features of the container freight trade

Port Botany is principally a container port catering for 99 percent of NSW container movements¹. Container volumes in NSW are shown in Table 9.1.

The container trade is characterised by the excess of imports over exports. The main freight supply chain task in connection with Port Botany is the distribution of import containers within Sydney: in fact 98 percent of import containers are destined for no further than 50 kilometres from the port gate². It is this proximity to the market that provides Port Botany with its non-replicable competitive advantage.

The export trade is diverse and includes agricultural produce and some mineral exports from regional NSW, and manufactured goods primarily from metropolitan NSW. In addition, the export of empty containers (stored in container parks in the metropolitan area) is a significant task.

A feature of the container business is that growth is continuing at a long term trend of more than twice GDP growth – averaging seven percent per annum over the past 15 years³. Container trade through Port Botany is forecast to nearly quadruple by 2031, reaching over seven million TEUs⁴, up from two million TEUs in 2011⁵.

¹ Ports Australia 2011, Containerised Trade Statistics.

² Sydney Ports Corporation 2011, Logistics Review 2010-11.

³ NSW Government 2011, Port Botany and Sydney Airport Transport Improvement Program, submission to Infrastructure Australia.

⁴ TEU = Twenty-Foot Equivalent Unit. The unit of volume used by the container freight industry, akin to a standard-sized container.

⁵ Sydney Ports Corporation 2011, The Future of Sydney Ports: A 30 year Horizon.

Table 9.1 2010-11 Container volumes NSW

Ports	Imports			Exports			Total TEU
	Full	Empty	Total	Full	Empty	Total	Total
Port Botany	1,000,453	20,107	1,002,560	458,703	540,823	999,526	2,020,086
Other	2,219	8,243	10,462	11,523	506	12,029	22,491

Source: Ports Australia.

Table 9.2 Container Terminal Port Productivity Comparison

Port	Net Crane Rate (TEU/hour)	TEU per berth Metre	Yard Utilisation*
Sydney	26	834	19,708
Melbourne	29	1,146	27,576
Hong Kong	36	2,661	107,997
Shanghai	35	2,061	45,135

Source: BITRE

* TEU per gross hectare of yard.

9.2.2 Portside infrastructure

Port Botany container operations have operated as a duopoly since establishment: the incumbent stevedores are Patrick (a subsidiary of Asciano) and DP World (formerly P&O). A third terminal has recently been developed, which will be operated by Hutchison Ports starting in 2013.

With the development of the third terminal, Port Botany now has the portside infrastructure to move at least seven million TEUs per annum, based on Sydney Ports Corporation estimates.

Maximising the potential of Port Botany will require an uplift in productivity. The productivity improvements flowing from reform in the late 1990s have not been sustained and Port Botany lags behind international competitors. This efficiency gap is illustrated in Table 9.2.

As Section 3 notes, Infrastructure NSW assumes that through a combination of automation and more efficient labour arrangements, Port Botany will be able to realise its potential throughput. On this basis, Port Botany will be able to handle Sydney's container trade for at least the next 20 years, and probably longer.

9.2.3 Landside infrastructure

Container freight transport today

The main infrastructure challenge for Port Botany is providing appropriate landside infrastructure for distributing containers across Sydney. This requires road and rail networks, plus supporting infrastructure such as empty container parks, intermodal terminals, truck marshalling facilities and buffer zones.

The vast majority of containers move by road. At present, the Port Botany container trade produces around 3,900 truck movements daily⁶. A large proportion of these trucks use the M5 corridor, where port-related trucks are less than two percent⁷ of total traffic.

Only 14 percent of container movements through Port Botany went by rail in 2011, compared with 19 per cent in 2006⁸. Less than half of paths on the existing rail line are utilised⁹.

Making rail competitive

The reason the market prefers road at present is because road transport is more flexible and more reliable than rail, and, in most cases, less expensive.

Rail is poorly set up to accommodate much of the containerised freight task. Less than half of rail journeys to or from Port Botany run on time¹⁰. Major delays can be encountered where rail passenger transport takes precedence over rail freight or due to inefficiency at the

port rail yards, where containers can be handled multiple times compared to a road equivalent¹¹. These reliability challenges are a particular issue for time sensitive cargo.

The situation on cost is more complex. It has been argued that road freight does not pay the full costs of the infrastructure it uses¹², distorting the market against rail freight. However, Infrastructure NSW is inclined to agree with the Productivity Commission, which found limited price distortions between road and rail, (once registration costs and fuel charges were accounted for) in its 2006 study¹³ into the issue.

Road transport has an inherent cost advantage for short haul cargo. This is due to rail's high fixed (but low marginal) costs. In NSW, 85 percent of container movements are within the metropolitan area¹⁴.

Rail is cost competitive with road for journeys over longer distances. This is illustrated in the case of export container freight, a significant proportion of which originates in Regional NSW. Rail already has a 38 per cent share of export container freight, compared to a 15 percent share of import container freight¹⁵.

For short haul container movements where there is 'double handling' (i.e. requires transfer via a warehouse before its final destination), it is argued rail has the potential to compete with road freight.

Analysis by Deloitte Access Economics for Sydney Ports

Corporation¹⁶ suggests that rail could be cost competitive or cheaper than road freight for these movements providing the following circumstances were met:

- volumes to increase substantially to gain economies of scale
- portside handling movements to be reduced through terminal reconfiguration
- investment in intermodal terminal capacity, enabling rail to road transfer (and vice versa)
- investment in warehousing and empty container facilities close to these intermodal terminals. Much of the cost advantage that rail could potentially offer over road requires the creation of warehousing precincts to be developed around the intermodal terminal.

The implications of this for Port Botany container freight are discussed in section 9.5.

Conclusions

There has been a strong emphasis on increasing the proportion of container freight that is moved by rail in recent years. However, even under optimistic projections of modal shift to rail, road will remain the dominant mode for Port Botany freight traffic, and the majority of freight growth over the next 20 years will be conveyed by road.

This situation is illustrated in Table 9.3, which shows the indicative mode split assuming seven million TEUs in 2031 under three scenarios. Even were rail to reach a 40 percent mode share by 2031, road travel will still more than double during this period.

6 Sydney Ports 2008, Port Freight Logistics Plan.

7 Roads and Maritime Services 2011.

8 Sydney Ports Corporation 2011, Logistics Review 2010-11.

9 Australian Rail Track Corporation 2007, Submission to IPART – Port Botany Review.

10 Sydney Ports Corporation 2010, PBLIS Train On-Time Running Report; average of headline KPI's.

11 Ernst & Young 2011, Port Botany – Sydney Airport Precinct Scoping Study report to Infrastructure NSW.

12 Pacific National 2004, Submission to the Productivity Commission.

13 Productivity Commission 2006, Road and Rail Freight Infrastructure Pricing.

14 Sydney Ports Corporation.

15 Sydney Ports Corporation.

16 Sydney Ports Corporation 2008, Enfield Business Case.

Table 9.3 Port Traffic Road / Rail Mode Share Scenarios

Port	2011	2031 28% rail share	2031 40% rail share	Growth (TEUs) 28% rail share	Growth (TEUs) 40% rail share
Total	1,900	7,000	7,000	5,100	5,100
Road	1,634	5,040	4,200	3,406	2,566
Rail	266	1,960	2,800	1,694	2,534

Source: Sydney Ports Corporation; Infrastructure NSW analysis.

The complexities and constraints presented by Port Botany’s location, along with its forecast rapid growth, (discussed in Section 3), suggest that both modes will need to substantially increase the volumes they carry to ensure the efficiency of the port supply chain over the next 20 years.

Greater focus should be given to accommodating container freight movements by road. This is because road freight will remain the dominant mode.

9.3 Air travel

9.3.1 Introduction

Aviation is a significant economic driver in any global city. Airports and the associated inbound traffic support local employment and economic growth. Sydney Airport is an important contributor to the State’s economy, contributing around \$7.4 billion¹⁷ per annum directly to NSW household incomes.

Airports are also major travel generators. Car travel to Sydney Airport has a greater impact on Sydney’s road network than freight travel to Port Botany.

Aviation demand is growing faster than the wider economy. By 2029, Sydney Airport Corporation (SACL) expects passenger numbers to more than double (compared with today), to 79 million people¹⁸.

9.3.2 Capacity constraints at Sydney Airport

The capacity of Sydney Airport is ultimately constrained by its location and operating restrictions imposed by Government.

Airport issues in and around Sydney have been assessed exhaustively by the ‘Joint Study on Aviation Capacity for the Sydney Region’ released by the Commonwealth and NSW Governments in 2012.

The Joint Study forecasts progressive capacity constraints at Sydney Airport from the mid-2020s and recommends Badgerys Creek as the preferred site for a secondary airport, with Wilton as an alternative. By 2027, the Joint Study estimates that, under a ‘no change’

scenario, there will be a full allocation of arrival and departure slots at Sydney Airport by 2027, with unmet demand for more than 100 flights per day.

Conversely, SACL, the owner of Sydney Airport, believes that Sydney Airport has growth capacity for at least 20 years, based on a program of incremental changes to infrastructure, aircraft mix and operating practices.

Like any complex infrastructure asset, the capacity of Sydney Airport is a function of a number of different factors. SACL has a concept stage proposal to address the terminal and gate capacity issues through reconfiguring the existing Domestic Terminal (T2 and T3) and the existing International Terminal (T1). This proposal is in the concept stage and the extent to which this increases the capacity of Sydney Airport is yet to be determined. SACL and airline operators are progressing discussions to implement by 2019.

Aside from the physical constraints of the current facilities, there exist a number of regulatory restrictions including a curfew, a maximum movement limit and regional allocations. Each of these factors places a level of capacity constraint on Sydney Airport, the modification of which has the potential to delay the need for supplementary airport capacity.

It is Infrastructure NSW’s view, based on the analysis noted above, that for the duration of the State Infrastructure Strategy, Sydney Airport will remain the hub airport for the Sydney region but additional secondary capacity may be needed from the late 2020s.

¹⁷ Sydney Airport Corporation 2009, Sydney Airport Master Plan.

¹⁸ Sydney Airport Corporation 2009, Sydney Airport Master Plan.

9.3.3 Public transport to Sydney Airport

Transport infrastructure will need to be upgraded to support the forecast growth at Sydney Airport. The constraints felt on transport infrastructure around the airport make this matter urgent.

Public transport is central to this. As a major activity centre, airports are well suited to public transport. By world standards, the modal share of public transport to Sydney Airport is very low at 15 percent. If 40 percent of journeys to Sydney Airport were made by public transport today (the mode share of a number of major overseas airports) there would be around 25,000 fewer people travelling on the roads around this precinct each day, significantly reducing road congestion in the area.

Low public transport mode share is due partly to inadequate service provision. The airport is connected to Sydney's CBD through the Airport Line, but lacks bus access. Only one bus service runs to Sydney Airport, whereas London's Heathrow Airport, which has roughly double Sydney's passenger numbers, which has 29 bus routes (and two rail connections)¹⁹.

Public transport usage is also low because private transport is often cheaper than public transport. It is cheaper for three people to share a taxi to Sydney Airport from the CBD than for them to travel on the Airport Line, due to the high Airport Station usage fee (\$12 in 2012) Airports where public transport costs are relatively cheaper generally have a higher share of public transport usage²⁰.

¹⁹ Ernst & Young 2011, Port Botany – Sydney Airport Precinct Scoping Study report to Infrastructure NSW.

²⁰ Ernst & Young 2011, Port Botany – Sydney Airport Precinct Scoping Study report to Infrastructure NSW.

Recommendation Infrastructure NSW recommends in the short term that the NSW Government take action to improve public transport to Sydney Airport, including reducing the Airport Station Usage Fee and offering improved bus services.

More detailed analysis is needed of options to reduce the Airport Station Usage Fee. This should ideally be achieved in a way that is cost-neutral to the State. This could be achieved, for example, by the development of alternative funding sources that aim to spread costs more evenly across airport users.

As at Port Botany, the number of road journeys to Sydney Airport is forecast to rise over the next 20 years, even with significant modal shift to public transport, making major road investment around the airport essential.

9.4 Road infrastructure around the international gateways

In the short term, actions to improve traffic flows around Port Botany and Sydney Airport should include:

- continued improvement of the port gate/terminal interface
- investment in road infrastructure within Sydney Airport
- solving local port traffic bottle necks and pinch points on surrounding roads.

The Port Botany Landside Improvement Strategy (PBLIS), which was launched in 2011, is an example of

the improvements in transport to and from the port that can be achieved in the short-term through better supply chain co-ordination. Led by Sydney Ports Corporation (SPC), PBLIS is tasked with improving the competitive access and service arrangements of container movements between stevedores and transport carriers at Port Botany.

Evidence shows that PBLIS has been extremely successful in improving the road transport interface at Port Botany, not only in truck efficiency through the gate but also in spreading the volume of traffic across the 24-hour period.

SACL is preparing a revised Master Plan, which will include a ground transport plan, at the direction of the Federal Minister for Infrastructure and Transport. Its most recent Master Plan, (published in 2009) set out a series of planned upgrades to the internal road networks that serve the Domestic and International Terminals. The proposed terminal realignment could improve traffic flows around Sydney Airport by more evenly spreading traffic between its terminals.

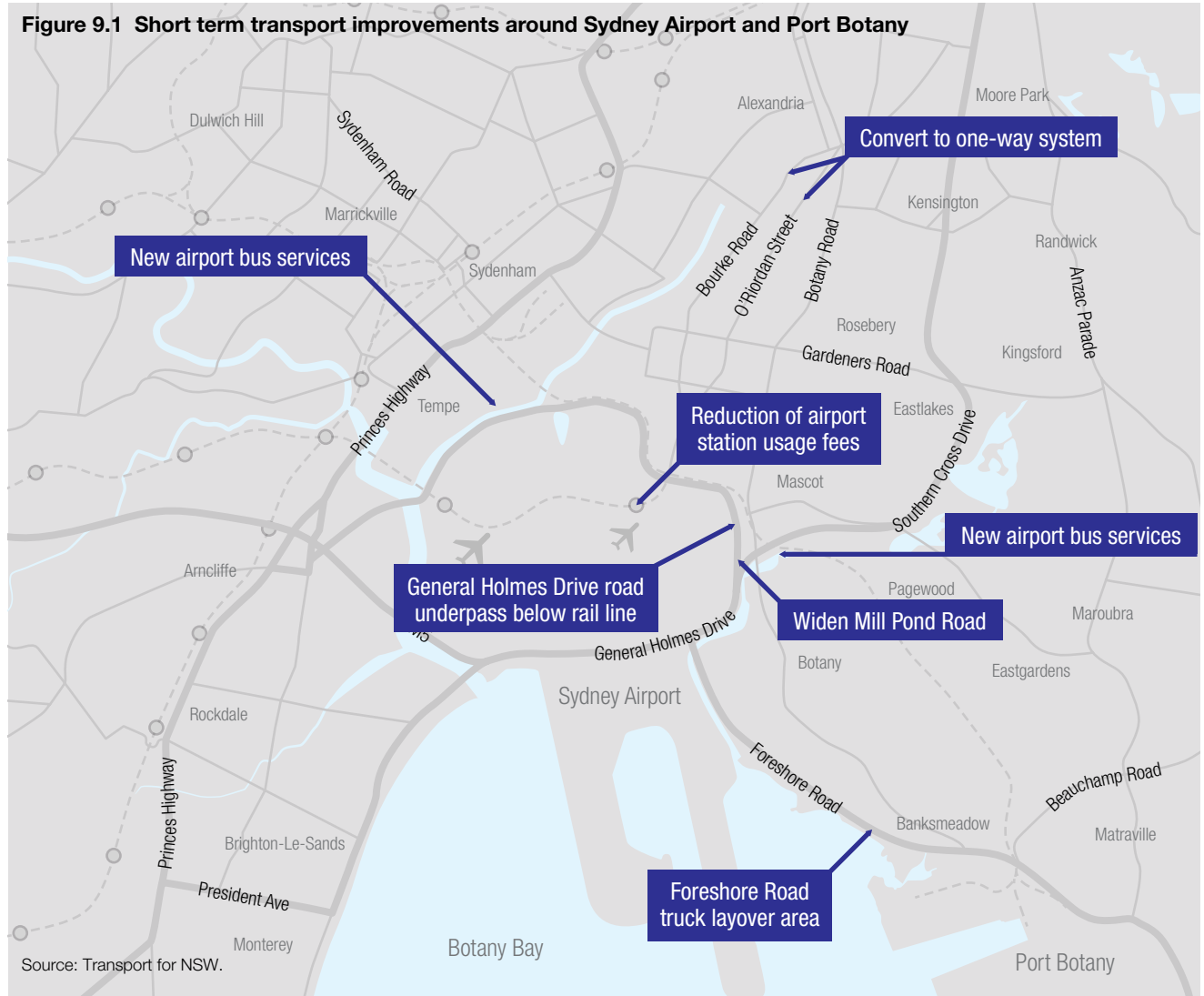
Roads and Maritime Services is developing a package of short-term road “pinch point” investments that could relieve congestion on roads around Port Botany and Sydney Airport. This is shown in Figure 9.1.

Potential projects include:

- **A road underpass of the rail line at General Holmes Drive level crossing.** Closure of this rail level crossing will improve road movements, and provide benefits to rail freight by removing a major pinch point from the rail network.
- **A truck layover area in the Foreshore Rd area.** This will reduce freight movements on the road network by allowing container vehicle parking close to the port terminal.
- **Implementing a one way system on airport approach roads.** This option provides for converting both Bourke Rd and O’Riordan St (to their intersection near Green Square) into three-lane one way routes. This allows greater through capacity for these roads.
- **Widening of Mill Pond Rd.** This project includes for the provision for increased storage for city bound traffic released from General Holmes Drive, improving the efficiency of access to Botany Rd and Southern Cross Drive.

Recommendation Infrastructure NSW recommends the proposed road pinch points program around Sydney’s International Gateways is expedited with a view to its completion within three to five years.

Figure 9.1 Short term transport improvements around Sydney Airport and Port Botany



Source: Transport for NSW.

In the medium and longer term, the principal road infrastructure solution for Sydney's Gateways is the construction of WestConnex as described in Section 6. By the early 2020s, this would provide motorway standard access from Port Botany to the industrial lands of Western and South-Western Sydney, and improve access by road to Sydney Airport from the South-West (where many airport employees live), Inner-West and Southern CBD.

9.5 Freight rail infrastructure around Port Botany

This section discusses infrastructure options to increase the proportion of container freight moved by rail, taking account of the dynamics of this market set out in Section 9.2.

The freight rail infrastructure network includes:

- rail marshalling yards at Port Botany
- dedicated freight rail lines in the metropolitan area through the Metropolitan Freight Network
- rail lines shared with passenger trains
- intermodal terminals and surrounding warehousing infrastructure.

9.5.1 The vision for Intermodal Terminals

The major infrastructure requirement identified to increase the proportion of container freight that moves by rail is investment in intermodal capacity.

The concept of intermodal terminals as inland ports has attracted a great deal of support in recent years.

The private sector and the Commonwealth Government have separate schemes for a major intermodal terminal at Moorebank in Sydney's South-West. Over the longer-term, Eastern Creek (at the junction of the M4 and M7 motorways) has been identified as another potential intermodal site²¹. Figure 9.2 summarises the current and potential intermodal terminal locations in Sydney.

9.5.2 Immediate rail infrastructure options

Infrastructure NSW is supportive of the intermodal concept. However, despite rail's theoretical cost advantages discussed in section 9.2, for some types of short-haul freight, this market is essentially unproven in Sydney. At present, most intermodal demand in Sydney is for longer-haul export freight, and there is significant capacity available at a number of existing intermodal sites²².

Sydney Ports and Hutchison are currently developing a 300,000 TEU per annum intermodal facility at Enfield²³, which will open in 2013²⁴. Enfield provides a test case for larger scale short haul intermodal freight in Sydney.

Recommendation Infrastructure NSW recommends that State public funding for additional intermodal terminal capacity in Sydney (including in relation to supporting infrastructure) be minimised until there is greater clarity on whether the short-haul rail freight market is viable.

²¹ Transport for NSW 2012, Draft Transport Master Plan.

²² Shipping Australia and Sydney Ports Corporation 2010, The Future of Sydney Ports: A 30 Year Horizon.

²³ 300,000 TEU is the maximum approved capacity for the Enfield International Terminal. Management's assessment is that maximum theoretical capacity for this facility is 500,000 TEUs per annum.

²⁴ Sydney Ports Corporation and Hutchison Port Holdings 2011, Media Release: HPH to operate Enfield ILC, 2 August 2012.

This approach does not contradict either of the proposed developments in the Moorebank Precinct, where project investors propose to fund immediate supporting infrastructure (for example rail lines and precinct roads). Until these facilities demonstrate commercial viability, it would be imprudent to commit significant State capital in wider infrastructure upgrades.

Infrastructure NSW assumes that (in line with proponents' estimates) Moorebank will be developed over the next five years. It is likely that major investment in supporting infrastructure around this precinct, given ramp up, will not be required until after 2017.

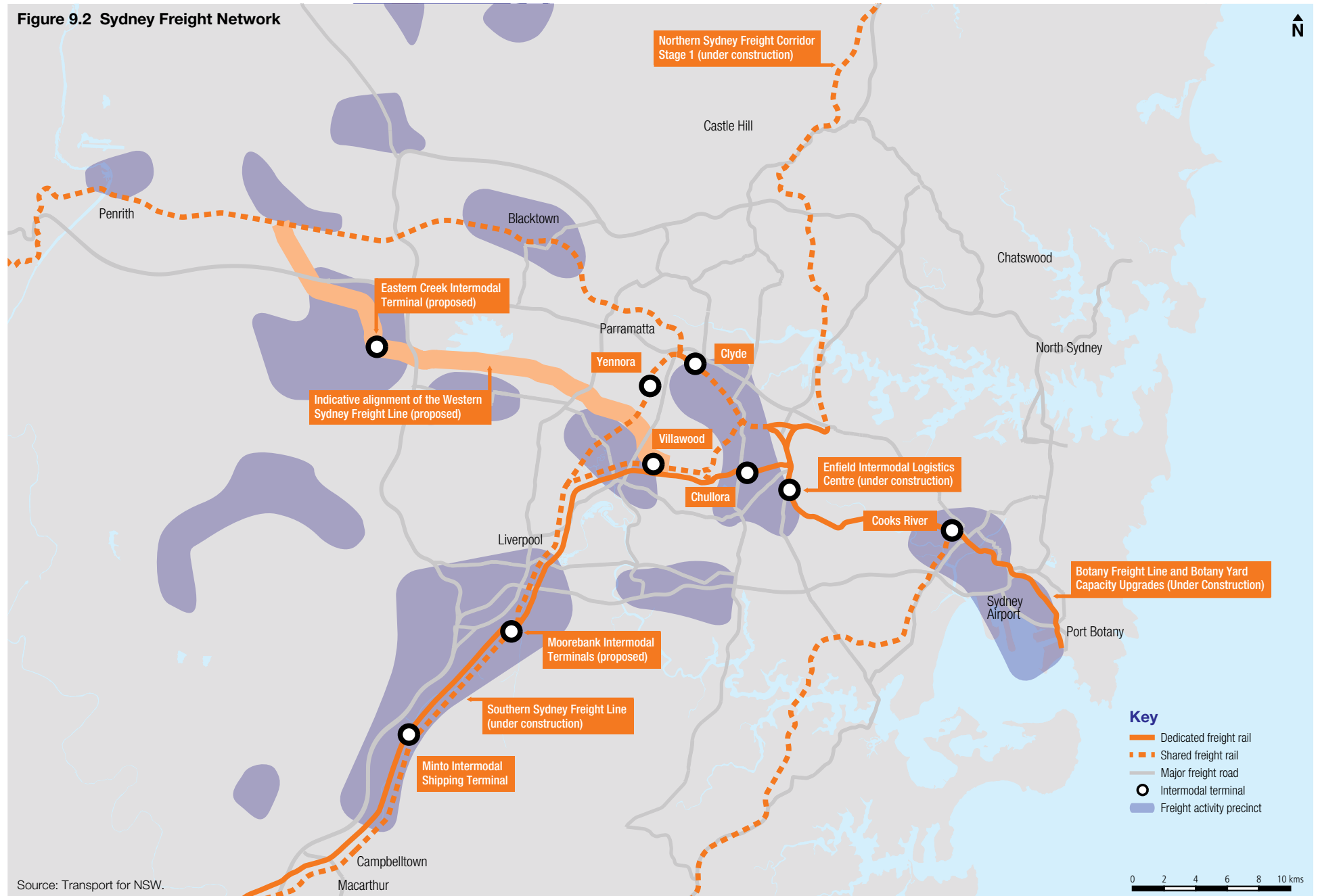
Infrastructure NSW supports other incremental reforms and investments designed to improve the reliability of Port Botany rail freight in the short and medium term. These include:

- the recent transfer of oversight of the Metropolitan Freight Network from Railcorp to the ARTC
- completion of the Southern Sydney Freight Line, which will deliver a dedicated freight rail network between Port Botany and Macarthur, in the South-West of the metropolitan area
- targeted investment to remove bottlenecks that impact rail performance, for example through clearing the Enfield staging facility.

9.5.3 Longer-term rail infrastructure options

Should the short haul import export intermodal market prove viable, either of the proposed investments in the Moorebank precinct, combined with Enfield and existing intermodal capacity, would create sufficient intermodal

Figure 9.2 Sydney Freight Network



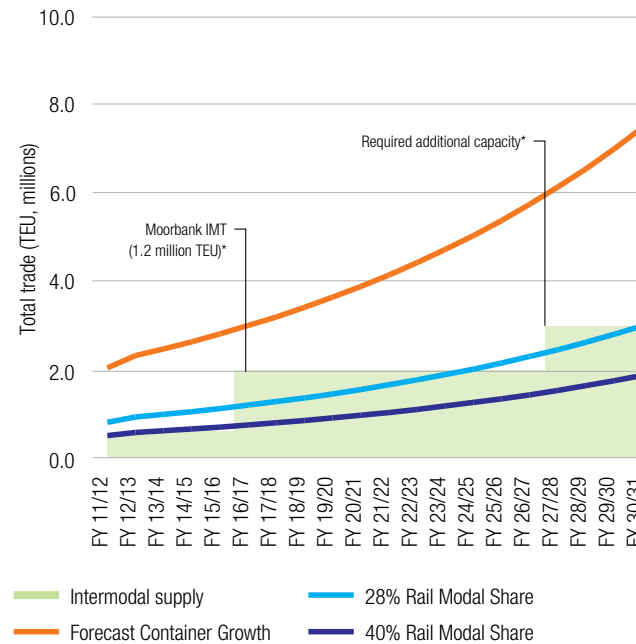
capacity to accommodate growth in demand for rail freight until the late 2020s, even under an optimistic scenario. This is shown in Figure 9.3.

This analysis indicates that investment will be required in the Metropolitan Freight Network by the mid-2020s. Potential investments would be likely to include duplicating the Port Botany line and expanding capacity on the Southern Sydney Freight Line.

Longer-term major investment in connecting rail infrastructure (known as the Western Sydney Freight Line) would be required to make the proposed site at Eastern Creek viable. This decision is not possible now, given the uncertainty over demand for short-haul intermodal freight.

Recommendation Infrastructure NSW recommends that action be taken in the short term to identify and preserve a rail corridor for the Western Sydney Freight Line and land for the terminal at Eastern Creek, given the paucity of alternative options should the short-haul freight market prove viable.

Figure 9.3 Forecast container growth, forecast mode share and intermodal supply



Source: Sydney Ports Corporation.
 * Assumes volumes as per Commonwealth Government Moorebank IMT Business Case, 2012.

9.6 Supplementary container port capacity

Beyond the timeframe of this Strategy, there may be some benefit to the development of supplementary container port capacity in NSW. For example, an alternative facility could improve the resilience of NSW's infrastructure in the event that Port Botany wharfage was incapacitated. Planning for this investment will need to start in the 2020s.

The Government has announced its expectation that Port Kembla will provide the next logical tranche of container capacity, once Port Botany is fully utilised. Significant investment in landside infrastructure will be required to support Port Kembla.

The vast majority of containers to this facility would be expected to be destined for the Greater Sydney area. The recommended investments set out in this Strategy in WestConnex (over the next 10 years) and in the F6 Extension (during the 2020s), will support the development of Port Kembla. Potential rail investments to Port Kembla are assessed in Section 10.

9.7 A secondary airport for Sydney

9.7.1 Considerations for a Secondary Sydney Airport

Whilst public discourse relating to a Secondary Sydney Airport (SSA) has been ongoing for around 30 years, the fact that a SSA has not been constructed is a result of a number of factors, including:

- inability to establish a viable business case for a SSA that replaces Sydney Airport
- Sydney Airport's attractive location for business, situated around 8 kilometres from the Sydney CBD.

When determining any future SSA, consideration should be given to the increasing number of Low Cost Carriers (LCC), as well as the importance of landside transport infrastructure.

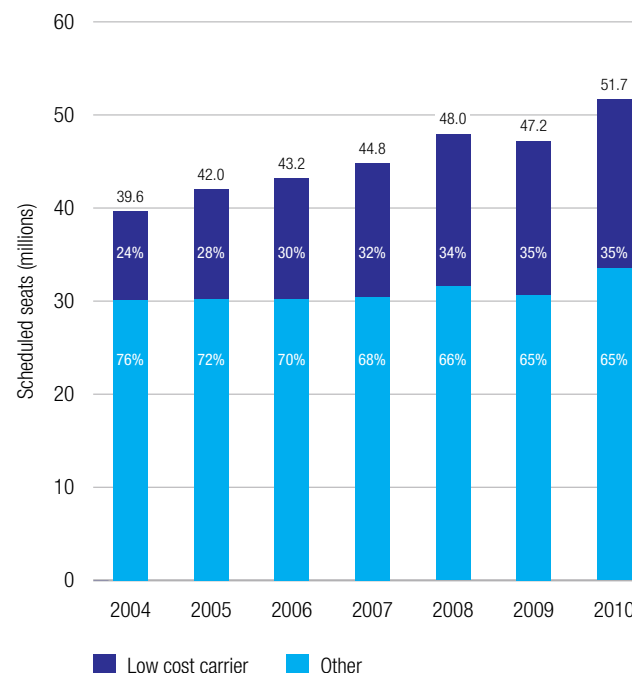
LCC have grown significantly, accounting for nearly 35 percent of scheduled seat capacity in 2010 up from 24 percent in 2004²⁵ (refer figure 9.4). LCC passengers tend to be more sensitive to pricing than full service passengers with a relatively lower time opportunity cost. LCC passengers tend to be more flexible in terms of travel times and dates, and more amenable to longer travel times to and from airport in return for cheaper fares.

In various international cities exists a hub airport, catering to full service passengers and secondary airports servicing LCC and freight aircraft.

In Melbourne, Avalon has been able to attract LCC and freight aircraft, against the backdrop of significant

²⁵ Steering Committee 2012, Joint Study on Aviation Capacity for the Sydney Region, Department of Infrastructure and Transport.

Figure 9.4 Sydney region – Low Cost Carrier share of scheduled seat capacity 2004-10



Source: Booz & Company; Referenced in Steering Committee.

Note: Shows seats available for sale by airlines (rather than actual movements). Includes services provided by Virgin Australia (then called Virgin Blue), which at the time was branded a Low Cost Carrier.

access issues. About 55 kilometres from the Melbourne CBD, Avalon is unserved by public transport and competes against an airport at Tullamarine that has an unconstrained capacity and is curfew free.

In London, Heathrow has operational constraints similar to that of Sydney. Over time, excess demand has been transferred to secondary airports, whilst the hub airport has remained at Heathrow. Today Heathrow serves only 60 percent of the total London area passengers of 128 million per annum²⁶.

Heathrow has remained the specialised international and business hub, while the other airports have skewed towards low cost and charter businesses.

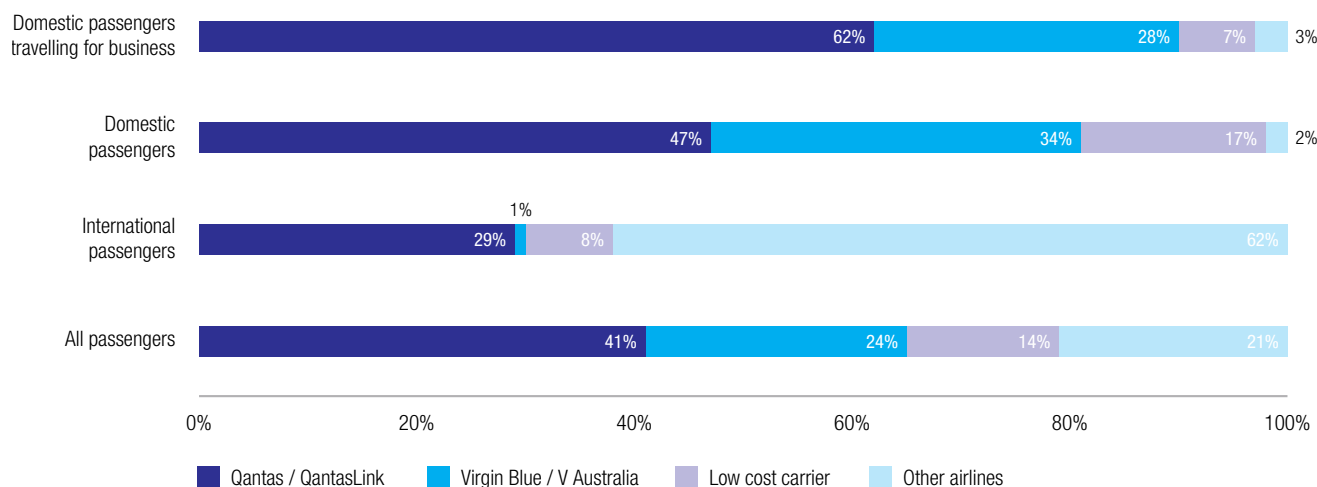
Infrastructure NSW expects a similar trend in Sydney, with segmentation of the market summarised in figure 9.5. Sydney Airport will remain the hub, supported by secondary facilities to serve LCC, freight and some regional flights.

9.7.2 Western Sydney regional airport

As a conurbation of over two million people, Western Sydney has a strong claim for its own airport, over and above the long term need for a secondary airport to take overspill traffic from Sydney Airport. A secondary airport to serve Western Sydney and surrounding areas would generate substantial economic gains for local communities and create both direct and indirect employment.

²⁶ UK Civil Aviation Authority 2010.

Figure 9.5 Sydney region – Airline market shares for passengers



Source: BITRE and Tourism Research Australia; Referenced in Steering Committee.

Infrastructure NSW believes that economic considerations should be given primacy in the location of a Western Sydney regional airport. Accordingly relevant considerations include customer catchment area, ease of access to the Sydney Strategic Road Network, and attractiveness as part of the logistics supply chain.

Having regard to these considerations, Infrastructure NSW is supportive of the concept of a secondary airport for the metropolitan area in Western Sydney. The Joint Study concludes that the preferable site is at Badgerys Creek. All the land required is already

owned by the Commonwealth, the site is accessible from the M7 Motorway and is close to the Western Sydney logistics hub. The study also raises the potential for RAAF Base Richmond to play a supporting role to Sydney Airport.

The main issue for a Western Sydney regional airport is timing. The short term recommendation is for both State and Commonwealth Governments to maintain the integrity of the Badgerys Creek site, and review the supply/demand balance on a five yearly basis to determine when detailed planning for the development

of the Western Sydney regional airport should occur. Further detailed assessment should be made of the options for the RAAF Base Richmond to take on some aspects of this role prior to the completion of a dedicated new facility in Western Sydney.

Recommendation Infrastructure NSW recommends that the NSW and Commonwealth Governments conduct a strategic planning review for RAAF Base Richmond to assess how this site could progressively accommodate passenger flights from the late 2020s.

Recommendation Infrastructure NSW recommends that the integrity of the Badgerys Creek site is preserved to meet Sydney’s longer-term aviation needs. On current supply/demand forecasts, it is likely detailed planning for this site will need to commence by the 2020s, recognising the long lead times associated with airport development.

9.8 Conclusions

9.8.1 Summary of findings

NSW has resilient infrastructure at its key international gateways. Port Botany and Sydney Airport are well located to serve the economy of Sydney and NSW more broadly. Port Botany has capacity to more than triple container demand and Sydney Airport, with its impossible to replicate geographical advantages, retains capacity to grow substantially during the lifetime of this Strategy.

Focus is needed on meeting the landside infrastructure demands of these gateways. However consideration is needed of the market dynamics of the different types of passenger and freight travel.

Infrastructure NSW believes too much focus has been placed on trying to get container freight off Sydney’s strategic road network, without adequate consideration as to why it is there – or what the true benefits and costs would be of such modal shift.

Conversely, too little has been done to move airport passengers onto public transport – despite

the potentially greater impacts this could have on congestion.

Even with significant modal shift, however, Infrastructure NSW sees no alternative to significant investment in road capacity. In the short-term this means a targeted program of ‘pinch point’ investments around the port and airport. In the longer-term, Infrastructure NSW recommends the WestConnex scheme to keep traffic moving around these essential gateways.

Once Port Botany reaches capacity, which is not expected to happen during the timeframe of this

Strategy, Port Kembla is expected to become a supplementary container port for NSW.

Finally, while there is no immediate need for supplementary airport capacity in Sydney, the growth of Western Sydney will support a regional airport in this area over the longer term.

Preserving optionality is critical given the paucity of sites that have a viable business case. This means preserving planning constraints that limit development around the most viable site, Badgerys Creek, and preparing RAAF Base Richmond for passenger aviation.

9.8.2 Recommended actions

Recommendations	Years	Type	Cost and Funding Implications	
26	Port Botany-Sydney Airport Roads Pinch points Program	0 – 5	Program	Estimate of \$330 million
27	Reduce or remove Airport Stations usage fee	0 – 5	Asset utilisation	Assumes that the cost of this measure can be offset by a mix of alternative airport funding sources, passenger growth and adjustments to other fares
28	Expand bus services to Sydney Airport	0 – 5	Asset utilisation	Operational reform – no major capital works proposed
29	Moorebank Intermodal Terminal: site development	0 – 5	Major project	Terminal to be funded by Commonwealth and private sector
30	Preserve rail corridor for the Western Sydney Freight Line and site for Eastern Creek Intermodal Terminal	0 – 5	Corridor	Cost of corridor planning is not material. No assessment of land acquisition costs has been made
31	Preserve integrity of Badgerys Creek site for future aviation use	0 – 5	Corridor	Cost neutral
32	Assess passenger travel options at RAAF Base Richmond	0 – 5	Planning	Cost of planning work is not material
33	Moorebank Intermodal Terminal: supporting infrastructure	5 – 10	Program	Estimate of \$300 million
34	Incremental capacity upgrades on freight rail lines in Sydney area	5 – 10	Program	Assume delivery by ARTC based on user funding model
35	Eastern Creek Intermodal Terminal	10 – 20	Major project	Assume delivery by ARTC based on user funding model
36	Develop Western Sydney Regional Airport	10 – 20	Planning	Cost of planning work is not material