



**NSW Planning Assessment Commission Determination Report
Moorebank Intermodal Terminal, Stage 2, Moorebank Precinct East (SSD 7628)**

1. INTRODUCTION

On 20 November 2017, the Planning Assessment Commission (the Commission) received from the Department of Planning and Environment (the Department) a State significant development application from SIMTA, as Qube Holdings Limited (the applicant) for Stage 2 of the Moorebank Precinct East Intermodal Precinct development comprising warehousing and distribution facilities and upgrades to part of Moorebank Avenue.

The Department referred the development application to the Commission for determination in accordance with the Minister for Planning's delegation because the Department had received an objection from the relevant local council (Liverpool City Council) and more than 25 submissions from the public in the nature of objection.

Ms Lynelle Briggs AO, Chair of the Commission, nominated Annabelle Pegrum AM (chair), Steve O'Connor, and Peter Duncan AM to constitute the Commission to determine the modification request.

1.1 Summary of Development Application

The development application proposes:

- earthworks including the importation of 600,000m³ of fill and vegetation clearing;
- 300,000m² of gross floor area for warehouse use;
- 8,000m² GFA within the freight village;
- construction of internal roads and connection to the surrounding road network;
- raising the level of and upgrading Moorebank Avenue, generally adjacent to the Moorebank Precinct East site;
- upgrading of Moorebank Avenue intersections with Moorebank Precinct East site access points, including the provision of interim entry points;
- ancillary works including stormwater and drainage, utilities relocation/installation, vegetation clearing, landscaping, earthworks, remediation and signage;
- subdivision of the site; and
- operation 24 hours a day, seven days per week.

The site is located in Moorebank, Western Sydney, south of Liverpool. It covers 83 hectares, is generally flat and is within the Georges River catchment area. The site context in relation to the future Moorebank Precinct West intermodal facility, proximate vegetated areas including the 'Boot Land', key watercourses, rail and roadways, existing business parks, the Defence Joint Logistics Unit (DJLU), and surrounding residential development is illustrated in Figure 1 (**Source:** Applicant EIS).

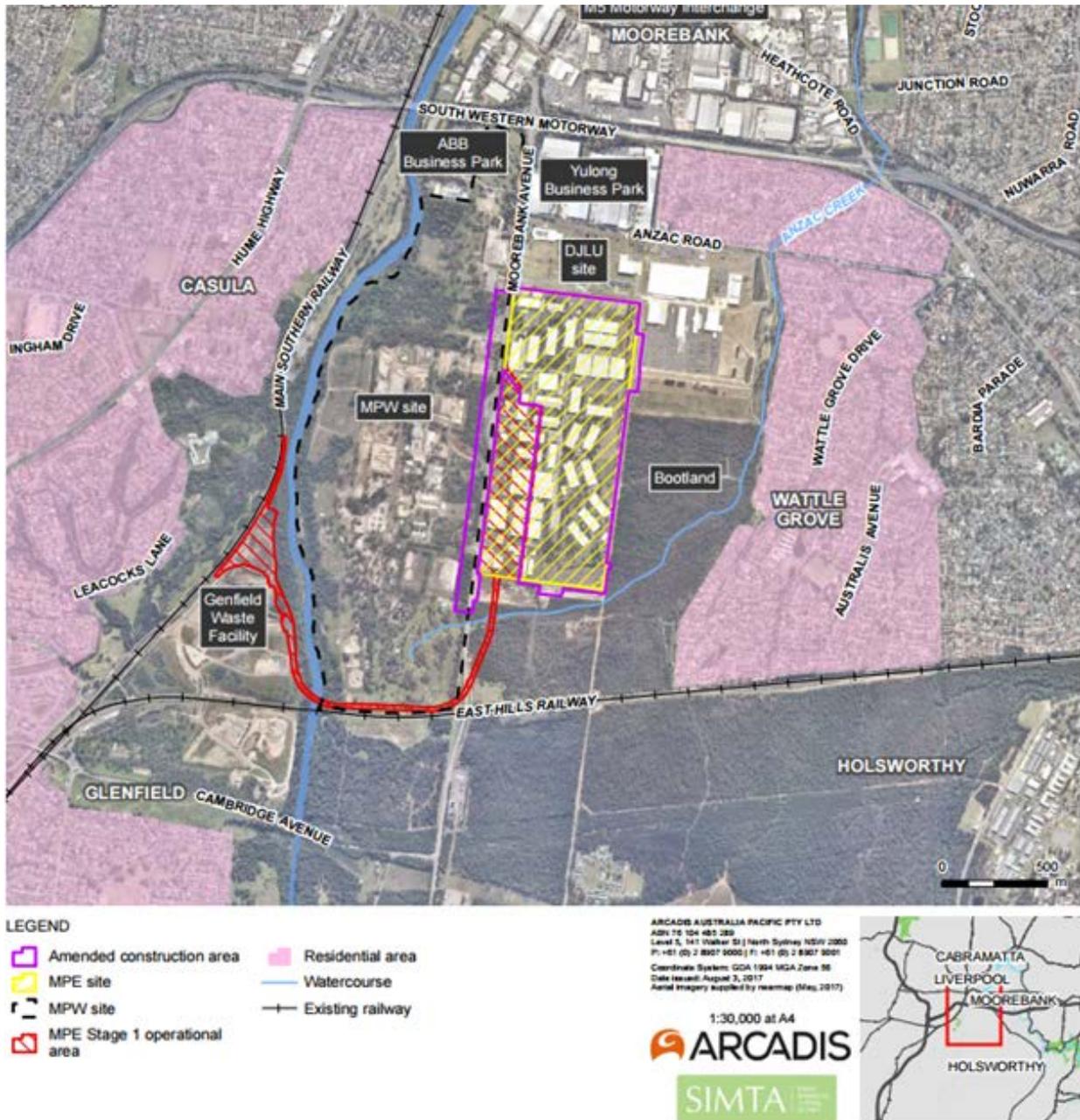


Figure 1: Moorebank Precinct East (Source: Applicant EIS)

1.2 Need for proposal

The applicant states that the development responds to Sydney’s need to increase freight handling capacity and is critical to delivering warehousing that will optimise the operations of the intermodal terminal to enable more containerised freight.

Projected growth in trade volumes will lead to an increase in freight movements interstate, intrastate and across the Sydney Greater Metropolitan Area. This growth will pose challenges for the supply chain which is currently dominated by road transport. To meet these challenges and to allow for increased use of rail, the Commonwealth and State Governments considered it necessary to invest in new intermodal terminal capacity and associated warehousing and distribution facilities at locations accessible to freight rail lines.

The applicant states that this development will better support the movement of freight and will improve operations across the intermodal terminal.

1.3 Background

Concept Plan Approval

On 29 September 2014, the Planning Assessment Commission approved a Concept Plan (MP 10_0193) for the use of the site as an intermodal facility, including:

- A rail link to the Southern Sydney Freight Line within an identified rail corridor;
- Warehouse and distribution facilities;
- Freight village (ancillary site and operational support services); and
- Stormwater, landscaping, servicing and associated works.

MP 10_1093 MOD 1 - Concept Plan Modification 1

On 12 December 2014, the Planning Assessment Commission approved a modification to the Concept Plan for revisions to the land description, Voluntary Planning Agreement and Statement of Commitments.

SSD 6766 – Moorebank Precinct East – Stage 1 application

On 12 December 2016, the Planning Assessment Commission approved a State Significant Development application for Moorebank Precinct East – Stage 1 (SSD 6766). The approval allowed for the construction and operation of the following within the Moorebank Precinct East site:

- an intermodal terminal facility operating 24 hours, 7 days a week handling container freight volumes of up to 250,000 twenty-foot equivalent units per annum;
- processing and loading areas, rail loading and container storage areas, and an administration facility and associated carparking;
- a rail link connecting the southern end of the site to the Southern Sydney Freight Line; and
- associated works including rail sidings, vegetation clearing, remediation and leveling works, drainage and utilities installation.

An appeal to the Moorebank Precinct East – Stage 1 application was lodged in the NSW Land and Environment Court (Court) by Residents Against Intermodal Development Moorebank Inc (RAID). During the court proceedings, it was not contended that the development should be refused, rather that it should proceed under different conditions. The appeal was heard on 25, 26 and 27 October 2017. The Commissioner of the Court reserved her decision at the conclusion of the hearing.

MP 10_1093 MOD 2 – Concept Plan Modification 2

The Moorebank Intermodal Terminal SSD 7628 application was submitted by the applicant concurrently with a request to modify the Concept Plan approval. The modification request proposed to modify the Concept Plan to allow:

- an increase in the Moorebank Precinct East site area (from 83ha to 95ha) and amend the site boundary to include works on Moorebank Avenue and drainage works to the south and east of the site;
- upgrade works to Moorebank Avenue, including widening to four lanes, from the northern to southern extent of the site;
- a diversion road and interim road and interim access to the Moorebank Precinct East site area along Moorebank Avenue during the upgrade works;
- provision of interim site access for warehousing from Moorebank Avenue;
- reconfiguration of internal road layouts and use of all internal roads by both light and heavy vehicles;
- importation of approximately 600,000m³ of clean fill for bulk earthworks within the site and part of Moorebank Avenue;
- revised warehousing and freight village locations and layouts;
- expansion of land-uses within the freight village;
- revision of the proposed staging of the project; and
- subdivision of the site following development.

The Department advised the Commission that the SSD 7628 was assessed (by them) on its own merits but having regard to the implications (for the SSD) of their recommended Future Environmental Assessment Requirements (that were subject to determination of the proposed Concept Plan Modification 2 by the Commission). The Department also recognised that the SSD application would be required to be generally in accordance with all Future Environmental Assessment Requirements nominated as part of any approved Concept Plan modification.

Prior to determining this SSD application, the Commission considered and approved the Concept Plan Modification 2 application on its own merits. The Commission was therefore able to have regard to the associated instrument of modification for the Moorebank Precinct East Concept Plan MOD 2 (MP 10_0193 MOD 2) when considering SSD 7628.

2. DEPARTMENT'S ASSESSMENT REPORT

The Department's assessment report identified the key issues associated with this application as consistency with the Concept Plan; geotechnical/importation of fill; traffic impacts; noise impacts; stormwater and flooding; air quality impacts; built form and land uses; subdivision; biodiversity; local contributions and contamination. The Department's assessment report concluded that on balance, *'the development's benefits outweigh its potential impacts, and that any residual impacts can be managed and would not, subject to conditions, result in any long term adverse or irreversible effects'*.

3. COMMISSION'S MEETINGS AND SITE VISIT

As part of its assessment of the proposal the Commission met with the Department; the Department's stormwater expert; Roads and Maritime Services (RMS) and Transport for NSW; Liverpool City Council (Council); the applicant, including an accompanied tour of the site; and conducted a public meeting in Liverpool. Notes from these meetings are provided in **Appendices 1, 2 and 3**.

3.1 Briefing from the Department

On 11 December 2017, the Department briefed the Commission on the following matters:

- project background;
- traffic and Moorebank Avenue;
- fill;
- noise;
- biodiversity;
- subdivision;
- stormwater and urban design;
- the likely existence of Poly-Fluoroalkyl (PFAS); and
- operation and construction hours.

On 18 December 2017, the Department's stormwater expert briefed the Commission on the following matters:

- stormwater impact management;
- the adequacy/inadequacy of the application;
- the short-comings of the project in delivering best practice stormwater management; and
- the draft conditions of consent.

3.2 Briefings from Other Agencies

On 18 December 2017, the Commission met with RMS and Transport for NSW agencies. The Commission was briefed on the following matters:

- RMS's position on the modification;
- predicted impacts on the network based on the traffic modelling;
- future impacts on Moorebank Avenue, 'the weave' on the M5 Motorway, Heathcote Road and Newbridge Road;

- interactions of the project with Moorebank Precinct West; and
- RMS response to associated conditions proposed by the applicant.

3.3 Briefing from the applicant and site tour

On 11 December 2017, the Commission met with the applicant and toured the site. The applicant briefed the Commission on the following matters:

- the interaction between Moorebank Precinct East and Moorebank Precinct West;
- amendment to a number of conditions;
- traffic impacts;
- noise impacts;
- stormwater and the use of onsite detention basins; and
- offsetting and biobanking agreements.

The meeting was followed by a tour of the Stage 1 works being undertaken, existing drainage canals, the sheds to be demolished and connections between the site and the Defence Joint Logistics Unit and Boot Land.

3.4 Meeting with Liverpool City Council

On 11 December 2017, the Commission met with officers from Council who briefed the Commission on the following matters:

- the need for Moorebank Precinct West to be considered as part of this modification;
- traffic impacts and Moorebank Avenue;
- local traffic impacts;
- road ownership concerns;
- monetary contributions payable to Council;
- stormwater impacts;
- urban design;
- monitoring impacts; and
- the need for a formal consultation strategy.

Subsequently on 12 January 2018 Council provided the Commission with a summary of its issues related to the applications for the Concept Plan modification and SSD 7628. Council noted that in its view *'along with the inconsistencies within the Moorebank Precinct East applications currently under consideration ... the determination for Moorebank Precinct East cannot be made in isolation of Moorebank Precinct West'*. Council requested that the Commission delay its decision for both the current Moorebank Precinct East applications *'until the Department's recommendation for the Moorebank Precinct West applications ... are brought forward and scrutinised'*.

3.5 Public Meeting

The Commission conducted a public meeting at Club Liverpool on 12 December 2017 to hear the public's views on the application. A list of the 14 speakers that presented to the Commission is provided in **Appendix 2**. A summary of the issues raised by the speakers and provided in written submissions is provided in **Appendix 3**. In summary, the main issues of concern include:

- dust and other air quality impacts;
- freight and traffic generally;
- noise and vibration impacts;
- safety impact on local road networks;
- impact on nearby residential developments;
- stormwater and drainage;
- impact on the Georges River including environmental and public safety;
- site suitability;
- effects of importing fill onto the site;
- construction and operational noise;

- health and environmental impacts;
- lack of consultation by the applicant; and
- various other matters.

A number of written comments and speakers at the public meeting requested that the original Concept Plan Approval not proceed in its entirety and raised issues that were unrelated to and outside of the scope of the Concept Plan Modification 2 or the SSD applications.

The Commission notes that it is unable to revisit whether the original Concept Plan Approval should proceed. The Commission is limited to making a determination only on the SSD application before it.

4. ADDITIONAL INFORMATION

On the 19 December 2017, the Commission sought additional information from the applicant related to the subdivision proposed in the SSD application. The proponent responded to the Commission on the 21 December 2017.

On 22 December 2017, the Commission again sought additional information from the applicant to more directly/comprehensively address the Department's proposed Future Environmental Assessment Requirement 2.1 *Subdivision*. The applicant responded to the Commission on the 5 January 2018. The Commission has considered this additional information in making its determination (see Section 5.10).

5. COMMISSION'S CONSIDERATION

The Commission has considered carefully:

- information provided by the applicant;
- the Department's assessment report;
- advice and recommendations from other government agencies;
- comments and submissions from Council;
- comments and submissions for the community;
- the approved Moorebank Precinct East Concept Plan (as modified);
- relevant matters for consideration specified in section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act), including:
 - relevant environmental planning instruments;
 - the *Environmental Planning and Assessment Regulation 2000*;
 - the likely impacts of the development on both the natural and built environments;
 - social and economic impacts in the locality;
 - the suitability of the site for the development;
 - written and verbal submissions from the public; and
 - the public interest, including the objects of the EP&A Act.

The key matters considered by the Commission's include:

- Moorebank Precinct West application;
- geotechnical/importation of fill;
- site contamination;
- traffic impacts;
- noise and vibration impacts and construction hours;
- stormwater, flooding and contemporary water sensitive urban design;
- air quality impacts;
- landscaping and built form;
- freight village use;
- subdivision;
- flora and fauna; and
- local contributions.

5.1 Moorebank Precinct West application

The Commission noted advice from the Department that a modification to the Concept Plan (SSD 5066 MOD 1) and a State Significant Development application (SSD 16_7009) had both been submitted by Qube for the Moorebank Precinct West site. The Commission also noted Council's request to delay consideration of the Moorebank Precinct East applications (before it for determination) until the Department's assessment of the Moorebank Precinct West applications are completed.

The Commission acknowledges that the development and operation of the east and west intermodal facilities will be closely linked and may have cumulative impacts. However, as the two Moorebank Precinct West applications are still under assessment by the Department, the Commission cannot take them into consideration as part of this SSD application. The Commission must consider the application that it has before it on its merits and cannot delay its determination pending other current or future applications, which may or may not be sent to the Commission for determination at some future date.

5.2 Geotechnical/importation of fill

The proposal seeks approval for the importation of 600,000m³ of fill to the site for bulk earthworks. The applicant states that the importation of fill and associated bulk earthworks is required to facilitate the adequate operation of drainage and flood protection infrastructure across the site. In particular, the adjustment of the site's final levels is required to:

- achieve the minimum gradients required for the site drainage infrastructure upstream of the onsite detention basins;
- ensure that the site can be effectively drained in a 100-year annual recurrence interval floor event; and
- bring operational areas of the Moorebank Precinct East site above the regional probably maximum flood levels.

The applicant's proposal was supported by a Geotechnical Interpretive Report which concluded that *'the development will involve relatively routine geotechnical design and construction procedures'* and recommended *'further targeted detailed investigations would need to be undertaken based on the final developed detailed design'*.

The Department's report found that the applicant's proposal to import 600,000m³ of fill could be approved if managed appropriately through conditions to ensure acceptable environmental and amenity impacts. The Department recommended conditions to ensure that:

- only excavated natural material and/or virgin excavated natural material could be brought to the site;
- the recommendations of the Geotechnical Interpretive Report would be incorporated into the earthworks plan;
- a works-as-executed report would be prepared by a geotechnical engineer demonstrating how geotechnical constraints have been accommodated;
- the preparation of a Soil and Water Management Plan, Fill Environmental Management Plan and Stockpile Management Plan; and
- fill batters have a maximum ratio of 1:4 with details of slope stabilisation being provided.

The community raised concerns at the public meeting over potential impacts of this fill on neighbouring residences, including impacts on air quality, noise, stormwater and drainage. Residents were concerned that the works associated with the approved Stage 1 of the facility were already depositing large volumes dust on residents within close proximity to the site. Council raised concerns about a contamination risk associated with fill brought to the site and expressed the view in their submission dated 12 January 2018 that *"There are no clear measures for quality control (documenting/testing at source and destination)."*

On balance, the Commission finds that with the mitigation and monitoring conditions proposed by the Department, any negative impacts related to the importation of fill on air quality, noise, stormwater and drainage will be sufficiently mitigated.

The Commission is satisfied that the total volume of 600,000m³ of fill is acceptable subject to it being managed in accordance with the relevant conditions. The Commission is also satisfied that the proposal to increase the total volume of fill is generally consistent with the Moorebank Precinct East Concept Plan Future Environmental Assessment Requirement 2.1 *Best Practice Review* and *Soil and Water*.

5.3 Site contamination

The Department's assessment report noted that there is potential for contamination to be present due to the nature of the historical industrial uses of the site together with the age of the existing warehouses. In 2016, the applicant commissioned experts to review levels of contamination on the site. That review found the presence of perfluorinated compounds (known as PFAS) but concluded that the levels (of PFAS) were below investigation levels. The Commission noted that relevant government agencies, when commenting on the Environmental Impact Statement and Response to Submissions, did not raise concerns related to this contamination.

The Department noted that since 2016 the understanding of PFAS has evolved and that the *Health Based Guidance* in response to the presence of PFAS, was updated in early 2017. The Department has therefore recommended a condition that ensures that if PFAS contamination is identified at the site a suitably qualified and experienced consultant would be required to prepare a plan, in consultation with an appointed Site Auditor, detailing the proposed remediation and/or management measures to address any potential on-site and off-site impacts.

The Commission agrees and has included the recommended measures to strengthen the Contamination Management Plan condition. Other contamination management conditions related to substances such as asbestos or other unexpected finds have also been adopted by the Commission. With these conditions, the Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan contamination Future Environmental Assessment Requirement 2.1 *Hazards and Risks*.

5.4 Traffic impacts

The applicant provided a Construction Traffic Impact Assessment and Operational Traffic and Transport Impact Assessment and preliminary Operational Environmental Management Plan, concluding that operational and construction traffic impacts can be appropriately managed and mitigated.

Construction Traffic

The indicative construction program identified that peak construction traffic generation would occur along Moorebank Avenue. The applicant's modelling predicted that during construction, between 5pm-6pm, an additional 67 return heavy vehicle trips and 102 light vehicle trips would be added to Moorebank Avenue. The Department noted that the importation of fill to the site will likely be the largest generator of traffic during construction.

The applicant's modelling indicates that the traffic generated can be catered for within the existing capacity of affected intersections. In its assessment, the Department accepted this finding but considered that active and adaptive management of Moorebank Avenue would be required to ensure that construction traffic impacts did not deteriorate the traffic network.

The Department's assessment focussed on construction traffic impacts on the proposed Moorebank Avenue diversion road, spoil haulage and fill importation and site access. The Department recommended that the proposal could proceed subject to:

- conditions proposed by Transport for NSW and RMS to ensure that the Moorebank Avenue diversion and upgrades works were designed to a standard to the satisfaction of RMS;
- the Moorebank Avenue Upgrade Staging Plan committing the applicant to maintain two lanes of traffic (along Moorebank Avenue) at all times;
- preparation of a Spoil Haulage and Fill Importation Plan; and
- preparation of a drivers' code of conduct for both construction and operation.

The impact of traffic on the local and regional community, including from a public safety perspective, was raised as a major concern by people presenting at the public meeting and within comments received by the Commission. In response, the Commission subsequently met with agency staff from RMS and Transport for NSW to seek their expert opinion on the traffic generated through the construction of the proposal.

These agencies informed the Commission that they had worked closely with the applicant to model the impacts of the development on the local network and with the Department to identify and draft management and mitigation measures within the recommended instrument of consent. Subject to adoption of these draft conditions, RMS and Transport for NSW advised the Commission that they were confident that the construction traffic and associated public safety implications, could be adequately managed.

On this basis, the Commission is satisfied that the impacts associated with the construction of Moorebank Precinct East are acceptable and can be appropriately mitigated through appropriate conditions of approval. The Commission is also satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan Modification 2 *Traffic and Transport* Future Environmental Assessment Requirements.

Operational Traffic

The applicant conducted modelling of operational traffic impacts along Moorebank Avenue and at key intersections in the local and regional road network to determine the level of impact of the proposal. The project is anticipated to generate 564 heavy vehicle trips per day and 3,993 light vehicle return movements per day.

The Department's assessment focussed on six key areas of impact likely to occur once the Moorebank Precinct East is operational:

- interim site access;
- intersection upgrades;
- Moorebank Avenue upgrades
- parking
- internal road network
- internal pedestrian access (the intermodal freight village)

Interim site access

The applicant requested interim site access pending finalisation of consultation with the Department of Defence and RMS regarding shared access with the Defence Joint Logistical Unit to the north of the site.

In the response to submissions, the applicant noted that it only intended to proceed with the northern site access if the upgrade could be undertaken in tandem with the Defence Joint Logistical Unit's upgrade works. The applicant further noted that the Defence Joint Logistical Unit has already upgraded this site intersection since the original Moorebank Precinct East Concept Plan approval.

The Department noted that the current application did not require or prevent the future pursuit of the northern access and was satisfied that if the applicant was to seek northern access to the site, it

would need to apply for *'a separate development consent for its construction and use'*. The Department also assessed the application as though it was the ultimate site access point.

The Commission agrees with the Department's recommendation that any northern access from the Defence Joint Logistic Unit north of the site will need to be considered by the applicant as part of a separate future application.

The Commission also notes that the application sought an interim access point off Moorebank Avenue. The Commission supports the Department's recommendation and the proposed 'interim' access from Moorebank Avenue. However, the Commission does not agree with the Department's assumption that the 'interim' access will become the *'ultimate site access'*. The Commission recognises that the layout and functionality of the site will be highly dependent on the finalisation of other matters such as the stormwater, landscaping and subdivision plans. The ultimate site access will need to be finalised by the applicant at a later stage.

Intersection upgrades

The applicant identified a series of regional upgrades that would need to take place in the area around the site to accommodate background traffic growth over time. The applicant acknowledged that this proposal will impact on a number of intersections. However, the applicant asserts that these impacts are only marginal and fall within daily traffic variations.

The Department's independent traffic advice concluded that the applicant's traffic analysis does not confirm if the applicant should be required to upgrade any of the identified intersections. That advice also recommended further conditions to require reasonable works and/or contributions by the applicant. The Department considers that the applicant *'should bear the cost of upgrading those intersections where the proposal would result in an exceedance of capacity'* and has recommended conditions accordingly.

Residents raised concern with the Commission, both during the public meeting and within submissions, that the applicant's proposed intersection upgrades were not sufficient to alleviate the traffic impacts associated with the application. Residents were also concerned that upgrades would burden local residents because the extra traffic would decrease the service level at many intersections and would generally create additional congestion on local roads.

The Commission met with the RMS and Transport for NSW to interrogate whether the impacts on local intersections had adequately been considered and if the intersection upgrades as proposed were appropriate. RMS informed the Commission that it had undertaken substantial modelling of the precinct and predicted that a number of intersections would see service levels decline as a result of the development. RMS confirmed that, based on their modelling, they had worked with the applicant to define which intersections required upgrading and to the required standard. The Commission was reassured by RMS that the necessary intersection upgrades to service this stage of the proposal had been identified and were scheduled for completion if the project was approved.

The Commission has adopted conditional recommendations made by the Transport cluster to strengthen the requirements of the Biannual Trip Origin and Destination Report. The conditions will require origin and destination information from all intermodal traffic not only terminal movements. This data will contribute to a better understanding of the evolving regional traffic picture and assist with the future evaluation of the impacts of proposed developments on intersections and the road network.

The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan Modification 2 Future Environmental Assessment Requirements to undertake detailed modelling and evaluate the traffic impacts to the local and regional road network.

Moorebank Avenue Upgrade

The applicant proposes a major upgrade to Moorebank Avenue as part of the Moorebank Precinct East proposal. The road will be raised by two meters and widened from two to four lanes.

Land ownership and responsibility for maintaining Moorebank Avenue are complex issues. Part of Moorebank Avenue is currently not dedicated as a public road because it is Commonwealth owned land. However, RMS advised the Commission that it had recommended that Moorebank Avenue should be given a temporary Local Road classification to more effectively facilitate the proposed upgrading works. Council advised the Commission that it did not want the road to be classified as a Local Road because of the long-term maintenance and associated cost responsibilities and considered that the road warranted classification as a Regional Road. In response, RMS informed the Commission that it is prepared (and committed) to take on the role of the managing Roads Authority to facilitate the upgrading works, once the road had been classified as a Local Road.

The Commission notes that road classification is not a matter over which it has authority. The Commission considers that this is a complex road management issue and that the long-term classification of the upgraded Moorebank Avenue will need to be considered as part of the standard road classification process that applies in NSW. The Commission notes however, that upgrading the road would strengthen the case for it to be given regional road classification.

The Commission supports RMS's proposal for Moorebank Ave to be upgraded and given temporary Local Road status with the RMS taking on the role of the managing Roads Authority to facilitate these works.

Parking

The proposal originally provided for 1,472 car parking spaces across the site. The applicant revised its application, as result of a revised floor area, to 1,442 spaces. The Department considers that the proposed parking space numbers would be a maximum and that the number of spaces proposed by the applicant aligns with the requirements of the *Liverpool Development Control Plan*. The Department recommended that the applicant prepare a Workplace Travel Plan for the site that includes measures to promote public or active transport (with particular emphasis being given to the concerns raised by Council that the number of car spaces be adjusted to encourage staff not to drive but rather use public transport or other transport options such as car pooling).

The Commission acknowledges that the provision of a large number of car parking spaces may encourage some employees to drive. However, the number of car parking spaces are consistent with the *Liverpool Development Control Plan*. The Commission supports the Workplace Travel Plan condition as an appropriate and robust tool to encourage public and active transport to and within the Moorebank precinct.

Internal road network

The applicant proposes a number of internal roads to accommodate vehicle movements and internal circulation throughout the site and provide access to the warehousing precinct and the intermodal terminal. The Department acknowledged that the delivery of the proposal may be dependent on demand and commercial tenancy arrangements and that the warehouses would not necessarily be delivered together. The Department recognises that it is critical for the servicing of the site to be provided ahead of subdivision and has recommended that the entirety of the internal road network be established before operation of any component of the warehousing or freight village commences. The Commission supports the Department's recommendation and has amended the conditions to ensure the internal road network is established prior to occupation of the freight village or any warehousing.

The Commission recognises that the internal road network is fundamental to appropriate site planning and will influence the way in which the site may be subdivided. Subdivision is further addressed within section 5.10 of this report.

Internal pedestrian access (the intermodal freight village)

The Department's assessment raised concern that the applicant's proposed site layout did not provide sufficient internal pedestrian access and would prevent staff from walking internally within the freight village and to the intermodal facility. The Department subsequently recommended a condition requiring the applicant to include sufficient footpath space along all access roads within the site and to include details of pedestrian paths in the final site design and in the Operational Environmental Management Plan. The Commission has reviewed the Department's recommendation and supports the inclusion of the conditions to better support pedestrian access across the site and the wider precinct. Separate consideration of the freight village land uses is discussed within section 5.9.

5.5 Noise and vibration impacts and construction hours

Demolition, importation of fill, earthworks, construction, traffic, plant and machinery would generate noise that has the potential to impact on the surrounding area.

The applicant commissioned a Noise and Vibration Impact Assessment in support of the application which included assessment of the existing background noise levels, noise generating activities, cumulative impacts and mitigation measures. The Noise and Vibration Impact Assessment had regard to the nearest potentially affected noise-sensitive receivers, residences, industrial facilities and educational facilities.

The Department, was concerned by the potential noise impacts arising from the construction and operational phases of the development. The Department engaged an independent noise and vibration expert to review the Noise and Vibration Impact Assessment prepared by the applicant. The Department's assessment focused on noise impacts arising from:

- construction activities;
- extended house of construction work;
- operational noise; and
- traffic noise.

Construction activities

The applicant identified that the construction works would require the use of a broad range of typical construction plant and equipment, including loaders, rollers, cranes, excavators, backhoes, brushing and batching plant, concrete agitators/pumps/saws, dozers, trucks, scrapers/graders, piling rigs, forklifts, earthmoving equipment and welders.

The applicant's Noise and Vibration Impact Assessment concluded that this work could comply with the relevant noise management levels at the nine identified sensitive receivers, and that vibration impacts on those receivers would be negligible.

However, the Department concluded that the applicant's Noise and Vibration Impact Assessment did not include sufficient baseline monitoring data to justify the adopted background noise levels and corresponding noise management levels. Accordingly, the Department drafted conditions to manage/mitigate potential impacts that require:

- the applicant undertaking noise monitoring in accordance with the *Industrial Noise Policy* to confirm that the rating background levels for the nearest sensitive receivers prior to any works commencing on-site;
- the preparation of a Noise Monitoring Report detailing the rating background levels, any adjustments to the noise management level and any additional noise mitigation measures;
- construction to be undertaken in accordance with the *Interim Construction Noise Policy*; and

- continuous noise monitoring at sensitive receivers during construction and at least 12 months following occupation at the site.

The Commission heard from members of the public that the noise impacts from the construction and operation of the intermodal terminal would have negative impacts on nearby residents.

The Commission considers that the conditions need to ensure that construction work is only commenced when accurate baseline data has been recorded and that noise generating construction works be monitored accordingly. The Commission is satisfied that under the proposed conditions of consent, nearby residents will be afforded adequate protection from potential construction noise impacts in line with relevant noise standards. The Commission is also satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan *construction noise* Future Environmental Assessment Requirements.

Extended hours of construction work

The application sought approval for extended hours of operation during construction of the intermodal facility. The applicant proposes the following additional hours:

- Monday to Friday – Standard: 7am to 6pm. Proposed: 6am to 10pm.
- Saturday – Standard: 8am to 1pm. Proposed 7am to 6pm.

The applicant's Noise and Vibration Impact Assessment identified that the additional construction hours would only lead to minor increases in noise levels received at sensitive receivers and that Wattle Grove residents would be subject to only one decibel noise increasing during the proposed additional hours of construction. Other sensitive residential receivers (Wattle Grove North, Casula and Glenfield) would not be subject to increased noise. The applicant provided only limited justification for their proposed out of hours construction work.

The Environment Protection Authority noted that there was insufficient justification and recommended that construction hours be limited to standard hours until such time as further justification was provided.

The Department countered this recommendation noting that there are significant potential benefits associated with consideration of extended hours of operation during construction, for example the reduction of trucks travelling during peak hour to import fill. The Department considered the extended hours of construction acceptable in-principle, subject to further clarification to justify the proposal in accordance with the *Interim Construction Noise Policy*. In addition, the extended hours should exclude particularly noisy works, require detailed consideration of amenity impacts and establishment of complaints procedures.

The Commission acknowledges that the allowance of construction work outside of standard hours of construction can have substantial benefits to the wider community. Permitting certain works to occur out of hours can shorten the duration of the construction phase thereby reducing the overall period of impact for receivers. However, a precautionary approach to extended hours should be adopted whereby trial periods are permitted and actual data and compliance records used to inform whether further periods of extended hours should be permitted.

The Commission therefore supported the additional hours of construction for a three-month trial period, with the period to be potentially extended only if it can be demonstrated that the trials have been successful (subject to the Secretary's approval).

Operational noise

The application proposes to undertake operations at the intermodal facility 24 hours a day, seven days a week. The applicant's Noise and Vibration Impact Assessment predicted that during operations the Wattle Grove sensitive receiver would experience a negligible one decibel exceedance during adverse

weather conditions. The Noise and Vibration Impact Assessment concluded that the operation of the development would not have adverse amenity impacts on nearby sensitive receivers and that the exceedance would be negligible and does not warrant mitigation.

The Department's assessment did not raise significant issue with the potential operational noise that would result from the application. Nevertheless, the Department recommended conditions to ensure that the applicant could not exceed the modelled noise impacts so that there would be sufficient protection to sensitive receivers. The Department also recommended that the operational noise limits at Wattle Grove be amended from 45 decibels to 52 decibels to reflect the recently adopted *Noise Policy for Industry* which sets a target of 52 decibels.

The Commission has reviewed the operational noise impacts and considers that the applicant's one decibel noise exceedance is likely to be negligible. The Commission finds that the noise limits are acceptable subject to the applicant undertaking mitigation measures required under the instrument of consent. The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan 2.1 *Noise and Vibration* Future Environmental Assessment Requirements.

Traffic noise

The nearest residents likely to be impacted by traffic generated noise are located adjacent to the M5 Motorway. The Department's assessment notes that predicted noise level increases to nearby residents from traffic would be negligible and well within the relevant criteria specified in the *Roads Noise Policy*. Nevertheless, the Department recommended conditions to ensure adequate protection for residents from adverse traffic noise impacts. The Commission is satisfied that with these conditions, traffic generated noise is unlikely to significantly impact residents.

5.6 Stormwater, flooding and contemporary water sensitive urban design

The applicant is proposing that the Moorebank Precinct East site be drained using four onsite detention basins. Two of the basins will drain east towards Anzac Creek and the other two basins will drain west towards the Georges River.

The Department raised concern that moving a large proportion of the flow through a single engineered channel to the Georges River posed a significant risk. The proposed onsite detention basins are relatively narrow structures with vertical concrete walls potentially up to 3m in height/depth. The Department commissioned an independent expert review of the Applicant's proposed permanent stormwater management systems and management of stormwater during construction.

The applicant proposes to treat the bottom of the stormwater basins with organic materials and plants. The Department's independent expert noted that this is not recommended, nor good practice because of the:

- potential for these systems to be scoured with all the flows from the upstream catchment, and unusually large volumes of sediment settling on top of the system;
- potential for these systems to be smothered with sediment; and
- the fact that these systems would be the lowest point in the onsite detention basin, as well as the lowest outlet for water, meaning that they may receive greater flows than they are designed to accept.

The Department responded by advocating for all stormwater elements across the site to be consistent with contemporary and accepted practice for Water Sensitive Urban Design. Furthermore, that the Stormwater Management Plan is to be substantially amended to demonstrate Water Sensitive Urban Design principles along with operational monitoring and maintenance requirements to ensure that the system would perform as per designed at all times.

The Commission met with the Department's stormwater expert to further discuss the stormwater and flooding components of the application. The Commission also sought the stormwater expert's opinion on the appropriateness of the Department's recommended conditions of approval. The Commission was informed that the applicant's approach was not aligned to contemporary best practice and did not encapsulate Water Sensitive Urban Design principles. The stormwater expert noted that the independent report they had prepared for the Department included a number of recommendations that could improve the stormwater and flooding outcomes. The Department confirmed to the Commission that the recommendations from their stormwater expert had been included within the recommended SSD instrument of consent.

The Commission subsequently adopted the stormwater expert's recommendations, including a condition requiring the applicant to undertake a daily and weekly site inspection consistent with the International Erosion Control Association's Best Practice Erosion and Sediment Control documents. The Commission also adopted the recommendations of the stormwater expert to improve the quality of the onsite detention basins by ensuring adequate solar access and orientation is considered in their design.

The applicant, at its meeting with the Commission, advised that in their opinion management of the stormwater and flooding impacts for Moorebank Precinct East could be best alleviated through a cumulative approach that included future Moorebank Precinct West applications. The Commission acknowledges that there may be future opportunities for the Moorebank Precinct East and Moorebank Precinct West sites to adopt an integrated approach to stormwater management. However, the Moorebank Precinct West application is not currently before the Commission for consideration. Therefore, the Commission has necessarily assessed this SSD application on its own merits to ensure that a stand-alone solution can be delivered.

The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan 2.1 *Soil and Water* Future Environmental Assessment Requirements. Furthermore, the Commission concludes that the recommended conditions of consent will ensure stormwater and flooding impacts are monitored, managed and mitigated as part of the Stormwater Management Plan, Stormwater Monitoring Program and Stormwater Infrastructure Operation and Management Plan which must be prepared by the applicant to the satisfaction of the Secretary.

5.7 Air quality impacts

Concerns were raised at the public meeting and in comments received about the potential impacts of the proposal on air quality. It was suggested that the project would increase air-borne particulate matter during the construction stages of the development at nearby sensitive receivers. Residents in close proximity to the Stage 1 development cited significant increases in levels of dust since construction of Stage 1 commenced.

The proposal has the potential to generate air quality impacts from:

- dust or particulate matter during demolition, site clearing, from the importation of fill and from earthwork activities such as rock breaking and construction generally; and
- the combustion of diesel and other fossil fuels during operations.

The Department recommended a number of conditions requiring the applicant to monitor and mitigate potential air quality impacts. The Department sought the Environmental Protection Agency's input on managing the importation of fill (that being no more than 22,000 tonnes of fill be received at the site per day) to reduce air-borne particulate matter. The Department concluded that, subject to the inclusion of management and mitigation conditions, the impact of dust on nearby sensitive receivers could be adequately managed.

In response to increased diesel emissions resulting from the proposed operation of the development, the Department recommended conditions requiring:

- the development not to cause or permit the emission of offensive odour;
- all equipment to be installed and operated in accordance with best practice requirements; and
- the preparation of an Operational Environmental Management Plan.

On balance, the Commission considers that the construction and operational conditions are appropriate to manage and mitigate air-borne particulate matter and that operational diesel emissions can also be appropriately addressed through the conditions. The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan *air quality* Future Environmental Assessment Requirements.

5.8 Landscaping and built form

Urban Heat Island Effect

The Commission recognises that through the introduction of the *Greener Places* and *Five Million Trees* Initiative, minimising the impacts of an Urban Heat Island Effect has become a priority for the NSW Government. The Government Architect of NSW identified the Moorebank Precinct East site as having potential to significantly contribute to the reduction of the Urban Heat Island Effect. The Government Architect raised concern regarding the initial designs and recommended a number of design suggestions including:

- better application of the Water Sensitive Urban Design principles to provide opportunities for water evaporation and plant irrigation;
- increased canopy tree planting and screen landscaping around buildings and roads to increase hard stand and building shading and increased evaporative processes;
- selection of building and pavement materials to reduce heat absorption and promote reflectivity of heat during the day; and
- consideration of plant and machinery to reduce heat generation.

The Commission agrees with these recommendations and has included conditions requiring the applicant to prepare an Urban Heat Island Effect Strategy, encapsulating the recommendations of the Government Architect, and that avoids, mitigates and manages any deleterious impacts where possible. The Department also recommended a four degree decrease in temperature compared to neighbouring industrial developments as a benchmark where design choices (such as landscaping and vegetation planting and heating, ventilation and air conditioning) can show measurable differences in temperature. The Commission has included this benchmark within the conditions.

Visual Impact

The Commission heard from the community that the Moorebank Precinct East will create a visual impact on local residents. Residents were concerned that the warehouses, freight village and importation of fill to the site would be visible from the Moorebank Avenue and residents of Casula.

The Department notes that the applicant's design and layout was driven by functionality and has created a significant expanse of hard-built surface areas. In its current form, the application is likely to have some visual impacts above the existing tree line due to a lack of adequate on-site landscaping and amenity. In response, the Department recommended conditions requiring that a design master plan be prepared including to improve visual amenity, pedestrian movement, tree canopy, employee amenity and to have regard to the context of the development. The Department considers that subject to the conditions, improvements to Water Sensitive Urban Design and onsite detention infrastructure, the overall layout, design and appearance of the facility and visual impact will be improved and better integrate into the immediate surrounding development.

The Commission finds that with these conditions of consent the built form of Moorebank Precinct East will be designed to significantly mitigate visual impacts. The Commission is satisfied that the

recommended conditions will achieve the necessary improvements to the visual amenity and reduce negative impacts on Casula residents to an acceptable level. The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan *visual impact* Future Environmental Assessment Requirements.

5.9 Freight village use

The application seeks approval for a range of land uses within the freight village. The applicant proposes that the freight village primarily service employees of the intermodal terminal and warehousing facilities. The applicant does not envisage that a large proportion of 'external traffic' will access the freight village facility, but the proposal does not preclude public access

The Commission is concerned that the proposed freight village land uses are ancillary to the intermodal terminal and warehousing facilities. The Department advised that if non-ancillary development could increase traffic generation, create potential sources of land use conflict and would be inconsistent with Clause 12(1) of the State and Regional Development SEPP (that requires the freight village uses to relate to the same operations and not be an independent use). Accordingly, the Department recommended a condition that requires the details of each tenancy within the freight village to demonstrate consistency with the Future Environmental Assessment Requirement prior to occupation.

The Commission notes that the approved Modification 2 to the Concept Plan requires, under the Future Environmental Assessment Requirement 2.1 *Freight village*, that all future applications within the freight village demonstrate that they are ancillary to the functioning of the intermodal development. The Commission also notes that the freight village gross floor area limit of 8,000m² will in practice restrict large scale bulky goods land uses from locating within the freight village. This Commission finds that the gross floor area limit, in conjunction with the conditions requiring all village land uses to be ancillary to the intermodal facility, will significantly limit the potential for inappropriate land uses to develop. The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan Future Environmental Assessment Requirement 2.1 *Freight Village*.

5.10 Subdivision

The Commission approved the concept of subdivision under Modification 2 to the Concept Plan (MP 10_0193) subject to Future Environmental Assessment Requirement 2.1 *Subdivision* being addressed.

The applicant seeks approval for the subdivision of the Moorebank Precinct East site. The applicant advised the Department that subdivision is required to enable long term leases to be entered into with the future occupants of buildings.

The Department's assessment of the development application noted that the applicant's proposal was absent of inter allotment easements on the plan to support access, stormwater (other than the main stormwater pipe) and utility services required to support the proposed development. The Department recommended the subdivision component of the application proceed subject to a final subdivision plan being submitted for the Secretary's approval showing all dimensions, deleting the east/west access way and showing required easements to service the development and provide ongoing connectivity through the intermodal precinct in relation to:

- internal vehicle and pedestrian access between all intermodal elements;
- utility drainage; and
- drainage.

The Commission reviewed the applicant's proposed subdivision plan and under clause 54 of the *Environmental Planning and Assessment Regulation 2000*, sought additional information on two occasions (in letters dated 20th December 2017 and again on 22nd December 2017) from the applicant to address the requirements of the Future Environmental Assessment Requirement 2.1 *Subdivision*.

The applicant provided the Commission with additional information on 5 January 2018. The Commission reviewed the additional information and found that the applicant's proposed subdivision plan and supporting documentation did not detail all common land, access roads and services including drainage works required to maintain internal connections and interdependencies between the individual intermodal functions within the development site, as requested by the Commission.

Accordingly, the Commission considers it does not have sufficient information to enable it to properly consider the subdivision component of the development application and therefore has excluded the subdivision from its determination. In doing so, the Commission notes that under section 80(5) of the EP&A Act, it is not required to refuse consent for the proposed subdivision and that it may in future grant development consent to that aspect of the development.

5.11 Flora and Fauna

The application proposes to clear all vegetation within the site boundary resulting in the following plant community types being impacted:

- 3.74ha of Hard-Leaved Scribbly Gum – Parramatta Red Gum healthy woodland of the Cumberland Plain;
- 0.05ha of Broad-leaved Ironbark – *Melaleuca decora* shrubby open forest on clay soils of the Cumberland Plain;
- 0.22ha Parramatta Red Gum woodland on moist alluvium of the Cumberland Plain; and
- 0.59ha Forest Red Gum – Rough – barked apple grassy woodland on alluvial flats of the Cumberland Plain.

The applicant has submitted a Biodiversity Assessment Report identifying the direct impacts on flora and fauna species known and not previously known to be located within the Moorebank Precinct East site. The applicant acknowledges that the clearing of the vegetation will result in the loss of sheltering, foraging, nesting and roosting habitats for fauna.

The Department considered that the clearing of vegetation from the site to facilitate the proposal would require the provision of appropriate biodiversity offsets and noted that the applicant had lodged a biobanking application with the Office of Environment and Heritage and is in ongoing discussions about the delivery of the appropriate offsets.

The Commission notes that no objection from the Office of Environment and Heritage was received regarding the proposal and the intent to clear vegetation from the site. The Commission is satisfied that the conditions will sufficiently address potential biodiversity impacts and any cleared biodiversity will be offset accordingly. The Commission is satisfied that the application is generally consistent with the Moorebank Precinct East Concept Plan Future Environmental Assessment Requirement 2.1 *Biodiversity*.

5.12 Local Contributions

The Planning Assessment Commission members responsible for the Stage 1 State Significant development application (SSD 6766) determined that a rate of 1% of capital investment value was appropriate as a local contribution by the applicant. The Department assessed that the 1%, minus the cost of Moorebank Avenue's upgrade, would require the applicant pay \$3,577,900 to Council prior to commencement of construction.

Council requested the Commission consider increasing the contribution to account for the uncertainties and unknowns that relate to the outcomes of the project, and is of the view that a significant amount of data has not been provided to Council for analysis. Council noted that the voluntary planning agreement should be negotiated between Council and the applicant prior to determination of the application.

The Commission sought confirmation from the Department on the credibility of the predicted Capital Investment Value of the project and the subsequent contributions proposed. The Department confirmed that the estimated Capital Investment Value Estimate Report was prepared by a registered quantity surveyor and was prepared in accordance with the relevant planning circulars. Furthermore, the Department confirmed that substantial rigour was behind the calculations and there was nothing to suggest the report was deficient in any way.

The Commission notes that at the time of this application, Council had not provided justification or evidence to warrant altering the previous Planning Assessment Commission's recommendation. Further, the Commission cannot delay the determination of this application in anticipation that the applicant and Council may be prepared to enter into a voluntary planning agreement in the future. Given that such agreements are voluntary there is no guarantee that agreement may ever be reached. Therefore, the Commission has made no change to the 1% levy requirement for the applicant to pay Council \$3,577,900.

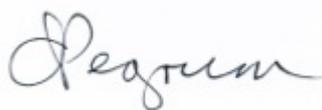
6. COMMISSION'S FINDINGS AND DETERMINATION

The Commission has considered carefully the proponent's proposed amendments, the Department's assessment report and the relevant matters for consideration under section 79C of the EP&A Act. The Commission has noted the advice and recommendations from Council, and government agencies including RMS, Transport for NSW and OEHL. The Commission has also heard from members of the community about their concerns during the public meeting in Liverpool, with many of these concerns being reiterated in written comments received by the Commission.

The Commission considered that the impacts of the proposed development are acceptable and can be managed through the mitigation measures (as amended) within the instrument of approval. The Commission finds that the proposed development is generally consistent with the Future Environmental Assessment Requirements established within the approved Concept Plan Modification 2.

The Commission has responded to concerns expressed by speakers at the public meeting and in written comments by amending several conditions within the instrument of approval. However, the Commission notes that a number of the concerns raised relate to fundamental objections to an intermodal facility in Moorebank, which has already been approved, rather than to the specific aspects of this particular SSD application.

Under section 80(4)(b) of the EP&A Act, the Commission has determined to grant development consent for the development for which consent is sought, except for the subdivision component of that development. The Commission considers it appropriate to grant partial development consent because it has not been provided with sufficient information to enable proper consideration of the proposed subdivision. The Commission notes that it is not required to refuse consent to the proposed subdivision and that it may in future grant development consent to the subdivision aspect of the development.



Annabelle Pegrum AM (Chair)
Member of the Commission



Steve O'Connor
Member of the Commission



Peter Duncan AM
Member of the Commission