

3 June 2016

STATE SIGNIFICANT DEVELOPMENT – MOOREBANK INTERMODAL TERMINAL CONCEPT PLAN, LIVERPOOL LGA

1. INTRODUCTION

The Moorebank Intermodal Company (MIC), on behalf of the Commonwealth Government, seeks a concept plan approval of a staged State Significant Development (SSD) application to develop an intermodal terminal facility with a rail link to the Southern Sydney Freight Line (SSFL) at Moorebank. The application also seeks approval for early works (Stage 1), including the demolition of existing buildings, site remediation, and the establishment of construction facilities and access routes. Being a staged SSD, subsequent development applications will need to be made, assessed and determined prior to further construction works and the operation of the facility.

The concept plan proposal includes an Import Export (IMEX) terminal that would handle up to 1.05 million twenty-foot equivalent units (TEUs) and an interstate terminal that would handle up to 500,000 TEUs. Warehousing of up to 300,000m² is also proposed. The proposal has a capital investment estimated at \$927.4 million.

1.1 Background

For over 12 years, the site has been endorsed as a prime location to construct an intermodal terminal to promote national productivity in the long term and to assist in the development of Sydney. A brief history of the NSW and Commonwealth Governments' plans for the site is as follows:

Year	Action(s)
2004	The Commonwealth Government announced that the site would be considered as a location for a major intermodal freight terminal.
2005	The NSW Government's Freight Infrastructure Advisory Board identified the construction of an intermodal terminal on the site as a critical element for achieving the NSW
2007	Government's target of an increased rail mode share of port container freight. The NSW Government endorsed plans to establish new freight terminals at Enfield and Moorebank. Later that year, the Commonwealth Government allocated funding towards detailed planning of an intermodal terminal at Moorebank as part of its Nation Building Program.
2010	The Commonwealth Government allocated further funds for a feasibility study. The project was submitted to Infrastructure Australia by the Commonwealth and NSW Governments and was placed at Threshold on the Infrastructure Priority List of Infrastructure Australia.
2012	The Commonwealth Government committed to funding the project.
2014	The project was placed at Real Potential on the Infrastructure Priority List of Infrastructure Australia.

1.2 Related Applications - Sydney Intermodal Terminal Alliance

On 9 November 2011, the Sydney Intermodal Terminal Alliance (SIMTA) lodged a Part 3A application for a concept plan approval to develop a competing intermodal facility with a throughput of 1 million TEUs on an adjacent site. On 29 September 2014, the Planning Assessment Commission (the Commission) approved the application, subject to a reduced throughput of 250,000 TEUs with the

option of a further 250,000 TEUs subject to the operation of the terminal not exceeding the capacity of the transport network.

The Commission is considering a modification application which seeks to remove the requirement for SIMTA to enter into a Voluntary Planning Agreement with the relevant authority in relation to changes to the 901 bus route and relocation, prior to obtaining planning approval for the first stage of works.

The Commission is also considering a separate application seeking approval for Stage 1 works on the SIMTA site, including the construction and operation of infrastructure to support a container freight volume of 250,000 TEUs.

On 4 June 2015, MIC announced that it had reached an agreement with SIMTA whereby only one integrated intermodal facility would be developed across both sites. The proposed combined throughput would not exceed 1.55 million TEUs. At this stage, both Applicants are continuing to pursue approvals for their respective proposals as separate facilities with shared rail infrastructure.

2. PROPOSAL

The concept plan proposes an intermodal terminal facility, rail corridor, IMEX freight terminal, interstate freight terminal and warehousing. The four stages of development as proposed are:

- **Early works (Stage 1)** demolition of buildings, site rehabilitation and remediation, heritage impact remediation works and the establishment of construction facilities and access.
- **Phase A** construction of an interstate freight terminal (250,000 TEUs), southern rail connection and warehousing (approximately 100,000m²).
- Phase B construction of an IMEX terminal (500,000 TEUs).
- Phase C construction of additional capacity within the IMEX freight terminal (550,000 TEUs) and interstate freight terminal (250,000 TEUs) and additional warehousing (approximately 200,000m²).

3. DELEGATION TO THE COMMISSION

On 10 December 2015, the application was referred to the Commission for determination under Ministerial delegation dated 14 September 2011, as Liverpool City Council and Campbelltown City Council object to the proposal and there have been more than 25 submissions received by way of objection.

Ms Lynelle Briggs AO nominated Mr Paul Forward (chair), Ms Robyn Kruk AM and Mr Stephen O'Connor to constitute the Commission to determine the project.

4. SECRETARY'S ENVIRONMENTAL ASSESSMENT REPORT

The Secretary's Environmental Assessment Report, prepared by the Department of Planning and Environment (the Department), identified traffic and transport, air quality and operational noise as the key environmental impacts associated with this proposal.

The Department engaged an independent expert, Aurecon Australia Pty Ltd, to assist in its assessment of traffic and transport. It was concluded that proposed traffic impacts could be alleviated through progressive upgrades to key infrastructure and the implementation of suitable mitigation measures as part of subsequent applications. The nature and timing of these upgrades would be informed by a comprehensive transport model being developed by Transport for NSW (TfNSW) and Roads and Maritime Services (RMS). The Department also recommended conditions which limit the number of containers that can be processed at the MIC site, ensuring the maximum capacity of 1.55 million TEUs across both the MIC and SIMTA sites is not exceeded.

In relation to air quality, the Department noted that the proposal is expected to meet relevant Environment Protection Authority (EPA) criteria for air quality and that the predicted human health impacts were low in the context of the site. The Department recommended various conditions to ensure that the intermodal terminal would be designed and operated to achieve best practice emission control.

With regard to noise and vibration, the Department found that some minor exceedances of noise goals may occur during the construction and operation of the facility. The Department recommended a number of conditions to mitigate the potential of this occurring, including measures to minimise wheel squeal and the implementation of best practice technologies on the proposed rail connection between the site and the SSFL. The Department noted that further consideration of noise and vibration would occur in subsequent applications.

The Department concluded that on balance, the proposal's benefits outweigh its potential adverse impacts and is therefore in the public interest. Consequently, the Department recommended that the proposal should be approved, subject to conditions.

5. MEETINGS AND SITE INSPECTIONS

As part of its assessment of the proposal, the Commission met with MIC, numerous government agencies and members of the public. The Commission also undertook inspections of the site and the surrounding area. Notes from these meetings and site inspections are provided in **Appendix 1** of this report.

Meetings on 22 January 2016

On 22 January 2016, the Commission received briefings from the Department, TfNSW and MIC on the project.

Meetings and Site Inspection on 29 January 2016

On 29 January 2016, the Commission met with SIMTA to discuss the related application on the adjoining site and its relationship to the MIC proposal. The Commission then inspected the site and the surrounding area with SIMTA and MIC to appreciate the related applications as an integrated proposal. The Commission also met separately with Liverpool City Council and Campbelltown City Council to hear their views on the project.

Public Meeting and Site Inspection on 1 February 2016

The Commission do not hold public meetings during the December/January holiday period. As a result, the Commission held a public meeting at the Bankstown Golf Club on 1 February 2016 to hear the public's views on the proposal. A list of the 42 speakers that presented to the Commission is provided in **Appendix 2**. A summary of the issues raised at the meeting is provided in **Appendix 3**.

Meetings on 7 March 2016

On 7 March 2016, the Commission met with the Department, the EPA, the Department of Primary Industries (DPI), the Office of Environment and Heritage (OEH), TfNSW and RMS to discuss the additional information received from each agency on the project.

Meeting on 26 April 2016

On 26 April 2016, the Commission chair met with Infrastructure Australia to gain a broader understanding of the Commonwealth's objectives for freight and the benefits of having an intermodal terminal at Moorebank.

Meeting on 27 April 2016

The Commission met with TfNSW and the EPA on 27 April 2016. At this meeting, the Commission sought additional advice from TNSW and the EPA on possible amendments to the draft conditions relating to wheel squeal. This information was received on 13 May 2016.

Meeting on 17 May 2016

The Commission met with the Department, TfNSW, SIMTA and MIC to discuss proposed amendments to the conditions in relation to noise, air emissions, Section 94 contributions and the combined project throughput.

6. COMMISSION'S CONSIDERATION

The Commission has given careful consideration to the information provided by MIC, the Secretary's Environmental Assessment Report, comments and advice from government agencies, and all written and verbal submissions from the public in this determination. The Commission has also taken into consideration the relevant matters under Section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Commission's consideration of the key environmental issues for this application is presented below. The Commission is satisfied with the Department's assessment on other matters including the project's statutory context, contamination, flooding, soil and water, hazards and risks, visual amenity and greenhouse gas emissions.

6.1 Project Need and Justification

The Commission notes that the Department received 234 submissions, including 226 from the general public and eight from public authorities. The Commission also received comments from members of the public during the determination process. In particular, significant concern was raised about the suitability of the site for an intermodal freight terminal in addition to noise and traffic impacts.

Liverpool City Council and others stated that Badgerys Creek would provide a more suitable location for an intermodal facility as it was claimed that it would better service Western Sydney and have synergies with the proposed airport at Badgerys Creek. Council and others also questioned the potential benefits of the project as identified in the information provided with the application.

As part of its deliberations, the Commission has met and/or received advice on these specific matters from the following agencies:

- Commonwealth Government Department of Infrastructure and Regional Development;
- Infrastucture Australia (IA);
- NSW Ports;
- The Department; and
- TfNSW and RMS.

6.1.1 The Benefits of Freight Rail

Freight and logistics are the facilitators or enablers of almost all economic activity and improved logistics can transform the economy¹. Efficiently operated and networked intermodal terminals will allow a larger volume of goods to be transported, with benefits flowing on to higher industry productivity. Improved productivity leads to jobs growth, and a networked approach to infrastructure disperses employment more favourably throughout the metropolitan area. Without improvements in the capacity of the container transport chain, it is likely importers and exporters will experience delays

¹ NSW Government 2013, NSW Freight and Ports Strategy

in cargo movements resulting in higher costs and unreliable supply². As well as economic benefits, more efficient transportation has the potential to produce environmental and urban amenity benefits including reduced greenhouse gas emissions and congestion.

The utilisation of freight trains rather than trucks, especially during peak hours, would reduce the congestion on roads. Trains are able to transport significantly more containers than trucks and if used efficiently, could remove a large number of trucks from the road network. The reduction in truck travel would reduce the growth in congestion across the road network, reduce travel times, and increase the reliability of trip duration.

Short-haul rail's linehaul costs become relatively lower when truck linehaul operations are unproductive. Truck productivity is often undermined by road congestion over extended distances, as this reduces truck utilisation markedly³. Road costs are generally higher during peak hours, while unpredictable congestion reduces service reliability. Truck operations are also unproductive when there are empty container back hauls. This is a greater issue for trucks than for trains.

6.1.2 Significant Challenge to Arrest the Decline in Freight Rail Effort as % of Network Throughput Between 2010 and 2011, only 14% of containers were moved by rail in NSW⁴. The NSW Government has stated its intention to double the proportion of containers moved by rail by 2021⁵. Investigations and investment to encourage the movement of containers by rail and to increase rail freight network capacity are underway nationally⁶. This push will be required on a national scale in order to provide for significantly greater capacity and efficiency of freight rail movement in the next 10 to 15 years. Significant investment from governments and the private sector is going to be required regardless of the specific location or scale of individual intermodal projects.

These challenges are not localised in Western Sydney or even NSW, they form part of the national freight rail network response. There is also a desire to achieve national and state productivity gains through freight rail playing a growing role in the movement of goods between ports and inland terminals.

In relation to Sydney, IA suggests that the opening of new intermodal terminals at Enfield and Moorebank and the expanded use of existing terminals at Chullora, Minto and Yennora may provide an incentive for movement of containers by rail within the Sydney metropolitan area⁷. IA also recommends that work should also commence to assess options for the full development of the planned Western Sydney Freight Line and Eastern Creek Intermodal Precinct, with the corridor and site for these important projects required to be reserved now⁸.

6.1.3 Project Need

Improving the efficiency and movement of freight at Port Botany is critical to the State's ongoing productivity growth and competitiveness. There is clear evidence that the amount of freight coming into Port Botany is increasing and those increases can be expected to be maintained over the short to medium term. The implications of this growth for ports, road and rail networks, intermodal terminals

² ibid

³ Department of Infrastructure and Regional Development 2016, Why short-haul intermodal rail services succeed

⁴ NSW Infrastructure 2014, State Infrastructure Strategy Update

⁵ NSW Government 2013, NSW Freight and Ports Strategy

⁶ Infrastructure Australia 2015, Australian Infrastructure Audit

⁷ ibid

⁸ ibid

and freight corridors are significant. Without improvements to this infrastructure, it is unlikely that this growth can be accommodated.

The vast majority of containers to and from Port Botany are moved by road, producing around 3,900 truck movements daily, principally along the M5 corridor⁹. Road capacity in Sydney is limited even after taking into account planned and committed road infrastructure projects around Port Botany and Western Sydney, for example WestConnex. The proposed intermodal terminal will allow for freight to be transferred to Moorebank by rail from Port Botany, reducing the demand for road transport from the port and providing a hub for the wider road and rail freight networks¹⁰.

The Commission notes that the intermodal terminal will be required to financially contribute to managing the impacts it generates on the surrounding road network. Accordingly, road network upgrades will be secured at future stages of the project through voluntary planning agreements or other similar methods acceptable to the consent and road authorities. In effect, should the project proceed beyond the concept stage, it will facilitate the construction of upgrades and improvements identified to help address current background growth and congestion on the transport network.

6.1.4 Alternative Sites for the Intermodal Terminal

A number of alternate sites were suggested by the community including Eastern Creek and Badgerys Creek. The Commission notes that at this point in time, there is no commitment to freight rail or intermodal facilities within either precinct. However, the Commission has looked at the opportunities and constraints of each of these sites for the development of an intermodal facility.

The redevelopment of the Badgerys Creek precinct for a Western Sydney Airport has been discussed for more than 30 years. However, the airport and related infrastructure is still in the early stages of delivery. The Australian Government's Western Sydney Airport website indicates the earliest date the airport could be operational is during the mid-2020s, with stage 1 to be fully operational by 2030¹¹.

In relation to rail infrastructure, initial scoping studies looking at corridor options were commenced in November 2015. Funding has been provided to support this options 'analysis stage' of work. However, there is no confirmation at this stage of when any passenger or freight rail link could be delivered in the Badgerys Creek precinct.

An intermodal site at Eastern Creek would require a new dedicated freight rail link. Any new link would be expected to connect to the existing SSFL and/or the northern freight line. At this stage, options for a potential rail corridor have not been identified. IA notes that it is still in the 'options assessment' development stage for this project¹². On this basis, IA advised the Commission that the earliest possible timeframe for the delivery of a rail serviced intermodal within the Eastern Creek precinct would be at least 15 or more years. As discussed previously, improvements to the capacity of the freight rail network are needed well in advance of 2031 in order to accommodate predicted growth in TEUs from Port Botany.

A further potential weakness to a site at Badgerys Creek, and to a lesser extent Eastern Creek, is its location in relation to the market. The Commission understands that 80% of freight from Port Botany is transported within 40km¹³. Given that Badgerys Creek is approximately 56km from Port Botany,

⁹ Infrastructure Australia 2015, Australian Infrastructure Audit

¹⁰ ibid

¹¹ Department of Infrastructure and Regional Development 2016, http://westernsydneyairport.gov.au

¹² Infrastructure Australia 2015, Australian Infrastructure Audit

¹³ NSW Government 2013, NSW Freight and Ports Strategy

freight would be taken from Port Botany to an area beyond the majority of the target market and then transferred back into areas of Western Sydney further compounding traffic problems.

6.1.5 Conclusions

The Commission has reviewed the project need and strategic justification in detail. The views of all those who made submissions to the Commission have been considered along with relevant Commonwealth and State government infrastructure agencies.

Increasing the capacity of the national freight rail network will require significant amounts of funding. Realising mode shift targets from road to rail freight will require infrastructure investment in the network regardless of the location of intermodal sites.

The Commission has found that in the longer term alternate sites at Badgerys Creek and/or Eastern Creek could provide a contribution to the Commonwealth and State freight rail networks. However, neither site is likely to be delivered in the short or medium term. In both cases only preliminary investigations are underway and it will be some time before the future range of land-uses in these areas becomes clearer and infrastructure corridors secured, funded and delivered.

By comparison, the site at Moorebank is available and ready to be developed. It has good linkages to both road and freight rail. Its size and generally flat topography also make it a suitable site for an integrated freight terminal. The Commission notes that an intermodal terminal has been proposed for the site since 2004.

The Commissions concludes that a demonstrated need and strong strategic justification exists for an intermodal terminal to be developed in this location. The Commission is of the opinion that it is rare to find within the Sydney metropolitan area, a large, flat site within such close proximately to the rail and road transport network and the growing consumer markets of Western Sydney. The Commission agrees with the Department that an intermodal terminal is a suitable use of the Moorebank site. The specific nature and scale of the development on the site makes it necessary to consider a range of environmental assessment issues. The most significant of these are discussed in the following sections of this determination report.

6.2 Traffic and Transport

The project's potential impact on traffic was a major concern raised by members of the community and various government agencies in correspondence to the Commission.

6.2.1 Existing Traffic Network

The primary method used by RMS to relate the quality of traffic service is to grade each intersection according to its Level of Service (LoS). The table below represents LoS definitions for intersections, based on vehicle delay only. According to the table, a vehicle passing through an intersection of LoS A should not experience a delay of more than 14 seconds, whereas a vehicle passing through an intersection of LoS F would experience a delay of more than 70 seconds.

Table 1: LoS Calculations¹⁴

LoS	Control delay per vehicle in seconds (d) (including geometric delay)
	All intersection types
Α	d < 14
В	d < 15 to 28
С	d < 29 to 42
D	d < 43 to 56
E	d ≤ 57 to 70
F	d > 70

MIC conducted surveys of 14 intersections within the road network surrounding the project. The intersection at Moorebank Avenue and Church Road is operating at LoS F and 31-38% of the other intersections are nearing capacity in the AM and PM peak (operating at LoS D or E). Intersection performance without the proposal shows that between 33-80% of key intersections would be operating at LoS F at either AM or PM peak (or both) without the project by 2030, based on general background traffic growth predictions.

There is a 1km section of the M5 motorway located between Moorebank Avenue and the Hume Highway with on and off ramps at each intersection. This section is a recognised congestion point within the motorway as vehicles entering the motorway are required to 'weave' across lanes of traffic. The weave is operated at LoS D in peak hours.

The Commission notes that RMS is involved in a strategic planning process for upgrading the road network in Western Sydney, irrespective of whether the Moorebank intermodal terminals are approved. The Commission understands that options to address the 'weave' issue on the M5 motorway are being considered.

6.2.2 Expected Traffic Generation

The Commission notes that traffic modelling currently being undertaken by TfNSW and RMS will form the basis for Traffic Assessment Impacts for each subsequent development application. In its meeting with the Commission on 22 January 2016, TfNSW advised that the strategic modelling undertaken to date is adequate for the MIC Concept Plan to proceed.

¹⁴ Roads and Maritime Services NSW 2013, *Traffic Modelling Guidelines*

MIC estimates that 5522 heavy vehicles per day would be generated as a result of the proposal and 3000 heavy vehicles per day would be removed from a section of the M5 motorway between Moorebank Avenue and Port Botany. Based on the number of staff, an additional 5724 car movements per day are predicted on the road network during operation.

The intermodal will reduce the growth in road-based freight trips between Port Botany and Moorebank as stated by Infrastructure Australia and NSW Ports. For example, one fully loaded freight train from Port Botany, will remove approximately 66 heavy vehicles from the road network from Port Botany to Moorebank. Notwithstanding, the Commission is aware of the role of Moorebank as one of the key intermodal sites in Sydney and the ramifications as a result of increased use. It is important that each stage of the project is able to demonstrate the impacts of increasing the use/capacity can be accommodated through appropriate local road infrastructure upgrades.

6.2.3 Mitigation Measures

The Commission has amended conditions 7 and 8 to require that the consent authority must be satisfied that each stage of the project will not exceed the capacity of the transport network. In order to achieve this, MIC will contribute to a number of staged upgrades that would tie into the gradual increase of TEU throughputs. Any local and possibly regional traffic mitigation improvements or contributions attributable to the intermodal terminal will need to be addressed as part of future development applications. The Commission notes that MIC is continuing to consult with TfNSW and RMS regarding the proposed mitigation measures and delivery timing.

The upgrades proposed by MIC aim to return the intersections to the service levels experienced by commuters prior to the construction of the project and are likely to provide a reduction in average delay. The Cambridge Ave and Canterbury Road intersection and the Moorebank Ave and Church Road intersection are expected to experience considerable improvements in current delay times. The Commission notes that without upgrades to Moorebank Avenue, the performance of the intersections would progressively deteriorate, with long delays and queuing for at least one of the peak hours.

The Commission notes that MIC has proposed to provide a bus or shuttle service to and from the site for employees. MIC has also proposed to construct a shared pedestrian/bike path. Both these measures may encourage employees not to drive to the site, thus potentially reducing vehicle movements within the local road network. However, any potential savings are not relied on by the Commission in its consideration of traffic issues.

6.2.4 Rail

On average, 45 train movements per day would use the rail link connecting the site to SSFL. In correspondence received by the Department, ARTC confirmed that the assessed capacity of the SSFL would meet the future demand for the project.

6.3 Noise and Vibration

Many members of the public raised concern about noise impacts on nearby residential areas as a result of the construction and operation of the project. The closest residential properties are in Casula, Moorebank, Wattle Grove and Glenfield. The nearest residents are located approximately 180 metres to the west of the site.

Noise modelling was undertaken by MIC in accordance with the relevant policies and guidelines and has been reviewed by the Department and EPA. The modelling predicted the potential impacts of the project on residential areas and other sensitive land uses.

It is proposed that construction of the project will be undertaken in stages. The early works proposed as part of this application are of relatively small scale and is predicted to comply with construction noise management requirements. Subsequent stages of construction are predicted to largely comply with the construction noise management requirements, except for potential exceedances resulting from piling, excavation and compaction work. Minor exceedances may occur at Wattle Grove during concreting and in Casula and Glenfield during the construction of the rail loop. The Commission is generally satisfied that the conditions of development consent will effectively manage noise impacts on surrounding residential areas during construction.

In relation to the operation of the proposal, the Commission notes that minor exceedances are predicted at residential receivers in Casula and Wattle Grove at night time in adverse meteorological conditions. The Commission is satisfied that the proposed mitigation measures to reduce noise impacts from the operation of the terminal are appropriate.

Rail link operations are predicted to comply with the Rail Infrastructure Noise Guidelines. However, this does not adequately take into account the potential for wheel squeal. Due to physical limitations at the site, the intermodal rail link will contain some tight curve radii resulting in wheel squeal noise being a potentially significant issue. On 27 April 2016, TfNSW advised the Commission that it has conducted modelling of various rolling stock and practices to reduce noise impacts resulting from rail operations. The Commission has included modified conditions 10(a) and (b) pertaining to the use of 'best practice' which will aid in alleviating noise generated as a result of train operations.

Best practice in this context includes the type of equipment and in particular the standard of intermodal wagon bogies being used. Current best practice is, as a minimum, cross braced three-piece bogies. The Commission is satisfied that the operation of trains at the intermodal can be required to include wagons that operate with the ability to optimise bogie curving performance leading to a much lower likelihood of noise generated from wheel squeal. Furthermore, the Commission is of the view that through the implementation of real time monitoring of the operation of trains, this will further mitigate noise impacts and address concerns raised by local residents. Other accepted practices including track grinding and track lubrication will also be required to be implemented as part of a suite of mitigation measures.

The Commission notes that additional noise monitoring and modelling will be provided with each subsequent stage to more accurately determine impacts and the need for further mitigation measures during the construction and operation of the terminal.

6.4 Air Quality

The air quality in Western Sydney was a recurring issue raised by the community in verbal and written comments. The community was particularly concerned about diesel exhaust emissions from road and rail vehicles utilising the site and airborne dust during construction.

The Commission acknowledges that particulates PM_{10} and $PM_{2.5}$ have the potential to give rise to adverse health effects. Over a five year monitoring period, the EPA recorded some minor exceedances of PM_{10} and $PM_{2.5}$ in the Liverpool area. These exceedances are not typical of the area and have been attributed to significant bushfires that occurred around Sydney and across NSW in 2013.

Using the results from the monitoring period, MIC found that the applicable NSW EPA criteria and National Environmental Protection (Ambient Air Quality) Measures (NEMPs) advisory reporting goals for PM_{10} and $PM_{2.5}$ would be exceeded at one receptor (R33). This receptor is located on the SIMTA site on Moorebank Avenue. MIC attributes the exceedances at this receptor to the existing elevated background levels from the bushfire activity rather than the contribution from the proposal.

The Commission notes the Health Impact Assessment submitted with the application concluded that the predicted human health risks or impacts from the project were low. Notwithstanding this, the Commission has considered various options to reduce the impacts of air emissions from the project on employees and the surrounding area at a concept level.

In particular, the Commission found that the use of newer, cleaner locomotives, wagons and other rail technology could have a significant positive impact on the air quality in the area. As such, the Commission has imposed conditions 10(a) and 10(b) requiring that port shuttle operations use locomotives and wagons that incorporate available best practice emission technologies. These conditions also require that MIC submit a report that justifies the technology proposed and how it meets the objective of best practice emission technologies to the Secretary for consideration and approval before the rail link is constructed. The report must be prepared in consultation with TfNSW and the EPA.

The Commission notes that the EPA and TfNSW are in the early stages of investigating the application of emission standards for locomotives. The Commission also notes that the NEPMs are currently under review. The Commission recommends that any changes in these standards should be applied to the project in its future stages.

The construction of the project must be undertaken in accordance with the *Protection of the Environment Operations (POEO) Act 1997* and the Construction Environment Management Plan. The Commission notes that the early works proposed would have a negligible impact on air quality given the expected low magnitude of earthworks and the short-term nature of construction activities. The Commission regards it as appropriate for detailed assessments on air quality to be undertaken in subsequent stages of the development. Overall, there is a low likelihood of adverse local air quality impacts in the surrounding environment arising from the construction and operation of the project.

6.5 Aboriginal Heritage

The project's main construction footprint is located in areas considered to be of low Aboriginal heritage significance due to the effects of European land use. However, the Aboriginal Heritage Assessment undertaken as part of the EIS found that the riparian corridor along the Georges River is of high Aboriginal heritage significance at local and regional levels. Whilst the proposed rail link will impact on this corridor, the Commission is satisfied that adequate measures will be undertaken to manage the project's potential impacts on Aboriginal cultural heritage.

The Commission notes that two scarred trees of Aboriginal origin, known as MA6 and MA7, were identified within the construction footprint. In accordance with the advice received from OEH dated 5 April 2016, the Commission has amended condition E19 to read "All future Development Applications relevant to MA6 and MA7 (Scarred Trees) shall include a consideration of the Aboriginal cultural value of the trees and options for avoiding impacts and ongoing conservation measures, including evidence of consultation with Aboriginal community representatives." The Commission is satisfied that the proposed strategies outlined in this condition will appropriately manage any impacts to the scarred trees.

6.6 Non-Indigenous Heritage

The site was previously used as the School for Military Engineering and is listed on the State Heritage Inventory and the *Liverpool Local Environmental Plan* 2008 as having heritage significance. The site contains a number of heritage items, including the Royal Australian Engineers (RAE) Memorial Chapel, the RAE Vietnam War Memorial, Major-General Clive Steele Memorial Gates, and the Cullen Universal Steel Truss Hut (CUST Hut). The European Heritage Assessment (EHA) submitted with the

EIS also listed Building 99, a dog cemetery, a commemorative garden and the Royal Australian Air Force (RAAF) Starch Hanger as having heritage value.

The Commission is satisfied that MIC's proposed measures to mitigate the impacts on non-Indigenous heritage are appropriate. The majority of the heritage items will be relocated to the Holsworthy Barracks as part of the Department of Defence's Moorebank Unit Relocation. The Commission is of the view that once these items have been relocated, the tangible heritage value of the site will be largely reduced. Four items would remain in situ – the CUST Hut, the dog cemetery, the commemorative garden and the RAAF Starch Hanger. The Commission supports the Department's recommended conditions requiring MIC to further investigate the relocation, reuse or conservation of these items.

There are a number of heritage listed items adjacent to the site that are unlikely to be significantly impacted by the construction and operation of the intermodal terminal. Some comments received by the Commission raised concern about adverse noise impacts on Glenfield Farm during the construction and operation of the intermodal. The Commission notes that the homestead is restricted in terms of including noise attenuation measures as a result of the heritage significance of the property. The Commission is of the view that appropriate conditions are included to ensure that the project complies with noise restrictions.

6.7 Biodiversity

Concerns were raised at the public meeting and in written submissions about impact on flora and fauna species and the suitability of proposed offsets. Given its land use history, the site is predominantly cleared of vegetation, particularly where the construction and operation of the intermodal will be concentrated. There are areas of high ecological value on the eastern and western boundaries with dispersed areas of moderate ecological value in the northern and southern portions of the site.

Four native vegetation communities corresponding to four threatened ecological communities, two threatened flora species (*Persoonia nutans* and *Grevillea Parviflora*) and three threatened bats (greyheaded flying fox, large-footed myotis and eastern bent-wing bat) were recorded on the site. Potential occurrence of an additional 23 threatened fauna species was considered based on habitat availability.

The Commission notes that the biodiversity offset strategy is an ongoing evolving document that will continue to be developed in conjunction with OEH to ensure all impacts are proportionally offset in accordance with Framework for Biodiversity Assessment 2014. At this stage, MIC has developed a biodiversity offset package which includes three sites to offset the impacts to threatened vegetation communities and species. These are the Casula offset, the Moorebank offset and the Wattle Grove offset.

The Commission notes that the proposed offset policy provides sufficient credits to offset the impacts of all communities and species to be affected, with the exception of shortfalls for the Castlereagh Scribbly Gum Woodland and Alluvial Woodland/Riparian Forest. The Commission acknowledges that the Proponent has sought additional credits on the OEH BioBanking Register. No credits are available. The Commission supports the approach for the Proponent to consult further with OEH on this matter to ensure that reasonable steps have been undertaken to locate like for like offsets in accordance with NSW Offsets Policy. The Commission is satisfied that the proposed offset and management actions will ensure that impacts to threatened species will be minimised and that local populations will not be compromised.

The Commission acknowledges that part of the proposed offsets overlap with the offsets proposed as part of the SIMTA application. The Commission is of the view that this is a matter for MIC and SIMTA, in consultation with OEH, to resolve and should be addressed in subsequent stages of both projects.

In relation to aquatic habitat and species, the proposed rail crossing has the potential to affect stream flows, bed and bank stability and the ecological values and functions of the riparian corridor. In order to minimise impacts to the aquatic environment, conditions of consent have been included that require DPI Fisheries to oversee detailed construction methodology of bridges to ensure best practice mitigation methods are used. As advised by DPI Fisheries, the Commission notes that this development will not impact upon threatened aquatic species listed under the *Fisheries Management Act*

6.8 Compliance and Monitoring

The Commission understands that in accordance with the *Protection of the Environment Operations Act 1997*, Liverpool City Council (Council) will be the regulatory authority for the project. The Commission notes concerns raised by Council about its capacity and capability to assess and regulate the development.

The Commission acknowledges these concerns and has been advised that the EPA has agreed to assist Council by providing comments and recommendations in relation to the key environmental issues of noise and air quality.

The Commission notes that the Department has a significant regulatory role in monitoring the project's compliance with its development consents. The consents are issued by the Minister and the Department is the relevant State agency to administer these consents. There are a range of conditions relating to the control of environmental impacts and enforcement will be the responsibility of the Department. Additionally, the recommendations from TfNSW will be implemented to ensure the equipment used on the rail link will optimise performance.

Consequently, the Commission is satisfied that the development will be appropriately monitored throughout its construction and operation.

6.9 Project's Throughput

The SIMTA concept plan was approved by the Commission on 29 September 2014. The Commission imposed conditions limiting the freight volume to 250,000 TEUs of IMEX freight per annum. The freight volume may increase up to an additional 250,000 TEUs of IMEX freight per annum if the consent authority of a subsequent Development Application is satisfied that traffic monitoring and modelling of the operation of the facility demonstrate that traffic movements resulting from the proposed increase in TEUs will achieve the objective of not exceeding the capacity of the transport network.

In light of the agreement to operate one facility across both the MIC and SIMTA sites, MIC proposes a maximum combined throughput of 1.55 million TEUs per annum. This combined throughput is based on the predicted capacity of the SSFL by 2025 and the current capacity of the interstate freight rail network. The Commission notes that the Australian Rail Track Corporation (ARTC) have factored 1.05 million TEUs of IMEX freight at Moorebank into their predicted capacity and planned upgrades to the SSFL. The Commission also notes that in correspondence to the Department dated 18 July 2013, TfNSW were satisfied with the interstate freight estimates provided by MIC.

The Department recommended the following conditions in relation to MIC's throughput:

- 7. Concept approval is granted for interstate terminal container freight with a throughput of up to 500,000 TEU p.a.
- 8. For the IMEX terminal, concept approval is granted for the movement of container freight by up to:
 - a) initially, 250,000 TEU p.a. if the consent authority is satisfied that the Traffic Impact Assessment demonstrates the proposal would not exceed the capacity of the transport network with or without mitigation measures/upgrades;
 - b) after the facility has been in operation, an increase of up to an additional 300,000 TEU p.a. if the consent authority is satisfied that monitoring and modelling of the operation of the IMEX terminal demonstrates that traffic movements resulting from the proposed increase in TEU will achieve the objective of not exceeding the capacity of the transport network; and
 - c) after the facility has been in operation, a further increase up to an additional 500,000 TEU p.a. if the combined approved movement of container freight by road on the Subject Site and the adjacent SIMTA Site (the subject of Concept Plan approval MP10_0193) does not exceed 1.55 million TEU p.a.

The Commission notes that the above conditions would grant MIC a total throughput of 1.55 million TEUs per annum, subject to SIMTA operations. The Commission is of the view that the development consent for the MIC development should not rely on SIMTA operations to determine its capacity.

Given that a maximum throughput of 500,000 TEUs of IMEX freight has already been granted to SIMTA, the Commission is of the opinion that the MIC facility should operate to a maximum of 1.05 million TEUs per annum (500,000 TEUs of interstate freight and 550,000 TEUs of IMEX freight) so that the combined throughput target of 1.55 million TEUs per annum and the capacity of the SSFL are not exceeded. As such, the Commission has amended conditions 7 and 8 to read as follows:

- 7. Concept approval is granted for interstate terminal container freight with a throughput of up to 500,000 TEU p.a. if the combined movement of container freight on the Subject Site does not exceed 1.05 million TEU p.a. The consent authority must also be satisfied that the Traffic Impact Assessment demonstrates that the interstate terminal would not exceed the capacity of the transport network with or without mitigation measures/upgrades.
- 8. For the IMEX terminal, concept approval is granted for the movement of container freight by up to:
 - a) initially, 250,000 TEU p.a. if the consent authority is satisfied that the Traffic Impact Assessment demonstrates the proposal would not exceed the capacity of the transport network with or without mitigation measures/upgrades; and
 - b) after the facility has been in operation, an increase of up to an additional 300,000 TEU p.a. if the consent authority is satisfied that monitoring and modelling of the operation of the IMEX terminal demonstrates that traffic movements resulting from the proposed increase in TEU will achieve the objective of not exceeding the capacity of the transport network. The combined movement of container freight on the Subject Site must not exceed 1.05 million TEU p.a.

Some members of the public raised concern about the condition 13 as recommended by the Department, which reads as follows:

13. Containers must be transferred between the site and Port Botany predominantly by rail, unless where unforeseen circumstances have occurred (eg an incident, breakdown, derailment or emergency maintenance on the rail line). The Secretary may at any time request the Applicant to demonstrate that the transport of containers between the site and Port Botany container

terminals is by rail. This is to be demonstrated upon request by the Secretary for the prior 12month period.

The Commission acknowledges the concerns which have been raised about the definition of 'predominantly' being ambiguous and therefore not providing the public with any certainty about the ratio of containers arriving to the site via rail in comparison to road. The Commission shares this concern and as a result the word "predominantly" has been removed from this condition. The Commission has also permitted for MIC to utilise the road network to transport containers if there is planned track maintenance.

To provide increased certainty to the community that freight will be transported by rail rather than relying on the road network, the Commission has also amended condition 14 so that intermodal operations on the site cannot commence until a rail connection to the SSFL is operational.

7. COMMISSION'S FINDINGS AND DETERMINATION

The Commission has carefully considered the MIC's proposal, the Secretary's Environmental Assessment Report and the relevant considerations under Section 79C of the EP&A Act. The Commission heard from MIC, numerous government agencies and members of the public during its various briefings, meetings, inspections and the public meeting.

The Commissions concludes that a demonstrated need and strong strategic justification exists for an intermodal terminal to be developed in this location. The Commission notes that an intermodal terminal has been proposed by various governments on this site since 2004. The construction and operation of the intermodal terminal will provide significant public interest benefits in relation to job creation in Western Sydney. The Commission notes that a large proportion of Western Sydney's population are employed in the construction and transport, postal and warehousing industries.

The Commission is of the view that an intermodal terminal can be developed on the site, subject to further consideration (in subsequent stages) of key issues associated with the project, particularly in relation to traffic, noise, air quality, biodiversity and heritage.

The project's potential impact on traffic was a major concern raised by members of the community and various government agencies. The Commission notes that prior to the approval of subsequent stages of the project, the consent authority must be satisfied that the project will not exceed the capacity of the rail and road networks. The Commission acknowledges that traffic impacts and mitigation measures will be addressed in further detail in subsequent applications. Modelling currently being undertaken by TfNSW and RMS will form the basis of subsequent Traffic Impact Statements.

The Commission is satisfied that adequate measures have been included to mitigate the impacts of the project in terms of noise and air quality. The Commission has made changes to the Department's recommended conditions in relation to noise and air quality. In particular, conditions 10(a) and 10(b) require MIC to use locomotives and wagons that incorporate best practice noise and emission technologies. This will have significant benefits on the amenity of surrounding residents and employees of the intermodal terminal.

The Commission has limited the throughput on the MIC site to a maximum of 1.05 million TEU per annum. This ensures that MIC and the related proposal from SIMTA do not exceed a combined throughput target of 1.55 million TEU per annum or the capacity of the SSFL.

The Commission has sought to provide increased certainty to the community that the construction of the intermodal will enable freight travelling to and from Port Botany to be transported by rail rather than relying on the road network. Specifically, the Commission has amended condition 13 to require that all containers must be transferred from Port Botany to the site and from the site to Port Botany by rail, except during planned track maintenance and unforeseen circumstances (eg. a derailment or emergency maintenance on the rail line). The Commission has also amended condition 14, which specifies that intermodal operations on the site cannot commence until a rail connection to the SSFL is operational. The Commission notes that these actions will have public benefits in terms of reducing traffic congestion between Port Botany and Moorebank.

The Commission has determined to accept the recommendation that approval be given to this application. Consequently, consent is granted subject to the amended conditions set out in the instrument of approval.

Mr Paul Forward

Commission Member (Chair)

Ms Robyn Kruk AM

Commission Member

Mr Stephen O'Connor Commission Member

Appendix 1

Notes of Meetings and Site Inspection

Notes of Briefing from the Department of Planning and Environment – 22 January 2016

Meeting note taken by: Jade Shepherd Date: Friday, 22 January 2016 Time: 2pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

The Department of Planning and Environment (the Department):

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments

Karen Jones – Director, Transport Assessments

David Gainsford - Executive Director, Priority Projects Assessments

Karen Harragon – Director, Social and Other Infrastructure Assessments

The purpose of the meeting: For the Department to brief the Commission on the project.

The Department provided a brief overview of the applications and raised the following key issues:

Traffic

- Traffic congestion was the main issue raised in submissions.
- The modelling undertaken for the two projects is sufficient to enable the applications to progress.
- In regards to the MIC Concept Plan proposal, each future stage must rely upon a further, more refined, traffic model which identifies specific intersection upgrades required to mitigate impacts of growth at the terminal.
- Future stages cannot proceed without identifying necessary intersection upgrades.
- The Department was confident the Concept Plan assessment provides sufficient rigour.
- The proposals provide an opportunity to fast track necessary road upgrades required to mitigate background growth and congestion issues forecast to occur with or without an intermodal.
- There are limited public transport options to access the site.

Planning Proposal

- There is currently a planning proposal with the Department to rezone a portion of the site from SP2 Infrastructure (Defence) to partly E3 Environmental Management and IN1 General Industrial.
- The Department advised that the applications do not rely on the planning proposal for permissibility.

Meeting closed: 2:30pm

Notes of briefing from Transport for New South Wales - 22 January 2016

Meeting note taken by: Jade Shepherd Date: Friday, 22 January 2016 Time: 2:30pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal

Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

The Department of Planning and Environment (the Department):

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments

Karen Jones – Director, Transport Assessments

David Gainsford – Executive Director, Priority Projects Assessments

Karen Harragon – Director, Social and Other Infrastructure Assessments

Transport for New South Wales (TfNSW):

Mark Ozinga – Principal Manager Land Use Planning and Development

Tony Gausden – Freight Co-ordinator

The purpose of the meeting: For TfNSW to brief the Commission on the project.

Traffic Modelling

- The Commission asked TfNSW about the status of the traffic modelling, how important it is to the subject proposals and what area the modelling covers.
- TfNSW advised that the traffic modelling is close to completion and that the base case of the modelling will shortly be provided to the Proponents.
- TfNSW is of the opinion that the strategic modelling undertaken to date is adequate for Stage 1 of the MIC Concept Plan to proceed. TfNSW is also of the view that the modelling prepared by SIMTA is satisfactory.
- TfNSW indicated that the Proponents and RMS have discussed the projects and agree on the broad impacts of the proposals. However, no agreements have been reached on a works schedule or who would be responsible for the works.
- A works in kind provision has also been discussed with the Proponents and it is possible that a Voluntary Planning Agreement (VPA) will be entered into at the future detailed planning stage.

Other

- The Commission queried if providing more public transport to the site is viable. TfNSW raised concern
 that shift work may not suit public transport, but services could be provided in the future should there
 be a demand.
- The Commission queried how rail wheel squeal could be mitigated. TfNSW advised that rail wheel squeal can be mitigated with top of the range lubrication. TfNSW advised that the Department's conditions encourage best practice for rail operations.
- TfNSW requested further time to review the noise conditions in further detail.

Meeting closed: 3:15pm

Notes of briefing from Moorebank Intermodal Company – 22 January 2016

Meeting note taken by: Jade Shepherd Date: Friday, 22 January 2016 Time: 3:15pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

Moorebank Intermodal Company (MIC):

Ian Hunt -Chief Executive Officer

Anthony Vaccaro - Delivery Director

Vanessa Tiernan – Corporate Affairs Manager

Dee Brock – Project Manager

The purpose of the meeting: For MIC to brief the Commission on the project.

MIC briefed the Commission on the following matters:

MIC and SIMTA Agreement

- MIC and SIMTA have signed an agreement to jointly develop a single freight precinct at Moorebank.
- MIC provided further detail on MIC and SIMTA's role in the future construction and operation of the terminal. SIMTA will obtain future staged SSD approvals in accordance with the proposed development timeline.
- MIC outlined the planning history for the intermodal terminal.

Justification for the Project

MIC provided the following justification for an Intermodal Facility in Moorebank:

- MIC advised that there is significant growth in IMEX freight, with Port Botany predicted to grow 3 to 4 times beyond its current annual throughput over coming years.
- NSW Ports is targeting 3 million TEU per year by rail (40% of TEU throughput).
- Existing intermodals are small, inefficient and constrained by limited land available. The existing intermodals cannot meet the projected demand.
- Interstate rail offers significant operation cost savings and environmental benefits.
- ARTC has invested in the national freight network and intermodals are needed to maximise the benefits
 of this investment.
- There will be improvements to the traffic network with reduced truck growth between Port Botany and south west/western Sydney.
- There will be economic benefits, with over \$9 billion in economic benefits during the next 30 years
 (\$2.3b in todays \$) through reduced business costs, reduced growth in congestion and a better
 environment; \$120 million per annum for the south western Sydney economy; and over 7,500
 operating jobs and 1,300 construction jobs.
- MIC is of the view that Moorebank is the best location for an intermodal terminal and that no other sites are suitable or available.

Traffic, Transport and Access

- MIC is of the view that the road and rail network can, with some modifications, accommodate a 1.55 million TEU intermodal precinct and 600,000m2 of warehousing.
- Further consultation with TfNSW and RMS for subsequent stages will determine the traffic improvements required.
- Several intersections will be upgraded.
- Part of Moorebank Avenue will be widened to four lanes.
- Trucks will be prevented from entering/leaving to the south.

<u>Noise</u>

MIC outlined how noise will be reduced through:

- Automated cranes to eliminate the need for warning alarms;
- Reduced wheel squeal through rail design;
- Rail connection from the Southern Sydney Freight Line (SSFL) at the south of the site away from Casula residents; rail operations in the centre of the combined site have warehouses to block noise emissions; and
- Permanently coupled wagons to limit noise impacts from bunching (when wagons decelerate / accelerate).

Local Air Quality

- Locomotive emissions will be minimised by various measures.
- There will be air quality improvements as a result of the proposal through the reduction of the distances that trucks travel on Sydney roads each day/year.
- Health Impact Assessment concluded that all risks and impacts on human health from the proposal are too low to be measurable.

Visual Impacts

• MIC presented the Commission with photomontages of predicted visual impacts from Carroll Park and Leacock Regional Park.

Conditions of Approval

• MIC is of the opinion that Department's draft conditions are general satisfactory but would recommend amendments to some conditions, including conditions 10, 11, 13, 14 and 15. The Commission advised MIC to provide any proposed changes to the conditions in writing for further consideration.

Documents: PowerPoint presentation and booklet

Meeting closed: 5pm

Notes of meeting with Liverpool City Council - 29 January 2016

Meeting note taken by: Jade Shepherd Date: Friday, 29 January 2016 Time: 2pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal

Terminal Facility Stage 1)

Meeting place: Liverpool City Council Offices

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara – Director and Jade Shepherd – Planning Officer

Liverpool City Council (Council):

Toni Averay - Director, Planning & Growth

Bruce Macnee – Manager, Strategic Planning

Charles Wiafe - Service Manager, Traffic & Transport

Stephen Joannidis - Manager, Development Engineering

Daniel Mills - Media and Communications Officer

Maruf Hossain - Coordinator, Floodplain and Water Management

Lina Kakish - Manager, Development Assessment

Neil Ramsay - Senior Environmental Health Officer

Steven Tuntevski – Team Leader, Environmental Health

Barry Millwood – Strategic Planning Coordinator

The purpose of the meeting: For Liverpool City Council to discuss its views on the project and the Department's Environmental Assessment Reports.

Council raised the following matters:

Council's Position

- Council advised that it is opposed to the proposals due to impacts on the Georges River, air, noise and traffic.
- Council acknowledged the projects could be approved. However, it is of the view that any decision on the proposals should be deferred due to the lack of traffic analysis. Modelling should be competed, all works should be identified and all funding secured before a decision is made.
- The project should be dealt with as a masterplan and not on a piecemeal basis.
- The (Environment Protection Authority (EPA), rather than Council, should be the agency responsible for monitoring the compliance of the project. Council does not have the resources or the legislative capacity to enforce compliance.

Developer Contributions

- Council does not support the proposed developer contributions.
- Council does not have a S94 contribution plan for commercial or industrial development within the MIT area. Council advised that it is in the process of preparing a S94A scheme.
- Council is of the view that the developer should enter into a VPA with Council.
- Council noted that S80A of the EP&A Act allows Council to take funding for infrastructure.
- Should the application be approved with current S94 conditions, Council advised that the development would set an undesirable precedent for developer contributions.

Strategic Context

- Council is of the opinion that the intermodal is in the wrong location and that there are better uses for the site. The intermodal should be at Badgerys Creek.
- Council is currently working on a masterplan to rezone the site from industrial to mixed use. Council is
 also working on a new LEP with a vision to develop the site and the adjacent Liverpool CBD into a river
 city.
- Council advised that the Commission should analyse how other intermodals terminals are operating. For example at Enfield, only 14% of freight comes in via rail.

Traffic

- There will be significant population growth within the Liverpool local government area (LGA) over the next 20 years and arterial roads are already congested.
- Council is of the view that a comprehensive assessment needs to be undertaken to identify the cumulative impacts of the proposals.
- The development will worsen congestion at existing intersections.
- Council advised that Moorebank Avenue is not adequately constructed for heavy vehicles. The road should be upgraded to accommodate 4 lanes of traffic, should the proposal proceed.
- Council is of the opinion that the M5 Motorway should allocate 1 lane for exclusive use by trucks, should the project be approved.
- Council advised that it would not be able to monitor vehicle movements.

Flooding and Water Quality

- Council indicated that 80% of the MIC site is flood affected.
- Council is of the view that the studies undertaken by the Proponent are inadequate.
- In addition to the 1 in 100 year flood scenario, the Proponent should model the worst case scenario.
- The Proponent should provide an emergency evacuation plan.
- The development is almost 100% impervious land. Council advised that flooding and drainage impacts from the impervious land could be mitigated with raingardens.

Health Issues

- Council advised that it will be difficult to regulate the site for compliance with noise limits.
- Council raised concern about the noise from shunting, dropped containers and beeping from trucks and that the proposal will result in sleep disturbance from any noise exceedances.
- Council queried if an air inversion layer may occur during winter that would exacerbate noise impacts from the development.
- Council raised concern about the EPA's monitoring of Port Botany.
- Council is of the view that the conditions lack detail to ensure there are no adverse impacts from the development on human health.

Documents: N/A. However, Council indicated it would provide a detailed response including matters discussed in today's meeting to the Commission no later than 5 February 2016.

Meeting closed: 3:10pm

Notes of meeting with Campbelltown City Council – 29 January 2016

Meeting note taken by: Jade Shepherd Date: Friday, 29 January 2016 Time: 3:10pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Liverpool City Council Offices

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara – Director and Jade Shepherd – Planning Officer

Campbelltown City Council (Council):

Jeff Lawrence – Director, Planning and Environment

The purpose of the meeting: For Campbelltown City Council to discuss its views on the project and the Department's Environmental Assessment Reports.

Council raised the following matters:

General

- Council acknowledged the State and regional significance of the project.
- Whilst generally complimentary of the DP&E assessment reports, however, noted there were concerns in relation to inconsistencies between conditions for the two projects which needed to be reviewed.

Cambridge Avenue

- Council raised safety concerns about the impact of trucks and other heavy vehicles using Cambridge
 Avenue during the construction and operation of the project. Council requested conditions to prohibit
 heavy vehicles using Cambridge Avenue, except in emergencies.
- Council noted that the bridge on Cambridge Avenue should be upgraded to enable more trucks to utilise
 and connect into the northern part of the Council's LGA from the site. If the project is approved, Council
 requested that the traffic on Cambridge Avenue should be monitored over three years to assess local
 traffic impacts.
- Council requested that conditions be amended to ensure that any mitigation measures or actions
 relevant to road and traffic management infrastructure in Council's LGA arising from either the
 outcomes of RMS modelling or the monitoring of Cambridge Avenue must be required to be
 undertaken at the full cost to the Applicant.
- Council noted that in the event of an emergency, incident, breakdown or the like, heavy vehicles may
 need to use Moorebank Avenue South and Cambridge Avenue. Council requested that a condition be
 imposed that requires the preparation of an emergency access management plan in consultation with
 Council and approved by the Secretary.

Other Traffic

- Council gueried if all trucks could be accommodated on site.
- Any advice from RMS regarding local traffic impacts should be rigorously examined prior to the MIC approval and subsequent stages for SIMTA.

Construction of Rail Link

• Council is of the view that the rail link should be operational prior to the commencement of terminal operations. This would ensure the sustainability gains promised by the project are secured.

Noise

• In order to mitigate the potential for rail wheel squeal, Council is of the view that the conditions relating to noise should be tightened to enforce the incorporation of rail curve radii of no less than 500m. Council would also like further conditions imposed on any consent granted for MIC consistent with recommended conditions G6 and G8 for the SITMTA Stage 1 application.

Air Quality

- Council is of the opinion that appropriate conditions should be imposed to ensure that all container handling equipment and locomotives operating within the site and to and from the site comply with appropriate best practice emission standards.
- All equipment, including locomotives, should comply with best practice emission standards.

Meeting closed: 4pm

Notes of Briefing from the Department of Planning and Environment – 7 March 2016

Meeting note taken by: Jade Shepherd Date: Monday, 7 March 2016 Time: 10am

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara – Director and Jade Shepherd – Planning Officer

The Department of Planning and Environment (the Department):

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments

Andrew Beattie - Senior Planning Officer, Social and Other Infrastructure Assessments

Karen Jones – Director, Transport Assessments

David Gainsford – Executive Director, Priority Projects Assessments

Karen Harragon – Director, Social and Other Infrastructure Assessments

The purpose of the meeting: For the Commission and the Department to discuss correspondence from the Department dated 3 March 2016.

The following key issues were discussed:

Location

- The site has been identified for a long period of time as a key freight terminal location. It will be one of many intermodal freight terminals required in Sydney.
- The flat topography of the site is suitable for the construction of a rail line.
- The Department noted that container freight from Port Botany will be different from what comes in via air to the future Badgerys's Creek airport (after 2025).

Conditions

- The Commission and the Department agreed that the application has not been assessed as a road freight arrival terminal, only a rail freight arrival terminal. Include in Report.
- The Commission requested the Department's view on MIC's proposed amendments to the conditions.
- The Commission asked Department if it could provide a rationale for condition 13.
- The Commission recommended that further consideration should be given to community consultation.
 Establishment of a structure like the CCCs
- The Commission queried if the Department had received legal advice on the recommended conditions. The Department advised that the legal team was involved in the drafting of the conditions.
- The Commission asked about the rationale behind the amount of Section 94 contribution. The Department advised that the Section 94 contribution equates to 1% of Capital Investment Value (CIV).
- The Commission noted that Council have argued that they don't have the capacity to regulate the site. The Department advised that it will be regulating the development's compliance with conditions. The Department will provide formal advice on whether Department could be the regulatory authority.

Noise

- The Commission raised concern about noise and the EPA's previous advice dated 2 July 2015 regarding rail wheel squeal.
- The Commission queried if lubricant is a reliable measure for reducing rail wheel squeal. The Department advised that it is, as long as it is regularly serviced and maintained. Thornleigh now has an electronic system which can be operated remotely. The Department advised that lubrication does not get rid of all wheel squeal due to the type and maintenance of the locomotives and wagons themselves.
- The Commission queried if any consideration has been given to noise barriers to reduce noise from the rail link. The Department indicated that noise barriers have not been considered.
- Newer locomotives produce less noise and emissions.
- The EPA is moving towards regulating rail stock.

<u>Other</u>

- The Commission raised concern about water quality from the development. The Department advised that water quality will be improved as a result of the new stormwater works. The Department is satisfied the level of detail on stormwater management submitted by SIMTA.
- The Department advised that land owner's consent is still outstanding for the SIMTA applications (Stage 1 works and Mod 1).
- Department advised that Alix and Andrew will be staying for the rest of the meetings for the day to take notes.

Meeting closed: 11:15am

Notes of Briefing from the Environment Protection Authority – 7 March 2016

Meeting note taken by: Jade Shepherd Date: Monday, 7 March 2016 Time: 11:20am

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

The Department:

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments Andrew Beattie – Senior Planning Officer, Social and Other Infrastructure Assessments

Environment Protection Authority (EPA):

Greg Sheehy – A/Director Metropolitan Infrastructure
Jacinta Hanneman – Unit Head Infrastructure and Transport
Anthony Savage – Manager Air Technical Advisory Services
Rhys Watson, Technical Policy Advisor

The purpose of the meeting: For the Commission and the EPA to discuss correspondence from the EPA to the Department dated 22 February 2016.

The following matters were discussed:

- EPA is changing how it regulates rail. There is currently draft regulations prepared to go on public exhibition.
- The Commission queried if trucks or trains produce more emissions. The EPA advised that it is hard to compare road to rail emissions as there are many variables e.g. traffic conditions, gradient of rail lines and the models of trucks and locos.
- The EPA asked if there is scope for the Commission to condition that locomotives must be of a certain model and that the intermodal must operate according to best practice.
- The Commission queried if the EPA could comment on the emissions modelling.
- The Commission asked if lubricant would reduce rail wheel squeal. The EPA advised that lubricant and rail grind may help reduce rail wheel squeal but it will not fully mitigate it.
- The Commission asked if a noise barrier or wall is a possibility for the rail link. The EPA advised that it
 hadn't considered this measure. However, a tunnel could help reduce noise although it was
 questionable if a tunnel enclosure would fit on the site.
- The EPA advised that a part of the proposed rail link has a tighter curve than Wollstonecraft and would have a radius of approximately 160m.
- The EPA advised that it had no objections for monitoring to be undertaken at Glenfield Farm.
- The EPA advised that it would help Liverpool Council with noise and air quality monitoring.
- The EPA advised it would provide written confirmation that it is satisfied with the recommended conditions.

Meeting closed: 12:10pm

Notes of Briefing from the Department of Primary Industries - 7 March 2016

Meeting note taken by: Jade Shepherd Date: Monday, 7 March 2016 Time: 12:20pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

The Department:

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments Andrew Beattie – Senior Planning Officer, Social and Other Infrastructure Assessments

Department of Primary Industries (DPI):

Mitchell Isaacs - Director Planning Policy & Assessment Advice

The purpose of the meeting: For the Commission and the EPA to discuss correspondence from the DPI to the Department dated 22 February 2016.

The following issues were discussed:

- DPI key concerns are with threatened species and key fish habitat.
- The studies in the EIS were largely desktop. DPI advised that no surveys or sampling of Georges River near the rail crossing. However, desktop studies are adequate for this stage.
- DPI advised that freshwater species were likely to occur in the river adjacent to the site.
- DPI advised that the rail bridge has the potential to impact on riparian vegetation and canopy. However, this could be addressed via conditions.
- DPI to confirm that it is satisfied with the recommended conditions.

Meeting closed: 12:40pm

Notes of Briefing from the Office of Environment and Heritage - 7 March 2016

Meeting note taken by: Jade Shepherd Date: Monday, 7 March 2016 Time: 2pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara – Director and Jade Shepherd – Planning Officer

The Department:

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments
Andrew Beattie – Senior Planning Officer, Social and Other Infrastructure Assessments

Office of Environment and Heritage (OEH):

Tom Grosskopf – Director Regional Operations Metro

Susan Harrison – Senior Team Leader Regional Operations Metro

Ray Giddens – Regional Biodiversity Conservation Officer, Threatened Species

Sam Higgs – Archaeologist, Greater Sydney

Peter Scanes – Senior Team Leader, Waters, Wetlands and Coasts Science

The purpose of the meeting: For the Commission and the EPA to discuss correspondence from the OEH to the Department dated 3 March 2016.

The following matters were discussed:

- OEH holds the view that the bio banking framework will make it easier for the consent authority as it is a legally binding contract.
- There is a significant shortage of Forest Red Gum in Western Sydney (an EEC). The Applicants need to be more proactive in finding offsets.
- There is a level of flexibility with the biodiversity offsets due to the project being State Significant Development (SSD).
- OEH advised it would like conditions to be amended as per its correspondence dated 3 March 2016 to the Department.
- Aboriginal heritage items MA14, MA6 and MA7 have not been discussed. OEH would like salvage of these items undertaken prior to construction.
- OEH advised that the aquatic ecology assessment undertaken in the EIS was poor. All sampling was done on a single day with no spatial or temperature variation. Pools could have dragonflies, based on known distribution. OEH indicated it will provide conditions on monitoring dragonflies.
- OEH advised that the Georges River is in good condition and is improving. It is creating economic value for properties nearby.
- OEH raised concern about the quality of stormwater coming off the site as there is nothing in SIMTA's EIS that discusses impact from oil or grease. OEH will provide suggested conditions to address this issue.

Meeting closed: 3:30pm

Notes of briefing from Transport for New South Wales and Roads and Maritime Services – 7 March 2016

Meeting note taken by: Jade Shepherd Date: Monday, 7 March 2016 Time: 3:30pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Jade Shepherd - Planning Officer

Transport for New South Wales (TfNSW):

Tim Dewey – Senior Transport Planning, Land Use Planning and Development Unit Tony Gausden – General Manager, Freight Network Efficiency and Regulation

Roads and Maritime Services (RMS)
John Hart- Leader Network & Corridor Planning
Colin Langford –Executive Manager Sydney: Network Sydney
Gregory Flynn – Manager Strategic Land Use

The Department:

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments Andrew Beattie – Senior Planning Officer, Social and Other Infrastructure Assessments

The purpose of the meeting: For the Commission and TfNSw and RMS to discuss correspondence from the TfNSW to the Department dated 2 March 2016.

The following matters were discussed:

Road

- RMS advised that Moorebank Ave/Heathcote Road and Moorebank/M5 interchange works would provide short term mitigation to impacts of the intermodal development. The cost of works is likely to be less than \$20 million.
- RMS advised that the base case modelling of the Moorebank area has been given to the Applicants. The model looks at network constraints and the future performance of the network.
- RMS will have some recommendations for the government on how to handle the weave issue on the M5 Motorway near Moorebank Ave.
- RMS has had discussions with the Australian government on the proposed road upgrades.
- There will be a strategy for potential upgrades over the next 10 to 20 years.
- The Commission noted that Campbelltown Council is concerned about trucks leaving via the south and going on Cambridge Avenue. RMS advised that it is looking at upgrades to Cambridge Avenue.
- RMS advised that it is comfortable with cap of 250,000 TEUs. Prior to any increase, further traffic modelling needs to be undertaken.
- RMS predicts the proposal will result in 500 to 1000 less traffic movements on the portion of the M5 Motorway near Port Botany. There will also be benefits to the M4 Motorway.

Rail

- TfNSW advised that although the number of operators of freight rail has been declining, the number of containers on rail has been increasing.
- TfNSW advised that Sydney does not have the capacity to transport more containers by rail at the moment, especially since there has been a reduction of terminals in Sydney since 2010.
- TfNSW advised that the NSW freight line is moving approximately 170,000 TEUs.
- TfNSW advised that in order to be successful, the facility must have competitive advantage over road, must have warehousing, must have adequate access to road network and must be located in an area that feeds within its catchment. The proposal satisfies these criteria.
- The Commission asked if the capacity of rail network is able to meet the rail movements proposed. TfNSW advised that the current configuration of the constrained network between Moorebank and Port Botany supports 24 30 train movements (estimated, both ways).
- TfNSW advised that wheel squeal will occur on any rail line with a radius under 400m unless
 mitigation measures are adopted. Ways to reduce wheel squeal include lubrication, the installation of
 a friction modifier or to modify rolling stock e.g. polymer lining on bogey.
- TfNSW advised that per tonne/km, rail is less emitting than road. Emissions from diesel are not regulated at the moment but this is under consideration by EPA.
- TfNSW will provide to the Commission: the criteria for a successful intermodal; what the competitive
 advantage is for Moorebank; its views on proposed condition 13; ways to mitigate wheel squeal; and,
 information on whose responsibility it is to undertake measures to reduce wheel squeal.

Documents: Moorebank Intermodal Terminal Arterial Roads Investigation

Meeting closed: 5pm

Notes of Meeting with Infrastructure Australia - 26 April 2016

Meeting note taken by: David McNamara Date: 26 April 2016 Time: 4pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Infrastructure Australia Office

Attendees:

Members of the Commission: Paul Forward (Chair)

Commission Secretariat: David McNamara - Director

Infrastructure Australia (IA): Stephen Alchin – Executive Director, Planning and Jeremy Parkinson – Director, Planning

The purpose of the meeting: For the Commission to gain a broader understanding of the objectives and policies on freight and the impacts of constructing an intermodal terminal at Moorebank.

- The Commission outlined the projects being considered by the Commission and the panel's interest in gaining a broader understanding of the freight situation and the impacts of constructing an intermodal terminal at Moorebank.
- IA advised that there has been interest from both the Commonwealth and State governments in the development of Moorebank as an intermodal terminal since 2004.
- IA noted that a number of relevant background reports and studies have been undertaken in the past related to Moorebank and the wider national freight strategy. In particular, IA noted that there were a number of documents available related to the national freight strategy; the M5 corridor congestion volume and capacity; increased relevance of interstate freight (particularly between Melbourne Sydney) as well as the idea of freight being driven by GDP, rather than population growth.
- IA confirmed that Eastern Creek was considered to be a long term option for an intermodal site as was Badgery's Creek.
- IA advised that it would provide further information on the matters discussed and the reports mentioned via a follow up email.

Documents: N/A

Meeting closed: 4:40pm

Notes of Meeting with Transport for New South Wales and the Environment Protection Agency – 27 April 2016

Meeting note taken by: Muriel Maher Date: 27 April 2016 Time: 9:30am

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office and Teleconference

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: David McNamara - Director and Muriel Maher - Senior Planning Officer

The Department:

Alix Carpenter - Team Leader, Social and Other Infrastructure Assessments

Transport for NSW (TfNSW): Justin McGuire - Principal Manager Freight Access and Performance and Bruce Dowdell - Senior Manager Rail Noise Program

Environment Protection Agency (EPA): Jacinta Hanemann - Unit Head Metropolitan Infrastructure and Greg Sheehy - Acting Director Metropolitan

The purpose of the meeting: For TfNSW to provide clarity about the noise mitigation measures.

TfNSW provided an overview of wheel squeal mitigation measures:

Proposed rail link

- TfNSW raised concern about the curve radius in its submission of the project to DPE and again today.
- TfNSW have conducted modelling on rail curve noise in various urban locations.
- The average curve radius to avoid wheel squeal is greater than 500 metres.
- There is a greater probability of wheel squeal with any curve radius less than 300 metres.
- A curve radius of 160 metres, as proposed, would be assessed in accordance with the angle of attack (AOA) of a wheel to the rail.
- The mitigation of rail squeal falls into three orders of effectiveness:
 - 1st order curve radius and/or bogie design
 - 2nd order lubrication and track grinding
 - o 3rd order noise barriers (walls, tunnels, mounds).
- 3-piece bogies have been in operation since 1950's; they are known to cause rail wheel squeal however can be retrofitted to include cross-bracing to enable the bodies to stiffen and withstand manoeuvring with far less probability of wheel squeal even on tight curve radius such as 240m.
- Rolling stock has traditionally been supplied from the United States (US). More recently stock from China has become available and cross-bracing is very prevalent in China.
- Best practice in terms of locomotive and wagons, is a noise solution for the whole rail link between Port Botany and Moorebank.
- Assets Standards Authority is seeking to release standards this year for the equipment used on rail links.

• Wheel squeal can be monitored through technology to identify problems on rail lines. This includes laser wheel sensors.

Rail Noise and Air Emissions

- The proposed curve radii are of concern.
- Best practice rolling stock would be the best option to mitigate noise impacts, as per TfNSW recommendations.

Additional time was requested to provide further detail about the recommendations provided to the Commission and also in relation to air emissions.

Documents: TfNSW provided information about the best practice rolling stock.

Meeting closed: 10:15am (EPA) and 11:30pm (TfNSW)

Notes of Meeting with MIC, SIMTA, the Department and TfNSW - 17 May 2016

Meeting note taken by: Jade Shepherd Date: 17 May 2016 Time: 4pm

Project: Moorebank Intermodal Terminal (MIC Intermodal Terminal Concept Plan & SIMTA Intermodal

Terminal Facility Stage 1)

Meeting place: Planning Assessment Commission Office

Attendees:

Members of the Commission: Paul Forward (Chair), Robyn Kruk AM and Stephen O'Connor

Commission Secretariat: Muriel Maher - Senior Planning Officer and Jade Shepherd - Senior Planning Officer

The Department:

Alix Carpenter – Team Leader, Social and Other Infrastructure Assessments
Andrew Beattie – Senior Planning Officer, Social and Other Infrastructure Assessments

Transport for NSW (TfNSW):

Justin McGuire - Principal Manager Freight Access and Performance

Bruce Dowdell - Senior Manager Rail Noise Program

Moorebank Intermodal Company (MIC):

Ian Hunt - Chief Executive Officer

Anthony Vaccaro - Delivery Director

SIMTA:

Michael Yiend - Development Manager

Steve Ryan - Project Management & Planning

The purpose of the meeting: To discuss the Commission's proposed amendments to the recommended conditions.

The following matters were raised at the meeting:

- The Commission queried about the status of land owner's consent from Glenfield Waste Facility. SIMTA advised that land owner's consent was due to be received within coming days.
- The Commission invited input from MIC on conditions 7 and 8 relating to the proposed combined throughput of 1.55 million TEU.
- The Commission requested further information on how the Section 94 contributions for the SIMTA Stage 1 project were calculated. The Commission advised that 1% of the total cost of works, excluding the rail link, may be more appropriate for this type and scale of development.
- The Commission requested further information about how the proposed combined throughput of 1.55 million TEU was reached.

- The Commission advised that some members of the public had raised concern about the word 'predominantly' in condition 13. The Commission was of the view that the word 'predominantly' is ambiguous and does not provide the public with certainty about the ratio of containers that would arrive by rail in comparison to road.
- MIC raised concern about the proposed amendments to conditions 10(a) and (b), as recommended by TfNSW. MIC was of the view that the conditions did not specifically relate to wheal squeal. MIC also raised concern that the condition would limit its ability to compete with other intermodals. MIC advised that it would be providing written comments to the Commission about the proposed changes. The Commission emphasised that the condition was addressing the wheel squeal issue only.
- The Commission queried MIC and SIMTA's proposed change to the definition of 'construction' in the development consent. MIC and SIMTA advised that their proposed changes would enable early works to be undertaken on site without having to wait for certain reports and studies, which could take months.

Documents: N/A

Meeting closed: 5pm

Appendix 2

List of Speakers at the Public Meeting

Venue: Bankstown Golf Club 70 Ashford Avenue Milperra NSW 2214

Time and Date: 10am, 1 February 2016

- 1. Mayor Ned Mannoun (Liverpool City Council)
- 2. Deputy Mayor Clr Tony Hadchiti
- 3. Peter Harle
- 4. Valerie Newman
- 5. Dara Bonic
- 6. Michael Byrne (East Liverpool Progress Association)
- 7. Alan Robert Randall
- 8. Denise Pianta
- 9. Signe Westerberg (Georges River Environmental Alliance)
- 10. Peter Savidis
- 11. Craig Kelly MP (Federal Member for Hughes)
- 12. Jennifer French
- 13. Brian Marston
- 14. Svetlana Kotevska (Georges River Combined Council Committee)
- 15. Alan Keith Corban
- 16. Robert Storey
- 17. John Bennion
- 18. Surendra Bhatt
- 19. Wayne Prior
- 20. John Anderson
- 21. Kirstie Williams
- 22. Kathy Williams
- 23. Michael Russell (Liverpool Community Independence Team)
- 24. Narelle Vandenbos (RAID)
- 25. Paul Vandenbos
- 26. Rosa Quinn
- 27. Mirella Riga
- 28. Mohan Vijayaraghavan
- 29. Graham Hoskin
- 30. Roslyn Fagan
- 31. David Fagan
- 32. David Mawer
- 33. Damien Smith
- 34. Lorrae Lemond
- 35. Fiona Macnaught (Moorebank Residents' Action Group)
- 36. Erik Rakowski
- 37. Dominic Scutella

Appendix 3

Matters Raised at the Public Meeting

The Public Meeting Logistics

- There was not enough notice for the public meeting.
- The location of the public meeting is inconvenient.
- The location of the public meeting is not in the Liverpool LGA.
- The time and date of the public meeting is inconvenient.

Traffic

- The proposal will result in increased traffic in the Liverpool LGA
- The traffic in the area is already bad.
- Traffic modelling needs to be undertaken to show the impacts of the intermodal terminal on the traffic in the area.
- Multiple upgrades to intersections are required.
- There will be a higher risk of accidents.
- The intermodal must not exceed the capacity of the road network.
- There are errors and uncertainties in the Applicants' traffic studies.
- Trucks will slow traffic.
- The intermodal would relieve congestion at Port Botany.
- It is unclear how many trucks will be taken off the M5 Motorway from Port Botany.

Location

- The intermodal should be in Badgerys Creek.
- The intermodal should be in Eastern Creek.
- There are already intermodal terminals at Enfield and Chullora.
- Intermodals should be located in the outskirts of cities.
- Liverpool has a vision for the site it will be a city by the river.
- NSW and Commonwealth Governments need to demonstrate why this is the right location for the intermodal.
- The intermodal is incompatible with the surrounding area.
- The site is constrained by its size, the surrounding congested road network and its topography.
- There are better uses for the site e.g. housing, business technology park or university campus.
- The site is likely to be affected by flooding from the George's River
- The intermodal is unsuited to the area.

Air Quality

- The intermodal will result in decreased air quality for Liverpool LGA residents.
- There will be emissions from diesel engines of trucks and locomotive engines.
- There will be health impacts from fuel emissions.
- New diesel truck engines (models after 2007) will reduce particulate matter. There is no need for trains.
- The Liverpool LGA already experiences PM2.5 levels above the relevant standards.
- Trains should match USA and European standards in regards to emissions.

Flooding/ Stormwater Drainage

- There is only one flood free exit point potentially hindering emergency access.
- The water management measures are inadequate.
- There is no discussion of the proposed drainage structure.

Noise

- There will be noise from the operation of the terminal.
- Noise from the terminal will impact on sleep quality.
- Noise walls need to be installed along the M5 Motorway near Casula.
- Glenfield Farm will be subject to noise impacts. Readings should be taken from the farm.
- Lubricant is not 100% effective in eliminating wheel squeal.
- The cumulative impact of construction noise will impact on residents.
- Warehouses will not mitigate noise to Wattle Grove.
- People living within 3kms of Port Botany suffer sleep disturbance. There are residents within 800m of the proposed terminal at Moorebank.

Amenity

• There will be light spill from the operation of the terminal.

Other

- The site does not pay rates.
- It is expensive to move freight containers via rail.
- There is no need for the intermodal terminal.
- The Government does not spend money on south west residents.
- SIMTA and MIC have already been advertising for jobs.
- Hazardous or dangerous goods may be transported on the freight rail line.
- Emergency plans need to be in place.
- There are more hard paved surfaces proposed than the existing development. Flow from the site will increase speed and will flow into the river, causing erosion.
- There is no monitoring of heavy pollutants included in the conditions.
- Where will the claimed \$9 billion of benefits come from?

The Assessment Process

- A comprehensive precinct plan is required.
- There has been a piecemeal approach to the development. Stages approvals are unacceptable.
- The Department's report is incomplete and cannot be assessed.
- There have been a lot of objections, including from 5 Councils in Western Sydney.
- The proposal needs to be assessed in accordance with the Environmental Planning &Assessment Act 1979.
- There is a lack of public trust and confidence in the planning process.
- Local knowledge and opinions are being overlooked.
- Local Environmental Plans (LEPs), Regional Environmental Plans (REPs) and State Environmental Planning Policies (SEPPs) are being overlooked.
- The Planning Assessment Commission (PAC) has the power to stop the proposal.
- The complete history of the project should be made public. Key documents have not been made available.

Georges River

- There will be adverse impacts on the Georges River from site run-off.
- The intermodal should result in improvements for the Georges River.

Biodiversity

- The Biodiversity offsets are not appropriate for 4 species.
- The Biodiversity offsets are not like for like.
- There will be a loss of habitat and biodiversity.
- The rai link cuts through vegetation and severs vegetation communities.
- No surveys were undertaken for aquatic habitat and species, so the impacts of the development are unknown.
- The intermodal needs to ensure pests are not spread from other States and jurisdictions.
- The intermodal will impact on koalas.

Appendix 4

Recommended Conditions with the Commission's Tracked Changes

Development consent

Section 89E of the Environmental Planning and Assessment Act 1979

As delegate of the Minister for Planning under delegation executed on 14 September 2011, the Planning Assessment Commission of NSW determines to grant consent to the development application referred to in Schedule 1, subject to the conditions in Schedules 2, 3 and 4.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts including economic and social impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

Commission Member	Commission Member	Commission Member
Sydney	2016	
	SCHEDULE 1	
Application No.:	SSD 5066	
Applicant:	Moorebank Intermodal Co	mpany
Consent Authority:	Minister for Planning	
Land:	Intermodal Site: Land generally described as being located on the western side of Moorebank Avenue, between the M5 Motorway and the East Hills Passenger Line, Moorebank, comprising: - Lot 1 DP 1197707 - Lot 101 DP 1049508 - Lot 100 DP 1049508 - Lot 2 DP 1197707 Rail Corridor: Land generally described as being located between the intermodal site and the East Hills Passenger Line to the south, and the northern portion of the Glenfield Waste Disposal Facility to the west, comprising: - Lot 5 DP 833516 - Lot 103 DP 1143827 - Lot 51 DP 515696 - Lot 102 DP 1143827 - Lot 104 DP 1143827 - Lot 4 DP 1186349	
Development:	Concept Proposal	

The Concept involves the use of the site as an intermodal facility, including a rail link to the Southern Sydney Freight Line, warehouse and distribution facilities, and associated works.

Early Works (Stage 1): involves: the demolition of buildings, including services termination and diversion; rehabilitation of the excavation/ earthmoving training area; remediation of contaminated land; removal of heritage impact underground storage tanks; establishment of remediation works; and the construction facilities and access, including site security.

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DEFINITIONS

Advisory Notes	Advisory information relating to the consent but do not form a part of this consent.
Applicant	Moorebank Intermodal Company
Application	The development application for a concept proposal and early works (Stage 1): Concept Proposal The Concept involves the use of the site as an intermodal facility, including a rail link to the Southern Sydney Freight Line, warehouse and distribution facilities, and associated works. Early Works (Stage 1) involves: the demolition of buildings, including services termination and diversion; rehabilitation of the excavation/
	earthmoving training area; remediation of contaminated land; removal of underground storage tanks; heritage impact remediation works; and the establishment of construction facilities and access, including site security.
BCA	Building Code of Australia
Construction	Includes all work in respect of the SSD other than: a) survey; acquisitions; or building/ road dilapidation surveys; fencing; investigative drilling, excavation or salvage; and b) work undertaken in accordance with a strategy or salvage operation required by the conditions of this approval; or minor clearing or translocation of native vegetation that does not comprise any EECs. c) establishment of site compounds and construction facilities d) installation of environmental mitigation measures e) utilities adjustment and relocation that do not present a significant risk to the environment, as determined by the Environmental
	Representative f) other activities determined by the Environmental Representative to have minimal environmental impact. Any works, including earth and building works.
Council	Liverpool City Council or Campbelltown City Council (as relevant)
Day time	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays.
Department	Department of Planning and Environment or its successors
DPI	Department of Primary Industries or its successors
EEC	Endangered ecological community
Evening	The period from 6pm to 10pm
Environmental Impact Statement (EIS)	Environmental Impact Statement titled Environmental Impact Statement titled Moorebank Intermodal Terminal Project Environmental Impact Statement, prepared by Parsons Brinckerhoff Australia Pty Limited, dated October 2014.
EPA	Environment Protection Authority, or its successor
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation or Regulation	Environmental Planning and Assessment Regulation 2000
Feasible and Reasonable	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits and cost of mitigation versus benefits provided,

	community expectations and nature and extent of potential improvements.	
	Where requested by the Secretary, the Proponent shall provide evidence as to how feasible and reasonable measures were considered and taken into account.	
Incident	A set of circumstances that:	
Minister	Minister for Planning, or nominee	
Night time	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays.	
OEH	Office of the Environment and Heritage, or its successor	
Response to Submissions (RtS)	Response to Submissions report titled <i>Moorebank Intermodal Terminal Response to Submissions Report</i> , prepared by Parsons Brinckerhoff Australia Pty Limited, dated May 2015.	
RMS	Roads and Maritime Services or its successor	
Secretary	Secretary of the Department of Planning and Environment, or nominee/delegate.	
Secretary's approval, agreement or satisfaction	A written approval from the Secretary (or nominee/delegate). Where the Secretary's approval, agreement or satisfaction is required under a condition of this consent, the Secretary will endeavour to provide a response within one month of receiving an approval, agreement or satisfaction request. The Secretary may ask for additional information if the approval, agreement or satisfaction request is considered incomplete. When further information is requested, the time taken for the applicant to respond in writing will be added to the one month period.	
Sensitive receiver	Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility.	
Subject Site	Intermodal Site: Land generally described as being located on the western side of Moorebank Avenue, between the M5 Motorway and the East Hills Passenger Line, Moorebank, comprising: - Lot 1 DP 1197707 - Lot 100 DP 1049508 - Lot 2 DP 1197707	
	Rail Corridor: Land generally described as being located between the intermodal site and the East Hills Passenger Line to the south, and the northern portion of the Glenfield Waste Disposal Facility to the west, comprising: - Lot 5 DP 833516 - Lot 103 DP 1143827 - Lot 51 DP 515696 - Lot 102 DP 1143827	
	- Lot 104 DP 1143827 - Lot 4 DP 1186349	
Supplementary Response to Submissions (SRtS)	Supplementary Submissions report titled <i>Moorebank Intermodal Terminal Supplementary Response to Submissions Report</i> , prepared by Parsons Brinckerhoff Australia Pty Limited, dated August 2015.	
TEU	Twenty Foot Equivalent Unit	
ILU	I WEITLY I OUL Equivalent Onit	

SCHEDULE 2

TERMS OF APPROVAL

Development Description

1. Except as amended by the conditions of this consent, development consent is granted only to the Concept Proposal and Early Works as described in Schedule 1 and the Environmental Impact Statement dated October 2014, as amended by the Response to Submissions, dated May 2015 (as further amended by the Supplementary Response to Submissions dated August 2015), and the conditions contained in this development consent.

Determination of Future Applications

- 2. In accordance with section 83B(3)(a) of the EP&A Act, all future development under the Concept Proposal (for the avoidance of doubt, excluding the Early Works) shall be the subject of future development application(s).
- 3. The determination of the future development application(s) are to be generally consistent with the terms of this development consent as described in Schedule 1, and subject to the conditions in Schedule 4.

Development in Accordance with Plans and Documents

- 4. The applicant shall carry out the development generally in accordance with the:
 - a) Environmental Impact Statement titled Moorebank Intermodal Terminal Project Environmental Impact Statement, prepared by Parsons Brinckerhoff Australia Pty Limited, dated October 2014;
 - b) Response to Submissions report titled, Moorebank Intermodal Terminal Response to Submissions Report, prepared by Parsons Brinckerhoff Australia Pty Limited, dated May 2015:
 - c) Supplementary Submissions report titled, Moorebank Intermodal Terminal Supplementary Response to Submissions Report, prepared by Parsons Brinckerhoff Australia Pty Limited, dated August 2015; and
 - d) the conditions of this consent.
- 5. In the event of an inconsistency between:
 - (a) the conditions of this approval and any document listed from condition 4(a) to 4(c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - (b) any document listed from condition 4(a) to 4(c) inclusive, and any other document listed from condition 4(a) to 4(c) inclusive, the most recent document shall prevail to the extent of the inconsistency.

Limits of Approval

- Projects carried out under this staged development consent are to be assessed with the
 objective of not exceeding the capacity of the transport network, including the local,
 regional and State road network.
- 7. Concept approval is granted for interstate terminal container freight with a throughput of up to 500,000 TEU p.a. if the combined movement of container freight on the Subject Site does not exceed 1.05 million TEU p.a. The consent authority must also be satisfied that the Traffic Impact Assessment demonstrates that the interstate terminal would not exceed the capacity of the transport network with or without mitigation measures/upgrades.-
- 8. For the IMEX terminal, concept approval is granted for the movement of container freight by up to:

- a) initially, 250,000 TEU p.a. if the consent authority is satisfied that the Traffic Impact
 Assessment demonstrates the proposal would not exceed the capacity of the
 transport network with or without mitigation measures/upgrades;
- b) after the facility has been in operation, an increase of up to an additional 300,000 TEU p.a. if the consent authority is satisfied that monitoring and modelling of the operation of the IMEX terminal demonstrates that traffic movements resulting from the proposed increase in TEU will achieve the objective of not exceeding the capacity of the transport network.; and The combined movement of container freight on the Subject Site must not exceed 1.05 million TEU p.a.
- c) after the facility has been in operation, a further increase up to an additional 500,000 TEU p.a. if the combined approved movement of container freight by road on the Subject Site and the adjacent SIMTA Site (the subject of Concept Plan approval MP10_0193) does not exceed 1.55 million TEU p.a.
- 9. Concept approval is granted for the rail terminals (IMEX and interstate) incorporating either:
 - a) the rail link; or
 - b) if a rail link is under construction or has been constructed associated with the SIMTA development as identified in development application MP10_0193, then only a short connection from the IMEX/interstate terminals to the SIMTA rail connection on the eastern side of the Georges River.
- 10. Port shuttle operations must use:
 - a) Locomotives that incorporate available best practice noise and emission technologies. Prior to construction of the rail link connecting to the site, the Applicant is to submit a report to the Secretary for consideration and approval that has been prepared in consultation with TfNSW and the EPA that justifies the technology proposed and how it meets the objective of best practice noise and emission technologies; and
 - b) Wagons that incorporate available best practice noise technologies including as a minimum, permanently coupled 'multi-pack' steering wagons using Electronically Controlled Pneumatic (ECP) braking with a wire based distributed power system (or better practice technology). Prior to the commencement of operation, the Applicant is to submit a report to the Secretary for consideration and approval that has been prepared in consultation with TfNSW and EPA that justifies the technology proposed and how it meets the objective of best practice noise technologies.
 - a) locomotives that incorporate available best practice technologies or technologies as agreed by the Secretary; and
 - b) wagons that incorporate available best practice technologies or technologies as agreed by the Secretary, such as permanently coupled 'multi-pack' steering wagons using Electronically Controlled Pneumatic (ECP) braking with a wire based distributed power system.
- 11. The Applicant shall install and maintain a rail noise monitoring system on the rail link at the commencement of operation to continuously monitor the noise from rail operations. The system shall capture the noise from each individual train passby noise generation event, and include information to identify:
 - a) Time and date of freight train passbys;
 - b) Imagery or video to enable identification of the rolling stock during day and night;
 - c) LAeg(15hour) and LAeg(9hour) from rail operations; and
 - d) LAF(max) and SEL of individual train passbys, measured in accordance with ISO3095; or
 - e) Other alternative information as agreed with, or required by, the Secretary.

The results from the noise monitoring system shall be publicly accessible from a website maintained by the Applicant. The noise results from each train shall be available on the website ideally—within 24 hours of it passing the monitor, unless unforeseen

<u>circumstances</u> (<u>ie a system malfunction</u>) <u>have occurred</u>. The LAeq(15hour) and LAeq(9hr) results from each day shall be available on the website ideally within 24 hours of the period ending but within a reasonable timeframe.

Prior to the commencement of operation, the Applicant shall submit for the approval of the Secretary, justification supporting the appropriateness of the location for rail noise monitoring, including details of any alternative options considered and reasons for these being dismissed. The rail noise monitoring system shall not operate until the Secretary has approved the proposed monitoring location.

The Applicant shall provide an annual report to the Secretary with the results of monitoring for a period of 5 years, or as otherwise agreed with the Secretary, from the commencement of operation of either the IMEX or interstate terminal (whichever operates first). The Secretary shall consider the need for further reporting following a review of the results for year 5.

- 12. Prior to submitting any Development Application for either the IMEX or interstate terminal, the Applicant shall convene a meeting with regard to proposed traffic assumptions and mitigation measures. The Applicant must:
 - a) Invite SIMTA, TfNSW, RMS, Liverpool City Council and Campbelltown City Council. Each Council may also invite a maximum of two community representatives to attend.
 - b) At the meeting, present the scope and assumptions of the mesoscopic/microsimulation traffic modelling, the draft Traffic Impact Assessment and any proposed mitigation measures including timing on the delivery of any proposed measures;
 - c) Publish the meeting minutes and a schedule of action items arising from the meeting, including responsibilities and timeframes on its website;
 - d) Prepare a written report responding to the action items and consult with RMS on the action items and final mitigation measures; and
 - e) Provide details of the undertaking and outcomes of this condition in the EIS.
- 13. Containers must be transferred between the site and from Port Botany to the site and from the site to Port Botany predominantly by rail, unless there is planned track maintenance or where unforeseen circumstances have occurred (eg an incident, breakdown, derailment or emergency maintenance on the rail line). The Secretary may at any time request the Applicant to demonstrate that the transport of containers between the site and Port Botany container terminals is by rail. This is to be demonstrated upon request by the Secretary for the prior 12 month period.
- 14. Operation of warehousing Operations on the Subject Site cannot commence until a rail connection to the SSFL is operational.
- 15. The warehousing must only be used for activities associated with freight using the IMEX and interstate terminals unless otherwise approved in a subsequent Development Application.
- 16. Building heights are to be a maximum of 21 metres and other structures are to be generally consistent with Appendix D Landscape and Visual Impact of the Response to Submissions dated May 2015.
- 17. Building setbacks are to be generally consistent with Appendix D Landscape and Visual Impact of the Response to Submissions dated May 2015.
- 18. The layout of the site shall not prevent a possible future pedestrian connection to Casula Railway Station.

19. The layout of the site shall be designed to ensure heavy vehicles associated with the operation of the terminals can be accommodated on site in the event of an incident blocking access to the M5 Motorway/ Moorebank Avenue to avoid queuing on public roads.

Lapsing of approval

20. This approval will lapse ten years from the date of this approval unless works the subject of Early Works (Stage 1) or any related application are physically commenced, on or before that lapse date.

Secretary as Moderator

21. In the event of a dispute between the Applicant and a public authority, in relation to this approval, either party may refer the matter to the Secretary for resolution. The Secretary's resolution of the matter shall be binding on the parties.

Legal notices

22. Any advice or notice to the consent authority shall be served on the Secretary.

SCHEDULE 3

CONDITIONS TO BE MET FOR EARLY WORKS (STAGE 1)

PART A ADMINISTRATIVE CONDITIONS

Subject Land

A1. The land subject to this part relates to the intermodal site (Lot 1 DP 1197707, Lot 100 DP 1049508, Lot 101 DP 1049508 and Lot 2 DP 1197707).

Compliance Monitoring and Tracking

A2. The Applicant shall prepare and implement a **Compliance Tracking Program**, to track compliance with the requirements of this approval. The Program shall be submitted to the Secretary for approval prior to the commencement of construction and operate for the duration of the Early Works stage.

The Program shall include, but not be limited to:

- (a) provision for the notification to the Secretary prior to the commencement of construction;
- (b) provision for periodic review of the compliance status of the SSD against the requirements of this approval;
- (c) provision for periodic reporting of compliance status to the Secretary, including but not limited to:
 - (i) a Pre-Construction Compliance Report prior to the commencement of early works.
 - (ii) Six-monthly, or other timing as agreed by the Secretary, Early Works Compliance Reports, for the duration of early works, and
 - (iii) a Completion Compliance Report within one month of completion of the early works stage:
- (d) a program for independent environmental auditing in accordance with AS/NZS ISO 19011:2014 Guidelines for Auditing Management Systems;
- (e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;
- (f) provision for reporting environmental incidents to the Secretary during construction, in accordance with conditions A3 and A4;
- (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and
- (h) provision for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

Incident Reporting

A3. The Applicant shall notify the Secretary and relevant public authorities of any incident with actual or potential significant on-site or off-site impacts on human health or the biophysical environment within 24 hours of becoming aware of the incident. The Applicant shall provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred.

Note:

• Where an incident also requires reporting to the EPA and/or OEH, the incident report prepared for the purposes of notifying the EPA and/or OEH would meet this requirement.

A4. The Applicant shall meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A3, within such period as the Secretary may require.

PART B PRIOR TO CONSTRUCTION

Demolition

B1 The Applicant shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601:2001: The Demolition of Structures, or its latest version.

Contamination

- B2 The approved works (including any excavation required for remediation) must not occur below 5 metres AHD and lower the watertable below 1m AHD on adjacent class 1, 2, 3, 4 land in accordance with the Liverpool Local Environmental Plan 2008.
- B3 The subject site is to be remediated in accordance with:
 - a) The approved Remedial Action Plan;
 - b) State Environmental Planning Policy No. 55 Remediation of Land; and
 - c) The guidelines in force under the Contaminated Land Management Act.

Amendments to the approved Remedial Action Plan required as a result of further site investigations must be approved by the site auditor, in consultation with the EPA.

Within 3 months after the completion of the remediation works, a notice of completion, including a validation and/or monitoring report is to be provided to the Secretary. This notice must be consistent with *State Environmental Planning Policy No.* 55 – *Remediation of Land.*

The validation and/or monitoring report is to be independently audited and a Site Audit Statement Issued. The audit is the be carried out by an independent auditor accredited by the Environment Protection Authority. Any conditions recorded on the Site Audit Statement are to be complied with.

Soil, Water Quality and Hydrology

- B4 The Early Works shall be undertaken to comply with section 120 of the *Protection of the Environment Operations Act 1997*, which prohibits the pollution of waters.
- B5 All activities taking place in, on or under waterfront land, as defined in the *Water Management Act 2000* should be conducted generally in accordance with the NSW Office of Water's Guidelines for Controlled Activities.

Heritage

- B6 The Applicant shall not harm, modify or otherwise impact any heritage items outside the subject site.
- B7 Prior to the commencement of Early Works affecting Aboriginal sites MA1, MA2, MA3, MA4, MA5 and MA9, the Applicant shall:
 - (a) develop a detailed salvage strategy, prepared in consultation with the OEH (Aboriginal heritage) and the Aboriginal stakeholders. The investigation program shall be prepared to the satisfaction of the Secretary; and
 - (b) undertake any further archaeological excavation works recommended by the results of the Aboriginal archaeological investigation program.

Within twelve months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall submit a report containing the findings of the excavations, including artefact analysis and Aboriginal Site Impacts Recording Forms (ASIR), and the identification of final storage location for all Aboriginal objects recovered (testing and salvage), prepared in consultation with the Aboriginal stakeholders, the OEH (Aboriginal heritage) and to the satisfaction of the Secretary.

Note: where archaeological testing has occurred as part of the Environmental Assessment and the results are included in the documents listed in condition 4 the sites tested must still form part of the final report prepared under B7(b).

B8 Prior to the commencement of Early Works affecting non-Aboriginal sites MHPAD1 and MHPAD2, the Applicant shall undertake any further archaeological excavation works recommended by the results of the non-Aboriginal archaeological investigation program.

Within 12 months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall submit a report containing the findings of the excavations, including artefact analysis, and the identification of a final repository for finds, prepared in consultation with the OEH (Heritage branch) and to the satisfaction of the Secretary.

Note: where archaeological testing has occurred as part of the environmental assessment and the results are included in the documents listed in condition 4, the sites tested must still form part of the methodology and final report prepared for the non-Aboriginal archaeological investigation program.

B9 Prior to the commencement of Early Works affecting the CUST Hut, RAAF STRARCH Hangar, the Dog Cemetery and Commemorative Gardens, the Applicant shall prepare a report in consultation with the Heritage Council of NSW, the local Council and the local Historical Society which considers the options for mitigation of these items. In relation to the Dog Cemetery, consultation should also occur with the School of Military Engineering's Explosive Detection Dog's Unit. The report shall include the archival recordings and the historical research, where required, to the Secretary, the Heritage Council of NSW, the local Council and the local Historical Society.

Dangerous goods

- B10 Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with:
 - a) all relevant Australian Standards;
 - b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
 - c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997).

In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

Dust Management

- B11 The Applicant shall carry out all feasible and reasonable measures to minimise dust generated by the Development.
- B12 During Early Works, the Applicant shall ensure that:
 - a) all vehicles on site do not exceed a speed limit of 30 kilometres per hour; and
 - b) all loaded vehicles entering or leaving the site have their loads covered; and all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads.

Waste Management

- B13 The reuse and/or recycling of waste materials generated on site shall be maximised as far as practicable, to minimise the need for treatment or disposal of those materials off site.
- B14 All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with *Waste Classification Guidelines* (Department of Environment, Climate Change and Water 2009).
- B15 All waste materials removed from the subject site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.

Utilities and Services

- B16 Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Early Works shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Applicant, or as otherwise agreed between the parties.
- B17 The Applicant shall prepare dilapidation surveys and reports on the condition of local roads, footpaths, services and utilities affected by Early Works. The Applicant shall carry out rectification work at the Applicant's expense and to the reasonable requirements of the owners for damage resulting from the completion of Early Works.
- B18 The Applicant shall ensure that the construction and operation of the proposed development will not prevent the existing use of Moorebank Avenue as a public road to a standard commensurate to its current use prior to the development.

Note: temporary closures or part closures and changes to operation of Moorebank Ave may occur for limited periods during construction as detailed in the Construction Traffic Management Plan.

PART C COMMUNITY INFORMATION AND REPORTING

Community Communication Strategy

- Prior to the commencement of Early Works, or as otherwise agreed by the Secretary, the Applicant shall prepare and implement a **Community Communication Strategy** to the satisfaction of the Secretary. The Strategy shall provide mechanisms to facilitate communication between the Applicant (and its contractor(s)), the Environmental Representative (see condition D1), the relevant Council and community stakeholders (particularly adjoining landowners) on the design and construction environmental management of the Early Works. The Strategy shall include, but not be limited to:
 - identification of stakeholders to be consulted as part of the Strategy, including affected and adjoining landowners, key community and business groups, and community and social service organisations;
 - (b) procedures and mechanisms for the regular distribution of accessible information to community stakeholders on construction progress and matters associated with environmental management, including provision of information in appropriate community languages;
 - (c) procedures and mechanisms through which the community stakeholders can discuss or provide feedback to the Applicant and/or Environmental Representative in relation to the environmental management and delivery of the SSD;

- (d) procedures and mechanisms through which the Applicant can respond to enquiries or feedback from the community stakeholders in relation to the environmental management and delivery of the SSD; and
- (e) procedures and mechanisms that would be implemented to resolve issues/ disputes that may arise between parties on the matters relating to environmental management and the delivery of the SSD, including but not limited to disputes regarding rectification or compensation for impacts to third party property and infrastructure. These procedures and mechanisms may include the use of a suitably qualified and experienced independent mediator.

Complaints and Enquiries Procedure

- C2 Prior to the commencement of Early Works, or as otherwise agreed by the Secretary, the Applicant shall ensure that the following are available for community enquiries and complaints for the duration of Early Works:
 - (a) a 24 hour telephone number(s) on which complaints and enquiries about the SSD may be registered;
 - (b) a postal address to which written complaints and enquires may be sent;
 - (c) an email address to which electronic complaints and enquiries may be transmitted; and
 - (d) a mediation system for complaints unable to be resolved.

The telephone number, the postal address and the email address shall be published in newspaper(s) circulating in the local area prior to the commencement of construction and prior to the commencement of operation. This information shall also be provided on the website (or dedicated pages) required by this approval.

Prior to the commencement of Early Works, or as otherwise agreed by the Secretary, the Applicant shall prepare and implement a Construction Complaints Management System consistent with AS ISO 10002-2006 Customer satisfaction – Guidelines for complaints handling in organisations (ISO 10002:2004, MOD) and maintain the System for the duration of Early Works and up to 12 months following completion of this stage.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, shall be maintained in a complaints register and included in the construction compliance reports required by this approval. The information contained within the System shall be made available to the Secretary on request.

Provision of Electronic Information

- Prior to commencement of the Early Works, or as otherwise agreed by the Secretary, the Applicant shall establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the SSD, for the duration of Early Works. The Applicant shall, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not necessarily limited to:
 - (a) information on the current implementation status of the SSD;
 - (b) a copy of the documents listed in condition 4, and any documentation supporting modifications to this approval that may be granted from time to time;
 - (c) a copy of this approval and any future modification to this approval;
 - (d) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the SSD;
 - (e) a copy of each current report, plan, or other document required under this approval;
 - (f) the outcomes of compliance tracking in accordance with condition A2 of this approval; and

(g) details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address.

PART D CONSTRUCTION ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

Environmental Representative

- D1 Prior to the commencement of Early Works, or as otherwise agreed by the Secretary, the Applicant shall appoint a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel, and that has been approved by the Secretary. The Applicant shall employ the Environmental Representative(s) for the duration of construction of this stage, or as otherwise agreed by the Secretary. The Environment Representative(s) shall:
 - (a) be the principal point of advice in relation to the environmental performance of the Early Works;
 - (b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Applicant upon the achievement of these plans/programs;
 - (c) have responsibility for considering, and advising the Applicant on, matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the Early Works;
 - (d) ensure that environmental auditing is undertaken in accordance with the Applicant's Environmental Management System(s);
 - (e) be given the authority to approve/reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environment Management Plan;
 - (f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts; and
 - (g) be consulted in responding to the community concerning the environmental performance of the Early Works where the resolution of points of conflict between the Applicant and the community is required.
- D2 The Environmental Representative shall prepare and submit to the Secretary a three-monthly report on the Environmental Representative's actions and decision on matters specified in condition D1 for the preceding month. The reports shall be submitted within seven (7) days for the end of each month for the duration of Early Works, or as otherwise agreed by the Secretary. Notwithstanding, the Environmental Representative shall be given the independence to report to the Secretary at any time and/or at the request of the Secretary.

Construction Soil and Water Management

D3 Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition* (Landcom, 2004) shall be employed during Early Works to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.

Bunding

D4 The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's Storing and Handling Liquids: Environmental Protection – Participants Handbook.

Construction Hours

D5 Early works shall be undertaken during the following standard construction hours:

- (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; and
- (b) 8:00am to 1:00pm Saturdays;
- (c) at no time on Sundays or public holidays.
- D6 Activities resulting in impulsive or tonal noise emissions shall only be undertaken:
 - (a) between the hours of 8:00 am to 5:00 pm Monday to Friday;
 - (b) between the hours of 8:00 am to 1:00 pm Saturday; and
 - in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.

For the purposes of this condition, 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.

- D7 Notwithstanding conditions D7 D5 and D8 D6, works may be undertaken outside the hours specified under those conditions in the following circumstances:
 - (a) construction works that cause L_{Aeq (15 minute)} noise levels that are:
 - No more than 5 dB above rating background level at any residence in accordance with the *Interim Construction Noise Guideline (DECC, 2009)*; and
 - (ii) No more than the noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (DECC, 2009) at other sensitive landuses; or
 - (b) for the delivery of materials required by the police or other authorities for safety reasons; or
 - (c) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
 - construction works approved through an Out-Of-Hours Work Protocol prepared as part of the Construction Noise and Vibration Management Plan required by condition D22D21(b), provided the relevant Council, local residents and other affected stakeholders and sensitive receivers are informed of the timing and duration at least 48 hours prior to the commencement of the works; or
 - (e) identified works approved by the Secretary.

Construction Noise and Vibration

- D8 The Applicant shall implement all feasible and reasonable noise mitigation measures with the aim of achieving the following construction noise management levels and vibration criteria:
 - (a) construction noise management levels established using the *Interim Construction Noise Guideline* (DECC 2009);
 - (b) vibration criteria established using the Assessing Vibration: a Technical Guide (DECC 2006) (for human exposure); and
 - (c) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage).

Any construction activities identified as exceeding the construction noise management levels and/or vibration criteria shall be managed in accordance with the Construction Noise and Vibration Management Plan required by condition D22(b).

Note:

• The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the addition of 5dB(A) to the predicted level before comparing to the construction Noise Management Level.

Construction Traffic Noise

- D9 The Applicant is to ensure that construction vehicle contractors operate so as to minimise any construction noise impacts from the subject site. Measures that could be used include toolbox talks, contracts that include provisions to deal with unsatisfactory noise performance for the vehicle and/or the operator, and specifying non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.
- D10 No use of compression brakes shall be permitted for construction vehicles associated with the Early Works in the vicinity of the subject site.

Transport and Access

- D11 Construction heavy vehicle access to and from the site via Moorebank Avenue (south) / Cambridge Avenue during Early Works is not permitted, with the exception of heavy vehicles travelling to and from the Glenfield Waste Facility.
- D12 The Early Works shall be carried out to, where feasible and reasonable, to avoid the use of local roads (through residential streets) by heavy vehicles to gain access to the site and/or ancillary facilities.
- D13 Construction vehicles (including staff vehicles) associated with the Early Works shall be managed to:
 - (a) minimise parking or queuing on public roads;
 - (b) minimise idling and queuing in local residential streets where practicable;
 - (c) adhere to the nominated haulage routes identified in the Construction Traffic and Access Management Plan required under condition D22(a); and
 - (d) ensure access and egress from construction compounds is undertaken in a safe and lawful manner.
- D14 Safe pedestrian and cyclist access through or around worksites shall be maintained during early works. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a satisfactory alternate route shall be provided and signposted, including provision of permanent footpaths where pedestrian access is reliant on grassed verges.
- D15 Access to all properties affected by the carrying out of Early Works shall be maintained, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by the carrying out of Early Works shall be reinstated to at least an equivalent standard, unless agreed with by the property owner.
- D16 Upon determining the haulage route(s) for construction vehicles associated with subject site, and prior to Early Works, a suitably qualified and experienced independent expert shall prepare a **Road Dilapidation Report**. The Report shall assess the current condition of roads and describe mechanisms to restore any damage that may result due to its use by traffic and transport related to the Early Works. The Report shall be submitted to the Secretary for information and the relevant Council for review prior to the commencement of haulage.

Following completion of Early Works, a subsequent Report shall be prepared to assess any damage to the road that may have resulted.

Measures undertaken to restore or reinstate roads affected by the Early Works shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant Council, and at the full expense of the Applicant.

Biodiversity

D17 Within 12 months of the commencement of Early Works, the Applicant shall develop and implement a Biodiversity Offset Package for the approval of the Secretary. The Package shall detail how the ecological values lost as a result of the SSD will be offset. The Package shall be consistent with the NSW Biodiversity Offsets Policy for Major Projects (OEH 2014), unless otherwise agreed by the Secretary.

The Package shall include, but not necessarily be limited to:

- (a) the identification of the extent and types of habitat that would be lost or degraded as a result of the final design of the SSD;
- (b) the objectives and biodiversity outcomes to be achieved;
- (c) the final suite of the biodiversity offset measures selected and secured in consultation with OEH;
- (d) the management and monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including:
- (e) the monitoring of the condition of species and ecological communities at offset (including translocation) locations;
- (f) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;
- (g) provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH; and
- (h) timing and responsibilities for the implementation of the provisions of the Package.

Where land offsets cannot solely achieve compensation for the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region.

Where monitoring referred to in (e) above indicates that biodiversity outcomes are not being achieved, remedial actions shall be undertaken to ensure that the objectives of the Biodiversity Offset Package are achieved to the satisfaction of the Secretary. Such remedial actions shall be documented under an addendum to the Biodiversity Offset Package and the addendum be submitted for the approval of the Secretary, prior to the implementation of that addendum.

- <u>D18</u> Subject to future Development Applications, no threatened species or communities can be cleared other than that required for Early Works. Any hollow bearing trees shall be relocated to areas to be determined by a suitably qualified ecologist in areas identified for conservation.
- D19 The Applicant shall prepare and implement a 'Threatened Dragonfly Species Survey Plan' to determine the presence or absence of threatened dragonfly species listed under the Fisheries Management Act 1994 on the Georges River, adjacent to the development site. The plan, including survey methodology, shall be prepared in consultation with DPI Fisheries prior to the commencement of Early Works.

On implementing the plan, the survey results are to be forwarded onto DPI Fisheries. Should threatened dragonfly species be found at this site, DPI Fisheries should be contacted to agree on possible mitigation measures to avoid impacts in accordance with NSW DPI Policy and Guidelines for Fish Habitat Conservation and Management (2013).

Construction Environmental Management Plan

Prior to the commencement of Early Works, or as otherwise agreed by the Secretary, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP). The CEMP is to be prepared in consultation with the EPA, OEH, NSW Office of WaterDPI Water, DPI Fisheries, and the relevant Council, for the approval of the Secretary. The CEMP shall outline the environmental management practices and procedures that are to be followed during construction. The CEMP is to be prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The CEMP shall include, but not necessarily be limited to:

(a) a description of activities to be undertaken during Early Works;

(b) statutory and other obligations that the Applicant is required to fulfil during Early Works, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;

(c) a description of the roles and responsibilities for relevant employees involved in the Early Works, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors, are aware of their environmental and compliance obligations under these conditions of approval;

(d) an environmental risk analysis to identify the key environmental performance

issues associated with the Early Works; and

(e) details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the CEMP:

- measures to monitor and manage dust emissions including dust from stockpiles, traffic on unsealed internal roads and materials tracking from construction sites onto public roads;
- (ii) measures for the handling, treatment and management of hazardous and contaminated materials (including asbestos);
- (iii) measures to monitor and manage waste generated during construction including but not necessarily limited to: general procedures for waste classification, handling, reuse, and disposal; use of secondary waste material in construction wherever feasible and reasonable; procedures or dealing with green waste including timber and mulch from clearing activities; and measures for reducing demand on water resources (including potential for reuse of treated water from sediment control basins);
- (iv) measures to monitor and manage hazard and risks;
- (v) measures to monitor and rectify any impacts to third party property and infrastructure, including details of the process for rectification or compensation of affected landowners, and timeframes for rectification works or compensation processes; and
- (vi) the issues identified in condition D22D21.

The CEMP shall include procedures for its periodic review and update (including the sub-plans required under condition D22D21), as necessary (including where minor changes can be approved by the Environmental Representative).

The CEMP shall be submitted for the approval of the Secretary no later than one month prior to the commencement of Early Works, or as otherwise agreed by the Secretary. The CEMP may be prepared in stages; however, Early Works shall not commence until written approval of the relevant stage has been received from the Secretary.

The approval of a CEMP does not relieve the Applicant of any requirement associated with this approval. If there is an inconsistency with an approved CEMP and the conditions of this approval, the requirements of this approval shall prevail.

Construction Environmental Management Plan — Sub Plans

D19D21 As part of the CEMP for the SSD, the Applicant shall prepare and implement:

- (a) a Construction Traffic and Access Management Plan to ensure traffic and access controls are implemented to avoid or minimise impacts on traffic, pedestrian and cyclist access, and the amenity of the surrounding environment. The Plan shall be developed in consultation with the relevant Council, emergency services, road user groups, and relevant pedestrian and bicycle user groups, and include, but not necessarily be limited to:
 - (i) identification of construction traffic routes and construction traffic volumes (including heavy vehicle/spoil haulage) on these routes;
 - (ii) details of vehicle movements for construction sites and ancillary facilities including parking, dedicated vehicle turning areas, and ingress and egress points;
 - (iii) discussion of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, access to public land, property access, including details of oversize load movements, and the nature and duration of those impacts;
 - (iv) details of management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access;
 - (v) details of measures to prevent construction heavy vehicles from using Moorebank Avenue south and Anzac Road, with the exception of heavy vehicles travelling to and from the Glenfield Waste Facility;
 - (vi) details of measures to maintain or provide alternative safe and accessible routes for pedestrians throughout the duration of construction;
 - (vii) details of measures to maintain connectivity for cyclists, with particular emphasis on providing adequate access between key existing cycle routes for commuter cyclists;
 - (viii) details of measures to manage traffic movements, parking, loading and unloading at ancillary facilities during out-of-hours work;
 - (ix) details of methods to be used to communicate proposed future traffic changes to affected road users, pedestrians and cyclists, consistent with the Community Communication Strategy required under condition C1;
 - (x) an adaptive response plan which sets out a process for response to any traffic, construction or other incident; and
 - (xi) mechanisms for the monitoring, review and amendment of this plan.
- (b) a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts will be minimised and managed. The Plan shall be consistent with the guidelines contained in the *Interim Construction Noise Guidelines* (Department of Environment and Climate Change 2009). The plan shall be developed in consultation with the EPA and shall include, but not be limited to:
 - (i) identification of the work areas, site compounds and access points;
 - (ii) identification of sensitive receivers and relevant construction noise and vibration goals applicable to the SSD and stipulated in the conditions above;
 - (iii) details of Early Works activities and an indicative schedule for works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios,

- including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas:
- (iv) an **Out-of-Hours Work Protocol** for the assessment, management and approval of works outside of standard construction hours as defined in condition D5 of this approval, for the Secretary's approval. The Out-of-Hours Work Protocol must detail:
 - a) assessment of out-of-hours works against the relevant noise and vibration criteria;
 - b) detailed mitigation measures for any residual impacts (that is, additional to general mitigation measures), including extent of at-receiver treatments; and
 - c) proposed notification arrangements.
- identification of feasible and reasonable measures proposed to be implemented to minimise and manage noise impacts (including construction traffic noise impacts), including, but not limited to, acoustic enclosures, erection of noise walls (hoardings) and respite periods;
- (vi) identification of feasible and reasonable procedures and mitigation measures to ensure relevant vibration criteria are achieved, including applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/ vibration dampeners or alternative construction methodology, and pre- and post- construction dilapidation surveys of sensitive structures where blasting and/ or vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);
- (vii) a description of how the effectiveness of mitigation and management measures would be monitored during the Early Works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported, and, if any exceedance is detected, how any noncompliance would be rectified; and
- (viii) mechanisms for the monitoring, review and amendment of this plan.
- (c) a Construction Heritage Management Plan to ensure construction impacts on Aboriginal and non-Aboriginal heritage will be appropriately avoided, minimised and managed. The Plan shall be developed in consultation with OEH, the relevant Council, the NSW Heritage Council (for non-Aboriginal State heritage items) and the relevant Local Aboriginal Land Councils (for Aboriginal heritage), and include, but not necessarily be limited to:
 - (i) in relation to Aboriginal Heritage:
 - details of management measures to be carried out in relation to Aboriginal heritage, including a detailed methodology and strategies for protection, monitoring, and conservation of sites and items;
 - b) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains), including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures, including when works can re-commence, by a suitably qualified and experienced archaeologist in consultation with the Secretary and Aboriginal stakeholders, assessment of the consistency of any Aboriginal heritage impacts against the approved impacts of the SSD, and, where relevant, registration in the OEH's Aboriginal Heritage Information Management System (AHIMS) register;
 - procedures for dealing with human remains, including cessation of works in the vicinity, notification of Secretary, NSW Police Force, OEH

- and Aboriginal stakeholders, and commitment to cease recommencing any works in the area unless authorised by the OEH and/or the NSW Police Force;
- d) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this approval including site identification, protection and conservation of Aboriginal cultural heritage; and
- e) procedures for ongoing Aboriginal consultation and involvement for the duration of the Early Works; and
- (ii) in relation to non-Aboriginal Heritage:
 - a) identification of heritage Items directly and indirectly affected by the Early Works;
 - b) consideration of methods to prevent damage to any retained heritage items, including:
 - procedures for identifying minimum working distances to retained heritage items (including, at minimum, vibration testing and monitoring),
 - II. detailed options for alteration of construction methodology should preferred values for vibration be exceeded, and
 - III. commitment to implementing those options if preferred values for vibration are likely to be exceeded;
 - c) details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity);
 - d) details of monitoring and reporting requirements for impacts on heritage items;
 - e) procedures for dealing with previously unidentified heritage objects, (including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the OEH, NSW Heritage Council and the Secretary, assessment of the consistency of any heritage impacts against the approved impacts of the SSD, and, where relevant, notification of the Heritage Council of NSW in accordance with section 146 of the Heritage Act 1977; and
 - f) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval including site identification, protection and conservation of non-Aboriginal cultural heritage; and
- (iii) mechanisms for the monitoring, review and amendment of this plan.
- (d) a Construction Flora and Fauna Management Plan to detail how impacts on ecology will be minimised and managed. The Plan shall be developed by a suitably qualified and experienced ecologist and in consultation with the OEH-and DPI, and shall include, but not necessarily be limited to:
 - plans for impacted and adjoining areas showing vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded; including preclearing surveys to confirm the location of threatened flora and fauna species and associated habitat features;
 - (ii) the identification of areas to be cleared and details of management measures to avoid residual habitat damage or loss and to minimise or

eliminate time lags between the removal and subsequent replacement of habitat such as:

- a) clearing minimisation procedures (including fencing),
- b) clearing procedures (including nest box plan),
- c) removal and relocation of fauna during clearing,
- d) habitat tree management, and
- e) construction worker education;
- (iii) rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas;
- (iv) a **Weed Management Strategy**, incorporating weed management measures focusing on early identification of invasive weeds and effective management controls (including for those related to aquatic and riparian zones);
- a description of how the effectiveness of these management measures would be monitored;
- (vi) a procedure for dealing with unexpected EEC/ threatened species identified during construction, including cessation of work and notification of the OEH and DPI Fisheries, determination of appropriate mitigation measures in consultation with the OEH and DPI Fisheries (including relevant relocation measures) and updating of ecological monitoring and/ or biodiversity offset requirements; and
- (vii) mechanisms for the monitoring, review and amendment of this plan.
- (e) a Construction Air Quality Management Plan to detail how impacts on local air quality will be minimise and managed. The Plan shall be developed in consultation with the EPA, and shall include, but not necessarily be limited to:
 - (i) identification of sources (including stockpiles and open work areas) and quantification of airborne pollutants;
 - (ii) key performance indicators for local air quality during construction;
 - (iii) details of monitoring methods, including location, frequency and duration of monitoring;
 - (iv) mitigation measures to minimise impacts on local air quality;
 - (v) procedures for record keeping and reporting against key performance indicators:
 - (vi) provisions for implementation of additional mitigation measures in response to issues identified during monitoring and reporting; and
 - (vii) mechanisms for the monitoring, review and amendment of this plan.
- (f) a Construction Soil and Water Management Plan to manage surface and groundwater impacts during Early Works. The plan shall be developed in consultation with, EPA, NSW Office of Water DPI Water, DPI Fisheries, and relevant Councils, and include, but not necessarily be limited to:
 - (i) details of construction activities and their locations, which have the potential to impact on water courses, storage facilities, stormwater flows, and groundwater, including identification of all pollutants that may be introduced into the water cycle;
 - (ii) potential impacts on watercourse bank stability and the development of appropriate mitigation measures as required;
 - (iii) an Acid Sulfate Soils Management Plan, if required, including measures for the management, handling, treatment and disposal of acid sulfate soils, including monitoring of water quality at acid sulfate soils treatment areas, should the project impact on acid sulfate soils;
 - (iv) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take

place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified; and

(v) mechanisms for the monitoring, review and amendment of this plan.

SCHEDULE 4 CONDITIONS TO BE MET IN FUTURE DEVELOPMENT APPLICATIONS

Operational Noise and Vibration

- E1. To ensure the operational noise impacts are appropriately managed, the following measures must be considered in future Development Applications:
 - a) Best practice plant for both the IMEX and interstate terminal, including electronic automated container handling equipment or equipment with equivalent sound power levels;
 - b) The use of top of rail friction modifiers and automatic rail lubrication equipment in accordance with ASA Standard T HR TR 00111 ST Rail Lubrication and top of rail friction modifiers;
 - c) Measures to ensure the rail cross sectional profile is maintained in accordance with ETN-01-02 Rail Grinding Manual for Plain Track to ensure the correct wheel / rail contact position and hence to encourage proper rolling stock steering;
 - d) A noise barrier on the western side of the haul road;
 - e) A detailed assessment of sleep disturbance impacts, including: how often noise events occur; the time of day when the occur; and whether there are any times of day when there is a clear change in the noise environment; and
 - f) A risk assessment to determine if non-tonal reversing alarms can be fitted as a condition of site entry. Alternatively, site design may include traffic flow that does not require or precludes reversing of vehciles.
- E2. Development Applications for both the IMEX and interstate terminal shall include a report to identify:
 - a) The extent of brake wheel squeal across the fleet of rail vehicles that will frequently use the terminals. This should identify the number of occurrences of brake squeal, the typical noise levels associated with brake squeal (including the frequency content), and the operational conditions under which brake squeal occurs (e.g. under light braking, hard braking, low / medium / high speed, effects of temperature and weather, etc.);
 - b) The root cause of brake squeal, including the influence of the design, set-up and maintenance of both brake shoes and brake rigging;
 - c) Possible solutions to mitigate or eliminate brake squeal, including modifications to brake rigging and alternative brake shoe designs and compounds; and
 - d) Any monitoring system proposed to capture brake squeal.

Locomotives

- E3. Development Applications for the IMEX terminal shall detail how the expected port shuttle locomotives incorporate available best practice technologies.
- E4. Development Applications for either the IMEX or interstate terminal shall consider the effect of headlight glare on surrounding sensitive receivers.

Rail Link

- E5. Any Development Application comprising the rail link must consider maximising curve radii of the rail connection, particularly the southern tie-in to the SSFL, to minimise the potential for wheel squeal.
- E6. Any Development Application comprising the rail link shall ensure the width of the rail link corridor is no greater than 20 metres in the Riparian Corridor.
- <u>E7.</u> Any Development Application comprising the rail link shall consider fauna movement in the bridge design.
- E8. Any Development Application comprising the rail link shall consider minimising potential impacts to the aquatic environment, aquatic habitats and fish passage, both in the design and construction of the bridge.
- <u>E7-E9.</u> Any Development Application comprising the rail link shall include an assessment of the impacts of the rail link on the Glenfield Waste Facility, including:
 - Targeted intrusive investigations to determine contamination pathways and to develop mitigation, management and/or remediation options based on those investigations;
 - b) details of the quantity of landfilled waste to be removed, the location from where it will be removed, the methodology to be utilised and the estimated timeframe for the removal and reburial:
 - c) proposed measures to mitigate odour impacts on sensitive receivers, including an undertaking to apply daily cover to any exposed waste in accordance with benchmark technique 33 of the document *Environmental Guidelines: Solid Waste Landfills*, NSW EPA 1996;
 - d) details of impacts on pollution control and monitoring systems including existing groundwater and landfill gas bores and their subsequent repair/ replacement;
 - e) the methodology proposed to ensure that the landfill barrier system disturbed in the removal process is replaced/ repaired to ensure its ongoing performance. The Applicant shall detail matters such as sub grade preparation and specifications, liner installation/ reinstallation procedures and construction quality assurance (CQA) procedures;
 - f) a commitment to providing the EPA with a construction quality assurance report within 60 days of the completion of the works referred to in (d) above; and
 - g) an overview of any access and/or materials/ equipment storage arrangements with Glenfield Waste Facility in relation to the construction of the rail link.
 - h) details of any other expected or potential impacts to the licensed area and options for management and mitigation of those impacts (i.e. leachate management and surface water runoff, potential impacts on the Georges River during works, dust etc); and
 - i) details of and proposed mitigation measures for the long term management of the rail link.

Traffic

- E8.E10. Development Applications for either the IMEX or interstate terminal shall include documentation demonstrating how Condition 14 of this approval has been satisfied.
- E9.E11. All future Development Applications shall include a Traffic Impact Assessment based on background growth models developed by RMS for the Liverpool/Moorebank area (if applicable).
- E10.E12. All future Development Applications shall demonstrate how the main access to the site has been designed to prevent heavy vehicles associated with the facility from using Moorebank Avenue south, and should be accompanied by a detailed engineering drawing(s).

Section 94 Contributions

- €11. E13. All future Development Application shall include:
 - a) an assessment of the impacts of the project on local infrastructure, having regard to any relevant Council's Developer Contributions Plan (or equivalent document requiring developer contributions);
 - b) a commitment to pay developer contributions to the relevant consent authority or undertake works-in-kind towards the provision or improvement of public amenities and services. **Note:** This requirement may be satisfied subject to the terms of any applicable Voluntary Planning Agreement; and
 - c) a commitment to undertake vehicle monitoring on Cambridge Avenue. Should any monitoring reveal the need for improvement works within the Campbelltown LGA as a result of the proposal, the Applicant may be required to contribute towards local road maintenance or upgrades.

Public Transport

E12.E14. All future Development Applications shall consider the need for a bus stop on Moorebank Avenue (including direct pedestrian access from the warehousing to the bus stop), and associated turnaround facility suitable for a 14.5 metre long non-rear steer bus.

Biodiversity

- <u>E13.E15.</u> All future Development Applications shall consider measures to improve the condition of the riparian corridor along the western bank of the Georges River (known as the 'hourglass land').
- E14.<u>E16.</u> All future Development Applications shall consider include the following riparian corridor widths (measured from the top of bank):
 - a) a minimum of 50 metres wide associated with the rail corridor; and
 - b) a minimum of 40 metres wide along the terminal site.

Landscaping

- E15. E17. All future Development Applications for new built form must include detailed landscape plans identifying the vegetation to be removed or relocated and the location of replacement and additional landscaping.
- E16. All future Development Applications shall include detailed landscape plans including relevant details of the species to be used in the various landscaped areas (preferably species indigenous to the area), including details of the informal native and cultural avenue plantings, and other soft and hard landscape treatments, including any pavement areas and furniture.

Heritage

- E17.E19. All future Development Applications relevant to MA6 and MA7 (Scarred Trees) shall include a consideration of options for managing impacts, including evidence of consultation with Registered Aboriginal Parties. the Aboriginal cultural value of the trees and options for avoiding impacts and ongoing conservation measures, including evidence of consultation with Aboriginal community representatives.
- E18.E20. All future Development Application shall assess heritage impacts of the proposal. The assessment shall:
 - a) consider impacts to Aboriginal heritage (including cultural and archaeological significance), in particular impacts to Aboriginal heritage sites identified within or near the project should be assessed. Where impacts are identified, the assessment

shall demonstrate effective consultation with Aboriginal communities in determining and assessing impacts and developing and selecting options and mitigation measures (including the final proposed measures);

b) consider impacts to historic heritage. For any identified impacts, the assessment

shall:

- outline the proposed mitigation and management measures (including (i) measures to avoid significant impacts and an evaluation of the effectiveness of the measures). Mitigation measures should include (but not be limited to) photographic archival recording and adaptive re-use of buildings or building elements on site):
- (ii) be undertaken by a suitably qualified heritage consultant(s); and
- (iii) include a statement of heritage impact.

Soil and Water

E19.E21. All future Development Application shall include an assessment of soil and water impacts. The assessment shall (where relevant):

a) assess impacts on surface and groundwater flows, quality and quantity, with particular reference to any likely impacts on Georges River and Anzac Creek;

b) assess flooding impacts and characteristics, to and from the project (including rail link), with an assessment of the potential changes to flooding behaviour (levels, velocities and direction) and impacts on bed and bank stability, through flood modelling, including:

(i) hydraulic modelling for a range of flood events;

- (ii) description, justification and assessment of design objectives (including bridge, culvert and embankment design);
- (iii) an assessment of afflux and flood duration (inundation period) on property; and
- (iv) consideration of the effects of climate change, including changes to rainfall frequency and/or intensity, including an assessment of the capacity of stormwater drainage structures.
- identify and assess the soil characteristics and properties that may impact or be c) impacted by the project, including acid sulfate soils;
- include a contamination assessment in accordance with the guidelines made under d) the Contaminated Land Management Act 1997 and in consultation with the EPA for the subject site including the Glenfield Waste Facility.
- E20.E22. All future Development Application which includes construction in the vicinity of Amiens Wetland shall include advice from an independent wetland expert to determine whether it is artificial or a natural lake basin, its significance, and any recommendations on mitigation measures (if appropriate).

Hazards and Risks

- E24.E23. All future Development Application shall be accompanied by a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 -Hazardous and Offensive Development and Applying SEPP 33 (DoP 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the proposal. Should preliminary screening indicate that the proposal is 'potentially hazardous,' a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP 2011) and Multi-Level Risk Assessment (DoP 2011). The PHA should:
 - Estimate the risks from the facility; a)
 - Be set in the context of the existing risk profiles for the intermodal facility and b) demonstrate that the proposal does not increase the overall risk of the area to unacceptable levels; and

c) Demonstrate that the proposal complies with the criteria set out in the *Hazardous Industry Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning*.

Bushfire Management

<u>E22.E24.</u> All future Development Application shall be accompanied by an assessment against the Planning for Bushfire 2006 (NSW Rural Fire Service).

Building Code of Australia

<u>E23.E25.</u> All future Development Applications shall demonstrate compliance with the Building Code of Australia, as relevant.