

Chapter 2

Assessment of the issues raised by the NSW Planning Assessment Commission



2. Assessment of the issues raised by the NSW Planning Assessment Commission

Chapter 2 provides a discussion on the matters raised by the NSW Planning Assessment Commission (PAC) in its assessment of the Sydney Intermodal Terminal Alliance (SIMTA) Concept Plan Environmental Impact Statement (EIS) in late 2014, with a specific focus on matters with direct implications for the Moorebank Intermodal Terminal project (the Project).

2.1 Background

The SIMTA Concept Plan application was referred to the PAC for determination under delegation from the Minister for Planning on 12 June 2014, following assessment of the project by Department of Planning and Environment (DP&E). The SIMTA concept plan application was referred to the PAC as more than 25 objections were received and both Liverpool and Campbelltown City Councils objected to the proposal. Given the number of objections received during the public exhibition, the PAC will most likely also determine the Moorebank IMT proposal following an initial assessment by DP&E. The Project will additionally be subject to approval by the Commonwealth Minister for the Environment; however, this is unrelated to the PAC process.

In relation to the SIMTA proposal, the PAC raised three issues considered to be of direct relevance to the Moorebank precinct as a whole and are equally applicable to this Project:

- That the Moorebank Intermodal Company (MIC) proposal must be assessed to take into account the SIMTA proposal – i.e. a coordinated approach that is articulated across the two projects including a master plan.
- That the Project should be subject to a 250,000 twenty foot equivalent (TEU) per annum (p.a.) interim and a 500,000 TEU p.a. final cap on capacity (specifically in relation to on-road container movements) associated with presumed road network capacity constraints and the PAC's view that this would be sufficient to service the long-term market demand at Moorebank. In particular the PAC references the Government's strategic goal of 28% rail share from Port Botany by 2020, and incorrectly determines this requires only 152,000 TEU p.a. capacity. The PAC notes that the SIMTA Stage 1 of 250,000 TEU p.a. would more than satisfy this requirement.
- Concerns about the capacity of the road network to accommodate the development of the precinct, and associated traffic issues. This was specifically relevant to the imposition of the cap. In particular the PAC stated "given the uncertainty about assessing traffic impacts and proposed mitigation measures based on assessments to meet capacity needs far into the future (2031), the Commission considers that concept approval should not be granted for 1 million TEU p.a.

These issues are discussed in detail below with a response to how they are to be dealt with by the Project provided.

2.2 Precinct wide approach to the development of the two sites

2.2.1 Issues raised by the PAC

The PAC, in considering the SIMTA Concept Plan application, made the following points:

- It expressed disappointment that a more coordinated approach to assessing the precinct had not been undertaken.
- It noted concerns raised by members of the community that the approach to the two proposals is ad-hoc, the cumulative impacts of the proposals have not been adequately addressed, and there was confusion about the total traffic generated by the two proposals.
- It expressed disappointment that a Precinct Master Plan was not prepared, specifically noting that even though the proponents have both agreed that both projects cannot proceed on the scale proposed, there are still two similar proposals.
- It acknowledged that while negotiations were underway between SIMTA and MIC to combine the two planning proposals, these had not concluded, and as such the projects continued to be assessed as separate planning processes. The PAC acknowledged that it could not force the two proponents to combine their applications.

In relation to the rail access from the Southern Sydney Freight Line (SSFL), the PAC report noted that:

- SIMTA is seeking a rail corridor to the south utilising the East Hills passenger rail corridor crossing the Georges River and running in a north westerly direction generally along the boundary of the Glenfield Waste Disposal Centre linking to the SSFL.
- There are community concerns that further rail crossings were also being considered by the Moorebank IMT Project. In its report the PAC stated that as a matter of principle there should only be one rail corridor accessing the site in the event that both proposals proceed. The report also acknowledged that the southern rail access as proposed in the Moorebank IMT EIS (since exhibited) was the same corridor as that proposed by SIMTA. The report, however considered that other rail access options (the northern and central rail alignments described in the EIS) would generate significant noise impacts.

2.2.2 Relationship with SIMTA

MIC is a federal government entity. Prior to the EIS exhibition, the Moorebank IMT proposal was being developed by MIC as a stand-alone project. SIMTA is a private consortium consisting of Qube Holdings and Aurizon Holdings and has been pursuing its own proposal separately¹.

Since the exhibition of the Moorebank IMT EIS, MIC and SIMTA have reached an agreement to develop and operate a precinct-wide intermodal facility and associated warehousing across the Moorebank and SIMTA sites (hereafter referred to as the Moorebank precinct). As part of that agreement, the Commonwealth Government would retain ownership of the Moorebank IMT site, with SIMTA occupying the site under a long-term lease. MIC would remain involved to ensure the Commonwealth Government's

¹ Concept Plan Approval (MP 10_0193) for the SIMTA project was granted on 29 September 2014 by the NSW Planning Assessment Commission and EPBC approval (no. 2011/6229) in March 2014 by the Commonwealth Minister for Environment.

objectives for construction and operation of the site (including environmental compliance requirements) are satisfied.

2.2.3 SIMTA EIS for concept approval

SIMTA's EIS for concept approval was initially exhibited from March to May 2012 and an updated EIS was re-exhibited between September and October 2013. The EIS sought concept approval for one million TEU IMEX facility and 300,000 sq. m of warehousing. The EIS did not contemplate the implications of the Project in any detail and no quantitative or cumulative assessment was undertaken of any higher precinct capacity than the 1 million TEU p.a. approval sought for the SIMTA site. The Concept Plan specifically identified that a Stage 1 development application would be subsequently pursued for a 250,000 TEU p.a. IMEX terminal (with no warehousing).

The subsequent PAC approval placed an initial 250,000 TEU p.a. cap on the project (in line with the proposed Stage 1 development application proposed by SIMTA), with an ultimate cap of 500,000 TEU p.a., based on concerns about road network capacity, and the view that such a limit would adequately accommodate likely long term demand in the precinct. The concept approval does not allow for the commencement of construction of any part of the project. Construction can only occur following a further consent for a subsequent Stage 1 development application.

SIMTA also received approval under the Commonwealth EPBC Act in March 2014 for the construction and operation of an intermodal terminal comprising a one million TEU p.a. IMEX facility and 300,000 sq. m of warehousing. The Commonwealth approval was sought due to the impact of the project on Commonwealth-listed species and Commonwealth land, and was required to address the full range of environmental issues including traffic impacts. The Commonwealth Minister for the Environment, in approving the action in full, took account of the impact of the project on the road network.

2.2.4 SIMTA Stage 1 development application

SIMTA is planning to exhibit its Stage 1 development application (i.e. detailed to enable construction) at the same time as the Moorebank IMT Response to Submissions (this report). Specifically, SIMTA's Stage 1 application is seeking approval to build:

- a 250,000 TEU p.a. IMEX facility; and
- a rail connection to the SSFL at the southern end of the Moorebank site.

SIMTA has submitted a Preliminary Environmental Assessment (PEA) in support of its application. The application was lodged in October 2014 and NSW Secretary's Environmental Assessment Requirements (SEARs) were issued in December 2014 (Application Number SSD 14-6766).

2.2.5 Approach to joint consideration of the two projects

Since the exhibition of the Moorebank IMT EIS, agreement has been reached between SIMTA and MIC that would result in the development of the Moorebank precinct with a maximum capacity of 1.55 million TEU and 600,000 sq. m of warehousing comprising:

- 1.05 million TEU p.a. IMEX facility (on either the Moorebank IMT site or the SIMTA site, but not both);

- 300,000 sq. m of warehousing on the SIMTA site;
- 500,000 TEU p.a. interstate facility on the Moorebank site;
- 300,000 sq. m warehousing on the Moorebank site, and
- rail access to the precinct via a connection to the SSFL near the south of the Moorebank site.

To enable maximum flexibility, MIC is seeking a staged development consent for a 1.05 million TEU p.a. IMEX facility on its own site, as well as the 500,000 TEU p.a. Interstate facility and 300,000 sq. m of warehousing described above. Combined with the SIMTA project, and subject to development consent, this may appear to result in a total precinct capacity of 2.05 million TEUs p.a. However, this is not the case. It would only occur in two unlikely circumstances; firstly if there is no agreement between SIMTA and MIC and secondly if the consent authority gives development consent to operate both terminals at maximum levels.

With respect to the first outcome, MIC does not believe there is any possibility that both sites would operate independently – at least at full capacity (i.e. at a potential total precinct capacity of 2.05 million TEU p.a.). Both SIMTA and MIC agree that the maximum precinct capacity would be 1.55 million TEU p.a. MIC considers the maximum capacity arises from the constraints posed by other parts of the network (particularly the SSFL). MIC does not share the PAC's view that the precinct should be capped at 500,000 TEU p.a., from either a road network capacity or a demand perspective. This is discussed further in sections 2.3 and 2.4 below.

With respect to the second outcome, the consent authority is able to limit the total precinct capacity through the subsequent development approvals process – evident in the limitation placed on the current SIMTA Concept Plan approval.

Accordingly the cumulative assessment presented in the Moorebank IMT EIS is no longer considered representative as it does not reflect the recent agreement – particularly with respect to SIMTA's Stage 1 concept approval nor the realistic maximum precinct capacity as discussed above.

Taking these issues into consideration, a revised approach to the cumulative assessment of the Moorebank precinct has been undertaken and presented in Chapter 7 – *Proposed amendments to the development*. In summary it:

- Presents layouts for the various precinct layouts (see Figures 7.5 to 7.8 in section 7.5).
- Continues to recognise there is a proposed maximum throughput of 1.55 million TEU p.a. (IMEX plus Interstate freight) for the precinct.
- Continues to consider alternate scenarios whereby all IMEX capacity is built on the SIMTA site or the Moorebank site but not both.
- Introduces a new scenario (Scenario C) that treats the 500,000 TEU p.a. cap as applicable to the SIMTA site only, and assumes that the remaining 1.05 million TEU capacity (consisting of 550,000 TEU p.a. IMEX and 500,000 TEU p.a. interstate) will be developed on the Moorebank IMT site.
- Introduces an interim scenario at 2020 that in terms of intermodal capacity reflects the SIMTA Stage 1 development application in conjunction with a likely first stage of development of the Moorebank site.

The cumulative impact assessments undertaken for the revised concept layout are presented in Table 2.1 below.

Table 2.1 Proposed cumulative scenarios

Cumulative Impact Scenario	Moorebank IMT site (Project site)	SIMTA site
Scenario A (same as EIS Cumulative Scenario 1) (2030 – full build)	<ul style="list-style-type: none"> • IMEX terminal at 1.05 million TEU p.a. • Interstate terminal at 500,000 TEU p.a. • 300,000 sq. m warehousing 	<ul style="list-style-type: none"> • 300,000 sq. m warehousing
Scenario B (same as EIS Cumulative Scenario 3) (2030 – full build)	<ul style="list-style-type: none"> • Interstate terminal at 500,000 TEU p.a. • 300,000 sq. m warehousing 	<ul style="list-style-type: none"> • IMEX terminal at 1 million TEU p.a. • 300,000 sq. m warehousing
Scenario C1 (2020 – Stage 1 development)	<ul style="list-style-type: none"> • IMEX terminal at 250,000 TEU p.a. • Interstate terminal at 250,000 TEU p.a. • 100,000 sq. m warehousing 	<ul style="list-style-type: none"> • IMEX terminal at 500,000 TEU p.a. • 200,000 sq. m warehousing
Scenario C2 (2030 – full build)	<ul style="list-style-type: none"> • IMEX terminal at 550,000 TEU p.a. • Interstate terminal at 500,000 TEU p.a. • 300,000 sq. m warehousing 	<ul style="list-style-type: none"> • IMEX terminal at 500,000 TEU p.a. • 300,000 sq. m warehousing

The layouts, characteristics and impacts of these scenarios are presented in section 7.5 of this report.

2.2.6 Planning controls for precinct capacity

While MIC is seeking a staged consent for full capacity (i.e. 1.55 million TEUs p.a.) on its own site, MIC recognises it will be necessary for a planning mechanism to be established that precludes the development of both the SIMTA and the IMT to full capacity. In the same way, while both proponents are seeking approval to build a rail connection from the SSFL, given the agreement between SIMTA and MIC there will only be one rail link built, a similar planning mechanism is also required that precludes the development of more than one rail link.

To provide an assurance to the consent authority and to the local community with respect to MIC's position on maximum precinct capacity in consideration of the SIMTA project, MIC would suggest the following conditions of consent.

Condition X. Projects carried out under this staged development consent must be operated with the objective of not exceeding the capacity of the transport network, including the local, regional and State road network. The container freight road volume must not exceed 500,000 TEU p.a., subject to the exception identified in Condition Y, which may only be considered after the facility has been in operation.

Condition Y. The movement of container freight by road may exceed the limit in Condition X by up to a further 550,000 TEU p.a. if the consent authority of a subsequent Development Application is satisfied that traffic monitoring and modelling of the operation of the facility demonstrates that traffic movements resulting from the proposed increase in TEU will achieve the objective of not exceeding the capacity of the transport network.

Condition Z. The movement of container freight by road may be increased by a further 500,000 TEU p.a. above the limitation identified in Condition Y (i.e. giving a total precinct capacity of 1.55 million TEU p.a.) should there be no valid/operable development consent for an import/export terminal on land adjacent to the subject site – that being any part of the land identified in development application MP10_0193.

Note: Condition Z enables the development to expand to the full operating precinct capacity of 1.55 million TEU p.a. if no intermodal terminal is constructed on the adjacent site (currently subject of a development application by SIMTA – MP10_0193).

These draft conditions are framed similarly to those imposed by the PAC for the adjacent SIMTA development. Condition X would potentially represent the cumulative impact of Stage 1 of both the Moorebank IMT and the SIMTA IMT (i.e. total precinct capacity of 1 million TEU) and is assessed under cumulative impact Scenario C1 (see Table 2.1).

Condition Y assumes the SIMTA development proceeds to full capacity and would represent the cumulative impact of the IMT operating at 1.05 million TEU p.a. and SIMTA operating at 500,000 TEU p.a. (i.e. total precinct capacity of 1.55 million TEU p.a.). This is assessed under cumulative impact Scenario C2.

Condition Z assumes the SIMTA development does not proceed and assumes all development on the Moorebank IMT site. This would represent the same cumulative impact as under Condition Y (i.e. the same total precinct capacity of 1.55 million TEU p.a.).

In relation to the development of the rail connection:

Condition Z1: A rail connection between the site and the SSFL, may not be constructed if a rail connection has been constructed associated with the SIMTA development as identified in development application MP10_0193.

Condition Z1 would ensure that only one rail connection could be constructed, either by SIMTA under the terms of its consent, or, if that consent lapses, under the terms of the Moorebank IMT approval.

2.2.7 Planning for development of the rail access

As described in Chapter 7 – *Proposed amendments to the development* of this report, approval is being sought for construction of a rail access from the SSFL to the site. A southern alignment for the rail access is sought, as shown in Figures 7.1 to 7.3. This alignment is the same as that proposed by SIMTA, albeit that for this proposal the rail line would terminate within the IMT site.

In the event that both sites are developed, only one rail access from the SSFL will be developed. This rail access would service both sites, assuming that both sites include intermodal facilities.

In terms of the planning consent for the Project, if SIMTA constructs the rail access, the rail access component of the Project would not be implemented. A modification to the Stage 1 development consent for the Project would be sought (to exclude the rail spur) concurrently with the Stage 2 development application (to construct the first stage of the Project).

In the event that SIMTA did not construct the rail access, it would be constructed as part of the IMT development. In this event a detailed impact assessment (and associated design development) for the rail spur would be undertaken as part of the Stage 2 development application, before the rail access could be constructed.

2.3 Demand for Intermodal Capacity in the Moorebank precinct

2.3.1 Suitability of a 500,000 TEU cap

The Moorebank precinct needs to be developed to a total intermodal capacity of 1.55 million TEU p.a., comprising 1.05 million TEU p.a. in IMEX capacity and 500,000 TEU p.a. in interstate freight capacity.

The key reasons for developing the Moorebank IMEX capacity at 1.05 million TEU p.a. are:

- To achieve the NSW Government rail share target, that PAC's cap on throughput at the SIMTA intermodal terminal (250,000 TEU p.a. for Stage 1 and, ultimately, 500,000 p.a.) would be too low and appears to be based on a misunderstanding about how freight is most efficiently distributed. See section 2.3.2 below for discussion of this issue.
- No other sites have been identified to deliver the same operational efficiency (including the efficiency benefit of competition between terminal users under the terminal's open access arrangement) and therefore only the Moorebank precinct creates an opportunity to increase Sydney metropolitan container movements on rail.
- The full capacity of 1.05 million IMEX TEU p.a. and additional capacity a future intermodal terminals will be needed if the rail mode share from Port Botany is permitted to grow in line with port throughput, or if the NSW Government were to pursue a higher target (e.g. 40%, as recommended by the Freight Infrastructure Advisory Board) beyond 2020 to enable the Port to continue to grow. A cap of 500,000 TEU p.a. on IMEX throughput would:
 - > limit the ability of importers and exporters to choose the most efficient freight transport mode for their needs;
 - > reduce the efficiency of planned investment in intermodal capacity at Moorebank, requiring further investment before it is economically efficient, and potentially discourage other investment in intermodal capacity in the region;
 - > be inconsistent with NSW and Commonwealth government objectives to increase freight transfers by rail to reduce reliance on the road network, enabling continued growth in Port Botany throughput and encourage productivity growth; and
 - > only be warranted if the environmental impacts beyond the cap could not be managed, which other parts of this report, and the EIS, demonstrate is not the case.

The Moorebank precinct also needs to provide 500,000 TEU p.a. of interstate intermodal capacity (i.e. in addition to the 1.05 million TEU p.a. of IMEX intermodal capacity). The Commonwealth Government has been investing heavily in the freight rail network to increase its reliability and improved transit times. A network of large, modern intermodal facilities, including at Moorebank is required to complement this investment and to encourage more interstate freight to travel by rail. An improved interstate rail freight network will be able to compete on cost and reliability with road, thereby encouraging more interstate freight to travel by rail.

Detailed discussion on these aspects is provided below and in Chapter 3 – *Strategic context and need for the project* in the EIS.

2.3.2 IMEX intermodal capacity needed at Moorebank

The PAC's interpretation of capacity required

The PAC has capped throughput at the SIMTA IMT to 250,000 TEU p.a. initially and 500,000 TEU p.a. ultimately. The PAC's decision focused on the SIMTA IMT contribution to the NSW Government target that 28% of Port Botany container throughput be transported by rail by 2020².

The report by the PAC stated that:

To meet the Government's goal of a 28% rail share from Port Botany to the south-west catchment by 2020, the precinct will require capacity to handle a throughput of 152,000 TEU per annum. Stage 1 of the SIMTA's proposal at 250,000 TEU per annum will more than achieve this.

And:

[A] 500,000 TEU limit should enable the precinct to meet the Government's objectives for rail freight from Port Botany well into the future.

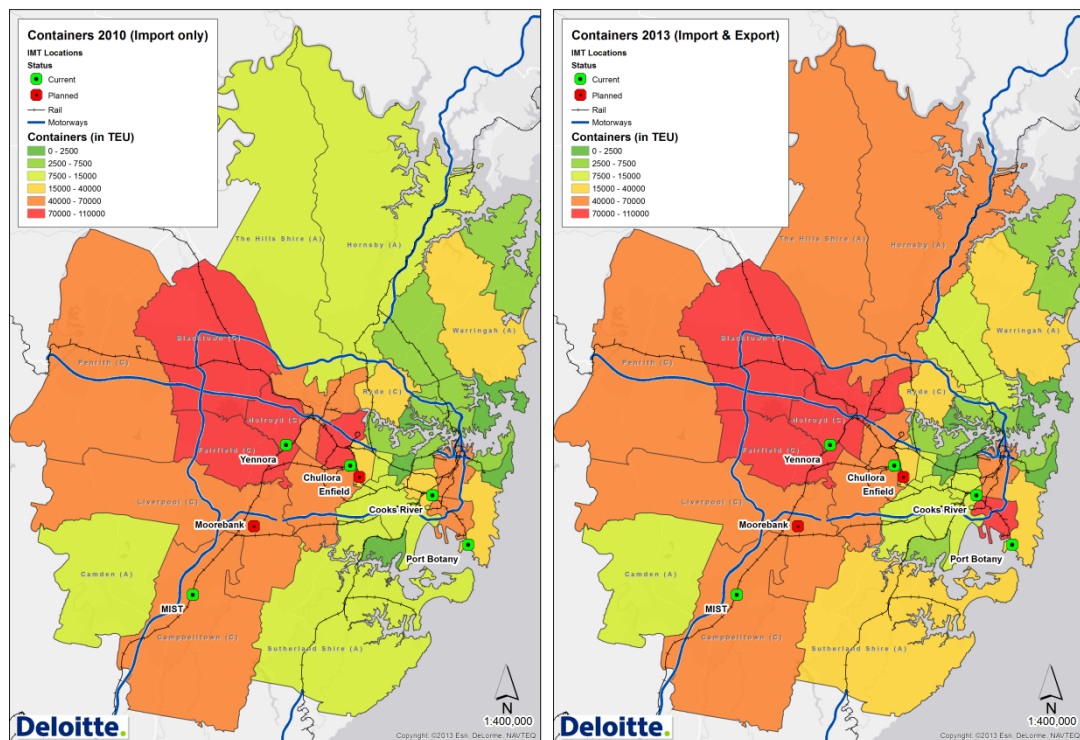
These statements appear to assume that the Moorebank precinct would contribute to the NSW Government's rail share target by providing capacity for 28% of freight headed to the 'south-west catchment'. The PAC's report assumes this catchment comprises 15%³ of Sydney's IMEX market so, using the PAC's approach, Moorebank would only need to provide capacity for 4.2% (i.e. 28% of 15%) of Port Botany's total throughput. This 4.2% share would amount to 153,000 TEU p.a. in 2020, 292,000 TEU p.a. in 2030 and 560,000 TEU p.a. in 2040 (based on a high growth forecast of Port Botany throughput)⁴.

However, this is not an appropriate way to define the capacity needed in the Moorebank precinct. The 28% rail share target does not mean each catchment in Sydney should receive 28% of its freight by rail, it means that 28% of the total volume leaving or arriving at the port should travel by rail. Port related cargo is not distributed evenly across Sydney. Some areas have higher port related volumes than others as illustrated in Figure 2.1.

² The rail mode share target for 2020 is based on the NSW Government's goal to double the proportion of container freight moved by rail through NSW ports by 2020. For Port Botany, the NSW Government adopted the 2010–11 rail freight share of 14% as the baseline for this goal. This means the NSW Government's target is that 28% per cent of Port Botany throughput is transported by rail by 2020.

³ MIC considers that the catchment for the Moorebank terminal includes parts of both west and south west Sydney and the proportion of the total Sydney IMEX market is much greater than 15%. However, for the purpose of the discussion here, the size of the catchment is irrelevant.

⁴ Based on the Port Botany throughput assumed in SIMTA's freight demand modelling report for 2020 (3.64 million TEU p.a.) escalated by 6.7 per cent p.a. to 2030 and 2040, in accordance with the Sydney Ports growth forecast referred to in the PAC report.



Source: Deloitte analysis based on data provided by Australian Customs and Border Protection Service

Figure 2.1 IMEX container distribution in Sydney – 2010 and 2013

Whether a container moves by rail or road is heavily dependent on the relative price and service of the two modes. This varies by destination or catchment due to proximity to the port and proximity of the container destination to the rail network and an intermodal terminal (some catchment areas in Sydney are not served by rail or intermodal terminals at all). Rail is likely to be more competitive where container destinations are further from the port but close to rail served intermodal terminals.

This factor together with the volume of containers destined for each catchment will determine the absolute number of containers (the demand) that could through move through each intermodal terminal. As such, some catchments will receive a large share of freight via rail (e.g. catchments like that served by the Project, for which rail is more cost-competitive than road for many destinations). Other catchments will receive a smaller share of freight via rail (e.g. catchments near Port Botany because it is harder for rail to compete over short distances). As such, for the 28% rail mode share target to be achieved, some catchments will have to achieve a rail mode share higher than 28%, the south-west catchment is likely to be one such area).

Available intermodal capacity in one area will not necessarily reduce potential demand for a terminal in another area. An example of this would be the provision of IMEX capacity at Chullora in addition to planned capacity at Enfield. Because Enfield and Chullora service a different area from Moorebank there is likely to be minimal impact on likely demand for capacity through Moorebank. This is illustrated in Figure 2.2 below.

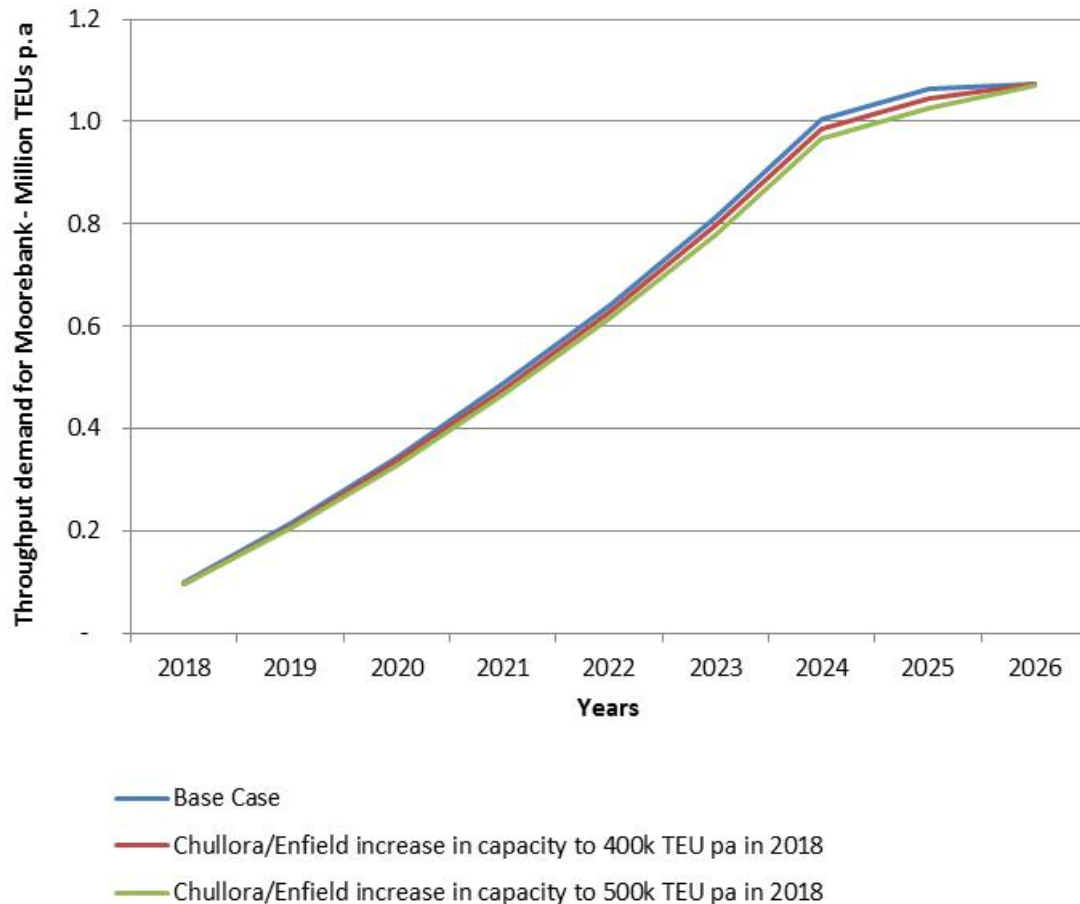


Figure 2.2 Estimated impact on demand for Moorebank as a result of increased capacity at Chullora or Enfield

As a result, the rail share across all catchments should, on average, meet the 28% target. Uniform application of the target to each catchment would be highly inefficient. A more efficient means of meeting the target is outlined below.

It also appears the PAC may have adopted an ultimate 500,000 TEU p.a. target for SIMTA's terminal because the Freight Infrastructure Advisory Board, in its 2005 report, recommended Moorebank as 'a key component in meeting Sydney's intermodal needs with a capacity to handle at least 500,000 TEUs per annum of port freight.' However, apart from the reasons outlined above, it is not appropriate to apply this recommendation to the Moorebank precinct as the report was written 10 years ago in a context which is quite different from today. In 2005, Port Botany was government owned and subject to a 3.2 million TEU p.a. volume cap. That cap has now been removed and the Port has grown significantly and further growth is expected to continue (to well beyond 3.2 million TEU). As such, the Freight Infrastructure Advisory Board's recommended capacity for the Moorebank precinct is now significantly understated.

In addition, the Freight Infrastructure Advisory Board's recommendation about Moorebank's capacity was made in the context of an assumption that planning would also commence for an additional intermodal terminal in north-west Sydney, in the vicinity of Eastern Creek. However, since then, no site has been identified or preserved and two studies into a potential dedicated freight line to the area have found that such a connection would be technically and financially challenging and it is therefore unlikely to proceed in the foreseeable future.

NSW rail share target – 28%

The NSW 28% rail mode share target will be most efficiently achieved by maximising the efficient use of existing intermodal terminals and making an economically efficient investment in additional intermodal capacity in locations that are attractive to the freight market to fill the shortfall between the future capacity of existing terminals and the capacity needed to handle 28% of Port Botany's total throughput.

Sydney's estimated future IMEX intermodal capacity at existing terminals is 380,000 TEU p.a. in 2020, 645,000 TEU p.a. in 2030 and 830,000 TEU p.a. in 2040. This includes potential future capacity provided by the Yennora and MIST (Minto) terminals and approved capacity at the Enfield intermodal terminal and recently announced new IMEX capacity at the Chullora terminal.

These estimates assume:

- the ultimate capacity of the Yennora (110,000 TEU p.a.) terminal is reached by 2020;
- the current capacity of the MIST terminal (45,000 TEU p.a.) increases to 150,000 TEU p.a. by 2040;
- the Enfield terminal commences operations at 100,000 TEU p.a. and increases to its full approved capacity of 300,000 TEU p.a. by 2030; and
- the Chullora terminal will handle 75,000 IMEX TEU p.a. in 2020, 135,000 TEU p.a. in 2030 and 270,000 TEU p.a. in 2040⁵.

The actual available IMEX capacity may be lower than the above estimates this as intermodal terminals generally serve a local catchment. For example, the catchments for the Enfield and Chullora terminals overlap, given their close proximity, thereby delaying or eroding the ability of each to reach its full IMEX capacity. Also, the Enfield intermodal terminal has not commenced operations so is yet to prove its ability to achieve its intended 300,000 TEU p.a. capacity, and there are questions about the ability of a single port shuttle to Chullora to achieve the volumes indicated above⁶. There are also questions around the long term viability of the Yennora intermodal terminal given it needs to compete with growing demand on the passenger rail network (which gives precedence to passenger trains).

Table 2.2 shows the future IMEX intermodal terminal capacity in Sydney based on the above assumptions.

⁵ These estimates for Yennora and MIST represent ultimate capacity and may require substantial investment to be realised at each location. The estimate for Enfield is based on statements in the original Environmental Assessment for that terminal. The estimate for Chullora is based on statements by Asciano that the recommencement of IMEX services at Chullora would be supported by a new port shuttle above-rail service with an initial capacity of 75,000 TEU p.a. and an ultimate capacity of 135,000 TEU p.a. These capacities have been adopted for 2020 and 2030 respectively, and a doubling of capacity (through the adoption of a second service) has been assumed for 2040. The Villawood intermodal terminal has been excluded because it has been closed for some time.

⁶ The IMEX capacity assumptions for Chullora appear to be based on a very high level of utilisation of the port shuttle train servicing the terminal, which include two-way loading. It is not clear that additional empty container storage for IMEX containers is being created at Chullora, which would facilitate achievement of the capacity assumed. Some of the IMEX capacity at Chullora might also be used for regional export freight that already travels to Port Botany by rail, meaning these volumes would not affect the rail mode share achieved overall.

Table 2.2 Potential future IMEX intermodal terminal capacity

Scenario Terminal	2020 IMEX capacity TEU p.a.	2030 IMEX capacity TEU p.a.	2040 IMEX capacity TEU p.a.
Chullora	75,000	135,000	270,000
Enfield	100,000	300,000	300,000
Yennora	110,000	110,000	110,000
MIST	45,000	100,000	150,000
TOTAL	380,000	645,000	830,000

Table 2.3 shows the long-term rail share for Port Botany throughput, if the 28% target is met, and the IMEX intermodal shortfall – i.e. the capacity needed at Moorebank and other future terminals to meet the target – based on the assumed capacity of the existing intermodal network as set out in Table 2.2. The rail share is based on a conservative forecast of Port Botany throughput, which was prepared by Deloitte Access Economics in 2014 and presented in Chapter 3 – Strategic context and need for the project of the EIS (the ‘Low Port Growth Scenario’) as well as a less conservative forecast that assumes Port Botany’s throughput will be 3.6 million TEU in 2020, 7.0 million TEU in 2030 and 9.0 million TEU in 2040 (the ‘High Port Growth Scenario’)⁷.

Table 2.3 TEU transported by rail if the 28% Port Botany rail share target is met, and IMEX intermodal capacity shortfall

Year	Port Botany rail mode share target (TEU p.a.)	Low Port Growth Scenario IMEX intermodal terminal shortfall (TEU p.a.)	High Port Growth Scenario IMEX intermodal terminal shortfall (TEU p.a.)
2020	795,875	415,875	641,988
2030	1,177,896	532,896	1,309,745
2040	1,640,309	810,309	1,690,000

Under the Low Port Growth Scenario, the IMEX intermodal shortfall in 2020 would be around 415,875 TEU p.a. The proposed Stage 1 of the precinct (i.e. 250,000 TEU p.a.) would partly satisfy this shortfall. Under the Low Port Growth Scenario, the full precinct capacity (1.05 million TEU p.a.) would enable the target to continue to be achieved in 2030 and 2040 with some precinct capacity to spare. Under the High Port Growth Scenario, additional capacity will be needed to meet the target (in addition to that planned to be provided at Moorebank) from 2020 and beyond.

Future rail share target – 40% target

While Table 2.3 shows the capacity required to meet the 28% target, it is more likely that a higher rail share target will be required beyond 2020. A growing proportion of Port Botany throughput will need to travel by rail as a result of limitations on the roads around the port due to the airport and increased underlying traffic. Currently, around 5,000 TEU a day travel to and from Port Botany by road. Without more intermodal capacity, this number could increase to between 14,000 TEU a day (based on the Low Port Growth Scenario) and 22,000 TEU a day (based on the High Port Growth Scenario) by 2040. With the Project, the number of trucks traveling to and from the port by road will still need to increase to

⁷ The High Port Growth Scenario is based on a Sydney Ports forecast for 2020 and 2030 and MIC’s understanding of NSW Ports’ anticipated throughput at Port Botany for 2040.

between 11,000 TEU a day (based on the Low Port Growth Scenario) and 20,000 TEU a day (based on the High Port Growth Scenario) by 2040⁸.

While the WestConnex project will provide some of the additional road capacity needed to handle these growing container volumes, the rail mode share will also need to increase to enable Port Botany to continue to grow as forecast. If the rail mode share does not increase (or the roads near the port aren't expanded further), container terminal capacity may need to be expanded at Port Kembla or developed at Newcastle earlier than it might otherwise be necessary, with significant associated costs.

The Freight Infrastructure Advisory Board recommended the NSW Government adopt a 40% rail share target in its 2005 report, *Railing Port Botany's Containers: Proposals to Ease Pressure on Sydney's Roads*. (This recommendation was made in the context of much lower forecast throughput at Port Botany, as noted above). MIC understands the owner of Port Botany, NSW Ports, also wishes to increase the rail mode share to 40%.

Table 2.4 sets out the capacity required at the Moorebank precinct and other future intermodal terminals in Sydney if the rail mode share rose to 40% from 2030. Under the Low Port growth Scenario, if the rail share increases, a 1.05 million TEU p.a. IMEX terminal will be needed at Moorebank soon after 2030. Under the High Port Growth Scenario, the full capacity IMEX terminal at Moorebank will be needed well before 2030.

Table 2.4 TEU transported by rail and IMEX intermodal shortfall if the Port Botany rail share rises to 40% from 2030

Year	Port Botany rail share target (TEU p.a.)	Low Port Growth Scenario IMEX intermodal terminal shortfall (TEU p.a.)	High Port Growth Scenario IMEX intermodal terminal shortfall (TEU p.a.)
2020	795,875	415,875	641,988
2030	1,682,709	1,037,709	2,147,493
2040	2,343,299	1,513,299	2,770,000

Demand-driven rail share

The NSW Government's rail share target is a target, not a cap. The target is not intended to limit the ability of freight to travel by rail where it is economically efficient to do so, that is, where there has been investment in IMT infrastructure that is capable of efficiently handling additional freight and where there is demand from prospective users of that infrastructure.

The rail share at Port Botany could be even higher than 40% if it is not limited by a government target. As detailed in Chapter 3 – *Strategic context and need for the project* of the EIS, analysis conducted by Deloitte (2014) determined there will be strong demand for freight transport via the Project to and from destinations in west and south-west Sydney. This demand would be driven by the availability of new intermodal capacity that is capable of providing a cost-effective alternative to road transport.

The Deloitte (2014) analysis considered the relative cost of road and rail transport to various destinations in Sydney using data from the Australian Customs and Border Protection Service on the origin and destination of containers. This analysis found that significant volumes of freight heading to and from west and south-west Sydney would be transported by rail via Moorebank because of the significant cost advantage that the Project will be able to offer. A large part of this cost advantage is derived from the economies achievable from the large volume of freight that the Moorebank precinct is proposed to handle.

⁸ These container volumes assume all existing intermodal capacity is used and all remaining Port Botany throughput is carried by road.

Based on this analysis and an assumption that the Enfield, Yennora and MIST intermodal terminals are able to reach their capacities, the rail mode share for IMEX traffic could be as high as 32% by 2018 and 43% by 2030. In the longer term, as port volumes continue to grow relative to rail capacity, rail mode share is anticipated to stabilise then decline to around 26% by 2050.

Implications of a cap on IMEX throughput at Moorebank

The Moorebank precinct should be permitted to develop (in line with demand and within given external infrastructure constraints) to an IMEX capacity it can efficiently handle (i.e. 1.05 million IMEX TEUs p.a.). While a cap could potentially be designed to match Moorebank's IMEX capacity to the NSW government's current rail share target, this would result in a number of negative outcomes.

For example, analysis by Deloitte (2014) found that given demand in west and south-west Sydney the IMEX terminal would reach its proposed capacity of 1.05 million TEU p.a. If the IMEX capacity is capped at less than 1.05 million TEU p.a., some importers and exporters will be prevented from choosing what would otherwise be the most efficient freight transport option for their needs. This would reduce the cost savings that could otherwise be achieved by business and, in turn, consumers. More broadly, it would reduce the state and national productivity benefits that are captured as a result of the investment in the terminal associated infrastructure.

Improving state and national productivity is one of the Commonwealth Government's key objectives for the Project. The NSW Government also has stated objectives to drive economic growth and reduce red tape. A cap on throughput that is driven by anything other than environmental impacts would have the effect of imposing a red tape burden on business that has negative implications for state and national economic growth and productivity.

A cap on throughput would also reduce the efficiency of planned investment in the Project. If MIC's proposed agreement with SIMTA is approved by the Commonwealth Government, MIC and SIMTA will invest significant capital in the Moorebank precinct. The efficiency of this investment by both the Commonwealth Government and the private sector will be significantly undermined if the terminal cannot be developed to its full precinct capacity. Throughput drives the returns on which this investment is justified and a decision that reduces the potential throughput of the precinct could discourage future investment in intermodal capacity in NSW and in Sydney in particular. A cap would also mean that additional capacity will need to be developed elsewhere earlier than it would otherwise be required, the cost of which will be significant. The marginal cost of providing additional capacity and throughput at Moorebank is substantially lower than it would be to deliver new greenfield capacity at any other site in Sydney.

The Moorebank precinct will be able to achieve greater efficiencies with a higher throughput – because of the economies of scale and the additional opportunities for competition among users of the terminal (which will be an open access facility). By achieving higher efficiencies, the terminal will be able to attract higher volumes of freight off road and onto rail. A cap on throughput would therefore be inconsistent with NSW and Commonwealth Government objectives to get more freight on rail. The NSW and Commonwealth Governments are each pursuing multiple strategies in support of this objective. For example, the governments have facilitated operational improvements at the port-rail interface, upgraded the rail connection to the port, and invested in intermodal capacity. A cap on Moorebank's throughput would undermine these efforts to get more freight on rail.

Finally, a cap would reduce the opportunities for competition created by the precinct by reducing the potential choices (in terms of transport mode and provider) available to freight logistics customers. Competitive markets provide various benefits to business and consumers, including through increased efficiency, choice, service quality and innovation. The competition benefits of the Project will likely be smaller if the precinct's throughput is capped. In March 2015, the Harper Review of competition policy recommended that governments avoid planning rules that restrict competition unless it can be

demonstrated that the restriction's broader community benefits outweigh the costs, and the objectives of the rules can only be achieved by restricting competition. Similar recommendations have previously been made by the Australian Competition and Consumer Commission and the Productivity Commission. Consistent with these recommendations, the Moorebank precinct's throughput should only be capped if the terminal's environmental impacts cannot be managed without restricting competition and if the community benefit of a cap outweigh the cost of restricting competition. This report and the EIS demonstrate that a cap is not required as the environmental impacts of the terminal can be managed without the cost to competition of a cap on throughput.

2.3.3 Interstate freight

The Moorebank precinct also needs capacity for 500,000 TEU p.a. of interstate freight each year. The interstate terminal would initially be developed to handle 250,000 TEU p.a. by 2019, gradually expanding to reach its ultimate capacity by 2030, depending on demand.

Unlike the IMEX terminal, whose capacity is driven by a combination of demand and government policy, interstate terminal capacity is primarily driven by government policy only. In particular, the Commonwealth Government has an objective to increase the movement of interstate freight by rail. There has been significant investment in the interstate rail freight network over the past 5 years, however, the nation's interstate rail network is currently not fully utilised. Greater use of rail for long distance freight transport can deliver significant operating cost savings, economic and environmental benefits. This objective is one of the principal drivers behind the Commonwealth Government's decision to facilitate development of the Project.

The interstate freight market is currently dominated by road. Road transports the vast majority of interstate freight travelling in all Australian corridors, apart from the east-west corridor between the eastern states and Perth. Road freight however has higher external costs relative to rail and sea freight. For example, road transport is a major contributor of air pollution; trucks contribute to the number of road accidents and to the significant social and economic costs of fatalities and healthcare; road is less efficient than rail in relation to fuel consumption and waste generation, especially as travel distances increase; and congestion creates costs associated with time delays, emissions and wear and tear on roads. These externality costs of road transport can be mitigated by increased use of rail for interstate freight.

Interstate rail freight also has the potential to achieve significant operating cost savings, thereby removing costs from the supply chain and achieving substantial benefits for national productivity. To facilitate these cost savings, the Commonwealth Government through the Australian Rail Track Corporation (ARTC), has been investing heavily in infrastructure improvements to benefit rail reliability and transit times. In Sydney, this has included construction of the SSFL and the Northern Sydney Freight Corridor. These projects have separated freight and passenger rail lines at critical bottlenecks throughout Sydney's main north-south freight rail routes.

This investment will contribute to rail's competitiveness in the interstate freight market. However, to take advantage of these track improvements, complementary investment in interstate IMT capacity is needed. That is, the freight rail network is only as efficient as the intermodal facilities that enable the transfer of freight on and off the network, and is limited in its ultimate capacity to the capacity of the terminals it connects. A nationwide network of large, modern intermodal terminals is critical to getting the most out of the upgraded freight rail network and ensuring more interstate freight is transported by rail.

As part of the national intermodal network, the Commonwealth Government has nominated the establishment of a large terminal on the SSFL – i.e. a 500,000 TEU p.a. interstate terminal at Moorebank – as a key component in supporting ARTC's strategy to increase utilisation of the interstate rail network.

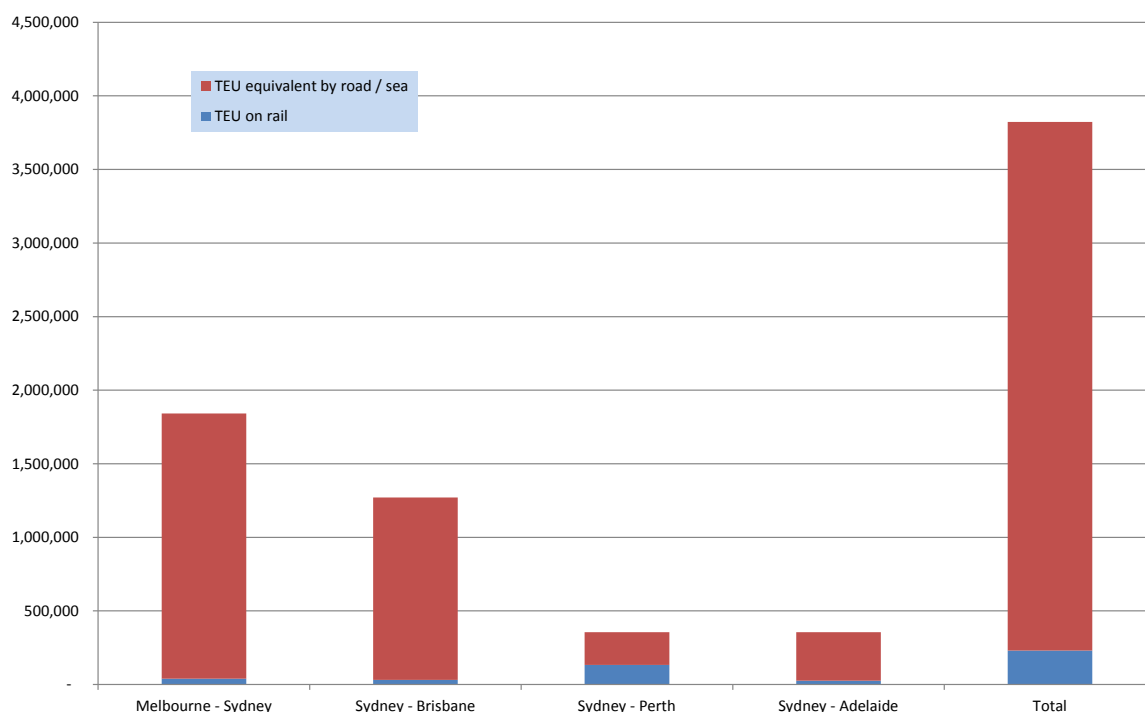
Development of intermodal capacity in Sydney is particularly important because, while Sydney is Australia's largest city, it has the lowest domestic container rail throughput of the major capitals.

Infrastructure Australia's *National Freight Strategy* also recognises the critical role of intermodal terminals in developing the national freight network and proposes major and new intermodal terminal/freight cluster sites in Melbourne, Sydney (both Moorebank and Eastern Creek), Brisbane, Perth, Gold Coast and Canberra. While there is existing interstate intermodal capacity in Brisbane, Sydney (at Asciano's Chullora terminal), Melbourne and Perth, many of these terminals have restricted the ability for new entrants to enter the market, and they are now constrained, outdated and limited in their ability to efficiently handle large freight volumes. This means their capacity needs to be supplemented with larger, modern facilities. The NSW, Victorian and Queensland governments all support this approach.

Chapter 3 – *Strategic context and need for the project* of the EIS illustrated that demand for interstate intermodal capacity in Sydney is currently fairly low⁹ and forecast growth is also reasonably slow. Low demand however is primarily due to the low cost competitiveness and reliability of rail compared to road. The intention of the Commonwealth Government is that investment in the freight rail and intermodal networks will increase the cost competitiveness and reliability of rail so that demand will increase.

The potential for rail volume throughput to increase is significant. Figure 2.3 shows both the current estimated interstate TEU handled by rail and the equivalent TEU handled on road and sea, estimated at around 3.6 million TEU p.a. Rail would only need to capture 6 per cent of this potential market to double its throughput from around 230,000 TEU in 2013/14 to over 500,000 TEU p.a. These figures do not include the regional freight market, which the terminal will also be able to handle.

Estimated 2013/14 TEU to and from Sydney



Source: ARTC

Figure 2.3 Estimated 2013/14 interstate TEU to and from Sydney

⁹ Demand for interstate intermodal capacity at Moorebank may also be lower than forecast in the EIS if Asciano's Chullora facility is not closed (as assumed) but instead is expanded. However, the extent to which an expanded facility can attract additional interstate demand will depend on the catchment it serves and competition from the Project.

The Project will materially increase rail's competitiveness for both interstate and regional containerised freight through:

- increased capacity enabling additional rail operators to enter the market and supporting expansion of the operations of existing rail operators, through the open access arrangements for the terminal;
- cost savings from a modern, purpose designed terminal;
- cost savings from on-site warehousing;
- reduced pick-up and delivery costs as the terminal will be better located than existing terminals relative to the industrial areas of Sydney; and
- in the longer term, the opportunity to double stack containers on trains heading to Melbourne, Adelaide and Perth from Moorebank.

In addition, the Project will have a private sector developer and operator which will be strongly incentivised to do everything it can to grow demand for freight on rail.

While demand may be lower than 500,000 TEU p.a. for some time, the first stage of the terminal will only be built to handle 250,000 TEU p.a. For MIC, this represents an efficient initial investment in interstate capacity while demand builds.

Regardless of current forecast demand for interstate freight transfers by rail, it is crucial that the interstate IMT is capable of being expanded to 500,000 TEU p.a. ultimately, in line with demand. As noted above, the Commonwealth Government's intention is that investment in the freight rail and intermodal networks will, together, improve reliability and cost competitiveness and drive increased demand. Any limit on the ability of the interstate IMT to expand to 500,000 TEU p.a. would be inconsistent with Government policy objectives and limit the ability of the terminal to drive productivity growth through the operating cost savings and reduced environmental costs. It may also discourage investment in other capital city intermodal terminals, thereby undermining the development of the network of large, modern interstate intermodals that is needed to complement investment in the freight rail network to increase the rail mode share of freight.

2.4 Road network impacts

2.4.1 Issues raised by the PAC regarding the SIMTA concept application

Road network capacity

The PAC report examined the relationship between road network capacity and terminal throughput, and specifically stated:

- *'Any intermodal approved for the precinct must not exceed the capacity of the transport network', and that 'To ensure this, the Commission considers it is appropriate to impose a TEU throughput annual limit'.*
- *'Given the uncertainty about assessing traffic impacts and proposed mitigation measures and based on assessments to meet capacity needs far into the future (2031), the Commission considers that concept approval should not be granted for 1 million TEU per annum.*

- *'If the proponent undertakes monitoring and modelling of the operation of Stage 1 and can demonstrate that an increase in the volume of freight will not exceed the capacity of the transport network (with or without further mitigation measures), then the Commission considers that the subsequent development applications for further increases could be considered up to a total upper limit throughput of 500,000 TEU per annum'.*

The PAC noted that a review (undertaken by Aurecon) of the SIMTA traffic assessment on behalf of DP&E concluded the following five key intersections (the 'core intersections' as defined by the assessment) would be significantly affected by the Project by 2031 based on a one million TEU throughput:

- Moorebank Avenue/Anzac Road;
- Moorebank Avenue/M5 Motorway;
- Moorebank Avenue/Heathcote Road;
- M5 Motorway/Hume Highway; and
- Moorebank Avenue/Newbridge Road.

The review additionally noted that the Project would not have a significant impact beyond the core area (it would only contribute a 2% increase in traffic) however the wider network conditions would generally deteriorate, mainly as a result of background traffic growth. The review advised that the provision of infrastructure including upgrades to Moorebank Avenue and the key intersections would be critical. The PAC has placed an approval condition on the Project that any traffic assessment for future approval stages must identify upgrades and mitigation measures required to achieve the objective of not exceeding intersection capacity of the following intersections and roads:

- Moorebank Avenue/Newbridge Road;
- Moorebank Avenue/Heathcote Road;
- Cambridge Avenue;
- M5 Motorway/Moorebank Avenue;
- M5 Motorway/Heathcote Road; and
- M5 Motorway/Hume Highway.

Impacts on Cambridge Avenue

The PAC report highlighted that for the SIMTA proposal, Cambridge Avenue could be an alternative road traffic route due to congestion on the M5 Motorway. The report noted that SIMTA had taken the position that Cambridge Avenue would only be used for 5% of car traffic, 5% of rigid trucks and no larger trucks (B-doubles/container trucks).

Comments including those from Campbelltown City Council noted that in the event of an a failure of the Moorebank Avenue access from the north, Cambridge Avenue would be the only alternative access route.

The PAC noted that DP&E, in its assessment report, had recommended the ongoing monitoring of Cambridge Avenue, but took the view that a more detailed assessment of impacts on Cambridge Avenue would be required as part of any future approval stages, as well as identification of measures to prevent heavy vehicles accessing residential streets. This was reflected in approval conditions.

2.4.2 Traffic assessment undertaken by SIMTA

The key findings of the SIMTA traffic assessment are set out below in terms of impact on key intersections.

The traffic assessment in the EIS converts TEU (moved by truck) into actual truck numbers. The resultant truck numbers are as follows:

- 1,603 articulated trucks per day (801 in and 802 out)
- 1,035 rigid trucks per day (516 in and 517 out)
- Total 2,638 trucks per day (1,317 in and 1,319 out)
- 3,613 private car trips (1,806 in and 1,807 out) per day.

The SIMTA EIS benchmarked the total theoretical number of truck movements against existing terminals in order to validate its findings.

On the basis of the above, the daily traffic generation from SIMTA (with a rail terminal capacity of 1 million TEU p.a.) equates to approximately 6,250 vehicle movements per day on an average weekday (2,638 trucks and 3,613 cars).

The impact on intersections for the complete project (i.e. 1 million TEU p.a. throughput by 2031) is shown in the Table 2.5.

Table 2.5 Intersection performance with and without SIMTA proposal

Intersection	Without SIMTA (2031)		With SIMTA (2031)	
AM peak	Delay	LOS	Delay	LOS
Moorebank Avenue/Anzac Road	49	D	71	F
M5 Motorway/Moorebank Avenue	30	C	49	D
M5 Motorway/Hume Highway	120	F	124	F
Moorebank Avenue/Heathcote Road	103	F	152	F
Moorebank Avenue/Newbridge Road	144	F	147	F
PM peak	Delay	LOS	Delay	LOS
Moorebank Avenue/Anzac Road	37	C	71	F
M5 Motorway/Moorebank Avenue	44	D	68	E
M5 Motorway/Hume Highway	75	F	111	F
Moorebank Avenue/Heathcote Road	205	F	255	F
Moorebank Avenue/Newbridge Road	124	F	134	F

Source: Hyder Consulting 2013

The assessment indicates that while traffic conditions are generally already poor, the SIMTA proposal would further worsen the road network. SIMTA proposes to upgrade the roads in stages as the capacity of the facility increases through a Voluntary Planning Agreement (VPA).

The EIS proposes that Stage 1 will provide an initial capacity of 250,000 TEU p.a. (throughput) – i.e. 125,000 TEU p.a. in and 125,000 TEU p.a. out. Stage 2 to be completed by 2019 will increase capacity to 750,000 TEU p.a. and the final stage to be completed by 2022 would deliver capacity of 1 million TEU p.a.

2.4.3 Approach to traffic assessment for the Moorebank IMT proposal

Through consultation with Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) during the development of the EIS, the requirements of the traffic impact assessment were determined, including the need to assess the Project's impacts on a number of intersections. In total, 14 intersections were analysed, including all of those identified by the PAC as being critical (i.e. the core area intersections investigated by Hyder (2013) as presented in Table 2.5 above). The intersections analysed are described in section 7.10.1 of this report.

The traffic assessment undertaken and presented in section 7.6.1 of this report notes there are a number of intersections that, as a result of background traffic growth in addition to the Project, will operate at an unacceptable LoS (the results also identify that for some intersections in future there will be problems from background traffic alone). The traffic assessment therefore presents a series of intersection treatments that demonstrate a precinct-wide total of 1.55 million TEU p.a. intermodal capacity as well as up to 600,000 sq. m warehousing can be accommodated for all scenarios provided the intersection treatments are undertaken. Section 7.10.1 provides additional information on when these treatments would be needed.

In preparing the traffic impact assessment for the Project, a review of traffic generation rates was undertaken for the proposed land uses and activities on site, to achieve consistency between underlying assumptions used in the SIMTA EIS and in this report. These assumptions are detailed in section 7.9.3.

Cambridge Avenue

The PAC expressed concerns about the impacts of the SIMTA Project on Cambridge Avenue. As detailed in section 7.10.1, the Moorebank IMT will be designed with an intersection treatment at the site entry point that prevents trucks leaving the site from turning right, and ensures that trucks can only enter the site from the north. As such the impacts on Cambridge Avenue would be limited to light vehicles including cars.

2.5 Public benefit

The 'public interest' in a development proposal is a significant matter for consideration by a consent authority. DP&E's report on the SIMTA Project determined the project to be in the public interest because its benefits outweigh its potential impacts. Given the PAC approved the SIMTA Project, presumably the PAC also considered the SIMTA Project to be in the public interest – if developed in accordance with the conditions of consent.

Various factors influence whether a proposal is in the public interest, including: the benefits and impacts of the proposal; the contribution of the proposal to government policies and plans; the views of community members; and the suitability of the site for the proposal. The public benefit test ultimately considers whether the economic, social and environmental benefits of a proposed development outweigh its environmental and amenity impacts in its locality.

The Moorebank IMT will significantly benefit Sydney, NSW and Australian communities, particularly at its full proposed capacity of 1.55 million TEU p.a. As outlined in Chapter 3 – *Strategic context and need for the project*, the Project's benefits relate to:

- its contribution to productivity, reduced business costs, reduced road congestion and environmental outcomes – these benefits have been estimated at around \$9 billion;
- the unique characteristics of the terminal site, which provide a once-in-a-generation opportunity for a transformative freight project;
- the project's consistency with Commonwealth, and State planning and infrastructure strategies and policies; and
- the terminal will have some local impacts and, for this reason, some members of the local community oppose the Project. However, once the effect of mitigation measures is taken into account, the residual impact will be relatively minor and within established criteria and regulatory requirements. In addition, a package of local benefits will be progressed in consultation with relevant stakeholders. On balance, therefore, the project is in the public interest.

2.5.1 Local, state and national benefits of the terminal

Employment and productivity

The contribution of the terminal to new jobs and productivity growth will provide a significant public benefit. The new jobs created by the Project include:

- over 1,200 jobs during construction of the IMEX terminal and warehousing;
- almost 300 jobs during the construction for the interstate terminal; and
- almost 2,200 jobs during operation of the IMEX and interstate terminals and warehousing – this includes jobs on site and jobs in the industries that will service the terminal and its staff.

These jobs will directly benefit the people employed and their families. They will also have broader benefits for the local, state and national economy as increased spending by new wage earners induces further output and employment.

The terminal will also make a significant contribution to NSW and national productivity growth. This will be derived from a number of factors that are outlined further below, such as:

- savings in operating costs in the freight transport sector;
- decongestion cost reductions and travel time reliability improvements for commercial vehicles;
- port delay wait time reductions for commercial vehicles; and
- service quality benefits in the rail sector.

Given that transport is an input for other economic activity (i.e. it is not used as an end in itself), transport efficiency savings as the result of the development will have significant flow-on benefits to the broader NSW and national economies. The total economic benefit of the project (before costs) over a 30 year period is estimated at over \$9 billion.

Fewer containers transferred by road

One of the most substantial benefits of the Moorebank IMT is it will reduce the growth in the number of trucks that need to travel between Port Botany and other parts of Sydney:

- Currently, around 5,000 shipping containers a day travel to and from Port Botany by road.
- Without the Project, by 2040, around 14,000¹⁰ containers a day will need to travel to and from the port by road (based on a conservative forecast of port growth.).
- The Project will reduce this figure to about 11,000 containers a day.

The Moorebank IMT will therefore significantly reduce the number of trucks that would otherwise need to travel from the port to destinations in west and south west Sydney.

While each container using the IMT (or its contents) will need to travel to and from Moorebank by truck, the IMT will nonetheless reduce the total distance travelled by trucks on Sydney's road network. This is because each container using the terminal will make part of its journey by rail, so it will travel a shorter distance by road. Ultimately, the IMT will reduce the total distance travelled by import-export freight trucks in Sydney by over 60,000 km each day.

This reduction in truck travel over the Sydney road network will:

- reduce the growth in traffic congestion across the Sydney network; and
- reduce travel times, and increase the reliability of trip length, for both private and commercial vehicles, compare to levels that would have occurred without the terminal.

The interstate terminal will also reduce the number of containers that need to move between Sydney and other parts of Australia by road. This will:

- reduce highway congestion, which will reduce delays for cars and remaining commercial vehicles on the road network, and improve journey time reliability; and
- reduce the cost of road damage on the interstate highway network as a result of reduced road haulage lessening the impacts on road pavements.

The reduction in truck travel on Sydney's roads and the nation's highways will also contribute to fewer road accidents and their associated social and economic costs, and environmental benefits at the regional level and beyond, such as a reduction in noise, fuel costs and air pollution.

Reduced costs, improved service for business and consumers

As a large, modern, purpose-built facility, the Moorebank IMT will achieve significant economies of scale and operate more efficiently than existing intermodal terminals in Sydney. The relatively large amount of space for onsite warehousing will contribute to the efficiencies achieved by the IMT because a large

¹⁰ Assumes the intermodal terminal capacities outlined in Table 2.2 are fully utilised.

proportion of containers will be unpacked onsite rather than at distribution centres elsewhere. This will remove an additional road transport leg from the supply chain. The open access regime for the IMT will also contribute to the efficiencies by increasing competition in the freight market. These attributes of the terminal will reduce the cost of freight transfers in Sydney and improve the service reliability and availability compared to the case without the terminal. Road freight transfers will also be less affected by delays at Port Botany, which will reduce the cost and increase the reliability of road freight. These freight supply chain improvements will benefit business and ultimately flow on to consumers.

Uniqueness of the site

As presented in Section 3.3 of Chapter 3 – *Strategic context and need for the project* in the EIS, the SME site has a unique set of characteristics suited for an IMT that are not necessarily needed for other types of land uses. In particular:

- the site is large enough for a facility that can generate the economies of scale and efficiencies needed to encourage freight to make the switch from road to rail; and
- the site is next to an existing motorway and an existing freight railway line so the cost of the Project is much less than if new roads or railway lines were needed.

No other known site in Sydney has the same characteristics to efficiently accommodate the type of activities being proposed. The availability of the site for development represents a once-in-a-generation opportunity for a transformational freight infrastructure project. As outlined in Chapter 6 – *Project development and alternatives* of the EIS, existing Sydney intermodal terminals cannot handle (or be expanded to handle) the anticipated demand for IMT capacity in Sydney. Alternative IMTs would be significantly less economically efficient than the Moorebank IMT and not practically achievable in the timeframes required. In particular:

- There is no land set aside for an Eastern Creek intermodal terminal and a new freight rail line to the area would be needed with substantial investment implications.
- Land would also be required for a Badgerys Creek intermodal terminal as the airport site is unlikely to have spare space for this purpose. A new freight rail line would also need to be constructed, in addition to the planned passenger line. It would not be practical for freight trains to share the passenger line as passenger trains receive priority on the passenger network, which would undermine the efficiency and reliability of a rail freight service via Badgerys Creek.
- Even if land was available at Eastern Creek or Badgerys Creek, the planning and environmental approval process to assess the sites suitability from an environment, social and economic perspective can take years. Given the demand for intermodal facilities in Western Sydney exist now, the Moorebank IMT site is considered the more appropriate site to service the current demand.

Given the clear suitability of the Project site for an IMT and the lack of economically efficient alternatives, it would be inappropriate and mostly inefficient to use the site for an alternative purpose (e.g. residential or commercial), as these land uses would have greater impacts on the local environment and community. For example, during peak hours:

- residential development would generate up to 25 times more traffic than an IMT; and
- a business park would generate up to three times more traffic than IMT.

In addition, the site is not suitable for residential development because it is contaminated. The cost of remediating the site to residential standard is likely to be much more than the land could be sold for.

The comprehensive site assessment undertaken in the EIS conclusively demonstrated the suitability of the proposed site for the proposed intermodal activities; the essential requirement for decision making.

Government policies and strategies

Planning, freight and infrastructure instruments and broader government policies and strategies are developed to achieve outcomes in the public interest. Consistency of a project with such instruments, policies and strategies is therefore relevant to whether the project is in the public interest.

As demonstrated in Chapter 4 – *Planning and statutory requirements* of the EIS, the Project is consistent with all relevant environmental planning instruments and policies. As demonstrated in Chapter 3 – *Strategic context and need for the project* of the EIS, the project is also consistent with broader NSW and Commonwealth Government policies. In particular:

- the Project will contribute to ongoing achievement of the NSW Government's target to increase rail freight to and from Port Botany to 28%; and
- the development of IMT capacity at Moorebank is clearly Commonwealth Government policy, as evidenced by its creation of MIC to facilitate development of the Project.

It is also Commonwealth Government policy that major infrastructure projects are subject to cost benefit analysis. This analysis provides information on the net benefits of a project to the economy and society as a whole, and assists governments make decisions about resource allocation. The cost benefit analysis of the Project found its overall economic benefits outweighed its costs. This analysis found the Project would have a benefit cost ratio of 1.72. This analysis will be updated to reflect the final agreement between MIC and SIMTA, which is expected to have a significantly lower cost to government than the proposal on which the initial cost-benefit analysis was based.

Alternative strategies could potentially help Sydney cope with growing port and interstate trade. However, the alternatives are likely to have a lower benefit cost ratio than the Project:

- development of an IMT terminal at Badgerys Creek or Eastern Creek would have a significantly higher cost than the Project (as discussed above);
- new or expanded IMT capacity could be developed at Port Kembla or Newcastle Ports but these would have a significantly higher capital costs than the Project and road or rail upgrades may also be needed to move freight to and from Sydney. Development of these ports does not solve the demand for IMT freight in Western Sydney; and
- roads could be further upgraded but there are limits on the cost-effectiveness and feasibility of ongoing upgrades, and continued reliance on road freight would fail to take advantage of sunk investment in the freight rail network or the environmental benefits of increased rail freight.

Government and industry stakeholder support

The Project is supported by the Commonwealth Government, the NSW Government and industry groups such as the Australian Logistics Council, the Business Council of Australia, the Australasian Railways Association and Infrastructure Partnerships Australia. Many individual freight logistics businesses have indicated their support for the Project. This demonstrates that, for government and the business community, the Project is considered in the public interest.

2.5.2 Local impacts and benefits

Local environmental and social impacts

The EIS and other parts of this report demonstrate the Project will have some impacts on the local community and environment. These impacts will be addressed through a raft of mitigation measures (e.g. local intersection upgrades, noise walls and locomotive standards to reduce noise and diesel emissions). Chapter 9 – *Revised environmental management measures* of this report demonstrates the effect that these mitigation measures will have on the Projects environmental and amenity impacts. The residual impact on the local community and environment – accounting for mitigation measures – will be small and manageable within established regulatory requirements and criteria. For example:

- the concentration of air borne pollutants in the area will be well within air quality guidelines;
- there will be no measurable impact of the Project on human health;
- the performance of local intersections will be maintained at the level that would be experienced in the future without the Project; and
- noise from construction and operation of the Project and its rail connection will be within government guidelines.

Development of the IMT may also bring forward some major road upgrades that will be needed in the area regardless of the Project. These road upgrades are needed to handle growth in background traffic but would also benefit the Project. Some possible road upgrades were identified in the 2014 NSW State Infrastructure Strategy and are currently being considered by government for implementation.

Local community views

Local community members have expressed their views on the Project through consultation undertaken by MIC and formal submissions on the EIS. The EIS and the consultation sessions conducted by MIC presented the unmitigated environmental and amenity impacts of the Project. In response to their understanding of the Projects impacts, a number of local community members have expressed their opposition to the Project.

A small number of local community members have also expressed their support for the Project to MIC. These local community members generally considered that the environmental impact would be outweighed by the new jobs and productivity benefits.

In addressing the public benefit test, community concerns and opposition were taken into account in that mitigation measures were developed to address as far as practical those concerns. The residual impacts are considered small and manageable.

Benefits of the terminal for the local community

The local community will receive a share of the broader economic benefits of the Project. This includes a contribution of around \$120 million per year for the economy of south west Sydney. MIC also plans to deliver a local benefits program in conjunction with the project to increase the benefits associated with the Project for people living nearby.

MIC chose to seek community input to the local benefits program via a Citizens' Jury. The Citizens' Jury was made up of 19 people randomly selected from suburbs near the Project site – half from within 5 km and half from within 10 km. The jury recommended that the program include measures to improve health and education outcomes for people living near the terminal. These measures will be progressed further and implemented as applicable, in consultation with relevant stakeholders, after the Project receives all the necessary government approvals.

2.6 Summary

The PAC's decision on the SIMTA site has a number of implications for this Project, the most significant being the suggested cap on intermodal capacity that would restrict the precinct as a whole to a long-term capacity cap of 500,000 TEU per annum. The cap relates to the PAC's concerns about the ability of the road network to accommodate a greater throughput and a perception that such a cap would be sufficient to accommodate long term demand and therefore meet the Government objective of a doubling of rail freight mode share (currently 14% for freight entering Port Botany) by 2020.

The PAC additionally expressed regret that a more integrated approach (including a master plan) has not to date been provided for the precinct.

This report seeks to address these issues, demonstrating that:

- The market demand for rail freight in south western Sydney is adequate to substantiate the need for a 1.55 million TEU p.a. IMT facility in the Moorebank precinct by 2030.
- The road network has the capacity to accommodate this growth, subject to a number of road network upgrades as identified in section 7.9.3.
- There is consistency and alignment in relation to the traffic assessment of the SIMTA and IMT projects.

This report presents an updated evaluation of potential precinct development scenarios, including layout plans, as well as planning mechanisms to better link the two sites and their respective approvals. This was undertaken to satisfy the PAC concern about a lack of coordination between the planning of the two projects.

The Project is in the public interest because its residual environmental impacts will be localised and managed but its benefits will be significant and widespread for the entire community. The benefits include a major contribution to jobs and productivity growth, supply chain efficiency, and reduced congestion growth. The local community will receive a share of these benefits as well as a local benefits program. The public interest is also served by the Project in terms of its contribution to government policy; the lack of suitable alternative sites; and the unique characteristics of the site which are not needed for other land uses but make it ideal for an IMT. While some local community members oppose the Project, the broader community interest is reflected by strong support from government and industry stakeholders.

Granting development consent for the project in its entirety as proposed is therefore consistent with the public interest a key aspect of planning decision-making. A decision for a reduced throughput terminal will not deliver the strategic certainty, sustainable outcomes nor governments objectives and will not be in the public interest.