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Our Ref: 259127.2013
Contact: Tanya O'Brien 9821 9341

4 November 2013

Mr Sam Haddad
Director- General
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2000

Dear Mr Haddad,

Re: Concept Plan Application 10_0193, SIMTA Intermodal Freight Moorebank

I write in response to the public re-exhibition of Concept Plan Application 10_0193. Firstly, I would like to thank your staff in allowing Council additional time to submit its comments in relation to this proposal.

As stated in Councils response to the previous exhibition, the proposal is of significant concern to Council and its residents. Council has once again engaged a consultant to assist Council in reviewing the Concept Plan and Environmental Assessment. Council's submission consists of this letter and the attached peer review prepared by Cardno.

Council is disappointed that the revised Concept Plan application does not address the shortfalls detailed in Council's previous submission. The peer review of the updated reports demonstrates that the documentation still lacks sufficient detail for a Concept Plan application. The revised documentation does not provide enough detailed information to allow a proper assessment of the impacts. As with the previous exhibition, many of the technical studies appear to withhold information which would be expected to have been produced for a proposal of this scale. The reports provide conclusions without providing the details of the modelling results.

Furthermore, the lack of information provided regarding the Federal government proposed Moorebank Intermodal Terminal on the adjacent site and how it will operate in relation to the SIMTA intermodal terminal is disappointing. Both these proposals will have significant local and regional impacts. It is essential that should they both proceed, they are planned to operate cohesively.

If it is the Department of Planning and Infrastructure's intention to support the adjacent intermodal terminals, Council recommends that a master plan be developed for the precinct. A masterplan including both intermodal sites will improve efficiency, save costs and ensure necessary infrastructure is shared, rather than duplicated. Furthermore, it would provide an opportunity for a comprehensive approach to the infrastructure delivery and funding is taken.

Council recommends that the Minister does not endorse the Concept Plan application in its current form.

Should you require any further information on this matter, please do not hesitate to contact me 9821 9341.

Yours sincerely

Tanya O'Brien
Manager Strategic Planning

Attachments:

- SIMTA Intermodal Terminal Proposal Peer Review of Environmental Assessment, Cardno October 2013

SIMTA Intermodal Terminal Proposal

Peer Review of Re-Exhibited Environmental Assessment

Project Number: 112083-02/Report 001 Ver 2

Prepared for
Liverpool City Council

November 2013

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Cardno
Shaping the Future

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Executive Summary

The Sydney Intermodal Terminal Alliance (SIMTA) lodged a Concept Major Project Application for a proposed intermodal freight terminal under the now repealed Part 3A of *Environmental Planning and Assessment Act 1979* (EP&A Act) at the Defence National Storage and Distribution Centre (DNSDC) site, Moorebank. The associated Environmental Assessment (EA) was placed on public exhibition in March 2012 with a number of submissions received, which resulted in amendments made to the proposal.

Liverpool City Council (Council) and the local community raised significant concerned about the scale of impacts associated with the proposal and engaged Cardno (NSW/ACT) Pty Ltd (Cardno) to prepare a submission to the original EA during the initial public exhibition period in March 2012. Key issues included:

> Development scope missing, particularly related to off-site infrastructure upgrades and operations

> Lack of justification, particularly in the context of the adjacent Moorebank Intermodal Terminal (MIT) site

> Limited conflicting and incomplete impact assessment

> No consideration of cumulative impacts

Many of the issues raised in the 2012 submission remain, leading Council to once again engage Cardno to prepare a subsequent submission addressing the re-exhibited 2013 EA. Since the original EA, SIMTA has responded to the comments from the stakeholders. To address the issue of owner's consent, SIMTA sought designation from the Director General which allows the applicant to waive the requirement for landowner's consent where multiple landowners are involved. A revised scheme has subsequently been prepared and publicly exhibited to satisfy the designation, however this review has found that the revisions have done little to address the issues raised.

The SIMTA proposal as submitted will have a handling capacity of 1 million twenty-foot equivalent units (TEUs) per annum with land immediately to the west proposed to be developed by the Federal Government for the MIT, with a proposed capacity of 1.7 million TEUs per annum. Both projects are proposed to service Port Botany, with freight received by rail and then distributed to market via truck. Each facility is proposed to operate independently, with a combined handling capacity of 2.7 million TEUs per annum.

This review of the SIMTA proposal seeks to address the following:

> Does the 2013 EA address the comments made in Council's previous submission to the original EA?

> Where changes have been made to the proposed scheme within the 2013 EA, what are the implications for Council and the Community?

The review of the 2013 EA focused on the key components of the proposal, including the scope of the development, adequacy of impact assessment and strategic justification.

This review finds that there is insufficient information contained within the impact assessments and project justification, particularly in relation to the cumulative impacts and business case associated with two IMTs operating on immediately adjacent sites, with no interaction proposed and a total combined capacity of 2.7 million TEUs per annum, when demand for only 1 million TEUs per annum has been identified. Furthermore, the proponents do not own the land linking the site to the rail network, with landowners opposed to the development, as illustrated by the requirement for SIMTA to obtain a waiver for landowners consent, thus presenting a fatal flaw with the proposal. Additionally, the assumptions on which the assessments have been based contain flaws and inconsistencies placing the assessment findings in question.

Specific deficiencies with the proposal include:

> The clear definition, delineation and allocation of responsibility for off-site infrastructure upgrades and increased maintenance requirements (i.e. road, rail, utilities, and re-vegetation) are not considered, resulting in likely funding shortfalls for critical infrastructure provision.

> The concept design does not consider the adjoining MIT proposal, with no coordinated design. Cumulative assessment is based on a combined capacity of 1 million TEUs once both sites are fully operational in 2025, whereas the total proposed capacity is 2.7 million TEUs per annum.

> Traffic generation is anticipated to be approximately a third higher than proposed in the 2013 EA due to the favourable assumptions used in the modelling, with flow-on impacts for associated specialist studies including noise, air quality, greenhouse gas (GHG), visual and hazard and risk.

> The quality of the concept plan lacks details and there is limited information in the submitted documents to describe the scope of the development and the operation of the proposal, which is critical to understand the relationship of the proposed development with adjoining lands and potentially significant impacts on the amenity of surrounding sensitive receivers by way of noise, visual, air quality and congestion impacts.

> There is no consideration of the cumulative impacts as a result of the SIMTA project and other proposed development within the area including the MIT and Goodman Fielder proposals. A significant amount of additional modelling and assessment is required to properly identify the impacts on the local Liverpool community and develop mitigation measures to address concerns.

> Analysis of the thresholds for cumulative environmental aspects including Noise, Air Quality, Traffic and Greenhouse Gas should be undertaken to establish the combined development threshold that cannot be exceeded without impact. A combined threshold limit would provide a realistic understanding of the level of development possible without significant impact.

> The appropriateness of the consultation methodology (when taking into account local demographics) is questioned and there is no evidence to show that the issues identified by the public have been addressed in the proposal.

> Due to the lack of coordinated design between the SIMTA and MIT proposals, the development represents an inefficient use of land with likely redundancy of resources, which is contrary to the objective of the Environmental Planning and Assessment Act 1979 (EP&A Act). A more appropriate solution would be to undertake a government led masterplanning process considering both the IMT proposals in a coordinated scheme within the surrounding land use context, with parties including State Government departments, Council and the two proponents.

> The proposed development does not comply with the local planning controls identified by Liverpool Local Environmental Plan 2008 and the associated Liverpool Development Control Plan (DCP). Limited detail is provided in the 2013 EA; therefore it is unclear whether the requirements of the DCP are addressed.

> There is limited environmental, social or economic justification of the need for two IMTs in one location. The combined SIMTA and MIT capacity of 2.7 million TEUs per annum would result in supply substantially exceeding demand, which is likely to lead to a high level of redundancy and the inefficient use of the site and associated resources, or a lowering of prices to attract additional throughput. Commercial reality would demand the two sites maximise throughput to reach the design capacity resulting in a throughput of approximately 2.7 million TEUs per annum.

> There are no commitments from stakeholders, in particular the ARTC, to allow connection from the site to the SSFL. The current rail network configuration would not be able to accommodate the proposed SIMTA throughput, with ARTC advising that appropriate investment on expansionary infrastructure is necessary. Detailed modelling is required to ensure that the rail network has the capacity to accommodate the additional freight movements proposed, as the rail network upgrades identified are not adequately justified by network analysis.

> There is no consideration of an alternative design or proposal, either by expanding the existing IMTs in Sydney or by combing the SIMTA and MIT proposals to address the demand. The location of two IMTs on adjacent land results in cumulative impacts and the duplication of infrastructure and unnecessary disturbance of land for no net gain, while increasing overall environmental impacts. It would be more appropriate to identify a second IMT site to service a separate freight catchment, providing a higher level of service with reduced environmental impacts.

> There is limited assessment of the volume of container import/export within the Liverpool catchment area and there is limited evidence to justify the proposed 1.0 million TEU throughputs. The methodology for the demand analysis is inappropriate and there is no evidence to show that there is sufficient demand in the catchment to support two IMTs in Moorebank.

Due to the deficiencies with the proposal identified by this review we do not consider the level of impact assessment adequate to allow determination of the project by the Department of Planning and Infrastructure (DP&I). A list of additional information required has been provided in this submission with recommendations at the end of each section to address the deficiencies identified.

The applicant should address the recommendations with the specific need to engage with and establish a clear business case to justify a combined 2.7 million TEU capacity by 2025 to meet a total throughput demand of 1 million TEUs by 2025. The development of the business case would require extensive consultation with the proponents for the MIT proposal and is likely to result in a revised operational model and the associated need for revised environmental impact assessment. Furthermore, a government led master planning exercise should be undertaken considering both the SIMTA and MIT sites, with the proponents, along with Council and the relevant government departments included in the process. This approach is likely to result in a higher and better use of the land, while minimising the extent of impacts on the surrounds, which would create a more efficient business and operational model.

The proposal does not address the full requirements of the Director General Requirements (DGRs) and therefore cannot be approved by DP&I in its current form. Consequently, we recommend Council raise their objection to the proposal with DP&I and seek additional information to address the proposal's deficiencies, given the extent of impacts and clear conflict with community interest.

Table of Contents

Tables

Figures

Abbreviations

ACHA	Aboriginal Cultural Heritage Assessment
ACM	Asbestos Containing Material
AHIMS	Aboriginal Heritage Information Management System
ARTC	Australian Rail Track Corporation
BCAM	Biodiversity Certification Assessment Methodology
BCC	Bankstown City Council
BOS	Biodiversity Offset Strategy
CALD	Culturally and Linguistically Diverse
CCC	Campbelltown City Council
CEMP	Construction Environmental Management Plan
CIC	Community Information Centre
CRA	Climate Risk Assessment
CSCOR	Community and Stakeholder Consultation Outcomes Report
DGRs	Director Generals Requirements
DNSDC	Defence National Storage and Distribution Centre
DP&I	NSW Department of Planning and Infrastructure
DPI	NSW Department of Primary Industries
EA	Environmental Assessment
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
ESA	Environmental Site Assessment
ESD	Ecological Sustainable Development
FAQs	Frequently Asked Questions
FCC	Fairfield City Council
GHG	Green House Gas
GRCCC	Georges River Combined Councils Committee
HNCMA	Hawkesbury Nepean Catchment Management Authority
IMEX	Import Export
IMT	Inter Modal Terminal
INP	Industrial Noise Policy
ISEPP	State Environmental Planning Policy (infrastructure) 2007
LEP	Local Environmental Plan
LGA	Local Government Area
MIT	Moorebank Intermodal Terminal
NIHA	Non-Indigenous Heritage Assessment
NOW	NSW Office of Water
NPWS	National Parks and Wildlife Services
OEH	NSW Office of Environment and Heritage

PAD	Potential Aboriginal Deposit
PCB	Polychlorinated Biphenyl
PEA	Preliminary Environmental Assessment
PHA	Preliminary Hazard Analysis
PMF	Probable Maximum Flood
PPR	Preferred Project Report
RMS	Roads and Maritime Service
RZM	Riparian Zone Management
ISEPP	*State Environmental Planning Policy 2007 (Infrastructure)*
SEPP 55	*State Environmental Planning Policy No 55 - Remediation of Land*
SEWPaC	Department of Sustainability, Environment, Water, Populations and Communities
SIC	Social Impact Commentary
SIMTA	Sydney Intermodal Terminal Alliance
SLHRA	Screening Level Health Risk Assessment
SMC	School of Military Engineering
SoC	Statement of Commitments
SoHI	Statement of Heritage Impacts
SSFL	Southern Sydney Freight Line
TEU	Twenty-foot Equivalent Units
TfNSW	Transport for NSW
TSC Act	*Threatened Species Conservation Act 1995*
UXO	Un-exploded Ordnance
WMS	Waste Management Strategy
WWII	World War 2

1 Introduction

This section introduces the submission and provides a background to the proposal.

The Sydney Intermodal Terminal Alliance (SIMTA) lodged a Major Project Application for a proposed intermodal freight terminal under the now repealed Part 3A of *Environmental Planning and Assessment Act 1979* (EP&A Act) with Department of Planning and Infrastructure (DP&I) at the Defence National Storage and Distribution Centre (DNSDC) site, Moorebank. The associated Environmental Assessment (EA) was placed on public exhibition in March 2012 with a number of submissions received, which resulted in amendments made to the proposal.

A revised scheme has subsequently been prepared, with the associated EA placed on public exhibition by DP&I in order to satisfy the designation of the project under Clause 8F(1)(e) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The designation allows the applicant to waive the requirement for landowner's consent, where there are multiple landowners.

Liverpool City Council (Council) and its community have raised significant concerns on the scale of impacts associated with the proposal and have raised its strongest objection to the development scheme. Cardno (NSW/ACT) Pty Ltd (Cardno) was engaged to prepare a submission on behalf of and in conjunction with Council to the original public exhibition period in March 2012. Cardno has subsequently been invited by Council to prepare a submission addressing the re-exhibited EA.

1.1 Background

SIMTA, a privately owned consortium propose to construct and operate an intermodal terminal (IMT) with a handling capacity of 1 million twenty-foot equivalent units (TEUs) per annum at a site owned by a subsidiary of Qube Logistics Pty Ltd and Queensland Rail, which is currently leased back to the Department of Defence (Defence) and used for its DNSDC. The site is located immediately to the east of Moorebank Avenue, Moorebank. The SIMTA project is proposed to service Port Botany, with freight received by rail and then distributed to the local market within west and southwest Sydney via truck (refer to **Figure 1-1** for the Greater Sydney Regional context).

The land immediately to the west beyond Moorebank Avenue is proposed to be developed by the Federal Government for an IMT. The Moorebank Intermodal Terminal (MIT) proposal has been subject to feasibility assessment by the Federal Government and has been identified as a suitable location for an intermodal facility by Federal and State Government since 2004. MIT is proposed to service both local and interstate freight movements. MIT has a larger capacity to accommodate 1.7 million TEUs per annum. The proposal is anticipated to be designed, constructed, and operated by either a single or a number of private operators.

Documentation associated with each facility claims that they would be operating independently from each other. **Figure 1-1** shows the two sites in the context of other IMT within the Greater Sydney Region, with **Figure 1-2** illustrating the proximity of the two sites.

SIMTA lodged an EA with DP&I, which was placed on public exhibition from 28 March to 28 May 2012. The exhibition period generated a significant number of agency and public submissions. A Preferred Project Report (PPR) was subsequently prepared and provided in draft format to DP&I. SIMTA were advised by DP&I that the PPR did not adequately address the issues raised by submissions, with further work required.

SIMTA subsequently modified the proposed scheme, with modifications primarily associated with changes to the rail connection between the proposed site and the East Hills rail line. The changes to the scheme resulted in a number of additional land parcels, with a number of landowners being proposed for development. Landowner's consent is generally required for development; however, subject to Clause 8F(1)(e) of the EP&A Regulation the Director-General of DP&I can designate that individual landowners consent is not required.

In order to waive the requirement for individual landowners consent the revised scheme is required to be placed on public exhibition. Consequently, SIMTA have prepared an updated EA titled *Environmental*

Assessment, Sydney Intermodal Terminal Alliance – Transitional Part 3A Concept Application (Urbis[a], 2013), which has been placed on public exhibition until the 21 October 2013. The unwillingness of landowners to provide consent to the application presents a significant risk to the integrity of the proposal as the primary site is owned by the Federal Government, who have a competing project located on the adjacent land and the rail corridor, which is an essential component of the project is owned by a number of landowners. Without both these components the project would be unviable, yet no discussion as to the strategy for obtaining land is provided.

The revised scheme primarily relates to the rail connection between the SIMTA site and the Southern Sydney Freight Line (SSFL). The modifications as identified by Urbis[a], 2013 comprise:

> Reduction in the width of the rail corridor.

> Relocation of the rail link within the East Hills railway corridor.

> Introduction of a temporary rail siding.

> Rationalisation of the proposed rail infrastructure by including additional land parcels to the Concept Plan Application to accommodate the proposed rail corridor and rail link.

A Preliminary Environmental Assessment (PEA) has been lodged for the MIT proposal, with the EA anticipated to be placed on public exhibition by DP&I imminently. The MIT proposal has been informed by a feasibility study. However, detailed project descriptions and impact assessments have not been provided for the Federal Government's proposal to date.

It is acknowledged that the scope of this review is focused on SIMTA's proposal; however, given the proximity of the two intermodal terminals and the potential for large scale and wide ranging cumulative environmental impacts it is essential that the SIMTA EA and therefore, this submission addresses both the MIT and SIMTA proposals. The consideration of cumulative impacts would ensure the most efficient and coordinated use of the land, while gaining a clear understanding of the potential impacts of both projects on the Liverpool community.

EASTERN CREEK

YENNORA

VILLAWOOD

ENFIELD

COOKS RIVER

MIT

PORT BOTANY

Legend

- SIMTA Site Area
- Proposed Intermodal Terminals
- Existing Intermodal Terminals
- Railway (LPI)
- Major Roads (LPI)
- Major Watercourses (LPI)
- Major Waterbodies (LPI)

Land Use (ABS, 2011)

- Other
- Commercial
- Education
- Industrial
- Parkland
- Residential
- Hospital/Medical

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Location Plan : Greater Sydney Context

SIMTA INTERMODAL TERMINAL PROPOSAL
PEER REVIEW

FIGURE 1-1

1:160,000 Scale at A3

Kilometres

0 2 4 6 8

N

Cardno

Map Produced by Cardno NSW/ACT (WOL)
Date: 2013-10-17
Coordinate System: GDA 1994 MGA Zone 56
Project: 112083_02
Map: G2004_Location Plan1.mxd 02

Figure 1-2 Location Plan – SIMTA and MIT Sites

1.2 Review Objectives

This review has been undertaken to address the following:

> Does the revised EA address the comments made in Council's previous submission to the original EA?

> Where changes have been made to the proposed scheme within the revised EA, what are the implications for Council and the Community?

It is noted that the original submission to the EA titled SIMTA Intermodal Terminal Proposal, Peer Review of Environmental Assessment (Cardno, 2012) prepared on behalf of and in conjunction with Council sought to answer the following questions in relation to SIMTA's proposal:

> Does the EA contain adequate investigations and details of the development (albeit on a Concept Plan level) to inform a valid assessment of the proposal?

> Does it comply with the statutory planning requirements?

> Do the technical investigations comply with best practice guidelines? Are they based on appropriate assumptions? Have they drawn valid conclusions and do they address the Director General's Requirements?

> What are the impacts on Liverpool's community and Council's assets? Are the proposed mitigation measures sufficient to address the impacts?

> What are the cumulative impacts for two intermodal terminals? Are they justified and do they represent the most efficient and orderly use of the land in accordance with the objectives of the Environmental Planning and Assessment Act 1979.

1.3 Methodology

The methodology employed to meet the project objectives identified in **Section 1.2** comprises:

1. Re-establish the project team comprising all relevant specialists who undertook the peer review of the original EA documents.
2. Review the original and revised EA and supporting documents
3. Identify changes from the original to the revised EA
4. Review the existing submission comments in the context of the revisions made to the EA and identify how the submission comments have been addressed.
5. Identify the implications of any revisions made, whether the revisions result in no change, positive change or negative change

1.4 Project Team

Cardno has established a project team to undertake a comprehensive review of the revised EA and supporting documentation placed on public exhibition by DP&I. The project team includes the following experts:

> Strategic and Statutory Planning

> Traffic and Transport

> Stormwater and Flooding

> Urban Design, Landscaping and Visual Amenity

> Ecology

> Heritage

> Air

> Noise

> Green House Gas (GHG) / Environmental Risks

> Contaminated Land

> Economics

> Social Planning

> Infrastructure

> Civil Engineering

1.5 Structure of the Report

The structure of this submission has been developed to reflect the comments made in the original submission report (Cardno, 2012) and is organised as follows:

> **Chapter 2** – identifies the key issues associated with the proposal that are applicable across a range of environmental aspects, providing a basis for the subsequent aspect specific reviews undertaken in Chapters 3, 4 and 5.

> **Chapter 3** – assesses the revised proposal against the statutory planning framework, identifying any changes and implications.

> **Chapter 4** – reviews the existing Cardno technical assessments and recommendations in the context of the revised scheme to establish whether the revised EA addresses the matters raised by Cardno. The impact of revisions to the scheme, whether they be positive, negative or no change would be identified, with further questions, additional information, or proposed mitigation measures identified. Cumulative impacts resulting from the construction and operation of two intermodal terminals in Moorebank are considered in the context of the revised scheme and supporting information.

> **Chapter 5** – reviews the revised scheme to establish whether further strategic justification has been provided and analyse whether the scheme provides the most efficient approach to address the Government's policy.

> **Chapter 6** – summarises and concludes the review of the revised scheme to establish whether the changes proposed result in an improved outcome for Council and the community, as well as providing recommendations for the next step in the assessment process.

1.6 Limitations

This assessment is based on secondary information (i.e. already readily available) gathered over a limited period, and is therefore subject to limitation. This information has not been individually verified and is therefore subject to the limitations of its original purpose.

This report does not constitute an alternative environmental assessment of the proposal or propose a determination of the application. Rather, it is a peer review to determine if the application has addressed all statutory and legal requirements, and appropriately considered the merits and justifications for the project. This report is intended to guide further discussion with State agencies, Councils, relevant stakeholders, the community and the applicant.

2 Key Issues

This section identifies the key issues associated with the proposal that traverse a number of environmental aspects.

2.1 Combined SIMTA / MIT Capacity

The 2012 and 2013 EA's are prepared on the key assumption that the combined capacity of both the SIMTA and MIT sites would equate to a maximum throughput of 1 million TEUs per annum. This throughput equates to the anticipated 2025 demand as identified by the revised *Freight Demand Modelling* (Hyder, [a] 2013). However, the combined SIMTA (1 million TEUs) and MIT (1.7 million TEUs) capacity is proposed to be 2.7 million TEUs per annum resulting in supply outstripping demand. The excess supply is likely to lead to a high level of redundancy and the inefficient use of the site and associated resources, or more likely a lowering of prices to attract additional throughput.

SIMTA is designed for 1 million TEU's, therefore, commercial reality would demand it maximises throughput to reach this capacity. However, it is unlikely that the MIT site would then stand idle if the combined 1 million TEU capacity has already been reached by SIMTA. A clear business case is required to justify the proposed throughput. The business case would potentially help to justify the locating of two IMTs on adjacent sites and establish a clearer picture of actual throughput for the sites. To date an economic justification for the proposal has not been put forth.

The proposed SIMTA site is owned by the Federal Government, who is also the proponent for the adjacent MIT development. The requirement for the proponent to obtain a waiver from the Director-General of DP&I for landowner's consent illustrates that agreement has not been reached as to future leasing or purchasing of the site from the Federal Government. Given that the SIMTA and MIT proposals would be competing for capacity the Federal Government would potentially not provide the land to SIMTA, thus preventing the project from going ahead. This presents a key risk to the viability of the project, which is not examined by the 2013 EA.

As the EA is based on a combined capacity of 1 million TEUs spread across the two proposed facilities, it is appropriate that this is represented in any approval condition with an upper limit being placed on the total throughput of the two facilities in combination. Alternatively, the assessments should be revised to account for cumulative impacts with a 2.7 million TEU throughput in order to provide a more realistic illustration of cumulative impacts (refer to **Section 2.5** for further discussion).

2.2 Rail Provision

The SIMTA and MIT sites both propose to use the SSFL for the transportation of freight as illustrated by **Figure 2-1**. The 2012 and 2013 EAs contained details of consultation with ARTC in relation to the ability of the SSFL to accommodate the additional capacity proposed. ARTC advised that based on limited preliminary modelling the SSFL in its current configuration would not be able to accommodate the proposed throughput without appropriate investment on expansionary infrastructure including two 750m loops between Leightonfield and Moorebank.

The 2013 EA does not include consideration or discussion with ARTC regarding the extent of investment required to accommodate the additional capacity or the capacity of the SIMTA and MIT sites combined. However, ARTC has indicated that the SSFL could potentially accommodate the MIT capacity of 1.7 million TEUs per annum subject to appropriate investment. Detailed modelling is required to ensure that the rail network has the capacity to accommodate the additional freight movements proposed. The modelling would also be able to predict potential bottlenecks or other interaction issues with commuter or freight trains throughout the rail network.

The rail network upgrades identified are not adequately justified by any real network analysis or supporting detail on areas of upgrade required downstream towards the Port and there are limited alternatives outlined. The analysis and outputs of modelling would allow concept designs for any required track modifications to be

developed and provide confidence that the proposal can be undertaken without levels of investment that make the entire proposal uneconomic and therefore unfeasible.

The Rail Access Report included in the 2013 EA concludes that "*A number of elements of the proposed upgrade still need to be discussed in detail with various parties, but the level of information available limited the possibilities to confirm every detail of the proposal*" (Hyder, [b], 2013). This statement acknowledges the shortfall in information available in relation to the rail network design and stakeholder consultation process. Until a detailed assessment of the rail network and subsequent feasibility studies of rail network upgrades along the SSFL have been completed, the risk of impacts to the existing rail network and potential cost escalations for rail upgrade requirements remains high. As rail access is an essential component of the project determination should not be made until further liaison with ARTC resulting in quantified upgrades and costs is undertaken to establish whether the project is feasible from both an environmental and economic perspective. Furthermore, the proponent does not own the rail corridor, which is owned by a number of different parties who are potentially opposed to the proposal given the requirement for the proponent to obtain a waiver from the need for landowner's consent.

The unwillingness of landowners to provide consent to the application presents a significant risk to the integrity of the proposal as the rail corridor is an essential component of the project without which the project would be unviable.

2.3 Duplication of Infrastructure

Two separate connections are proposed from the SIMTA and MIT sites to the SSFL, as illustrated in **Figure 2-1** below. The provision of two rail spurs from adjacent sites requires the extensive duplication of rail infrastructure including track work and signalization, which is both resource and land use intensive, with extensive areas of vegetation required to be cleared, particularly for the SIMTA proposal.

A more appropriate solution would be for the SIMTA site to access the SSFL via the MIT site, with only one direct spur from the SSFL. This option would potentially have a lesser impact on the efficiency of the SSFL with less signalisation and associated network management required. Alternatively, there is an existing spur line and associated rail corridor branching off the East Hills line to the south of the site. While upgrades to this spur line are likely to be required this would reduce resource consumption and the requirement for the extensive clearing of Commonwealth listed native vegetation, providing a more sustainable scheme. The reduced vegetation clearance achieved by using the northern portion of the existing East Hills spur alignment is clearly illustrated by **Figure 2-1** below.

A masterplanning process considering both sites in the wider context would help to establish a more coordinated use of the land. This approach would allow land disturbance and impacts on amenity to be minimised while accommodating the likely throughput demand. The masterplanning should be a government led process, with the IMT proponents and key stakeholders involved form the outset.

In addition to rail, there are numerous other duplications and losses of economies of scale resulting from the proposed location of two standalone projects on immediately adjacent sites. Duplicated infrastructure due to the proposed adjacent location of facilities would include:

> Rail sidings

> Warehousing

> Stormwater infrastructure

> Access corridors and on site roads

> Utilities and services

The duplication and associated redundancy resulting from infrastructure not operating at design capacity would reduce operational efficiency and result in the inefficient use of resources including concrete and steel, along with extensive and potentially unnecessary disturbance of land. These factors would unnecessarily create environmental impacts for limited net gain.

A more appropriate solution would be for one site to accommodate the identified catchment demand of 1 million TEUs, with a second IMT located elsewhere to service a separate catchment. The separation of the sites would provide a higher level of service to meet the IMT catchment demand, while reducing the distance of truck movements required for transporting freight. Furthermore, the separation of the IMT throughput from the combined 2.7 million TEUs to the demand driven 1 million TEUs, based on the *Freight Demand Modelling* (Hyder, [a], 2013) within the same immediate locality would partially dilute the potentially severe impacts on the amenity of the surrounding area subject to consideration of the cumulative impact comments in **Section 2.5.**

2.4 Financial Risk to External Parties

A range of off-site impacts to road and rail networks are expected from the SIMTA proposal that require mitigation measures, which are yet to be fully assessed or quantified in terms of responsibility and cost. It is therefore critical that any infrastructure improvement items and associated responsibilities relating to the transport network (i.e. increased maintenance regimes or upgrades) are detailed with any costs quantified. To allow a project concept to be approved without understanding the full extent of associated economic impacts and costs to the community and other key stakeholders would be irresponsible.

The clear definition of all infrastructure upgrade and increased maintenance requirements, as well as who is responsible for funding and implementing such work, needs more consideration within this proposal. There is no discussion on how any developer contributions i.e., Section 94 of the EP&A Act plans would be applied or how funding contributions would be agreed with key stakeholders, such as Council, RMS, ARTC, RailCorp, private landowners etc. This financial risk to third parties has been identified and discussed further in **Section 4.15** and is considered a significant omission from the current proposal.

2.5 Cumulative Impacts

The level of environmental assessment undertaken in both the 2012 and 2013 EAs is based on a combined capacity of 1 million TEUs spread across the two proposed facilities, which is based on the Freight Demand Modelling undertaken by Hyder, [a] (2013), as discussed in **Section 2.1**. However, the two IMTs propose to provide for a throughput of 2.7 million TEUs. Consequently, either an upper limit should be placed on the total throughput of the two facilities or assessments revised to account for the cumulative impact of a 2.7 million TEU throughput.

The impacts associated with a combined throughput is potentially greater than simply multiplying the effects of a 1 million TEU throughput to address a 2.7 million TEU throughput as the traffic and transport review undertaken in **Section 4.1** of this submission has identified a number of assumptions used to inform the traffic modelling that are well below the level of traffic movements realistically anticipated.

Based on the favourable review of traffic generation by the SIMTA proposal it is anticipated that actual traffic generation may be approximately a third higher than the traffic levels anticipated (refer to **Section 4.1.2.1** for further discussion of assumptions informing the traffic modelling). The reduced number of traffic movements identified by the 2013 EA would have follow-on impacts for a range of the associated specialist studies including noise, air quality, GHG, visual and hazard and risk. Consequently, a review of the assumptions informing the traffic modelling should be undertaken, with the revised trip generation numbers used to update the associated studies.

There are discrepancies in the assumptions used within the different assessments of environmental issues through the 2013 EA. A collated, consistent set of assumptions should be used to inform the environmental assessments particularly those with strong relationships including traffic, noise, air quality, GHG and visual amenity. Where different data inputs have been provided this should be clearly stated with justification for the discrepancies.

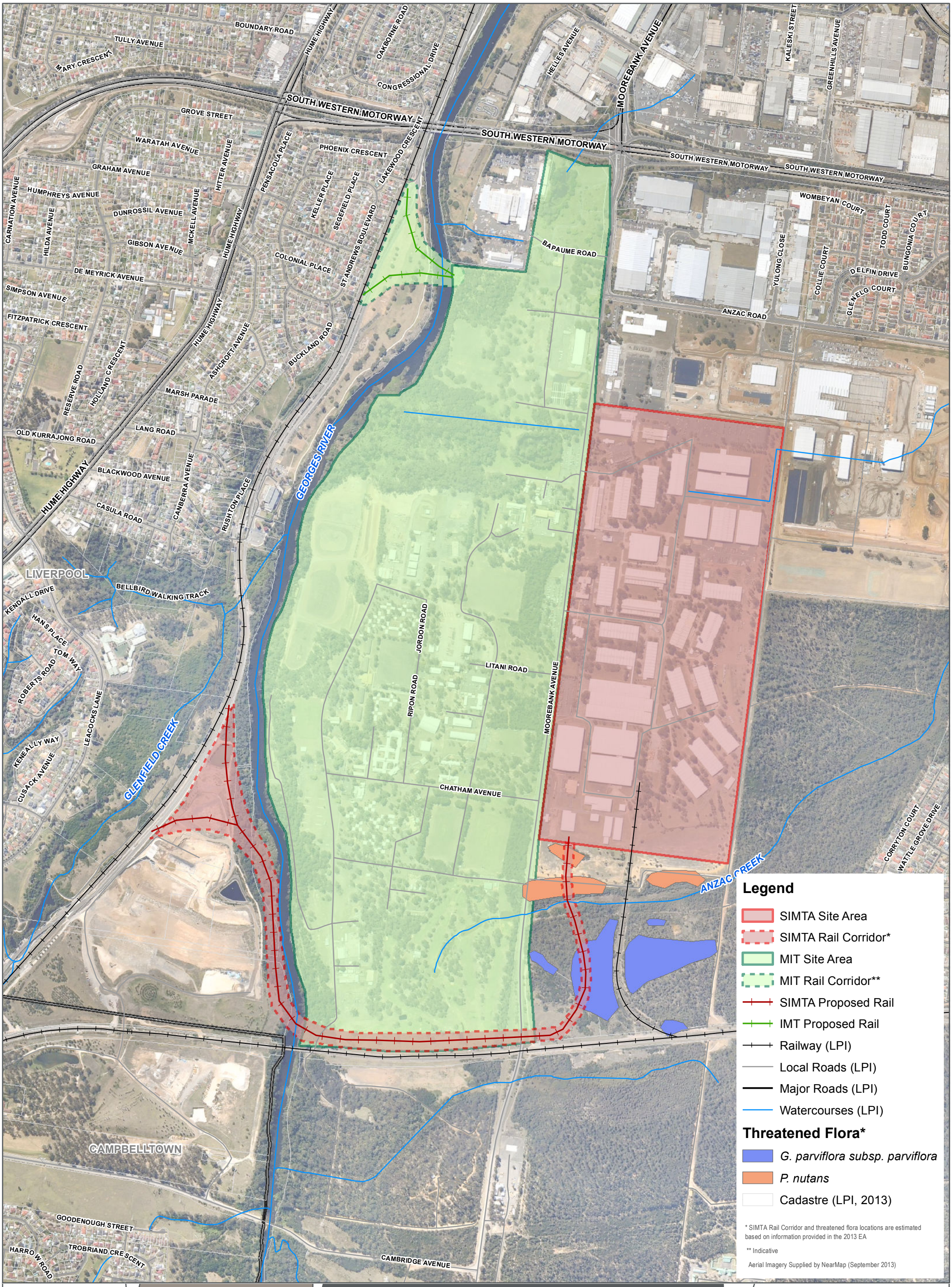

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FIGURE 2-1

1:10,775 Scale at A3

Metres
0 100 200 300 400

MIT and SIMTA Rail Spur Duplication

SIMTA INTERMODAL TERMINAL PROPOSAL PEER REVIEW

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2013-10-17
Coordinate System: GDA 1994 MGA Zone 56
Project: 112083_02
Map: G2002_Cumulative Proposal.mxd 02

3 Statutory Compliance

This section reviews the revised scheme to establish whether it complies with statutory controls and addresses previously submitted comments.

Federal, State and Local legislation and policy is potentially applicable to the SIMTA proposal. The following sub-sections identify the legislation and planning policies applicable to the proposal and consider the proposal's compliance in the context of previous comments.

Table 3-1 Federal Statutory Review

EA 2012 Submission Comment	Revised EA (2013)	Revised Comment
***Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act)**		
Referral to be made to the Minister as proposal likely to remove heritage building structures and affect flora and fauna species, both of which are listed as matters of National Environmental Significance	Referral made with the Minister determining that the project is a controlled action due to listed Threatened Species and communities; and impacts on Commonwealth land requiring assessment and approval under the EPBC Act	Detailed Heritage and Biodiversity investigations to qualify the extent of potential impact are required (refer to Sections 4.3, 4.8 and 4.9 for further discussion).
Appropriate assessment to be submitted with the EA in accordance with the outcomes of the referral	Impacts on species to be offset via biodiversity offsets with a preliminary Biodiversity Strategy prepared to facilitate discussions with the Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC) and NSW Office of Environment and Heritage (OEH)	Potential for suitable biodiversity offset species within proximity to the subject site to be examined to ensure that suitable and relevant offsetting arrangements can be made. Refer to Biodiversity review (Section 4.3) for further discussion of the Preliminary Biodiversity Strategy.

Table 3-1 illustrates that while further investigations associated with impacts to matters identified by the EPBC Act have been undertaken additional detailed studies are required to quantify the extent of impacts. Further discussion relating to the extent of impacts and additional investigations required is contained within Section 4 of this submission.

Table 3-2 State Statutory Review

EA 2012 Submission Comment	Revised EA (2013)	Revised Comment
Environmental Planning and Assessment Act 1979 (EP&A Act)		
Section 5(a)(i) of the EP&A Act requires the consideration of a number of environmental factors, with the original 2012 EA considered to be deficient in a number of areas. Key deficiencies related to: 'The proper management, development and conservation of natural and artificial resources'. The application does not provide adequate detail to allow an assessment to be made as to whether resource conservation is adequately considered.	No change	Existing comments remain.
'The orderly and economic use and development of land'. There is no demonstrable need for two intermodal terminals located next to each other and it is questionable whether the co-location without coordination between sites would increase the efficiency of the logistics chain. Two sets of infrastructure used for the same purpose is counter to the orderly and economic us of land. Consideration of the reuse of the existing disused railway line to connect the site to the SSFL is not provided. This option may not be feasible, however consideration should be provided, as this would potentially reuse existing infrastructure.	No change	Existing comments remain.
'The protection of the environment, including the protection and conservation of native animals and plants including threatened species, populations and ecological communities and their habitats'. The proposal does not maximise the opportunities to protect the threatened species on the site with the proposed rail spur not designed to minimise disturbance to the land, creating significant impacts on the existing threatened species of National Significance on the site.	No change	Existing comments remain.
State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)		
No Comment	Change to rail alignment	The rail alignment is located within the SP2 and RE1 zones. Subject to Clause 81 of ISEPP development of rail infrastructure facilities is permitted with consent in 'prescribed zones'. The SP2 zone is a prescribed zone. However, the RE1 zone is not. Consequently, ISEPP cannot be used to obtain permissibility for the proposed rail corridor. Therefore, permissibility is required to be obtained subject to the now repealed Section 75O(3) and Section 75R of the EP&A Act.

State Environmental Planning Policy No 55 - Remediation of Land (SEPP 55)		
No Comment	Change to rail alignment	The relocation of the rail corridor would require a further review of potential contamination within the rail corridor land. Refer to Section 4.5 for further discussion.

Table 3-2 illustrates that the revised EA has not addressed submission comments relating to consideration and compliance with the EP&A Act requirements. The revised rail alignment has implications for potential contamination, biodiversity clearance and heritage as discussed further in **Section 4** of this submission.

Table 3-3 Local Statutory Review

EA 2012 Submission Comment	Revised EA (2013)	Revised Comment
Liverpool Local Environmental Plan 2008 (LEP 2008)		
LEP 2008 has zoned the site IN1 General Industrial, as shown in **Figure 3-2**. The proposal is permissible within the IN1 zone, however, it is noted that the site was originally rezoned for a *Business Enterprise* zone and supported by the site specific Development Control Plan (adopted in 2003). However, the introduction of a standardised LEP template has removed the site specific controls on this site and the IN1 General Industrial zoning permits a range of industrial, including freight transport facility. The inappropriate translation of the zoning controls has allowed a use that was not initially intended in the original rezoning application.	The rail corridor is located within the SP2 Infrastructure (Defence) zone and RE1 Public Recreation zone as shown in Figure 3-2. The RE1 zone does not permit rail or industrial land uses. The SP2 zone permits development for the purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to that purpose. The rail corridor is not ancillary to the Defence use of the land and is therefore prohibited within the SP2 zone.	The rail corridor is a prohibited use within the SP2 and RE1 zones of LEP 2008, illustrating the lack of strategic intent to use this area for an IMT and supporting infrastructure. The proposal cannot therefore be undertaken on the site without first undertaking a rezoning of the land through the preparation of a planning proposal for consideration by Council and DP&I. However, the applicant has relied on the now repealed Part 3A of the EP&A Act, with the proposal defined as a transitional Part 3A project. Consequently, although the proposal is counter to the identified use of the land it is permissible.
	A maximum building height of 15m prescribed by Clause 4.3 of LEP 2008. The proposal includes gantry's, (32m), light poles (40m) and warehousing (21m), all of which exceed the LEP 2008 maximum height limit.	The proposed scale of development is well in excess of that envisaged by the strategic planning for the site, with the prescribed maximum building height of 15m being exceeded by a number of structures within the proposal. The height of structures should be reduced where possible to minimise the visual dominance of the proposal and comply with the maximum building height requirements. Where the proposal exceeds 15m in height an application to vary the development standard must be submitted to Council for consideration, with concurrence provided by DP&I. Where the variation is not deemed acceptable by Council the proposed scheme should be revised. The visual assessment prepared in support of the proposal is based on a high level concept that does not include massing diagrams or building

		envelopes and is therefore generic, lacking a review of the actual development proposed. Consequently, the visual assessment is considered inadequate and not fit for purpose.
Development Control Plan – Moorebank International Technology Park		
The proposal does not comply with the intent of the Development Control Plan (DCP) or any appropriate controls.	No Change	Insufficient information is provided to allow any assessment of the site layout and design in the context of the Liverpool DCP Part 2.4 requirements, which relates specifically to the subject site. Comprehensive site layout and design plans are required to allow consideration of the proposal.

Table 3-3 identifies that the proposal is counter to the proposed use of the site as identified by the land use controls. However, through the use of transitional Part 3A of the EP&A Act provisions the proposal is permissible. Additional detail is required to establish the full extent of impacts resulting from the variations to the identified land use controls.

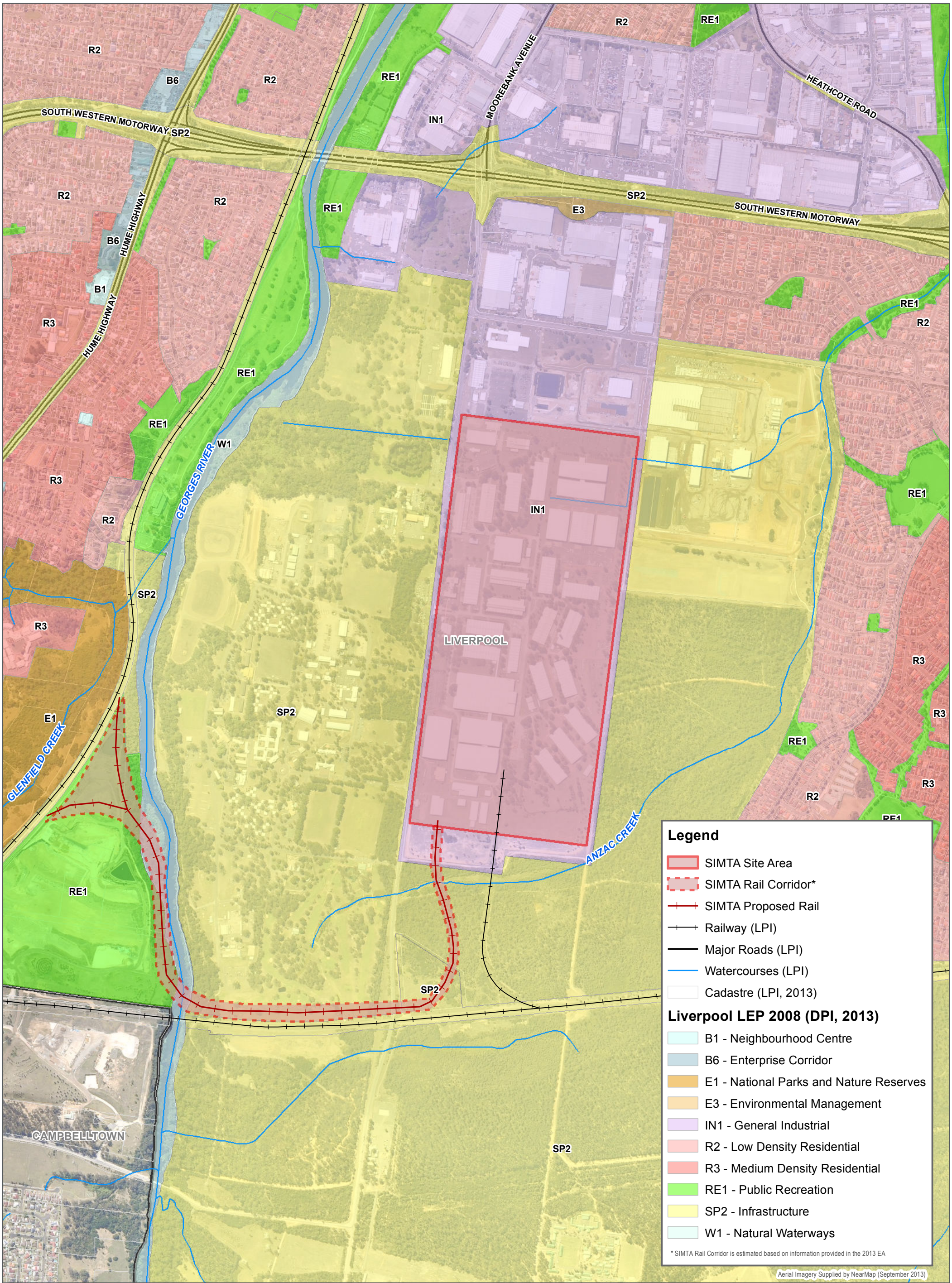

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FIGURE 3-2

1:11,500 Scale at A3

Metres
0 100 200 300 400

LEP 2008 Zone Plan

SIMTA INTERMODAL TERMINAL PROPOSAL PEER REVIEW

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Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2013-10-16
Coordinate System: GDA 1994 MGA Zone 56
Project: 112083_02
Map: G2005_ZonePlan.mxd 01

4 Environmental Impact Assessment

This section reviews the revised EA in the context of previously submitted comments to establish whether those comments have been adequately addressed.

4.1 Traffic and Transport

4.1.1 Summary of changes from 2012 to revised 2013 EA

The following bullet points highlight the primary changes from the 2012 EA in comparison to the revised 2013 EA. The following contains details of the textual changes in the document and reflects what is currently in the 2013 report.

> Reference to reviews undertaken of numerous strategic and policy context have been removed including:
  - Port Freight Advisory Board
  - Sydney Metropolitan Strategy
  - Draft Sydney West Subregional Strategy
  - Liverpool City Council Community Strategy
  - Port Freight Logistics Plan
  - NSW Government Submission to Infrastructure Australia

> Additional information provided in Section 3.3 in regards to the Existing Network Performance. Further details of traffic assessment of intersections and key roads are provided in regards to the "core area". Clarification as to the 12 intersections modelled within the "core area" was provided. A new supporting passage has been added stating: "*The concept of the core area in micro-simulation modelling has also been supported by RMS in a recent Traffic Modelling Guideline published by RMS in February 2013*." (Urbis, [a], 2013). Furthermore, additional information was added which addresses concerns expressed by Transport for NSW (TfNSW) and RMS in regard to the modelling results on Moorebank Avenue between Helles Avenue and High Lane (Existing). Additionally modelling for 2010 under the existing scenario was assessed with a summary of results added. The additional modelling including the following intersections:
  - Moorebank Avenue / Helles Avenue, priority controlled T-junction. Currently, Helles Avenue provides local access to the Industry Park west of Moorebank Avenue;
  - Moorebank Avenue / Church Road, priority controlled T-junction. Church Road provides connection between Moorebank Avenue and Heathcote Road through mixed residential and industrial areas east of Moorebank Avenue; and
  - Moorebank Avenue / Industrial Access signal controlled T-junction. This intersection provides access to the Industry Park west of Moorebank Avenue.

> Modelling highlighted that the intersections perform at a satisfactory level of service with only the Moorebank Avenue / Helles Avenue priority control intersection failing at a level of service E in the PM peak period.

> The revised report addresses the M5 weaving analysis for both eastbound and westbound traffic, addressing TfNSW and RMS comments in regards to the Concept Plan application (the 2012 EA analysed weaving on the M5 in the eastbound direction only). Modelling was therefore undertaken on the M5 Motorway between Moorebank Avenue and Hume Highway in the westbound direction. Weaving on the M5 (westbound direction) was shown to expect a poor Level of Service of E in the PM peak period with travel speeds between 50 and 60km/h compared to the sign posted 100km/h speed limit. A Level of Service of C was experienced in the AM peak period. (Section 3.3.5 and 3.3.6).

> Further modelling was undertaken in response to concerns by TfNSW and RMS in regards to the intersection operation performance for the key intersections outside the core area. Modelling was

undertaking under the existing scenario. The Paramics model for the inner area used as the basis for the assessment with no further information provided in regards to the background data used for the modelling analysis. Eight intersections were assessed with 3 intersections identified as over capacity. The intersections identified as a Level of Service E/F include:

- Hume Highway / Hoxton Park Road / Macquarie Street;
- Newbridge Road / Nuwarra Road; and
- M5 Motorway / Heathcote Road.

> Additional information has been added addressing intersection performance including:

- Further clarification of the southbound right turn movement operation out of Moorebank Avenue (into M5 westbound direction), highlighting that the movement would suffer regardless of the SIMTA development, and will potentially impact nearby intersections.
- Updated Level of Service summaries for the AM and PM peak for the future base case without SIMTA. It should be noted that the revised EA highlights a worse Level of Service for the majority of the intersections assessed. Furthermore, additional discussion is included relating to the impacts of intersection operation outside of the core area without the SIMTA development. Eight key intersections were assessed with all generally performing at a poor Level of Service.
- Additional information was added discussing the impact of the relocation of the DNSDC in response to comments made by TfNSW and RMS. The Paramics model was updated to take into consideration the relocation. As part of the relocation, a new signalised intersection on Moorebank Avenue south of existing traffic signal at Anzac Road was proposed. It is noted that the addition of the proposed signalised intersection does not impact the Level of Service of the surrounding intersections.
- New modelling of the core area shows that for SIMTA's proposed southern access with Moorebank Avenue, the intersection is expected to perform at an unsatisfactory Level of Service.

> The revised EA provided updates and further information in regards to the proposed site accesses including:

- Northern Access
  - > Will service both trucks and cars to the warehousing and distribution areas on the eastern side of the terminal;
  - > Newly proposed signalised intersection 300m south of the northern access; and
  - > New signalised intersection to be shared with the DNSDC site with further discussion to be had with DNSDC on potential access share arrangements.
- Central Access
  - > Will service both trucks and cars to the warehousing and distribution areas on the central part of the terminal;
  - > Will provide entry and exit movements for the terminal providing full movements; and
  - > Location to be at the existing traffic signal that provides access to current DNSDC facility.
- Southern Access
  - > Will provide exit to articulated trucks departing the terminal; and
  - > Will only permit trucks exiting to Moorebank Avenue in the northbound direction.
- The suggestion of creation of a southern link from Moorebank Avenue to Hume Highway via Cambridge Avenue was not assessed.

> Section 6.7 provides additional information in regards to traffic distribution from the site as well as breaking up distribution of tucks into rigid and container trucks. The following changes are noted as part of the revised EA:

- Additional information provided highlighting that the majority of the truck and car movements (up to 95%) would travel via Moorebank Avenue north of SIMTA site.
- The Cambridge Avenue south to the SIMTA site has weight limitations that limited the use of this road for heavy trucks; however assignment for employee vehicles was still partially allocated to the road.
- Distribution split from percentages for all heavy vehicles into distribution split based on vehicle type, including Container Trucks and Rigid Trucks.

> Section 6.9 added clarification that the traffic impacts from the SIMTA proposal have been assessed based on the forecast demand of one million TEUs as the MIT proposal is expected to service a similar catchment area reducing the ability for SIMTA to achieve full operational capacity.

> In accordance with comments from RMS, additional modelling was undertaken for 5 intersections within the core area highlighting the operating performance of the intersection with and without the SIMTA development. The contribution of the SIMTA development was generally found to range between 2% to 25% on the assessed intersections resulting in a delay increase between 3% and 92%. The majority of the intersections were performing at a poor Level of Services without the SIMTA proposal, with all but one intersection in the AM peak period failing with SIMTA. (Section 6.10.2).

> In response to RMS comments, additional modelling was undertaken on Moorebank Avenue between Helles Avenue and High Lane. The impact of the SIMTA development was deemed to not have a significant impact on the direct Level of Service of the 6 intersections assessed.

> Additional information was provided in Section 6.12 in regards to the impact of crashes and accidents on the subject area with a 5 year period assessed between 1 July 2004 and 30 June 2009. The data highlights that if no improvements were to be made to Moorebank Avenue the number of crashes per year is expected to increase. However it was noted that the development of the SIMTA proposal would not substantially increase the likelihood of crashes/accidents in the long term.

> Section 8.1 highlighted that a new traffic signal at SIMTA's southern access with Moorebank Avenue that would allow vehicles to exit the terminal to Moorebank Avenue in a northbound direction. An update was made to northern access indicating that the access point will also be shared with the DNSDC site.

> Following TfNSW and RMS's response, updates were made regarding upgrade works proposed at the M5 Motorway / Moorebank Avenue interchange. Previously, ramp metering was proposed for the M5 westbound on-ramp. This has now been removed from the proposed upgrade lists. (Section 8.1)

> Information was added in Section 8.1.1 in regards to the Level of Service of the proposed infrastructure upgrades in response to RMS and TfNSW comments. Paramics modelling was undertaken assuming all proposed upgrades are in place for the 2031 AM and PM peak period scenarios. Sketch plans for the upgrade of the intersections were also provided. The intersections were shown to generally perform at an improved Level of Service.

> A sensitivity test was undertaken in Section 8.2 using a higher trip rate provided by a study by Aurecon. The higher trip generation rate resulted in almost double the number of vehicles anticipated from the SIMTA development in both the AM and PM peak periods. The analysis indicated within the core area, most intersections would operate acceptably with the proposed upgrades incorporated, but movements related to the M5 westbound onramp would fail. Results of the intersection operational performance were not provided. A recommendation was provided to undertake an actual truck trip generation survey from SIMTA after 24 months of the terminal commencing operations as a means of confirming the actual trip generation rates.

> Details were provided in Section 8.3 in regards to the staging of the development with the proposed TEU's at each stage. No assessment was undertaken in regards to the intersection operating performance at the various stages.

> Two additional measures were added in Section 8.5. to the suggested public transport measures in order to reduce travel demand and change travel behaviour including: "Glenfield Station to Liverpool Station Shuttle Bus through Moorebank Avenue' and 'Rationalise Route 870, 871 and 872 bus". (Urbis, [a], 2013)

4.1.2 Cardno Assessment

Cardno has reviewed and assessed the contents of the traffic report used to inform the revised EA, and make the following observations and comments.

> Additional modelling was undertaken on Moorebank Avenue between Helles Avenue and High Lane which indicated that the Level of Service of the modelled intersections would not drastically be impacted by the SIMTA development as the intersections would be operating at an existing unacceptable level of service. As intersection performance summary tables have not been provided, the impact the SIMTA development would have on the surrounding road network cannot be accurately substantiated.

> It is unclear whether the worse Level of Service experienced for the base case intersection modelling in the without SIMTA case is as a result of the unreleased trips from the Paramics network modelling, as clarification in regards to updates made to the network model is not provided.

> Despite further information in regards to the traffic distribution based on heavy vehicle type, the basis for the estimation of the 2031 traffic flows is still unclear and provides no further clarification in regards to justifying the impacts of the traffic generated by SIMTA. Clarification is still not provided in regards to what factors were used to determine the forecast 2031 traffic volumes. For example, the proposed MIT facility also to be located in Moorebank is not included in the traffic model. Although requested in the TfNSW submission CD12/05199, point 6.1, employee trip generations calculated do not include the employee trips from both the SIMTA and MIT proposals.

> Despite some plans being provided for the site accesses and M5 access points, only general comments were provided about the 2011 or 2031 road networks used in the transport models, specifically in the Liverpool LGA. As a result, the impact of future car and truck traffic on Council's local and regional road cannot be confirmed.

> The revised EA indicates that upgrades are required to the road network, highlighting that the infrastructure will need to be developed progressively over the next 20 years to cater for the forecast increase in traffic volumes which will result from both the SIMTA development and the general growth in traffic passing through the area. Recommendations in regards to upgrades to infrastructure are identified as widening Moorebank Avenue to four lanes, widening of the approach at Moorebank Avenue/Anzac Road signalised intersection, new traffic signals at SIMTA's northern and southern access point on Moorebank Avenue, SIMTA's central access being retained as SIMTA access and upgrades at the M5/Moorebank Avenue grade separated interchange to cater for growth in traffic volumes. Testing was undertaken with the incorporation of upgrades to infrastructure mentioned with assessment being undertaken at the access points and the intersections of Moorebank Avenue/Anzac Road and M5 Motorway/Moorebank Avenue. The infrastructure upgrade highlighted improved Level of Service. No comment was provided in relation to the traffic impacts on the intersections outside of the core area and any infrastructure upgrades that may be required.

> Intersection summary results have not been fully provided for all the intersections assessed to support the stated Levels of Service. As a result, it is difficult to confirm the impact of the SIMTA development on the assessed intersections.

> The higher trip generation rates determined in the Aurecon report highlights that the potential trip generation could be double of that identified within the revised EA, with the report recommending that the actual trip generation rate be surveyed after 24 months of the SIMTA site opening. The potential increase in actual trips generated from the SIMTA development may result in large queues and lengthy delays if the full development is approved and the Aurecon trip generation rates prove correct. The sensitivity test carried out did not provide details of impacts beyond the M5 interchange, or identify measures to resolve the unacceptable intersection performance in the 2031 scenario. The sensitivity test only examined one set of variables, and there are several other variables, explained in further detail below, which may also impact on the trip generation. Without confidence of the possible trip generation beyond 24 months of operation, the consent authority may find it appropriate to only approve the first stage of development until development scaling beyond 24 months operation can be confirmed.

> The revised EA highlights the results in 2031 with and without SIMTA and suggests that SIMTA will not be the cause of the failure at these intersections as the intersections will have already failed. The revised report has provided clarification in regards to the staging of the SIMTA development, providing the

anticipated TEU thresholds at various stages and corresponding upgrades to the road network. However, traffic modelling at intermediate years to show the impact of SIMTA as the project ramps up from 2015 to 2025 is required to determine the confirm how much sooner the intersections would fail as a result of the SIMTA project, and at what years.

> There is no traffic flow data from the traffic models to confirm that the recommended upgrades proposed at the impacted intersections would resolve the issues. Further, there is no commitment as to who would be responsible for the cost of these upgrades.

> The statement regarding the lack of information in regards to the SME site not being available was deleted from the revised report. It is unclear whether the data that is available has been incorporated within the revised report.

4.1.2.1 Trip Generation

The traffic results reflected in the traffic modelling, and other modelling such as air quality and noise, are highly dependent on the trip generation assumptions. Some of the assumptions are very broad, not backed by research or assessment, and may have the ability to skew the trip generation results by a very significant proportion. The flow on impact of an error in trip generation estimates onto traffic network performance would be of even greater magnitude.

The projected daily workforce of approximately 2,258 staff, with approximately 2,638 daily truck trips of would appear to be potentially illogical. The productivity of each person onsite would equate to the generation of approximately one truck trip each day and this ratio appears to be low and not representative of a commercially viable operation. An obvious conclusion is that the number of daily truck trips may be significantly under estimated for the intended size of the facility.

The high level assumptions regarding splits of containers on and offsite have been provided by SIMTA and have been accepted into the report without test or justification. As stated above, these broad assumptions, if incorrect by only a slight margin, have the ability to significantly impact on resulting traffic operations in the area.

The trip generation estimate contends that container contents packed or unpacked at the intermodal facility are transported to and from the warehouses in full truck loads, where the arriving or departing vehicle is loaded to its axle limit. This assumption is highly unlikely to be achieved in practice due to the many different origins and destinations of goods which may be carried in multi-source containers. Although some containers may be single source/ origin, a large percentage of containers being unpacked at the terminal would be multi-source. One of the primary benefits of having a container packed or unpacked at the terminal is the ability to multi-load the contents of the container, as it is not unusual for the costs to have a single source container packed at the terminal far exceed the transport costs associated with having the container brought to a single customer. The fact that some truck trips bringing or taking freight will be loaded less than 100% full has not been reflected in the trip generation estimate and no weighting for less than fully loaded truck trips has been accounted for. Consequently, the actual number of truck movements is anticipated to be greater than that considered in the EA.

In the local Sydney metropolitan context, the percentage of container trips that are suitable for the use of B-Double transport is low, due to likely different origins and destinations of individual containers, the ability of B-Doubles to use the road networks within the Sydney Metro area to access end customers, and the ability of receiving yards to cater for these oversized vehicles. The quoted percentage used in the trip generation estimate does not differentiate between a scenario which may apply to a port gateway like Botany, where all container traffic is moving offsite and much of it is moving a considerable distance from the port (i.e. inter-regionally), and an intermodal facility such as SIMTA, which may have a much higher locally generated origin and destination of containers. Moreover, SIMTA is proposed to provide specifically for local intermodal demand rather than regional or interstate.

Due to the costs involved in double handling a container, comparison of B-Double use for a gateway port like Botany may not be appropriate – the containers from Botany lend themselves to loading on B-Doubles because they have road based destinations far afield. Intermodal terminals are much better at handling locally generated freight, i.e. for within the Sydney Metropolitan region. In this local context, the potential for

two containers picked up from an IMT to be heading to the same location (or at least two locations close enough to warrant a dual drop off) simultaneously is reduced.

In the assessment, the same rate for B-Double use for full containers being transported away from the IMT is applied for trips of containers back to the IMT. For similar reasons as stated above, the percentage occurrence of this use may be overstated in the assumption, due to the limited ability of end destinations to be able to concurrently process more than one container at a time and the limited ability of freight operators to arrange dual pickups, of different sized containers. It is also noted that B-Double trucks do not have the ability to self-load a container that some semi-trailers do. As such, any B-Double trip could only service end customers who have a fully equipped depot with the capacity to lift containers on and off trucks (since it is not possible to access the forward container like from a loading dock access). The percentage of end users within the Sydney Metropolitan Region who have the capability to lift loaded containers on and off B-Double trucks is relatively small, and as such for all of these reasons the estimated percentage of B-Double trips used in the trip generation may be over-estimated, meaning a higher number of semi-trailer trips would be required increasing the impact on the road network.

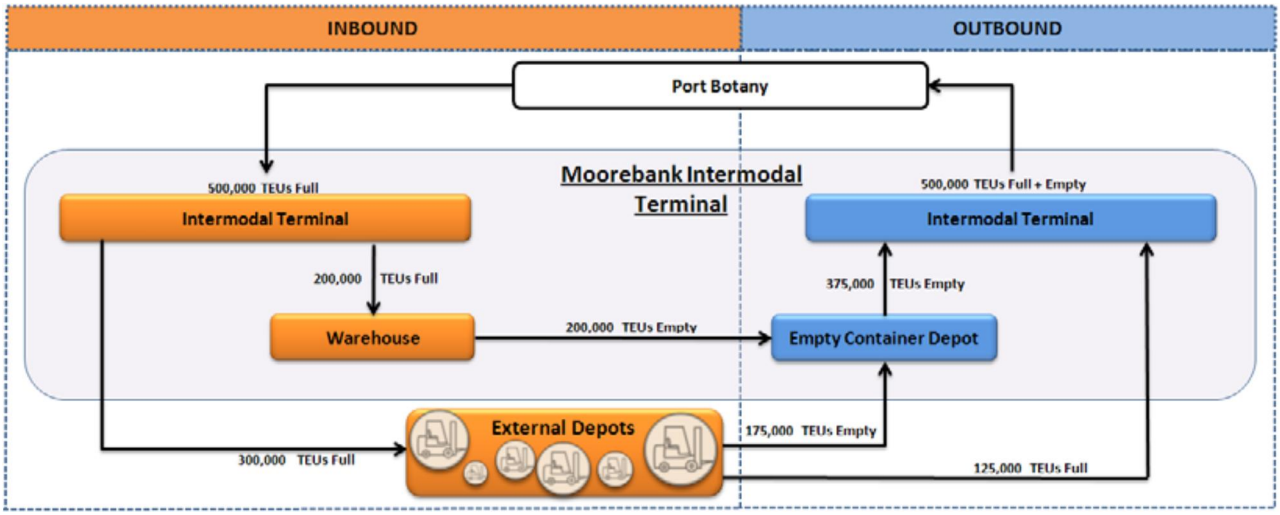
A 1.3 containers (2.1 ETU) average rate per truck is quoted as being business as usual in accordance with the Sydney Ports Corporation Freight and Logistics Plan (2008). It is unclear if this rate is applicable to the SIMTA facility because the SPC rate may apply on a State-wide basis, whereas SIMTA may cater to a higher percentage of locally generated trips for which B-Double transport is not appropriate. The sensitivity analysis undertaken on an increased use of B-Doubles contained as an aspiration in the SPC Plan would be inappropriate if there was any difference between the business as usual rate on a State-wide basis and the specific types of journeys being undertaken for the Moorebank Intermodal Facility. The 1.3 containers per truck rate may underestimate actual trip generation.

An optimistic scenario of back-loading has been adopted where 30% of trucks arriving at the IMT to drop off, also pick up in the same trip. No sensitivity analysis or research has been provided to support this assumption.

A key issue is that the assessment relies on the assumption that no empty containers leave the empty container depot to be taken out to customer's yards for filling. Although some freight companies may be able to arrange to drop off a newly emptied container to a customer waiting to fill a container without returning to the empty container depot, this would not be the norm. Not all depots and freight customers receive full containers and then immediately re-fill them for transport back to the IMT. Many customers are net exporters and require empty containers to be delivered in order for them to fill. Even if customers receive a full container, empty it and then need to fill a new container, many do not have storage onsite for empty containers or the funds to incur costs for holding the container between when it might be empty and filled, and so would call an empty container to their yard for filling when they are ready rather than keep an empty container on hand.

The movement of empty containers by road out of the SIMTA site appears to be a very real possibility; however, these movements have not been included in the assessment. In **Figure 4-1** below taken from the Transport and Accessibility Impact Assessment (Hyder, [c], 2013), this would be shown as a movement from external depots/customers, to the empty container depot, then back out to external depots/customers, and finally back to the IMT. This trip generation and subsequent impacts on the road network have not been included in the assessment and are potentially significant, given that up to 125,000 TEU's are proposed to be returned full to the IMT.

Figure 4-1 Inbound / Outbound Container Movements (Hyder 2013)



Transport and Accessibility Impact Assessment (Hyder, [c], 2013

If the transport of empty containers by road out of the empty container depot is not currently proposed, it would appear to be an attractive commercial opportunity that the proponent may attempt to develop in the future, which would have additional impacts on the road network. It would be prudent to determine if the network has the capacity to cater for these trips now rather than attempt to enforce or restrict a commercial opportunity later.

The robustness of the adopted trip generation has been compared to the results determined in other EIS studies, specifically for the Port Botany expansion and the Enfield expansion; however both of these case studies are predicted outcomes not measured outcomes. The suitability of comparison and assessment of the mode of operation of each of the compared case studies has not been established. It is possible, that even with a comparable type of operation between the three terminals that the estimates of trip generation may suffer from the same biases or incorrect assumptions used in the calculation of the two quoted case studies. Lack of correlation to current measurable operations may result in understating the trip generation. No detailed correlation between the methods of operation of each of the three terminals has been drawn in order to be able to compare the resulting trip generation.

Although the review has undertaken a sensitivity test and subsequent modelling of a modified employment scenario, using the Aecom employment rates, sensitivity testing and subsequent analysis on factors used in the heavy vehicle trip generation has not been undertaken. Instead a review of heavy vehicle trip generation assumptions only beneficial to the proponent has been adopted. There has been no modelling of scenarios that would increase the heavy vehicle trip generation and hence impact negatively on the predicted traffic network performance characteristics. As outlined in this review, there are numerous heavy vehicle trip generation assumptions which could have been sensitivity tested that may offer a worse case outcome than that presented in the assessment. The assessment and traffic modelling is based on what seems to be an ideal outcome.

The 2013 EA notes that many intersections within the zone of influence of the proposal have failed by 2031 even without SIMTA traffic. Normally this argument would be presented in a TIA to demonstrate that the proponent would not be responsible for the upgrade of an intersection, on the basis that another road authority would be required to fund this infrastructure expenditure. However given the potential scale of intersections involved and their number, as well as their size and complexity, when considered in the context of the limited ability to bring create new transport infrastructure within the road reserve along many of these routes, the ability of these capacity issues to be resolved by transport agencies may be limited. The contribution of SIMTA traffic to the congestion experienced in the area, combined with background traffic growth from other sources and potentially a limited ability to physically resolve these issues, may contribute to extensive congestion which limits transport mobility and future growth in the area.

4.1.2.2 Hourly Profile

The quoted hourly profile for heavy vehicle movements has been adapted from SKM work on the Enfield IMT, which was in turn adapted from the Port of Melbourne. The report recognizes that the Port of Melbourne has a significantly different style of operation as it does not have warehousing facilities. In the absence of any other information, this daily profile is adopted. No discussion of alternative profiles or sensitivity testing has been carried out.

There is the potential that the daily profile adopted does not match that which might be expected to arise from the operation of a large IMT including warehousing facilities. In this case, it would be appropriate to undertake a sensitivity analysis or apply a factor to the trip generation rates to ensure they offer a conservative approach. Neither of these mitigations has been adopted, and thus there is the potential for the daily trip profile to underestimate the peak hour impacts, specifically for heavy vehicle movements.

The employee arrival and departure rates are highly sensitive to the start and finish times of shifts. The assumptions used in the assessment conclude that the day shift finishes prior to 4pm and the night shift starts prior to 4pm. This is to avoid shift change over occurring during the PM peak period and corresponding loading of traffic onto the adjacent road network during the PM peak period. This shift pattern is plausible; however any variation towards later in the day would result in a significantly worse outcome from a road traffic perspective if it resulted in additional peak hour vehicular travel. It is recommended that if the consent authority chooses to approve the development, that the shift change over time is specified as a condition of consent and the adopted times are chosen clear of influence on the peak hours to minimize impacts of employee travel on the adjacent road, rail and bus networks.

4.1.2.3 Sensitivity test of employment

Although a sensitivity test of employment is discussed, no trip assignment or modelling of the potential impacts of an increase in employment has been undertaken. The 2013 EA notes that "*the Needs Assessment for Moorebank Intermodal Terminal Facility (PWC, March 2011) estimates a maximum of 2,840 employees; about a 26% increase. Assuming the same proportion of employment between the warehouse and ancillary freight village staff, this number of employees would result in about 4,544 movements per week day."* (Hyder, [c], 2013)

An additional 931 employee movements to the site each day would result if the PWC numbers are correct. The impact of this traffic on the road network would be significant. Limited discussion of why a lower rate than that identified in the PWC report has been adopted is provided in the assessment. There is a risk that the employment generated by the site is greater than stated in the report, potentially resulting in more significant traffic impacts.

4.1.2.4 Halcrow review of Hyder Paramics Modelling

Appendix E of Hyder, [c] (2013) contains the *Paramics (Traffic) Model Audit,* a review by Halcrow of the Paramics Modelling undertaken by Hyder. The Report is dated 29 July 2011, and reviews the base case scenario developed by Hyder.

The updated 2013 EA does not appear to close out or specifically address the issues raised by the *Paramics (Traffic) Model Audit* (Halcrow, 2011) in their review of the modelling, which include:

> Review the suitability of adopting All-or-Nothing route assignment
> Review the sum of vehicle proportion and justify the need of periodic vehicles files
> Consider the adoption of multiple arrival profiles for origin zones
> Review the coding of priority control for eastbound off-ramp at M5/Moorebank intersection
> Verify the correctness of bus operation along Hume Highway
> Review the physical location of node 118 in the models
> Provide explanation on reported operational issues 8 and 9, and their corresponding delays; and
> Various other matters related to trip generation, some of which overlap with those identified in this review.

4.1.2.5 Cumulative traffic impacts

As details of the base traffic volumes and model development are not provided, it would appear that cumulative developments associated with future redevelopment in the Moorebank precinct have not been identified or added to the modelled network. Of particular concern is the Commonwealth MIT proposal, while others include the Goodman Fielder Bakery and the proposed construction waste recycling center.

Cardno understand that the exclusion of the Commonwealth MIT site trip generation is based on an assumption that there is not demand for more than 1 million TEU's in the catchment for the Moorebank IMT. There are potentially some serious flaws in that assumption, which include:

> The economies of scale and competitive advantages presented by having a very large IMT village will draw demand from other areas;

> As port congestion increases the need to move more freight from IMT's will increase

> A potential IMT with a sum total of potentially up to 2.7 million TEU's will generate its own demand.

> Over the period of time prior to the 2031 forecast traffic modelling horizon, it is improbable that there would not be significant development on currently underutilized commercially viable land in the area.

These factors may result in the future year traffic network volumes being low, and thus a higher level of congestion and traffic impacts resulting and road infrastructure being required to mitigate impacts.

4.1.3 Recommendations

To address the deficiencies of the traffic and transport section of the revised EA, the following recommendations are proposed:

> Inclusion in traffic modelling and/ or sensitivity testing of concurrent developments in the Moorebank precinct including the Commonwealth MIT site, Goodman Fielder Bakery facility and the 500,000MT construction waste recycling facility
> Confirmation by the proponent that no empty containers will be taken offsite except by rail, or re-calculation of the trip generation to account for the movement of containers from the empty container depot to customer depots/ loading bays for filling
> Justification of the B-Double trip percentage applied to both the movement of outgoing and incoming container movements, specific to the style of operation proposed at the site
> Details to justify the commercially illogically low level of truck trips currently indicated which shows that each person working at the site per day results in the generation of approximately one truck trip
> Additional details to justify the assumed splits of warehousing TEU's vs TEU's to be taken offsite, noting that the resulting traffic impacts are highly sensitive to changes in the percentage splits adopted, and the stated splits appear to be strategic. Sensitivity analyses to confirm impacts if stated split estimates prove incorrect.
> Justification or comparative analysis to show that delivery vehicles for warehousing will always be arriving and departing fully loaded, or alternatively application of a factor in the trip generation to account for partial loads and associated trips. Justification of the percentage of single source container loadings versus multi-source loading as a factor in the full truck trips assumption.
> Justification to support the 30% back-loaded trips assumption, or sensitivity assessment of alternate potential scenarios.
> Justification to support the 1.3 TEU per truck assumption, as it relates to IMT operation as distinct to the Sydney Ports Corporation business as usual approach, which may factor in a higher number of regional or long distance road based trips. Sensitivity assessment of alternate potential scenarios.
> Correlation of the estimated trip generation with actual real life examples of similar operating IMT's, rather than theoretical EIS estimates which may be subject to biases, errors in calculation or based on comparison with terminals with different operational characteristics.

- Sensitivity testing of the numerous assumptions that may lead to a worse traffic outcome, rather than a cursory review of assumptions which may result in more favourable outcomes. Provision of the modelled traffic impacts that may result from a robust sensitivity assessment.
- Details of all mitigation measures proposed at intersections and roads which are required to be upgraded, the likely cost of these works, as well as a commitment by the proponent as to the level of funding they intend to supply towards these upgrades. Details of how the westbound onramp merge with the M5 would be addressed. Confirmation that the proposed upgrades required are feasible and constructible. It is noted that the required mitigation measures may extend to Local Area Traffic Management schemes or pavement maintenance which may become required as a result of general traffic bypassing congested arterial road corridors via the Council local or regional road networks due to increased arterial road congestion as a result of the development.
- The amenity of surrounding streets containing residential and community uses should be considered with respect to on street amenity impacts, particularly streets proximate to the northern end of Moorebank Avenue and Anzac Road.
- The assessment should consider the impact of the proposal on access to the Liverpool City Centre as a Regional City, with any worsening of impacts considered unjustifiable.
- Confirmation that the proponent would be willing to commit as a condition of consent requiring staff shift change over times to not overlap with the peak traffic periods experienced on the adjacent road, rail or public transport networks where these networks experience or are predicted to experience congestion within the modelled horizon of the project.
- Discussion of the various published employment forecasts for the development and justification of the adopted estimate. Sensitivity testing to examine other potential scenarios.
- Close out of the modelling issues raised by Halcrow in their 2011 independent review.
- Close out of the traffic issues raised in the Cardno review contained within the 2012 Liverpool Council submission
- Details of the 2011 and 2031 road networks used in the Strategic and Paramics Models should be made available.
- Details of the future land use data for the 2031 transport model should be made available especially the assumptions adopted for the Liverpool LGA.
- Clarification and justification of the assumptions made in calculation of the trip generation of the development.
- The traffic modelling should be undertaken for intervening years to show the impact of the intermodal traffic as either/or the SIMTA and MIT intermodal sites ramp up from 2015 to 2031.
- Make available the AM and PM peak hour traffic flow results produced by the transport models on all roads within the Liverpool LGA included in the model. The Modelled results should clearly distinguish traffic flows without either intermodal terminal and with one or the other or both intermodal sites. The traffic flow results must clearly show the car and truck movements generated by the intermodal sites on Council Roads.
- Intersection results summary should be provided for all intersections (in both without and with SIMTA development) across the modelling horizon to assess the impact of the SIMTA development on the external road network.
- Recommendations in regards to minimum infrastructure upgrades at failing intersections. Additional detailed intersection modelling should be undertaken incorporating the proposed mitigation measures at the poorly performing intersections to determine the proposed mitigation measures will result in acceptable traffic operation.
- In accordance with TfNSW submission CD12/05199, point 6.1, employee trip generations calculated should include the employee trips generated from both the SIMTA and MIT with the modelling incorporating all trips generated.
- In accordance with TfNSW submission CD12/05199, point 6.2, clarification of traffic assignment needs to be provided and incorporated into traffic assessments, modelling both the Intermodal Terminal Facilities.

4.2 Noise and Vibration

4.2.1 Summary of changes from 2012 to revised 2013 EA

The previous acoustic assessment of the proposed SIMTA site was undertaken by PAE Holmes, with a number of significant issues relating to operational and construction noise and vibration impacts to the nearest noise sensitive receivers identified by the Cardno submission. These issues required clarification and further detailed review.

The revised 2013 EA provides a reassessment of the proposed SIMTA development and has been informed by the *Noise Impact Assessment* (Wilkinson Murray, 2013). The revised EA has largely addressed the primary issues identified in the review of the previous 2012 EA and appears to have been based on a largely agreed site plan/ layout, which is a significant change compared to the 2012 EA. As part of the 2013 EA, baseline noise monitoring has been undertaken in four locations at Wattle Grove, Casula and Glenfield, representative of existing noise sensitive receiver locations. As a result of the baseline noise survey, the noise criteria for the project have been reassessed.

Information regarding the type and estimated quantity of typical plant and equipment that will be used on site has been provided for the revised assessment and are similar to the plant and equipment in the previous assessment. It is important to note however that the revised acoustic assessment has nominated electric/ hybrid plant and equipment. This commitment may have been clarified by SIMTA for the revised assessment as it was unclear if plant and equipment identified in the previous acoustic assessment was based on this hybrid technology.

A construction noise assessment has been detailed in the revised assessment and has been based on condensed construction phases of work but fundamentally covers similar activities to the previous acoustic assessment. At this stage of the project, it is reasonable to assume that a detailed construction plan, detailing phases of work, plant and equipment would not be available, therefore assumptions regarding work phases and the like would be estimated as best as possible. It is considered that this would be satisfactory for an EA document and that a further detailed study would be undertaken during later, detailed design stages of the project.

A cumulative noise assessment has been undertaken to address cumulative noise impacts from the operation of both the SIMTA site and adjacent proposed MIT site. Wilkinson Murray (2013) have identified that a number of assumptions have been made in the assessment due to the limited information available for the MIT project site at the time of the assessment.

4.2.2 Cardno Assessment

Cardno's review of the 2013 EA and *Noise Impact Assessment* (Wilkinson Murray, 2013) has considered the findings and recommendations of our review of the 2012 EA and assumptions/ input data used for both assessments. This review has identified that largely the key issues previously identified have been addressed; however the review has also shown that additional assessment and clarification of assessment input data is required to thoroughly address potential noise impacts from the SIMTA proposal. The key issues from our review are provided in the subsections below. As a general comment, some input data such as the number of diesel locomotives and site generated road traffic does not appear to be referenced to any project team consultant reports to confirm that there is consistency in the input data used for the assessment.

4.2.3 Sensitive Receivers

It is understood that the current Commonwealth land proposed for the MIT site is currently utilised as educational facilities by the Defence School of Military Engineering (SME). This land also is understood to have residential accommodation. The 2013 assessment has not identified these receivers and does not appear to have undertaken baseline noise measurements at or in the vicinity of the site along Moorebank Avenue. As a result, these receivers have not been assessed.

Whilst the 2013 EA notes that the Commonwealth land occupied by the SME is zoned 'SP2 Infrastructure (defence)', the SME site is in use and may also be in use when the SIMTA site is being constructed/ operational. The site is required to be assessed for construction and operational noise and vibration impacts to noise sensitive receivers on this site.

4.2.4 Existing Noise Levels

With reference to **Appendix A**, extraneous weather periods have been shaded in grey however it is unclear if the assessed noise levels have been filtered to exclude extraneous weather effects as per the NSW Industrial Noise Policy (INP) guidelines and any other extraneous noise sources that may have affected the measured noise levels.

Weather, including wind and rain are to be excluded from the assessed noise levels as per the INP. If extraneous noises and weather effects have not been appropriately excluded from the dataset, assessed noise levels that form the basis of the project specific noise criteria may be skewed higher or lower than what it should be. This will also affect potential noise mitigation treatments.

4.2.5 Operational Noise Sources

There are a number of plant items that have been listed in **Table 6-1** (operational noise sources) of the Noise Impact Assessment (Wilkinson Murray, 2013). It is unclear whether the sound power levels take into account transient noise events such as shunting of train locomotives on site for example. It is understood that the data has been sourced from SIMTA; however it is unclear whether the source sound power levels are based on a Standard or derived from existing plant in an equivalent (or representative) facility.

The LAeq noise level descriptor has been used to represent the average noise emission level of the plant items over a 15 minute period. It is assumed firstly that there is a commitment by the operator of the site to use hybrid energy equipment (which is generally lower noise output compared to diesel or combustion engine powered plant) as per the assessment. Additionally, based on previous experience there has been a discrepancy between the quoted theoretical sound power data for plant and equipment, and the same plant and equipment tested on-site. There is a risk that theoretical sound power levels may result in potentially lower modelled noise impacts. Therefore, it is considered more appropriate to use actual measured source noise levels where feasible to minimise this risk.

Depending on the freight arriving on site, it is considered that refrigerated containers may be temporarily stored on site. It is unclear from the 2013 EA if refrigerated containers have been considered.

4.2.6 Road Traffic Noise Assessment

The input data used in Table 6-5 of the *Noise Impact Assessment* (Wilkinson Murray, 2013) is consistent with the data used in the previous 2012 EA. Therefore, as per the review comments made regarding the 2012 assessment, there is no reference to:

> Which year has been modelled as "*current*";

> Which year has been modelled as the "*Future*" – with the development;

> General annual vehicular traffic growth (background growth) on Moorebank Avenue and the M5 motorway and if this is included in the projected "*future*" road traffic predictions.

Where the traffic data (baseline and forecast) has been referenced from and if there is consistency between specialist studies including traffic, air quality, GHG and noise.

Clarification is required to determine net impacts of road traffic noise from the site and reassessment of the SME site is also required.

4.2.7 Rail Noise Assessment

The projected number of diesel locomotives entering/ exiting the site is consistent with the previous 2012 assessment. It is also noted that the rail noise predictions have been based on data obtained from the RailCorp database.

It is unclear if the RailCorp noise data used for the rail noise assessment is of rail cars loading and unloading on site, diesel locomotives idling or takes into account shunting of rail cars and other transient events such as containers being dropped onto hardstand areas. The assessment also does not identify at what location within the proposed rail balloon loop the levels were taken.

Source sound power levels (and conditions, i.e. rail car shunting) have not been documented other than a single reference in the sleep disturbance section of the report (Refer **Section 6.2**). In this section, an LAmax sound power level of 118dB(A) is referenced for these activities.

For assessment of LAeq noise levels from rail activities, the assessment should clearly state the sound power levels used so that the assessment inputs and outcomes can be verified.

4.2.8 Cumulative Noise Generation

It is understood that the total TEU demand in the area is currently 1 million however it is understood that the SIMTA site alone is designed to accommodate 1 million TEUs per annum. The Federal site directly opposite (MIT) can also accommodate a further 1.7 million TEUs. We consider that the assumption made of a 50/50 split in capacity in the cumulative assessment is incorrect and is indicating a low noise impact as a result. It is feasible however at this stage to assume the location of plant items on the MIT site as it is understood that the site layout has not yet been released for review.

The assessment is considered conservatively low and does not represent a worst case scenario. A doubling of capacity to 1 million TEUs on the SIMTA site may increase noise emissions from this site by at least 3dB(A); however it is noted that the MIT site is closer to residents at Casula and impacts may be higher as a result of peak capacity on both sites. Therefore the impacts are not appropriately addressed and this may also impact the effectiveness of noise mitigation treatments recommended in the report such as earth berms (heights and extent).

It is unclear if the cumulative assessment has been reviewed and documented under temperature inversion conditions, as the report has identified that temperature inversions will occur at the site. Temperature inversion can add to noise impact levels. If the cumulative assessment has not taken this into account, the predicted noise levels documented in the report may be lower than expected.

4.2.9 Baseline Data

In relation to the baseline data used for the road traffic noise assessment, we have reasonably assumed that this has been based on data provided in the Transport and Accessibility Impact Assessment, (Hyder, [c], 2013) Table 3-2; however, we do note some minor discrepancies between the baseline (assumed current) values in the *Noise Impact Assessment* (Wilkinson Murray, 2013) and Table 3-2 of the *Transport and Accessibility Impact Assessment*, (Hyder, [c], 2013). The minor discrepancies are approximately several hundred vehicles per day; however in relation to increased noise levels, this minor discrepancy is not likely to be significant given the large volume of vehicular traffic on the M5 Motorway. As noted, clarification is required in relation to future predicted road traffic volumes, including further assessment and consideration of vehicular traffic noise impact on the SME.

The *Noise Impact Assessment* (Wilkinson Murray, 2013) has identified that further detailed studies will be required to assess noise impact and confirm in more detail noise mitigation measures at each development application stage following approval of the Concept Plan. This is considered reasonable as it is expected that some refinement of building heights, locations and plant and equipment for example will be made at each project approval stage. However, baseline inputs for the Concept Plans should be clarified/ detailed to provide a more thorough assessment of the project noise and vibration impacts.

4.2.10 Recommendations

The following recommendations are made:

> In relation to input data, including sound power levels of plant, rail noise and climatic conditions, it is recommended that this information is clearly documented for clarity in the Noise Impact Assessment so that input data, assumptions and noise mitigation treatments can be properly verified. Additional tables and references in the report are required to address this issue.

> Additional construction and operational noise and vibration assessment is required for the SME site. It is anticipated that some liaison with Defence for the SME site will be required to determine the location of residential accommodation on the SME site, to enable acoustic assessment for these noise sensitive receivers.

> The rail noise assessment has been undertaken using Railcorp noise level data, as well as the IGANRIP noise assessment policy. It should be noted that in addition to clarification of the Railcorp noise data, the assessment should be undertaken with reference to the current RING noise assessment policy.

> Cumulative noise impacts are recommended to be reassessed for all receivers on the basis of clarified and coordinated input data, for example peak output on both SIMTA and MIT sites, as well as site generated road traffic.

> Adjustments (additional column(s)) are recommended in the cumulative noise assessment section (Table 7-1) to distinguish operational noise emissions from the SIMTA site and a separate column for combined noise impacts. As stated previously, the assessment should indicate if the documented noise impact is inclusive of temperature inversions, alternatively, provide two separate tables, ie one under neutral conditions and the second under temperature inversion conditions to clearly identify potential noise impacts under worst case conditions.

4.3 Biodiversity

4.3.1 Summary of changes from 2012 to revised 2013 EA

The 2013 EA consists of a more comprehensive biodiversity assessment, including greater definition of the proposed impacts and the resulting mitigation and management measures. The assessment defines specific environmental management plans required to address impacts identified including a Vegetation Management Plan and a Threatened Species Management Plan. The more detailed assessment undertaken in the revised EA has resulted in a more comprehensive list of impacts resulting from the proposed works than identified by the original EA, with impacts associated with vegetation clearing and operational impacts.

The revised route of the rail connection between the SIMTA site and the SSFL has resulted in the requirement for additional flora and fauna surveys to be undertaken in order to adequately assess the new route (refer to **Figure 2-1**, which illustrates the rail spur route and associated significant vegetation). These additional surveys have in turn led to changes throughout the Flora and Fauna Assessment (Hyder, [e], 2013) including the total number of impacted flora and fauna, and the extent of impacts to an EPBC listed plant species, Persoonia nutans. Changes in the extent of flora and fauna impacted by the proposal result in the Endangered Ecological Community (EEC) Cumberland Plain Woodland no longer being impacted, however, impacts would now occur to the State listed mammal species Eastern Freetail-bat (*Mormopterus norfolkensis*). One additional habitat type (landscaped areas) was also identified by the additional surveys.

Consultation with SEWPaC has also been undertaken since the original EA and has resulted in the addition of a Preliminary Biodiversity Offset Strategy (BOS) (Hyder, [d], 2013), which was not included in the original EA. Following consultation with SEWPaC, SIMTA now seeks approval under the Commonwealth EPBC Act for the proposed development due to the following controlling provisions:

> Listed threatened species and communities, particularly impacts identified as significant on listed species *Persoonia nutans* (sections 18 and 18A of the *EPBC Act*); and

> Commonwealth land (Section 26 and 27A of the *EPBC Act*)

The BOS was established to define the commitment by SIMTA to offset the residual significant impacts of the proposal on threatened species, populations and communities in line with the EPBC Offsets Policy and the DGRs. As the BOS is preliminary, it only includes a vague discussion of impacts and potential offset options and does not include a detailed strategy which is required to comply with the relevant guidelines.

A focus on Riparian Zone Management (RZM) is now included within the EA including details on the appropriate riparian mitigation and management measures that will be undertaken as part of the proposal. This additional section is likely due to consultation undertaken with the NSW Office of Water (NOW) which has been undertaken since the original EA. RZM legislation is now also discussed including the Water Management Act 2000 and Fisheries Management Act 1994.

4.3.2 Cardno Assessment

The following issue raised in the submission to the original EA by Cardno still applies:

> Design of the rail corridor link should be based on avoiding or at least minimizing impacts on the two threatened plant species to conserve areas of remnant vegetation and remnant woodland which would act to mitigate impacts on the three threatened fauna species at the site.

The significance of impacts to the species *Persoonia nutans* is now recognized within the EA due to the new alignment of the rail link and the required removal of some 14% of the population recorded at this location as a result of the works. This species is Commonwealth listed. Therefore, consultation with SEWPaC is required and has been undertaken prior to the development of the revised EA. The consultation has led to the development of the BOS. However, there appears to have been no changes in the rail alignment through this area as a means to minimize impacts on this listed endangered species.

It has been defined in the Flora and Fauna Assessment that it "*is not considered likely that the SIMTA proposal constitutes a significant impact on the Vulnerable species Grevillea parviflora subsp. parviflora*". (Hyder, [e], 2013). Based on the information provided within the Flora and Fauna Assessment this statement is not considered accurate or true based the following:

> The population of G. parviflora subsp. parviflora is considered significant due to its isolated occurrence in Western Sydney

> The Environmental Impact Assessment Guidelines: *Grevillea parviflora subsp. parviflora* (NPWS, 2002) defines that a significant area of habitat is one which has >50 plants; a population with a varied age structure including active recruitments of seedlings; and an area of intact habitat away from high disturbance areas. All of these features can be used to describe the project area.

> 11% (some 464 stems) will be removed through clearing as a result of the proposal

> Clearing of native vegetation, a key threatening process under the TSC Act, is likely to threaten G. parviflora subsp. parviflora (NPWS 2002)

> G*. parviflora subsp. parviflora* has a limited seed dispersal (<2m). The construction of the rail line (>5m wide) will not only isolate some of the existing population, but will also result in a barrier for continued seed dispersal for this species across this area of habitat

Based on the above, the Assessment of Significance provided for *G. parviflora subsp. parviflora* in Appendix 6 of the Flora and Fauna Assessment (Hyder, [e], 2013) should be revised with the conclusion amended to determine that the proposed works will result in a significant impact on this species. Accordingly, consultation should be undertaken with SEWPaC and OEH to determine the severity of this impact and the appropriate mitigation measures and offsets required to protect this species.

The Flora and Fauna Assessment (Hyder, [e], 2013) identified the Cumberland Plain Land Snail (*Meridolum corneovirens*) as occurring adjacent to the project site. Whilst this species is known to occur in the area it was not considered or assessed to determine if the proposed rail route would result in significant impacts. This species primarily inhabits Cumberland Plain Woodland Forest and would be directly impacted by the

clearing of this TEC. Due to this, targeted surveys along the proposed rail alignment should be undertaken to determine if this species is present and the level of impact that will occur as a result of the proposal.

Offset sites have not been identified in the BOS document. Conversely the BOS details the proposed impacts and mitigation measures, biodiversity offset policies and three broad offset measures which can be used for consideration in this project. Offset Measure A has been identified as SIMTA's priority option. Option A relies on obtaining offset land that meets very specific criteria including habitat for *P. nutans*, as identified in the BOS. Offset Measures B and C are lacking in any specific detail and cannot therefore be assessed.

The BOS provides no recognition that a suitable offset site to satisfy Offset Measure A is available to offset the clearing proposed by the project. The distribution of *P. nutans* is limited to the Cumberland Plain of Western Sydney, between Richmond in the north and Macquarie Fields in the south (NPWS, 2004). This limited habitat range provides minimal options for land to be used for offsetting.

The BOS should utilise the *Biodiversity Certification Assessment Methodology* (BCAM) (DECCW, 2011) in order to assess the loss of biodiversity as a result of the proposed works and whether the proposed offsetting will result in improving or maintaining the biodiversity values that would be lost as a result of the proposed project. The BCAM provides a defined methodology for assessing and measuring a biodiversity conservation assessment area (offset area) including threatened species biodiversity values and the value of credits which can be obtained by undertaking conservation of this area. Depending on the type of conservation measures employed, the credits generated can be calculated at 100% (if the developer funds and manages the conservation area), 90% (if the conservation area is just managed with no committed funding) or 25% (if the land is simply re-zoned to environmental conservation). This methodology needs to be adopted by the SIMTA project to ensure that the BOS is in line with NSW standards.

The minimum estimated land required for offsetting has also been defined as 0.74 ha of *P. nutans* habitat. This number was derived from the sum of occupied and potentially occupied habitat that will be removed and does not account for edge effect as a result of the proposal, areas of impact due to isolation as a result of the proposal, or the offset percentage based on BCAM.

Offsetting of *G. parviflora subs. parviflora* has not been considered in the BOS. As discussed this species will be significantly impacted as a result of the proposal and would also require offsetting. Whilst this species has a greater area of distribution than P. nutans, a habitat area that is as close to the impact area as possible is preferable to offset the proposed works as defined in the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (SEWPaC 2012).

The boundary of the study area (shown in Figure 2 of the Flora and Fauna Assessment) does not extend beyond the eastern boundary of the SIMTA site. Given that potential impacts may extend beyond this boundary and the lack of certainty regarding the location and extent of impacts, it is recommended that the boundary of the study area is extended to ensure that all potential impacts are addressed. Furthermore, Section 3.2.4.1 of the Flora and Fauna Assessment notes that "*In the south-west is a large fenced area that was not accessible during the current survey*" (Hyder, [e], 2013). It is recommended that the location of the area not included in the survey is illustrated on a map to clearly demonstrate the extent of this limitation. It is recommended that all areas within the study area which were excluded from the survey are noted within Section 2.4 (Limitations).

The Flora and Fauna Assessment at Figure 7 (DECCW (2009) vegetation mapping of the study area) indicates Castlereagh Shale-Gravel Transition Forest directly east of site, in an area not surveyed in detail during the current study, or included in the vegetation mapping. Given that this vegetation type may be classified as Shale Gravel Transition Forest (a critically endangered community listed under the EPBC Act), and the level of uncertainty regarding potential impacts, it is recommended that this potential presence is addressed.

The Aquatic Ecology Assessment included as Appendix 1 states that the Castlereagh Swampland Community within the vicinity of Anzac Creek and within the study area could be considered a groundwater dependant ecosystem. Any development within the Anzac Creek CSWL community should thoroughly consider potential impacts on groundwater quality and quantity as any localised pollution or reduction in the groundwater table is likely to influence this endangered community. It is recommended that this matter is addressed within relevant assessments for this community.

4.3.3 Recommendations

The following recommendations are made:

> Re-design of the rail corridor link to avoid or at least minimized impacts on the two threatened plant species should be considered to conserve areas of remnant vegetation and remnant woodland, which would act to mitigate impacts on the three threatened fauna species at the site.

> Impacts on surrounding flora and fauna adjacent to the SIMTA site are not discussed in detail from either a construction or ongoing operational perspective. Mitigation and management measures to protect flora and fauna need to be defined in the EA.

> The assessment of significance for EPBC Act listed species *G. parviflora* subs. *parviflora* should be reviewed and significance of the impact to this species should be reflected throughout the Flora and Fauna Assessment, Biodiversity Offset Strategy in the EA.

> Targeted surveys of the Cumberland Plain Woodland Snail should be undertaken so that the level of impact on this species is identified prior to the determination of the proposal.

> A site for Offset Measure A should be identified through a detailed investigation prior to the proposed works being approved. Should a specific offset measure not be pursued prior to approval then greater detail of additional Offset Measures B and C should be identified in a more comprehensive Biodiversity Offset Strategy.

> The BOS should utilise the BCAM (DECCW, 2011) in order to ensure that the chosen offset is adequate and meets NSW legislative requirements, within an indicative BCAM assessment undertaken prior to any determination of the proposal.

> The boundary of the study area does not extend beyond the eastern boundary of the SIMTA site. It is recommended that the boundary of the study area is extended to ensure that all potential impacts are addressed.

> The potential presence of Shale Gravel Transition Forest should be considered in the Assessment.

> To provide transparency in the assessment, it is recommended that a map of potential habitat for threatened species is included to demonstrate the areas used for the calculations in Table 24 (Threatened flora species habitat within the study area and SIMTA proposal footprint).

> It is recommended that assessments for all threatened species which may be impacted upon (as identified in Table 17 (Threatened Flora Habitat Analysis) and 19 (Probability of threatened fauna species of the Flora and Fauna Assessment identified from the locality to occur in the study area)) are included in relevant appendices.

> The threatened species, Acacia pubescens, was recorded directly east of the SIMTA property. Given the lack of certainty regarding the location and extent of impacts, it is recommended that this species is further assessed. The Flora and Fauna Assessment noted that this species is protected by a powerline easement. However, it is considered that there may be potential impacts which could breach this buffer.

> The following comments relate to the assessment of Grevillea parviflora subsp. parviflora:

- The assessment provided for the potential presence of Green and Golden Bell Frogs is generally restricted to habitat associated with Anzac Creek. It is recommended that all potential habitat areas for this species are addressed.

> The following comments relate to the assessment of the Eastern Bent-wing Bat:

- It is recommended that roosting habitat types other than cave systems are further addressed, particularly given that the assessment acknowledges that “thorough examination of warehouses and potential roost sites in the SIMTA site was not undertaken”.
- It is recommended that indirect impacts such as lighting and noise are further addressed, both for the construction and operation phases.

> The following comments relate to the assessment of the Southern Myotis:

- It is recommended that further justification is provided for the following statement found in Appendix 6 (Assessments Of Significance): 'Approximately seven hollow-bearing trees are located within the proposed rail link will be require removal. This will result in the loss of potential roosting habitat for the Southern Myotis in the study area. This is unlikely to represent a significant area of roosting habitat for the species in the locality.'
- It is recommended that indirect impacts are further addressed, particularly given that Figure 12 (Fauna habitat in the study area) indicates that all identified hollow-bearing trees within the study area occur within close proximity to the rail link.

> The following comments relate to the assessment of the Eastern Freetail-bat:

- It is recommended that further justification is provided for the following statement found in Appendix 6 (Assessments Of Significance): 'Approximately seven hollow-bearing trees, and any rough-barked eucalypts are located within the proposed rail link will be require removal. This will result in the loss of potential roosting habitat for the Eastern Freetail-bat in the study area. This is unlikely to represent a significant area of roosting habitat for the species in the locality'.'
- It is recommended that indirect impacts are further addressed, particularly given that Figure 12 (Fauna habitat in the study area) indicates that all identified hollow-bearing trees within the study area occur within close proximity to the rail link.

4.4 Hazard and Risk

4.4.1 Summary of changes from 2012 to revised 2013 EA

A range of key potential hazards were identified in the 2012 EA Hazard and Risk Assessment which included the "Potential for soil and groundwater contamination as a result of previous activities on the site" (Sydney Intermodal Terminal Alliance Transitional Part 3A Concept Application: Environmental Assessment, Prepared for Sydney Intermodal Terminal Alliance, Urbis, 2012), however in the revised 2013 EA Hazard and Risk Assessment (Hyder, [f], 2013) this potential hazard has been removed from the document. The studies completed to date have outlined that a range of previous land uses have been carried out across the site with the potential to contaminate soil and groundwater. This is a considerable risk during construction until further detailed investigations are undertaken to determine the absence or presence and extents of hazards. Other EA supporting reports, such as the Phase 1 Environmental Site Assessment (ESA), identify that further site investigations comprising of intrusive testing will be required to characterize the site, as areas of illegal and uncontrolled waste tipping within the proposed rail corridor have been identified. The tipping could include hazardous materials.

Additional consideration and assessment of the hazards and risks associated with the goods to be transported and stored has been included in the 2013 EA Hazard and Risk Assessment (Hyder, [f], 2013). The Assessment identifies that future tenants proposing to store dangerous goods at the SIMTA site will need to design any warehouses subject to hazard and operability studies and the potential application of SEPP 33 (Hazardous and offensive industry), which would require a Preliminary Hazard Analysis (PHA) to assess the levels of risk associated with specific goods and activities.

4.4.2 Cardno Assessment

The changes to the 2013 EA provide additional discussion on international shipping legislation and more specifically details on how hazardous goods transported from ship to port need to be managed. This is an important management consideration during operations as hazardous materials transported within the existing commuter rail and road systems can introduce hazard and risks to the greater community if a train derailment, truck accident or load incident were to occur.

The 2013 EA still does not make any reference to cumulative risks and hazards, especially those relating to freight transport by both rail and road. The rail transport option should consider the risks and hazards associated with additional freight moving within the commuter rail network. This creates potential risks associated with public safety as well as for transport efficiency. Similarly the impacts on the local and broader road networks are not discussed within the revised EA.

It is recommended that detailed modelling be undertaken to ensure that the rail system has the capacity to include the additional freight movements proposed. This detailed modelling would also be able to predict any potential bottlenecks or other interaction issues with commuter or freight trains throughout the rail network. The SIMTA proposal does note that a quadruplication of the existing line leading into the SSFL from Port Botany is the proposed solution to reduce impacts on the commuter line. However this option is not adequately justified by any real network analysis or supporting detail on areas of upgrade required downstream towards the Port and there are limited alternatives outlined. The analysis and outputs of this modelling would allow concept designs for any required track modifications to be developed.

A number of existing comments made by Cardno (2012) still remain relevant in that the risk of increased traffic impact on local roads and rail is described as high even after mitigation measures are applied. Further studies are still required to analyse the proposal including:

> Traffic management plan

> Strategic and project modelling

> Assessment of the road and rail infrastructure quality to determine capacity to handle increased traffic

Offsite impacts such as truck accidents, loss of load, air pollution and the potential impacts on the environment are not considered in Table 8 of the 2013 EA. This table only addresses on-site issues although consideration should be made for how off-site impacts resulting from the site are to be managed and mitigated.

Disruption to the community during both the construction and operational phases is still a major consideration that has not been adequately covered or justified within the 2013 EA. Cardno (2012) noted although Hyder, [f] (2013) have stated that a Community Consultation and Involvement Plan will be applied, further justification needs to be provided as it is still unclear what practical measures are available to reduce the assessed risk from Very High to Medium.

Construction Environmental Risks

> Contamination - environmental and health impacts (not just attributable to asbestos, but also the potential for Hydrocarbons and chemicals at the site due to previous land uses and uncontrolled/illegal dumping in some areas of the site). Refer to Section 4.5 for further details.

> Underground storage tanks and a waste oil tank have been identified within the Preliminary ESA as being present on the site, which will require further detailed assessment prior to any decommissioning or removal.

> Public interactions with construction activities - including during construction of the bridge over the river, which may require exclusion zones etc.

Operational Environmental Risks

> Road (capacity, congestion, truck safety)

> Rail (commuter network capacity, congestion, double stacked containers - safety)

4.4.3 Recommendations

> The 2013 EA should require detailed site contamination investigations Phase 2 ESA and Phase 3 Risk assessment be undertaken where required, prior to commencement of construction to delineate the presence and/or extent of soil and groundwater contamination present. Where required, approval would be obtained in accordance with SEPP No. 55 for remedial works.

> Although asbestos has been identified as the main construction risk within the 2013 EA, other contaminants of concern (such as PCBs, Hydrocarbons and chemical waste), previously listed in the 2012 EA should remain identified as risks as they still present a potential hazard and high level of risk to the environment and human health until further detailed investigations can rule out their presence.

> An unexpected finds protocol should be developed for the construction phase to manage potential contamination finds, which should be incorporated in the Construction Environmental Management Plan (CEMP). This protocol will outline methods of identifying potentially hazardous materials, along with any testing, validating and disposal requirements to ensure potential emergent contamination and health risks are appropriately managed.

> Detailed rail network modelling should be undertaken to understand the detailed interactions and potential bottlenecks in the rail system through to Port Botany. This modelling would need to consider the MIT proposal as part of a cumulative assessment.

4.5 Contamination

4.5.1 Summary of changes from 2012 to revised 2013 EA

In general the revised 2013 EA does not provide any further assessment of contamination risks or details of previous SIMTA site remediation and validation. The revised EA includes generalised potential contamination management measures including generic remediation options to address the identified areas of environmental concern / potential contamination risks.

More specifically, further commentary on potential contamination risks and management measures is provided in a new section discussing "*Potential Contamination Management Measures*" in the Golder Associates (2013) Preliminary Environmental Site Assessments presented in Appendix M and N of the revised EA. As stated also in the original EA, the new Section 4 of Appendix M opens with the statement that "*a NSW EPA Accredited Site Auditor concluded in 2002 that the SIMTA site was suitable for ongoing commercial / industrial use, including the use as a storage and distribution centre, subject to the implementation of a SMP (Site Management Plan)"* (Golder Associates, 2013). However, the status and implementation of the SMP remains unknown.

Section 4 of **Appendix M** then groups the previously identified potential contamination issues into three general areas of environmental concern:

1. Unground tank installations
2. Filled areas
3. Un-exploded Ordnance (UXO).

Generic conceptual remediation options are provided for each of the three areas of environmental concern. Golder notes that if remediation is required, the remediation method will be dependent upon factors including the results of intrusive investigations, detailed design, cost and schedule.

Similar to the discussion of "*potential contamination management measures*" (Golder Associates, 2013) provided for the SIMTA site in Appendix M of the revised EA, Section 8 of Appendix N of the revised EA provides a general overview of potential approaches to managing contamination issues within the SIMTA rail corridor land. However unlike the SIMTA site, Golder notes that the SIMTA rail corridor land has not been subject to intrusive investigations to confirm if the contamination risks have resulted in actual contamination and if present, the extent, magnitude and chemical characteristics of any contamination.

Golder groups the potential sources of contamination within the SIMTA rail corridor land into:

1. Historical placements of fill material and dumping of building rubble and other waste materials
2. Historical use of pesticides and herbicides
3. Potential UXO associated with the former grenade ranges
4. Operation of a landfill.

Similar to the SIMTA site, generic conceptual remediation options are discussed for the rail corridor land. Golder notes that if remediation is required, the remediation method will be dependent upon factors including the results of intrusive investigations, detailed design, cost and schedule.

Consistent with the previous reports, the revised *Preliminary Environmental Site Assessments* prepared by Golder Associates (2013) for both the SIMTA site and SIMTA rail corridor land conclude that significant environmental issues have not been identified which would preclude the currently proposed development.

4.5.2 Cardno Assessment

The revised *Preliminary Environmental Site Assessments* (Golder Associates, 2013) included in Appendix M and N of the EA, does not alter the conclusions of the EA or previous Cardno assessment, rather they provide more context around potential contamination management measures including generic options for potential remediation if required.

Consistent with Cardno's assessment of the original EA and as noted by Golder Associates (2013), the contamination assessments undertaken to date, are by nature preliminary and do not provide sufficient information to detail the nature and extent of contamination (if any) and the associated remediation required (if any). However, this is unlikely to preclude commercial / industrial development, subject to the implementation of the Golder Associates (2013) recommendations as included in the Draft Statement of Commitments in Section 18 of the revised EA.

4.5.3 Recommendations

As a minimum, the applicant must:

> Undertake further intrusive investigations on both the SIMTA site and SIMTA rail corridor land.

> Based on these investigations detail any requirements for remediation, monitoring or other management measures.

> Develop a Contamination Management Plan(s) for the SIMTA site and SIMTA rail corridor land, including ongoing management, monitoring, auditing and reporting requirements both during and post construction.

4.6 Stormwater and Flooding

4.6.1 Summary of changes from 2012 to revised 2013 EA

The 2013 EA re-arranges the information contained within the stormwater and flooding sections. Additionally, the revised EA provides a greater level of detail associated with the expected flooding and hydrology impacts including:

> *"Sedimentation impacts may result in increased turbidity, reduction in water body temperatures and reduction in dissolved oxygen, detrimentally impacting fish habitat in Georges River and Anzac Creek."* (Urbis, [a], 2013)

> Likely impacts resulting in degradation of aquatic habitat and obstruction to fish passage, such as diversion of flows, bed and bank erosion, reduction in water quality and light penetration, removal of shade trees, removal of bank vegetation and obstruction of fish passage due to inappropriate design.

> Potential fuel, oil or lubricant spills affecting water quality. However the revised EA anticipated these impacts to be negligible due to the use of water detention structures and implementation of spill and emergency response procedures.

> Fish passage barriers resulting from debris blocking culverts and impacting on natural water flows during operational and maintenance phases.

Management/mitigation measures for stormwater have also been expanded for both the construction and operational phases. These measures include design principles, as well as the need for further investigations and the development of management plans. Specific water quality treatment methods as discussed in the original EA have been removed including defined pre-treatment methods such as buffer strips, gross pollutant traps and bio retention systems.

Additional consideration of the adjacent MIT proposal has been included in the potential cumulative impact section. However, both the original and revised EA assume that the MIT proposal would be designed to meet strict design and statutory considerations and thus would not result in the creation of a cumulative impact with the SIMTA proposal. This is a broad assumption lacking a sound factual basis.

The legislative requirements section now includes relevant legislation regarding stormwater and flooding in the project proposal. No changes have been made to the summary and conclusion of this section.

4.6.2 Cardno Assessment

The following comments based on the review of the original 2012 EA are still applicable:

> Proposed filling of the site to provide flood immunity has impacts on the Probable Maximum Flood (PMF), with impacts of up to 50mm shown for downstream flood extents. It is recommended that the PMF impacts be further quantified and assessed, in particular in terms of any implications to emergency response planning or the safety of people in accordance with the Floodplain Development Manual (DIPNR, 2005).

> The flood maps provided for the review are of low resolution. Legible copies of the reports are required to perform a thorough assessment.

> The PMF impacts map should be extended to incorporate the full extent of downstream impacts.

> The PMF impact map should be amended to include a "was dry now wet" parameter, which would be valuable in assessing whether any properties may anticipate further flood affectation as a result of the proposal.

> Off-site impacts of impediment / diversion of existing catchments should be qualified to demonstrate the effectiveness of the proposed mitigation measures.

> The DGRs require the proponent to undertake an appropriate level of consultation with relevant parties, including adjoining and affected landowners. While the assessment indicates that adverse impacts resulting from the management of external catchments 'may be open to negotiation with the various stakeholders', there is no evidence of such negotiation or consultation having taken place. If impacts are anticipated consultation with affected landowners (as per DGRs) will be appropriate.

The stormwater and flooding assessment is only based on the SIMTA site and does not consider the impact of the proposed railway that would link the site to the existing rail network. Flooding in this rail corridor can potentially impact upon rail safety, access, and ecological values. In order to ensure that the impacts of this development are completely assessed the impacts of flooding on the new rail line requires consideration.

The specific design and location of pre-treatment and bio-retention systems has not been identified. This detail is required in order to determine if the proposed mitigation measures are adequate for the project catchment and project impacts of the proposal. Should these systems not be appropriately designed or lack capacity, then downstream water quality impacts would occur within environmentally sensitive waterways and associated riparian corridors.

There is a lack of consideration of the required stormwater and waste water treatment infrastructure within the 2013 EA. An example includes the requirement within Part 1.1 of the *Liverpool DCP 2008* associated with Gross Pollutant Traps (GPTs). GPT's are required for development of industrial land, however, no consideration is provided.

Management and mitigation measures described in the revised EA are ill-defined and general, providing only a vague understanding of the measures proposed to be used to address impacts. Specific details of the mitigation measures proposed including: details of site levels; drainage grades; sediment and erosion control strategies; and the chosen light penetrating design materials would assist in more accurately defining the measures and whether they are suitable and adequate to address potential impacts.

The original and revised EA assume that there would not be cumulative impacts resulting from the development and operation of both the SIMTA and MIT proposals due to strict design and statutory considerations. This is a broad assumption, lacking supporting evidence. The MIT EA has not yet been publicly exhibited. Consequently, the measures proposed to be used to manage stormwater are not known and the extent of cumulative impact cannot be quantified. A more appropriate approach to considering cumulative impacts associated with stormwater would be for the SIMTA and MIT proponents to undertake extensive upfront liaison to establish potential synergies, which could lead to reduced environmental

impacts, along with rationalizing the extent of service infrastructure required to meet the demand for the two adjacent sites. A coordinated approach would help to reduce resource consumption and increase efficiencies during both construction and operation. The potential cumulative impacts could then be assessed accurately, with a conservative approach taken, in order to provide a realistic understanding of the impacts.

4.6.3 Recommendations

Based on this review of the revised EA and associated documents, recommendations comprise:

> High resolution figures and designs are required in order to provide enough information to allow an assessment to be made.

> PMF impacts should be revised to include implications to emergency response planning and the safety of people both with and surrounding the site.

> The PMF impacts map should be updated to include the full extent of downstream impacts as well a “was dry now wet” parameter.

> Off-site impacts need to be discussed to ensure appropriate mitigation measures are employed.

> The proposed works within the railway corridor should be assessed to determine the stormwater and flood impacts of these works.

> Specific mitigation measures, as well as the location and design details of proposed pre-treatment and bio-retention systems, should be included to ensure that the proposal can be assessed to determine if measure presented are adequate and suitable.

> A coordinated development and operational approach should be used, with extensive liaison undertaken between SIMTA and MIT prior to preparing revised approvals documentation. A coordinated approach would allow cumulative impacts to be accurately identified, with development and operational efficiencies more likely to be realised.

> Consideration of the Liverpool DCP’s stormwater infrastructure requirements should be included in the proposal.

4.7 Air Quality

4.7.1 Summary of changes from 2012 to revised 2013 EA

A small number of the recommendations made by the Cardno submission to the 2012 EA appear to have been addressed in the revised EA. Additional data has been provided in the revised *Air Quality Impact Assessment* (Pacific Environment Limited, 2013), which includes:

> Dispersion modelling results have been provided as contours of maximum ground level concentrations as well as tabulated data at the nominated receptor. The impact at any point can be reviewed with this information; and

> An assessment of the vehicle movement impacts has now considered both Moorebank Avenue and the M5.

> The Air Quality Assessment is based on the underlying assumption that 1 million TEUs will be handled collectively by the SIMTA terminal and the MIT proposal.

4.7.2 Cardno Assessment

A review of the information provided in the revised EA suggests that further assessment needs to be undertaken in regards to the following:

> Clarification is required as to whether there will be any refrigerated or frozen materials handling and storage. No emissions related to refrigeration have been considered, and if refrigeration is proposed this is required.

> Clarification is required as to whether there will there be any space heating of warehouses. No on site fuel consumption for space heating of warehouses or offices has been considered.

> No information has been provided in relation to the model inputs for the dispersion model (emission sources, emission characteristics and physical characteristics of the receiving environment), therefore technical adequacy of existing modelling cannot be fully evaluated. Ground level concentrations at sensitive receptors may be underestimated.

> Air quality impacts will be under-estimated, if, as identified by the review of the traffic assessment (**Section 4.1**), the traffic movements associated with the facility have been under-estimated. The Traffic Assessment undertaken by Cardno considered the traffic movements to be substantially above those identified in both the 2012 and 2013 EAs, with air quality impacts correspondingly higher.

> The revised EA identifies the key pollutants associated with both the construction and operational phase of the SIMTA proposal, however no impact assessment of several of these pollutants has been undertaken. In particular no assessment of ozone and VOCs has been included.

> It is noted that the background levels of some pollutants are already high. Although it would appear that the addition of emissions from the SIMTA terminal will not cause criteria to be exceeded, the proposal will reduce available headroom for new industry or other emission sources to enter the area, possibly restricting future development. A discussion of this issue is required, particularly in respect of cumulative impacts and the proposed MIT facility. Additional data presented in the revised *Air Quality Impact Assessment* (Pacific Environment Limited, 2013) for the years 2007 to 2012 shows that 2009 (referenced in our previous review) had particularly high background levels and is not representative of the other years.

4.7.3 Recommendations

Based on a review of the 2013 EA, the following recommendations are provided:

> Any project approval should not allow for storage or handling of refrigerated or frozen materials or for any odorous materials, since these activities have not been included within the scope of the EIS.

> Any project approval should not allow for space heating, since these activities have not been included within the scope of the EIS.

> An impact assessment for ozone and VOCs is required as these pollutants have not been adequately assessed.

> Technical details of the dispersion model inputs are required so that the assumptions made in the modelling can be reviewed.

> The Air Quality Assessment is based on a combined capacity of 1 million TEUs spread across the SIMTA and MIT facilities. It is therefore considered appropriate that this is represented in any approval condition with an upper limit being placed on the total throughput of the two facilities in combination. Alternatively, assessment of the realistic throughput should be undertaken (refer to **Section 5** for further discussion).

4.8 Greenhouse Gas

4.8.1 Summary of changes from 2012 to revised 2013 EA

Based on the recommendations to the 2012 EA, no changes appear to have been made between the original and revised EA in regards to GHG.

4.8.2 Cardno Assessment

A review of the information provided in the revised EA suggests that further assessment needs to be undertaken in regards to the following:

> GHG impacts in the rail corridor have had no substantial consideration and should be assessed.

> Calculations throughout the document are not substantiated and it is impossible to verify the quantified emissions presented. The report should include (likely as an appendix) details of all calculations undertaken in a spreadsheet file, which is required to be submitted and made publicly available.

> Vegetation clearance is considered only in terms of decomposition of cleared grass at a composting facility. No consideration is given to the long term land use change.

> No assessment of the potential for onsite renewable energy generation to offset the project GHG emissions is provided.

> Whilst the revised EA recommends appropriate actions for the mitigation of GHG emissions during the operation of the facility the assessment does not consider explicitly the potential for offsetting of emissions.

4.8.3 Recommendations

Based on a review of the 2013 EA, the following recommendations are provided:

> A collated set of assumptions used in the air quality, noise and vibration, GHG and traffic reports should be provided. Where different input data has been used, this should be documented, and a justification made as to why the assessments undertaken can be relied upon when determining the magnitude of impacts.

> Additional data should be provided which enables the data presented to be verified. In particular, model input data and assumptions should be provided, ideally in spread sheet format.

> Activities in the rail corridor, including vegetation clearance should be documented and fully assessed.

> Consideration should be given to an approval condition requiring a percentage of the site's electricity power needs to be generated from renewable sources on site, or to require a feasibility study on this subject.

4.9 Non Indigenous Heritage

4.9.1 Summary of changes from 2012 to revised 2013 EA

The non-indigenous heritage impacts are amended as a result of the amended layout proposed by the revised EA. The amendments would result in the complete removal of items of heritage value from the site. World War 2 (WWII) buildings are proposed to be demolished, with the remaining military structures removed from the DNSDC site. This military complex is listed within the Commonwealth Heritage Register and is therefore protected under the EPBC Act. Consequently, referral to the relevant heritage bodies is recommended along with the preparation of a Statement of Heritage Impacts (SoHI) in accordance with *Statement of Heritage Impacts Guidelines* (DUAP, 1996) for each stage of the works.

4.9.2 Cardno Assessment

The Non-indigenous Heritage Assessment (NIHA) identifies the removal of several structures that are of Commonwealth heritage significance, as well as describing works which will result in the loss of items of heritage significance from this area. The NIHA does not however "*detail how any impacts on items of (indigenous and) non-indigenous heritage would be addressed and managed as part of the subsequent projects stages*" (DP&I, 2010, Director-General's Requirements), as required by the DGR's. In this way the NIHA and associated EA section do not currently meet the DGRs.

Considering the potential implications of the works on items of Commonwealth heritage significance in the area consultation with the relevant Commonwealth body is required. Consultation should entail discussion of mitigation and management of the heritage items along with the submission of a Commonwealth EIS to the Minister for Sustainability, Environment, Water, Population and Communities for approval. Such consultation has not been documented in either the EA or the NIHA. The 2013 EA states in Section 17.1 that a draft EPBC Act EIS was placed on public display in June 2013 (Urbis, [a], 2013). A copy of the draft EPBC Act EIS was not publically available at the time of this review and so the content of the EIS could not be commented on.

The discontinuation of military use, the proposed new use and demolition of built elements would have a major adverse impact on the heritage significance of the site. The site is a highly significant heritage place particularly with respect to the group of 18 World War II buildings that are very rare and are the only known surviving group of such buildings in NSW in Defence use. Therefore, these buildings should continue to be protected through heritage listing on the State Heritage Register and within the *Liverpool Local Environmental Plan 2008* for their heritage values for past and future generations. Council has commenced the process to nominate the site for the State Heritage Register and list the site in Schedule 4 of the *Liverpool Local Environmental Plan 2008* (Council resolution from 25 September 2013).

4.9.3 Recommendations

> The Non-indigenous Heritage Assessment and associated EA section should be revised and updated to meet the DGRs, specifically, the Assessment is lacking:
  - A description of how the items of heritage would be addressed and managed as part of the subsequent project stages
  - An appropriate assessment of the potential impacts.

> Consultation with the relevant Commonwealth heritage body should be undertaken to ensure appropriate management and mitigation measures are included in the EA to minimise loss of the heritage significance at this location. If this has already been undertaken then it should be included within the relevant sections of the EA.

> The site is a highly significant heritage place and should continue to be protected with all efforts be made to retain and adaptively reuse as many extant structures as possible. Demolition of heritage items is generally not supported by Council. Consequently, it is essential that the proposal incorporate and adaptively reuse all structures built during WWII. Items of lesser significance could be removed to facilitate the adaptive reuse of the site.

> Photographic archival recording in accordance with the Heritage Division guidelines should be undertaken prior to any works on site.

> Any additional structures on site must be sympathetic to historic elements in form, scale, bulk, materials and colours but be readily identifiable as new development.

> Additional archaeological investigation should be undertaken in those areas highlighted as potentially containing significant deposits.

> A comprehensive interpretation strategy is required to communicate the history of the site to users.

> A landscape plan must be developed to reduce adverse impacts on neighbouring heritage items.

4.10 Indigenous Heritage

4.10.1 Summary of changes from 2012 to revised 2013 EA

The amended proposal did not lead to any changes to the discussion of Aboriginal Heritage Impacts in the revised EA. Small changes were made to the Aboriginal Cultural Heritage Assessment (ACHA) on the 20/11/2012 including changes to the subject area, concept plan and archaeological sensitivity maps, additional key components of the proposal and the addition of an ongoing consultation section. There were no additional surveys undertaken as part of this review neither were there any further details added to the assessment.

4.10.2 Cardno Assessment

A review of the ACHA and relevant information sources has identified that prior to the submission of the revised EA, 9 additional sites were registered on the Aboriginal Heritage Information Management System (AHIMS) adjacent to the proposed site, which have not been recognised in the ACHA. These sites, identified as 45-5-4273, 45-5-4274, 45-5-4275, 45-5-4276, 45-5-4277, 45-5-4278, 45-5-4279, 45-5-4282 and 45-5-4283, were identified during heritage investigations of the neighbouring Moorebank Intermodal Terminal Project and were registered with AHIMS on the 03/04/2013. These sites are shown in **Figure 4-2** below. Due the recent discovery of these sites, the ACHA should be revisited in order to ensure that the Aboriginal significance of the location is adequately assessed.

The SIMTA rail corridor area changed between the original and revised EA's however, the ACHA does not mention this change in text and did not undertake additional surveys in order to determine if the change in the proposal footprint would result in any additional impacts on items of places of Aboriginal significance. The ACHA needs to be revised in order to ensure that it provides an adequate assessment of the proposal area and entirely assesses the heritage impacts of this proposal.

The ACHA outlines that seven Aboriginal artefacts and three areas of Potential Archaeological Deposits (PADs) were identified within the study area during the detailed site surveys. Two of the PADs are located within areas which will be impacts by the proposed rail road. These PADs need to undergo detailed surveys including test pits in order to determine if the proposed railroad will impact upon items of Aboriginal significance. Without the detailed testing of these areas the impact of this proposal on local indigenous heritage cannot be determined.

The SIMTA site was not completely surveyed as part of the ACHA. The ACHA did however review the SIMTA site and identified that some areas within the complex have potential for archaeological significance and so investigation of these areas is need to understand in order for the impacts of works to be identified.

The ACHA also notes that Aboriginal consultation is currently being undertaken which has not been included in this report and may result in the identification of objects of significance within the SIMTA site. The impacts of this proposal in regards to Indigenous heritage cannot be determined with an incomplete ACHA which does not fully assess the impact area of the proposal and the consequence of this proposal on objects of places of heritage significance. A complete ACHA of the site should be undertaken prior to a determination of this project.

4.10.3 Recommendations

Based on a review of the ACHA the following is recommended:

> A revised version of the Aboriginal Cultural Heritage Assessment is undertake which includes:

- A review of the AHIMS sites surrounding the proposed project site and the implications of these sites on the indigenous significance of the location
- A description of the change in the project proposal and how this has been reflected in the Assessment
- A detailed survey of the PAD areas which would be impacted by the proposal including test pits and a discussion of these findings; and
- A detailed survey within the SIMTA site including identifying key areas which were defined during the consultation with indigenous stakeholders.

> Until the above information can be clarified, the potential impacts of this proposal on indigenous heritage cannot be clearly defined. This aspect of the proposal should be defined before the determination of this project.

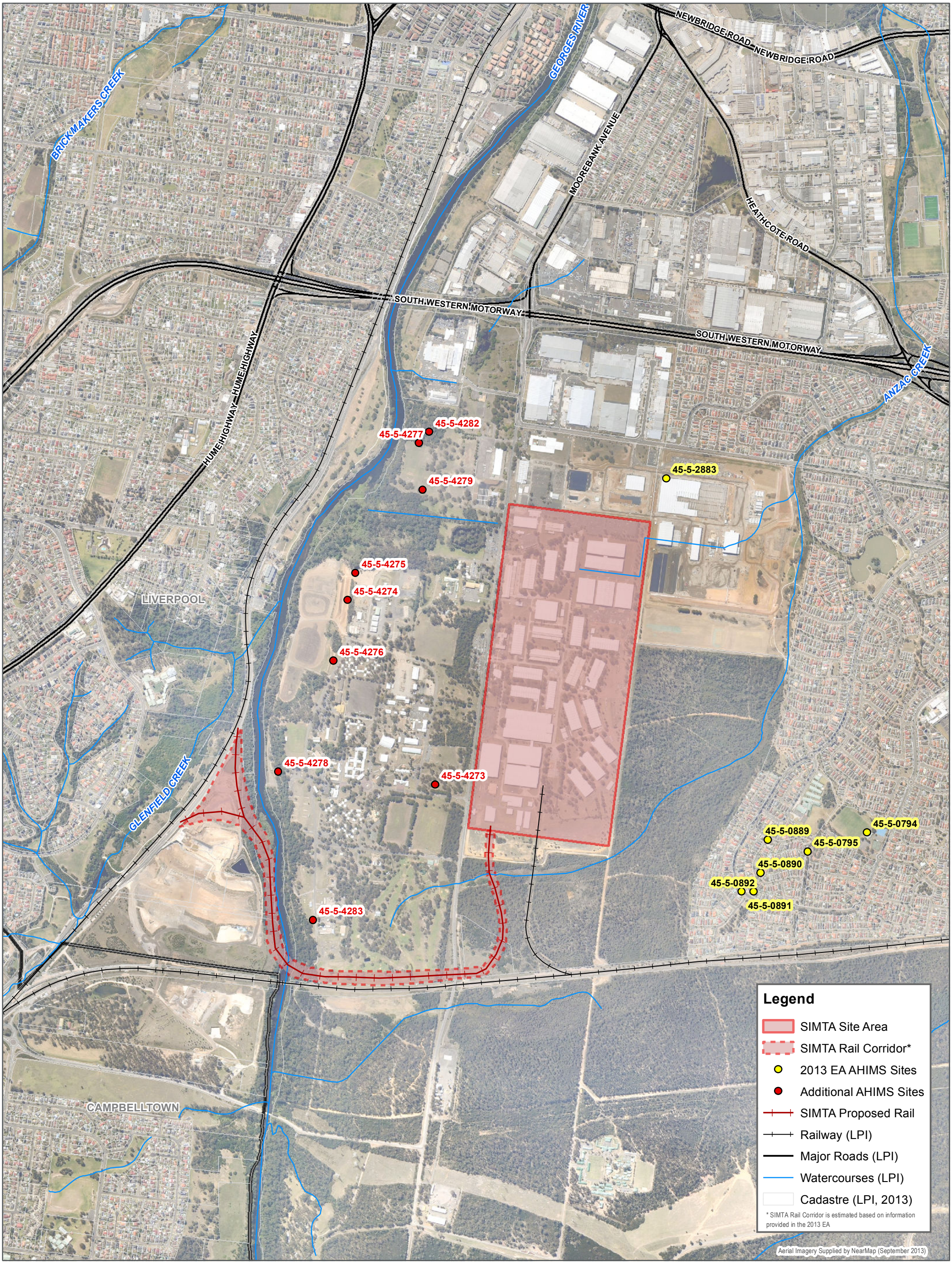


FIGURE 4-2

1:14,500 Scale at A3

Metres

0 100 200 300 400

AHIMS Sites

SIMTA INTERMODAL TERMINAL PROPOSAL PEER REVIEW

Liverpool city council
creating our future together

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2013-10-16
Coordinate System: GDA 1994 MGA Zone 56
Project: 112083_02
Map: G2003_AHIMS Sitesl.mxd 01

4.11 Visual and Urban Design

4.11.1 Summary of changes from 2012 to revised 2013 EA

The Visual Assessment in the revised EA includes an indicative high level cumulative visual impact assessment considering the adjacent MIT proposal. However, it is noted that the level of assessment is limited due to the amount of information available at the time of the Assessment. The cumulative assessment states that there may be a high visual impact on surrounding residential areas due to the proximity of the proposals. However, the MIT proposal may create a 'visual shield' to the bulk of the SIMTA proposal.

The revised EA adds comment relating to viewpoint R02, located to the south of site at the Moorebank Avenue rail overpass. The viewpoint is identified as being subject to a moderate visual impact.

The original EA stated that the visual impacts of the proposal would be '*low'* (Urbis, 2012), whereas the revised EA identifies "*no or minimal direct visual impact*" (Urbis, [a], 2013).

The revised EA states that the detailed design stage would aim to reduce the height of the 40 metre poles whilst maintaining the 50 Lux levels required for terminal operations. The reduced standard height may help to reduce the surrounding light spill Lux levels. However, this is dependent upon the detailed design modelling undertaken with each subsequent application for development on the site.

4.11.2 Cardno Assessment

The proposed infrastructure would be prominent from viewpoints 15, 16, 17 and 18 to the north and north east of the proposed site. These viewpoints accommodate residential receivers, with the Visual Assessment acknowledging that the proposal would create a moderate to high visual impact at points 16, 17 and 18. Viewpoint 15 is considered by the Assessment to have a low visual impact due to the distance of residential receivers from the site and the like for like replacement of infrastructure.

The identified viewpoints are located a minimum distance of 350 m from the site, with potentially unobstructed views, creating a potentially high level of visual impact. Furthermore, the statement that the proposal would result in like for like infrastructure replacement is inaccurate as the site currently accommodates hardstand, warehousing and a large number of camouflaged military trucks. The proposal would include warehousing, gantry cranes, container storage and movement via truck and train, with the intermodal component of the facility comprising rail sidings, gantry cranes and container stacking, which would be located in proximity to the north and east site boundaries.

Containers comprise a range of bright colours that would be highly visible from the residential receivers at the identified viewpoints when stacked. The visual prominence of the proposal is clearly illustrated by the *Urban Design and Landscape Report* (Reid Campbell, June 2013) cover picture. Consequently, a far higher visual impact than currently exists would be created. Appropriate mitigation measures including the limiting of container stacking heights and visual screening through the use of extensive planting of mature trees along the corresponding boundaries is required to reduce the potential visual impact.

The stacking of containers would be highly visible, with the level of impact dependent upon the location of containers and the stacking heights. Container heights vary from 8 feet (2.438 m) to 9 feet 6 inches (2.896 m), which equates to approximately one container per building storey. The height of proposed warehousing has not been identified. Warehousing massing diagrams illustrating heights should be provided, with the warehousing located to assist in the visual screening of stacked containers. Furthermore, container stacking heights should be limited to below that of the adjacent buildings, with a recommended stacking height of three containers, reduced to two containers in visually sensitive locations.

The Assessment has not identified clear envelopes for structures, height, massing and site layout to confirm if the modelling is based on valid assumptions. Additionally, the digital images generated by the Visual Assessment show different structures from those shown in the *Urban Design and Landscape Report* (Reid Campbell, 2013).

The Visual Assessment does not state whether provision would be made for double stacking of containers on the rail network, or if the network has the capability to accommodate double stacked containers from Port Botany. Clarification is required, should double stacking be proposed additional visual assessment is required along the rail corridor to identify areas of potential visual sensitivity and the associated potential visual impacts.

The original EA stated that the visual impacts of the proposal would be '*low'* (Urbis, 2012), whereas the revised 2013 EA identifies "*no or minimal direct visual impact due to the distance of the site from residential areas, existing visual barriers and undulating topography*" (Urbis, [a], 2013). It is unclear whether a 'low impact' is less intrusive than a 'minimal impact'. The Assessment does not provide justification for the revised level of visual impact. Therefore, it is difficult to establish whether the revised proposal creates an improved visual environment and suggests that the assessment is arbitrary, lacking a rigorous methodology.

The cumulative assessment is very limited, with discussion comprising two paragraphs, stating that there is a potentially high visual cumulative impact on residential receivers. However, revised EA states that the MIT development would potentially screen the SIMTA site from residences. The closest residences to the SIMTA site are located to the north and east, whereas the MIT proposal is located to the west. Consequently, the MIT site would not provide a visual buffer. However, the SIMTA site may provide a visual buffer to the MIT proposal. It is acknowledged that available information pertaining to the MIT proposal is currently limited. However, the Visual Assessment should have considered the overall mass of the site given that MIT propose a similar development to SIMTA and used this mass to inform the visual assessment.

4.11.3 Recommendations

Based on this review of the revised EA and associated documents, recommendations comprise:

> The location and height of container stacking is required, with containers located away from boundaries and potentially sensitive receivers, particularly in the north east corner of the site.

> Containers should be stacked no higher than the associated visual screening, with a maximum stacking height of three containers recommended.

> Extensive vegetative planting is required along the site boundaries, with ongoing monitoring and management of vegetation required should the development proceed.

> Images showing the massing, forms, scale, height and layout of all the structures on site are required, along with a detailed description of all structures, their function and location.

> The level of visual impact 'low' or 'minimal' should be clarified with justification provided as to why the level was revised given the limited additional assessment undertaken.

> The Visual Assessment should include a comprehensive cumulative assessment considering the overall mass of the MIT site and associated visual implications.

4.12 Utilities

4.12.1 Summary of changes from 2012 to revised 2013 EA

Changes to utilities assessment from the original EA to the revised EA, are based around the consideration of potential and cumulative impacts to utilities. The revised EA provides specific details of the levels of impact associated with the works, although only a very general description as to how these impacts will be mitigated is provided. The revised EA simply states that impacts will be managed and coordination will be undertaken with relevant service providers.

4.12.2 Cardno Assessment

A review of the information provided in the revised EA suggests that a greater level of detail in regards to the level of impacts and the associated mitigation and management measures which can be undertaken in order to limit the effects of these impacts is required. More specifically:

> There is no mention of the specific service requirements needed for the proposed use on-site. In addition to this, the specific infrastructure requirements associated with the additional section of the rail network comprising the rail link including signaling has not been described or discussed.

> The revised EA mentions that the installation of a water main to the site will be managed, with works undertaken in a manner to minimise disruptions however there is no detail as to how the management measures would be employed to ensure that minimal disruption is achieved.

> Electrical supply to railway infrastructure such as signaling has not been mentioned in the revised EA. The alignment of this utility service in relation to the proposal and surrounding environmental values needs to be considered in order understand the extent of impact associated and the required mitigation measures.

4.12.3 Recommendations

Based on this review, the following is recommended:

> The EA should be updated to included specific information as to the utility infrastructure requirements for the proposed facility. Details should include estimated utilities demand based on identified calculations, as well as the additional infrastructure requirements necessary to meet this demand.

> The construction of additional utilities infrastructure should be considered, as works are likely to conflict with areas of environmental significance, such as signalling requirements associated with the rail corridor.

> Indicative utilities corridors and works programs should be identified, with mitigation and management measures associated with construction stated within the Statement of Commitments (SoC).

> Mitigation and management measures to be utilised in the proposal to limit the impact on existing utilities provision resulting from the increased demand should be detailed within the EA.

> The extent of the electrical network required to support the proposed rail line should be considered in the EA. This should detail the proposed location of the electrical network and the associated impacts as this infrastructure has the potential to impact on extensive areas of native vegetation proximate to the rail corridor.

4.13 Assessment of Additional Identified Issues

4.13.1 Summary of changes from 2012 to revised 2013 EA

The assessment of additional impacts reviewed the health, economic, climate change and Ecological Sustainable Development (ESD) impacts of the proposal. Minimal change was made between the original and revised EA documentation. The economic impact assessment included minor updates to the Liverpool demographics section. The remainder of this section has stayed to same as within the 2012 EA.

4.13.2 Cardno Assessment

A review of the assessment of additional issues is provided below.

Health Impacts

The Screening Level Health Risk Assessment (SLHRA) undertaken to define the potential health impacts of the proposal has determined that the proposal is unlikely to result in acute of chronic direct health effects. It is of note that the SLHRA has been undertaken based on limited information and that a further detailed assessment should be undertaken once details of the proposed works are defined and can be modelled. The SLHRA was also noted to have been undertaken using "conservative" estimates of emissions and so conclusions drawn from this report are accordingly limited.

Economic Impacts

An Economic Assessment has been undertaken as part of the EA to determine the demographic and economic impact/benefits of the proposal. The assessment determined that it is considered that the proposal will provide employment and economic benefit for the Liverpool LGA, the South-West Sub-region and the Sydney Metropolitan area. It is noted that there are some inconsistencies between the figures used in the EA and the figures used in the Economic Assessment.

The economic assessment does not consider the existing number of jobs created by the Defence use of the site. Defence employment has a strong economic multiplier effects on the area, with many employees being brought into the area by Defence to both live and work, thus contributing significantly to the economy.

Climate Change

A Climate Risk Assessment (CRA) was undertaken to asses risks associated with possible severe weather events associated with climate change. This assessment is not dictated by the DGRs, and focuses on risks such as flooding, storm damage, heat waves and carbon pricing and the potential impacts of these risks on the proposed development.

These priority risks identified in this CRA appear to be limited with a number of crucial risks to the project missing from the list including:

> Flooding of access to and from the site, limiting emergency access and evacuation from the site.

> Increased heatwave frequency posing a threat to workplace health and safety.

> Increased storm damage to rail infrastructure including lightning strikes critical rail infrastructure such as signalling and site power.

The adaption measure for the risk of increased operating costs should also be amended to incorporate energy reduction measures such as energy efficient light fixtures and the use of solar panels in additional utilising multiple sources of energy to reduce reliance on a single source.

Ecological Sustainable Development

ESD has been assessed in the 2013 EA with the aim of minimizing the environmental impacts and emissions during the construction and on-going operation of the proposal. This section reviewed ESD opportunities in regards to energy, water and waste and summarised three broad ESD initiatives which would be implemented across the proposal, these being site management policies and strategies, materials selection and energy and water management, and on-site renewable energy generation.

This section does not identify how these initiatives will be undertaken, how they will be monitored and how it will be determined as to whether these measures are adequate or successful and if further measures are required. The section only provides general statements about ESD and does not identify any specific commitments by SIMTA. Specific commitments to ensuring ESD would add credibility to this proposal and its statements of commitment to ESD.

4.13.3 Recommendations

Based on a review of the 2013 EA the following recommendations are provided:

> A detailed Screening Level Health Risk Assessment should be undertaken using detailed modelled air quality data once the details of the construction works are defined and that these results be assessed prior to the approval of construction of this proposal at this location.

> The EA is reviewed so that the data presented in the EA is consistent with the specialist reports, particularly the Economic Assessment.

> The Climate Risk Assessment should be amended to include risks associated with work place health and safety as well as impacts limiting emergency access to and from the site.

> Energy reduction measures such as light efficient fixtures and the installation of solar panels should be incorporated in to the mitigation measures of the Climate Risk Assessment to ensure the proposal is energy sustainable and that this assessment is consistent with the Ecologically Sustainable Development Section of the EA.

> Specific commitments to ensuring and maintaining Ecological Sustainable Development should be included in this EA.

> The economic assessment should consider job creation in the context of jobs currently generated by the Defence use of the site to establish the employment balance pre and post SIMTA's proposed use.

4.14 Waste

4.14.1 Summary of changes from 2012 to revised 2013 EA

The original *Waste Management Strategy* (Hyder, 2012) developed to support the SIMTA proposal EA is largely unchanged from the more recent version of the *Waste Management Strategy* (Hyder, [g], 2013). The changes mainly relate to details of the new development consortium and some additional land allotment details. No revisions to the original waste management and minimization strategy have been proposed.

4.14.2 Cardno Assessment

A review of potential waste material sources has found that some potentially hazardous materials have not been listed or considered in the *Waste Management Strategy* (Hyder, [g], 2013). The following sections provide details on the review of the Phase 1 Environmental Site Assessment (ESA) to understand the historic context of the site and any supporting studies that have identified possible contamination sources and the potential for hazardous materials to exist on the site.

Asbestos Containing Materials (ACM)

On review of Phase 1 ESA reports (Golder 2011, 2013), which support the EA, it has been identified that there is potential for asbestos containing material (ACM) to occur both on the SIMTA site, due to previous buildings and activities on the site, as well as within the nearby rail corridors. This is evidenced by the statement "Asbestos is common within rail environments, with sources including old brake liners, asbestos cement conduit, and asbestos linings or insulation within rolling stock and some electrical equipment" the report also notes that "However, the East Hills Passenger line was constructed in 1989, and the risk of asbestos contamination being present within the East Hills Passenger rail corridor is considered to be low". The Phase 1 ESA report (Golder 2011, 2013) also includes a photograph (as Plate 1) showing potential ACM materials identified west of the existing rail spur.

It has also been identified that some previous landfilling and illegally dumped materials have been identified in the bushlan

PCB Containing Materials and Equipment

It is noted within the Phase 1 ESA reports (Golder 2011, 2013) that PCBs could potentially be present on site, and a specific hazardous material audit covering PCBs has not been completed for the site at the date of EA issue. A detailed hazardous material audit which includes PCBs would provide important information for consideration in any future waste management plans.

Unexploded Ordinance (UXO)

The Phase 1 ESA ESA (Golder 2011, 2013) also note that *"a grenade range operated in the bushland areas to the south of the DNSDC Site from as early as the 1940s to the 1970s. Anecdotal information provided by the site representative noted that grenade pins were found in the area south of the DNSDC, which is consistent with the history of the site. As such, there is potential that UXO is present in the bushland areas located immediately south of the DNSDC Site".*

Other Hazardous Materials

It is noted that a dangerous goods store is located on the DNSDC Site and there has been regular use of pesticides and herbicides noted within the *Phase 1 Contamination Assessment* (Golder 2011, 2013).

The potential presence of ACM and other hazardous material such as PCBs and UXOs should be considered within the waste strategy to ensure protocols are in place during any construction works for any unexpected finds and to ensure appropriate disposal measures for potentially hazardous materials can be addressed.

General Comments

The *Waste Management Strategy* (Hyder 2012 and Hyder, [g], 2013) does not adequately introduce the potential for contaminated waste to exist on site or provide any guidance as to the development of an unexpected finds protocol to appropriately identify, manage, classify and dispose of any suspected materials encountered that may be hazardous to human health or the environment.

Also, in reference to *Section 4 - Waste management and minimization strategy* of the *Waste Management Strategy* (Hyder 2012 and Hyder, [g], 2013), it is recommended that a waste tracking system be developed during demolition, construction and operational phases of the project to monitor the following in relation to any off-site waste disposal activities:

> Waste material characterization

> Waste volumes

> Waste destination (identify an external licensed waste receiving facility); and

> Records of waste received (from external licensed waste receiving facility).

4.14.3 Recommendations

The following recommendations are made:

> The Waste Strategy should identify and consider the potential presence of hazardous materials on Site which may be encountered during construction works

> The Waste Disposal Strategy should be included to provide guiding protocols for how hazardous materials will be identified, managed, classified and disposed of throughout all phases of the project

> The potential for *contaminated waste* (asbestos, chemical contamination) exists (especially within the existing rail corridor and bushland areas to the south of Site) and should therefore be identified within *Table 2: Potential waste materials*

> The potential for *asbestos containing wastes* exists on the site and should therefore be identified within *Table 2: Potential waste materials*

> The potential for *asbestos containing material* to exist within buildings (roofing, lining and electrical fixtures/ panels) on the site should be identified within *Table 3: Typical components of construction and demolition materials.*

4.15 Environmental Risk Assessment

4.15.1 Summary of changes from 2012 to revised 2013 EA

The approach undertaken of identifying and assessing the potential environmental impacts and providing a risk rating remains largely unchanged between the 2011 and 2013 EAs. There were also no changes in any of the risk categories or assessed levels of risk either, with only the inclusion of a reference to a BOS added to the 2013 EA.

4.15.2 Cardno Assessment

Many of the comments provided in the previous Cardno review of 2011 EA submission have not been addressed and are therefore still relevant.

Overall, the environmental risk analysis submitted by the applicant lacks detail and there is limited assessment on the cumulative impacts of the subject development and the Commonwealth Government's proposal. Our assessment is summarised as follows.

> Further justification is required as to why the risk of increased traffic impact on Transport and Access risk was not assessed as 'Very High' both before and after mitigation. Using the risk assessment likelihood criteria of 'A' (Almost Certain) and consequence criteria of '4' (Major) or '5' (Severe) would both result in a 'Very High' risk ranking, which still seems more appropriate considering the potential long term and increasing impact on the broader community as the terminal grows.

> The risk of increased traffic impact on local roads and rail is still described as 'High' even after mitigation measures are applied. The principal mitigation measures proposed all require additional studies to be undertaken. Also, some amended access plans for site access and M5 access points and some additional transport modelling has been undertaken, it is recommended that these studies need to provide more specific analysis on what impacts the development will have on future car and truck traffic on roads within the Liverpool LGA, as well as those outside of the core project area which may still be affected. This clarification should be made available for review before the EA is determined.

> More detail should be provided in relation to risk of damage to road pavements and the consequences, not only in the core project area but also in the other areas which will experience increases in heavy vehicle traffic movements, which include

- Reduction in level of service at road intersections outside of the core project area
- Increased maintenance or upgrade costs for upkeep of connecting roadways
- Information on who will be responsible for any additional maintenance and/or upgrade costs.

> Broad trip generation assumptions used in traffic modelling will introduce errors that ultimately skew trip generation results used to assess traffic network performance. This also introduces a risk of error for other areas of impact assessment such as noise and air quality which has not been identified or discussed.

> We note that the title of Table 3 in the *Environmental Risk Analysis* (Hyder, [h], 2013) is still showing the incorrect heading and should refer to "Criteria for evaluating consequence" and not "Criteria for evaluating likelihood".

> Air quality risk is shown to be reduced from 'Very High' to 'Medium' by the application of an Air Quality Management Plan. Justification for this needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin.

> The above point is also exacerbated if air quality impacts are under-estimated, if, as identified by the review of the traffic assessment (**Section 4.1**), the traffic movements associated with the facility have been under-estimated. The Traffic Assessment undertaken by Cardno considered the traffic movements to be substantially above those identified in both the 2012 and 2013 EAs, with air quality impacts correspondingly higher.

> The community is still highly concerned by how this project will impact on them and the potential risks to their amenity and safety. Disruption to the community during construction is shown to be reduced from 'Very High' to 'Medium' by the application of Community Consultation and Involvement Plan. Better justification needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin.

> There is only limited consideration to how cumulative impacts have been incorporated into the risk assessment. In particular, what other developments are planned or known i.e. the neighboring MIT site?

> There is still no discussion or information on who has responsibility for implementing the identified control measures. This is of particular relevance where infrastructure upgrades are required (For example in rail, road or intersection upgrades). Each mitigation or control measure needs to have a responsibility assigned, with indicative costs identified to ensure that adequate funding is in place prior to approval. Responsibility should consider both responsibilities for implementation and for funding provision.

> The risk assessment has identified a range of threatened flora species in the study area and has identified that an offset strategy should be developed to offset these species. It appears that there have been no changes to the rail alignment design through this area as a means to minimize impacts on listed endangered species, which would be a preferred measure to reduce the risk of impacts on significant flora and fauna. As this impact avoidance measure does not seem to have been utilised in the concept development then the residual risk should remain higher than 'Low'.

With regard to the risks, the following comments are provided:

Table 4-1 Review of Identified Risks and Hazards

Issue	Comment
Transport and Access	Additional potential impacts that need consideration within the assessment include: ▪ Increased accident rates ▪ Exceeding road capacity ▪ Pavement Failure ▪ Increased traffic on local and residential roads ▪ Decreased access to existing properties ▪ Financial burden on external parties for upgrade works and/or maintenance activities required ▪ Bringing forward upgrade works and costs. It is critical that control measures relating to the transport network (i.e. increased maintenance regimes or upgrades) need to give some consideration to who is responsible for implanting them and how will they be funded, e.g. how will the Section 94 Development Contributions Plan be applied and how will funding contributions be agreed? The accuracy of assumptions used in the traffic and transport modelling is a significant risk item which also has far reaching implications on other studies (noise, air quality and GHG).
Noise and Vibration	Consequences of cumulative noise impacts are recommended to be reassessed for all receivers on the basis of clarified and coordinated input data, for example peak output on both SIMTA and MIT sites, as well as site generated road traffic.
Biodiversity	It is suggested that until the final rail route alignment positioned to minimise disturbance to significant flora and fauna. Until a final route has been confirmed and reassessed, then there is no reason that a preliminary risk assessment can reduce risk from 'Medium' to 'Low' by the proposed 'avoidance' mitigation measure. The location and presence of suitable biodiversity offset sites are still not identified

	and are therefore a residual risk exists that suitable offset areas exist. The acceptability of biodiversity offset sites will need further investigation and discussion with the OEH until a decision can be made this project. Any EPBC Act listed species which may be impacted by the proposal need to be reviewed and included in the BOS. Impacts on surrounding flora and fauna adjacent to the SIMTA site need to be considered during both the construction and operational phases of the project.
Greenhouse Gas/Utilities	No assessment of the potential for onsite renewable energy generation to offset the project GHG emissions is provided. An additional control measure of using onsite generation of renewable energy to offset the net increase in GHG emissions should be required as an approval condition. (It is also noted that the installation of solar panels on warehouse roofs will be more cost effective at the time of construction than as a later retrofit) This may also reduce the level of risk assigned to the "utilities" category. The consequence of work within the rail corridor has not been considered within the GHG assessment and therefore this increases the risk of impact.
Air Quality	Risk is shown to be reduced from 'Very High' to 'Medium' by the application of an Air Quality Management Plan. Justification needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin. Air quality impacts will be under-estimated, if, as identified by the review of the traffic assessment (**Section 4.1**), the traffic movements associated with the facility have been under-estimated. The Traffic Assessment undertaken by Cardno considered the traffic movements to be substantially above those identified in both the 2012 and 2013 EAs, with air quality impacts correspondingly higher. The risks associated with the potential storage or handlings of refrigerated or frozen materials or odorous materials need to be discussed if these types of goods are to be present on the site. There is a risk that future increases in throughput capacity, above the 1 million TEUs spread across the SIMTA and MIT facilities, will increase the risk of impacts as the current assessment only covers this level of throughput.

4.15.3 Recommendations

> At this stage of the project, a detailed construction plan, detailing phases of work, plant and equipment is not be available, therefore assumptions regarding traffic impacts. It is considered that further ongoing detailed risk assessments would be undertaken during later, detailed design stages of the project.

> The risk of incorporating inaccurate traffic data (baseline and forecast) needs to be considered to ensure there is consistency and accuracy of impact assessments between specialist studies including traffic, air quality, GHG and noise.

> The following documents are still identified as being control measures to manage transport and access risk. As key documents in controlling a major project risk, they should be provided prior to the EA being determined:

- Detailed transport and accessibility impact assessment (broadened to consider cumulative impacts and area outside of core project area);
- Traffic management plan;
- Detailed strategic and project modelling of the rail network and infrastructure is required to understand capacity, pathways inform any upgrade and maintenance requirements upstream and downstream from core project area).

> Each mitigation or control measure needs to have a responsibility assigned as this imparts a potential financial risk and liability onto third parties, with indicative costs identified to ensure that adequate funding is in place prior to approval. Responsibility should consider both responsibilities for implementation and for funding provision.

> Activities proposed within the rail corridor, including vegetation clearance should be documented and fully assessed within the air quality, noise and GHG assessments.

> Justification of how a Community Consultation and Involvement Plan will reduce the risk of community impacts during construction from 'Very High' to 'Medium' is required.

> The risks arising from potential cumulative impacts need to be considered and addressed.

4.16 Consultation

4.16.1 Summary of changes from 2012 to revised 2013 EA

Additional consultation has been undertaken prior to the submission of the 2012 EA. The additional consultation appears largely directed towards DP&I and SEWPaC with no additional community consultation undertaken, however a consultant (Elton Consulting) has been engaged to monitor media outlets on SIMTA's behalf in order to respond to new emerging community concerns.

Continued consultation with SEWPaC resulted in the development of a draft EPBC EIS to meet the assessment and approval requirements of the EPBC Act. This draft EIS was placed on public display on the 13 June 2013.

Additional consultation with DP&I constituted further meetings to allow SIMTA to fully understand the issues raised by DP&I and other stakeholders so that they could be addressed in the 2013 EA.

The Social Impact Commentary (SIC) has been expanded to include a review of a greater number of documents as well as additional information in the demographic profile and potential social impacts and benefits.

The *Community and Stakeholder Consultation Outcomes Report* (CSCOR) (Elton Consulting, 2013) has also been amended since the 2012 EA. The document now includes a changed purpose, with original purpose of the consultation to guide the level of technical assessments required in the EA. The current purpose of the consultation process is now more general with a clear statement that the issues raised in the CSCOR "*have been addressed during the preparation of technical studies included within the Environmental Assessment*" (Elton Consulting, 2013). A higher level of detail has also been provided throughout the 2013 CSCOR in regards to the issues raised during consultation and the detail of the responses.

4.16.2 Cardno Assessment

The following issues were raised in regards to the consultation methodology during the review of the 2012 EA and are still applicable:

> The issue/response matrix reads like a prepared frequent questions and answers (FAQs). As such it is unclear who was consulted and what their concerns were.

> The Community Information Centre (CIC) was located 7kms from SIMTA site and situated off the main Liverpool centre with irregular opening times (two or three days a week). The location of the CIC is not easily accessible to the community and this does not encourage community participation.

> It is difficult to determine the overall level of community support for or against project. Negative media reports and complaints made to Council indicate a very high degree of concern of residents from this proposal.

> The outcomes of the report do not indicate geographical areas of resident concerns and is difficult to ascertain the level and type of concern by location.

> The report does not discuss the potential for cumulative impacts resulting from the Federal Intermodal proposal.

> Continued negative media coverage indicates that the community consultation process has not been successful in building long term relationships with community or the proponent's reputation in the community.

The 2013 EA states that the CIC has not been visited by the community since the exhibition of the previous 2012 EA. As no additional visits to the CIC have occurred this indicates a lack of willingness to promote the project by SIMTA and reinforces the above comments relating to the inaccessibility of the CIC. Consequently, it appears that the community consultation has failed to successfully engage the community.

The following comments were made in regards to the issues raised in a review of the 2012 EA and also appear to still be relevant:

> No analysis of the hierarchy of issues/complaints is provided in the report which makes it difficult to assess the level of concern by issues. This hierarchy of issues may elucidate which issues are of most concern to residents.

> No evidence that community ideas and input has been incorporated into submitted concept application and overall project design.

Additional review of the 2013 EA has also identified that the area in which community consultation is undertaken is not adequate or representative of the community which will be impacted upon by the proposal. The community consultation area should be expanded to include:

> The suburbs of Glenfield and Macquarie Fields, which are located along the route of Cambridge Avenue and connecting roads that will receive increased traffic as a result of the proposal

> The surrounding suburbs of Prestons, Lurnea, Liverpool and Chipping Norton, which are likely to utilize areas which will be impacted by increased traffic flows as a result of the proposal.

Whilst the DGRs provide a list of relevant parties in which consultation should be undertaken, it is noted that the DGRs state that project consultation should be "not limited to" this list. Cardno note a number of other relevant parties which should be directly consulted with throughout the refinement of this EA which have not been mentioned in the consultation of this project. These include:

> The NSW Office of Water (NOW)

> The Georges River Combined Councils Committee (GRCCC)

> Fairfield City Council (FCC)

> Bankstown City Council (BCC)

> Campbelltown City Council (CCC)

> Hawkesbury Nepean Catchment Management Authority (HNCMA)

> NSW Department of Primary Industries (DPI)

4.16.3 Recommendations

Further community consultation is undertaken prior to the determination of this project. Further communication should include:

> Demonstrated consultation with a culturally and linguistically diverse background

> Relocation of the CIC to a more appropriate and more accessible location

> An increase in the opening hours of the CIC to allow access by a greater range of residents

> A residential survey to actively obtain the views of the surrounding residents

> Delivery of the letter to residents to a greater area including the residents in suburbs such as Prestons, Lurnea, Liverpool and Chippy Norton, who will also be impacts by the proposal

> Direct consultation with a greater list of agencies such as those described above

The EA and associated reports should be amended as additional consultation in undertaken and additional issues are raised.

4.17 Statement of Commitments

4.17.1 Summary of changes from 2012 to revised 2013 EA

The Draft Statement of Commitments (SoC) has changed considerably throughout all areas of the SoC between the 2012 and 2013 EA, with the exception of the area of waste management which has remained the same. Due to the extent of changes in this section of the EA Cardno has reviewed this section independently of the corresponding section in the previous EA.

4.17.2 Cardno Assessment

The DGRs states that:

"*5. A **draft statement of Commitments (SoC).** The SoC must incorporate or otherwise capture measures to avoid, minimize, manage, mitigate, offset and/or monitor impacts identified in the impact assessment sections of the EA and ensure that the wording of the SoC clearly articulates the desired environmental outcome of the commitment. The SoC must be achievable, measurable (with respect to compliance) and time specific, where relevant."*

The draft SoC provided in the 2013 EA has been found to be neither measurable nor time specific. These parameters need to be added to the SoC in order to ensure that monitoring and compliance in line with these commitments is possible.

Development and Staging

Whilst the SoC provides commitments to undertake a number of Plans and follow a select few key design criteria, the SoC does not commit to a defined pathway of development and staging. To provide clarity to government assessors the EA should outline in detail the proposed pathway of the project, the stages defined through this pathway and a clear list of commitments which will be adhered to during each stage. These commitments should be more comprehensive than those outlined in the Development and Staging section which are just a select few design criteria and plans which will be used to guide the development. Additional design criteria which should be incorporated into the commitments include:

> All sites designs are to meet the relevant Australian Design Standards

> Railway designs are to be approved and accredited by the NSW Rail Infrastructure Manager (RIM)

> Lighting design is to be undertaken with minimal visual impact to surrounding areas

> The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provided by the landscape design.

The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Transport and Access

The Transport and Access SoC defines a number of negotiations to be undertaken with relevant authorities in regards to upgrading the local road networks and intersections. The SoC does not however, define a commitment to undertaking this work, funding this work or management of this work to be undertaken as part of the SIMTA project. The timing of the road upgrades is also not defined and should be included to ensure an adequate road network is available prior to the operational phase.

The SoC commits to encouraging the use of public transport by the employees but should also commit to adjusting staff shift times so that they do not overlap with peak traffic periods.

A commitment has been made in the SoC to undertake an actual truck trip generation survey 24 months after the commencement of operations. This period should be reduced to 12 months to ensure operations are not ongoing without adequate facilities to support the operation.

A commitment should be made to limit the total number of truck trips which will be undertaken on a yearly basis. This will ensure that impacts in the road network system are capped and can be adequately assessed in during the EA process.

An intersection performance survey which includes the modelling of traffic produced as a result of adjacent land uses should be listed in the SoC. This will ensure the cumulative traffic impact is identified and assessed.

The EA should make a commitment that no empty containers will be taken offsite with the exception of by rail. This will ensure that the road network is not used unnecessarily at this location.

Noise and Vibration

The noise and vibration commitments define ongoing monitoring throughout the project design, construction and operational phases. The frequency and timing of this monitoring is not however defined and should be outlined in the commitments so that the Proponent is accountable for this monitoring regime.

The SoC discusses considering less noise intense activities in certain locations within the site however, does not commit to this noise sensitive layout. Specific design principles based on the noise assessment should be included in the SoC.

The 2013 EA defines the use of electric/hybrid plant equipment however a commitment has not been made to ensuring this is followed. The type and quality of the equipment used as well as the projected number of diesel trains should also be defined in the SoC so that defined thresholds are maintained on site and noise criteria are not exceeded.

Health

The health SoC defines the commitment to undertake further health assessments for lodgement with each major stage in the development. The SoC does not make any commitment to maintain a certain level of health impacts as a result of the works nor does it define mitigation measures which will be undertaken in order to reduce the impacts of the proposal on the health of the onsite employees and the surrounding community. The addition of this commitment is needed to ensure that proposal is designed and undertaken with the objective of minimising health impacts.

Biodiversity

The biodiversity commitments do not define any measurable commitments which will be maintained through the construction and operation of the project. This section simply states the potential impacts and whether the impacts will be avoided, mitigated, managed or offset. The EA does not define how these actions will be undertaken, during what time frame and how these actions will be measured against to determine if the utilised measure is successful or adequate.

A commitment to undertake ecological monitoring has not been included within the SoC. Ecological monitoring would allow the impacts of the proposal on the surrounding biodiversity to be determined throughout the project and would determine if the employed mitigation measures are adequate.

Contingency measures are an important management tool which has not been included in this SoC. Contingency measures would allow the authorities to determine thresholds of impacts in which the project could operate to ensure the protection of threatened plant such as *G. parviflora subsp. parviflora* and *P. nutans* which will be placed at risk as a result of this proposal. Contingency measures would provide steps which would need to be taken if certain levels of impacts are exceeded and would allow for accountability by the proponent.

Hazard and Risks

The SoC defines the commitments to undertake management plans for the risk of removal of asbestos from the site, a Preliminary Hazard Assessment for dangerous goods, a Hazard and Risk Management Plan and Emergency Response Plan, a Construction and Operational Management Plan including the management/mitigation of spills, as well as undertaking a Bushfire Management Plan in conjunction with Rural Fire Service principles.

In addition to these commitments a Strategic Project Modelling and assessment should be undertaken in order to provide a greater understanding of the potential impacts of the proposal on local and regional rail network as well as understanding the capacity of the road and rail network and the condition of this infrastructure. The required upgrade and maintenance scope for such infrastructure should also be determined in this assessment as well as the responsible body for any additional maintenance regimes and the funding of any such upgrades or maintenance requirements. The assessment and strategic modelling should also work to identify the impact of the proposed project on the greater road and rail network and the stakeholders of this network.

The management and mitigation of any offsite impacts as a result of the project's supporting infrastructure requirements also requires consideration and commitment by the Proponent. This includes the incidence of traffic accidents involving a truck traveling to or from the project site. A Drivers Code of Conduct for truck drivers using the site would work to substantiate this commitment and used in conjunction with a site induction process for drivers will ensure that drivers are aware of community expectations of driver behavior, truck condition as well as what procedures are in place in the event of an offsite incident.

The Drivers Code of Conduct should also form part of a transport management system to ensure site rules and emergent issues are regularly communicated with transport companies and incidents or near misses are reported accordingly.

A SoC should include an annual independent audit of any Event Management System which is in place across the site, and should also include any Environmental Management System.

Contamination

The Contamination commitments consist of a number of tasks which will be detailed within the stages planning applications for the SIMTA project. These tasks include further investigations into the areas of environmental concern, development of a Contamination Management Plan and undertaking Phase 2 intrusive environmental assessment of the proposed rail corridor.

The SoC does not detail the undertaking of any further assessments within the SIMTA site. A commitment to undertake further investigations to confirm past findings should be outlined in the SoC as further design detail is developed across areas which have been identified as areas of concern within the Phase 1 contamination assessment.

Stormwater and Flooding

The SoC defined Stormwater and Flooding commitments including the preparation of a Soil and Water Management Plan and Erosion, Sediment Control Plan and Flood Emergency Response Plan. The SoC should also include a commitment to coordinate stormwater abatement design with the MIT proposal, with specific as opposed to general mitigation measures provided.

Air Quality

The air quality commitments defines the development of a vehicle efficiency and emissions reduction program, Construction Environmental Management Plan and Greenhouse Gas Management Plan, as well as the undertaking of further air quality monitoring including nuisance dust, PM10 and Nitrogen Dioxide. Ozone and VOC's should be assessed and if necessary added to this monitoring commitment.

The use of refrigerated containers has not been defined within in EA. If refrigerated containers will not be transported on site then this should be defined in the SoC. If refrigerated containers are to be transported on

site then a commitment should be made to undertake additional assessments to assess the potential air quality impacts of this. Based on the results of this assessment, monitoring commitments can also been included in the SoC.

Heritage

The heritage SoC consists of a number of general and site specific mitigation measures for Indigenous Cultural Heritage, which have been largely reflected in the SoC. However, the recommendations contained in the Non-Indigenous heritage study have not been fully translated to the SoC. These recommendations should be reflected in their entirety within the SoC.

The required SoC for this EA is hard to define based on the low level of indigenous heritage investigations which was undertaken. Whilst the need for test-pits is identified in the SoC, if this information was already available then specific measureable SoC's could have been developed. Due to this lack of information, the indigenous SoC should include a commitment to define specific monitoring objectives throughout the construction phase of the project to ensure appropriate mitigation measures are employed to protect the surrounding indigenous heritage values.

The non-indigenous heritage SoC does not define a specific commitment to protect and preserve the heritage value of the WWII sites where possible. The EA provides very little details of the proposed removal or relocation of these buildings, which should be defined in the SoC, to ensure the value of these buildings are maintained as much as possible. The preservation of these structures should also be defined through a commitment to undertake ongoing monitoring and management of these structures.

Visual and Urban Design

The SoC defines the preparation of a Landscape Management Plan which will utilise a number of objectives and design principles as outlined in the SoC. The design principles describe the use of a landscaped buffer zone on the southern and eastern boundaries. The design principles do not however, describe the type of landscaping which will be used, or the height of the trees. Due to the proposal resulting the stacking of mostly brightly coloured containers, the SoC should commit to the planting of species with an approximate height greater than that of the desired stacking height of the containers. The commitments should also define a buffer along the northern boundary of the site as visual impacts to surrounding residents occur from the northern boundary.

The SoC should define a maximum height which will occur on site. This height should be based on the ability for screening around that part of the site with highly visible areas, such as the north east corner of the site, having a maximum height of a reduced amount to minimise the impacts on the neighbouring residents.

The Landscape Management Plan, as defined in the SoC, should dictate the use of warehouse massing diagrams to demonstrate the proposed layout of the containers and relevant maximum stacking heights. This diagram would then be utilised as a master plan for the warehouse layout to ensure that relevant stacking heights are not exceeded.

Utilities

The utilities section of the SoC defines actions which will be undertaken by the Proponent to investigate and protect existing services as well as a commitment to obtain appropriate authorisations for sourcing water. The EA does not describe the requirement of utilities to support the proposed rail infrastructure. The use of these utilities will need to meet rail standards as well as will be required to connect with the existing rail network.

A commitment to undertake the management and construction of these rail utilities in conjunction with the appropriate rail authority should be required in order to ensure works are completed to the required standards and connection with the existing network does not cause any disruption to existing operations.

Consultation

The Proponent has committed to continue to undertake consultation with a number of government authorities and bodies as well as continuing to engage and consult with the community. In addition to the commitments identified in the SoC, details of the Community Information Centre should be included such as opening hours and advertisement of the centre. Consultation with the ARTC should also include negotiations into maintenance and upgrade requirements of the rail network and the relevant funding body for these works.

4.17.3 Recommendations

Based on the review of the SoC and the EA as a whole, the following inclusions are recommended within the SoC:

Development and Staging

> Include a defined pathway of development and staging; including a clear list of commitments for each stage of the development.

> Additional design criteria should be incorporated including:

- All sites designs are to meet the relevant Australian Design Standards
- Railway designs are to be approved and accredited by the NSW Rail Infrastructure Manager (RIM)
- Lighting design is to be undertaken with minimal visual impact to surrounding areas
- The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provide by the landscape design.

> The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Development and Staging

> Include a defined pathway of development and staging; including a clear list of commitments for each stage of the development.

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- The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provide by the landscape design.

> The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Transport and Access

> A defined commitment should be included to undertake and fund the necessary road and intersection upgrades.

> Commit to adjusting staff shift times so that they do not overlap with peak hour traffic periods.

> The commitment to undertake an actual truck trip generation survey should be undertake 12 months after the commencement of operations not 24 months.

> A commitment should be made unto the total number of truck trips which will be undertaken on a yearly basis.

> An intersection performance survey should be committed to be undertaken including the cumulative traffic input of adjacent land uses.

> The EA should make a commitment that no empty containers will be taken offsite with the exception of by rail.

Noise and Vibration

> The frequency and timing of the proposed monitoring needs to be defined in the SoC to ensure that adequate monitoring is undertaken throughout the project.

> Specific noise and vibration sensitive design principles should be defined in the SoC rather than just the consideration of these principles.

> The power source, type and quantity of the equipment as well as the projected number of diesel trains should be detailed to ensure assessment and approvals are based on the maximum capacity for the site.

Health

> A commitment should be made to ensure that project design, construction and operations will be undertaken with the objective of minimising health impacts on both the onsite employees and the surrounding community. Appropriate mitigation measures should be defined in order to maintain this objective.

Biodiversity

> Detail mitigation measures need to be included, rather than just vague mitigation measures, which define activities which will be undertaken to protect the biodiversity of the project area along with how these mitigation measures will be enforced.

> A means of monitoring biodiversity, in order to define the level of impacts which have occurred, needs to be defined in the statement of commitments. This should include the methodology and timeframe of the monitoring.

> The use of contingency measures should be included in the statement of commitments to demonstrate the actions which would be undertaken should the monitoring demonstrate excessive impacts to biodiversity. This will provide a transparent process which would be assessable by the relevant agencies.

Hazard and Risks

> Further analysis of offsite infrastructure impacts will be undertaken to ensure that the feasibility and cost impost for any upgrades and/or ongoing maintenance requirements are discussed and agreed with relevant private landowners, agencies and stakeholders.

> A Strategic Project Model and Assessment of Road and Rail Infrastructure should be included, incorporating modelling of the potential impacts of the proposal on the greater road and rail networks, the capacity of the existing infrastructure with in the greater network, maintenance requirements as a result of the proposal increasing use of this infrastructure and a the responsible body for ensuring maintenance is undertaken and funding is available.

> Development of Drivers Code of Conduct and defined induction process should be developed to ensure that offsite incidents and impacts a minimised once trucks leave the project site.

> An independent audit of the Environmental Management System and Event Management System should be undertaken to encourage continuous improvement and to ensure best management practices.

Contamination

> Further assessments should be undertaken within the SIMTA site as the site detail develops, to determine consistency with the past findings and if the proposed development will result in the exposure or required removal of contaminated materials.

Stormwater and Flooding

> Include a commitment to coordinate with MIT on the impacts and associated designs for shared water ways.

> Detailed mitigation measures which will be employed as part of the project should be detailed.

Air Quality

> Ozone and VOC's should be assessed and if necessary added to the monitoring commitments.

> The transportation of refrigerated containers through the site should be identified and relevant monitoring and assessment proposed as necessary.

Heritage

> A commitment to defined and undertake specific monitoring objectives throughout the construction phase of the project to ensure appropriate mitigation measures are employed to protect the surrounding indigenous heritage values.

> Following the inclusion of greater details within the EA regarding the proposed removal or relocation of the WWII heritage, define the protection of these heritage items and ongoing monitoring and management of these structures.

Visual and Urban Design

> Landscape Management Plan design commitments should include the use of a landscape buffer zone along the northern boundary, the type and height of trees to be used within the buffer zones, the maximum height of infrastructure and container stacking within the SIMTA site, and the use of warehouse massing diagrams to define the layout of containers and maximum heights.

Utilities

> Include a commitment which ensures that all works undertaken on rail based utilities is undertaken in consultation with the relevant transport or infrastructure authority.

Consultation

> Details of the CIC should be incorporated including the opening times, location and the ongoing advertisement of the centre.

> Consultation with the ARTC should include negotiations into maintenance and upgrade requirements of the rail network and the relevant funding body for these works.

5 Justification

This section reviews the justification identified to support the proposal and considers whether it is adequate.

5.1 Demand

5.1.1 Summary of changes from 2012 to revised 2013 EA

The following changes are included in the revised EA:

> The NSW Government objective for freight movements by rail has been reduced from 40% at the time of the original EA to 28% by the Draft NSW Freight and Ports Strategy, with the demand modelling undertaken by Hyder to support the revised EA stating that the SIMTA site has the capacity to achieve the 28% reduction.

> Additional information supplied associated with Catchment Demand. The revised EA considers both an 'unconstrained' and 'constrained' scenario within the Freight Demand Modelling. The revised EA notes that the "*unconstrained option is considered to be the least cost option, however, it is not considered to be a realistic scenario. The freight catchment demand analysis confirms that the planned intermodal facility at Moorebank will need to service one million TEU by 2025*" (Urbis, [a], 2013). The potential impacts on freight associated with the SIMTA proposal are identified including:

- Demand for intermodal terminal facilities exceeds current supply requiring increaseing truck movements into Western Sydney
- SIMTA would attract a significat proportion of the TEU market (up to 35%), reducing the demand for truck movements from Port Botany
- By 2016 SIMTA would have the capability to accommodate 500,000 import TEU's per annum
- By 2025 SIMTA would attract container traffic for the Liverpool area and South western Sydney, as demand would exceed the current capacity of the Minto IMT.

> The revised EA provides additional justification for the rail alignment associated with the Georges River crossing and the Anzac Creek crossing.

> The revised EA includes text from the NSW 2021 plan, which replaces the NSW State Plan (2010).

> The revised EA notes that NSW 2021 identifies the following targets for freight:

- Enhance rail freight movement
- Double the proportion of container freight movement by rail through NSW ports by 2020 from 14 to 28 percent (Draft NSW Freight and Ports Strategy: 2012).

5.1.2 Cardno Assessment

Section 3 of the revised EA provides the Strategic and Project Justification. The additional information within Section 3 of the revised EA comprises limited additional consideration of the rail corridor and associated impacts; identification of additional development projects within proximity to the site; as well as consideration of a constrained and unconstrained development scenario within the demand analysis.

The additional information does not provide an additional level of rigor to the previous justification provided in the original EA. Consequently, the following fundamental issues remain:

> SIMTA has failed to include the planned but not approved IMTs in the consideration of its demand analysis. These include the adjoining MIT proposal, which will have a capacity for 1.2 million TEUs per annum for local movements and 0.5 million TEUs per annum for interstate movements, as well as the Eastern Creek proposal, which will have a capacity of approximately 0.5 million TEUs per annum.

> Whilst Port Botany accounts for almost the entire volume of containerized import/export trade throughput in NSW. Most intermodal terminals service both local and interstate trades due to the ability to cover both markets once the infrastructure is established as proposed by the MIT proposal. However, SIMTA's proposal has no mentioned of transfer to rail for inter-state or inter regional delivery, yet this option has not been ruled out.

> SIMTA's demand analysis is based on unpublished data that is impossible to verify.

In addition to the existing issues the following comments are made:

The findings of the revised freight catchment demand analysis undertaken by Hyder state that by 2025, at which point the SIMTA site is proposed to be capable of operating at full capacity, there would be a demand to service 1 million TEUs per annum. The combined SIMTA and MIT capacity is proposed to be 2.7 million TEUs per annum resulting in supply outstripping demand, based on the demand analysis undertaken in the revised EA. The excess supply is likely to lead to a high level of redundancy and an inefficient use of the site and associated resources, or more likely a lowering of fees to attract additional throughput. The additional throughput would create additional wide ranging environmental impacts that are not currently considered by the environmental assessments, which are based on a total TEU through put of 1 million per annum, which is potentially 37 percent less than the actual throughput.

SIMTA's proposal has not been identified in the current planned IMT development program and there is not a rigorous demand justification for the project within the identified timeframe provided, which is a key requirement under the DGRs.

5.1.3 Recommendations

To address the demand justification deficiencies, the following recommendations are proposed:

> Provide evidence demonstrating a commitment from ARTC in relation to the expansionary infrastructure to service the SIMTA site and the funding arrangement.

> Provide the scope and concept design of the expansionary infrastructure and the environmental assessment for such works.

> Undertake further need assessment on the demand for SIMTA's proposal, taking into account the capacity proposed by the MIT and the Eastern Creek projects.

> Undertake research and provide raw data from the existing IMTs showing their capacities and the split between local and interstate freight.

> Provide a business case justification for the SIMTA site that in combination with the MIT site would have a capacity of 2.7 million TEUs per annum, while only servicing a demand for 1 million TEUs per annum.

> Should an appropriate business justification not be available provide a realistic operating capacity for the site once operating at capacity in 2025 and associated environmental assessment.

5.2 Staging

5.2.1 Summary of changes from 2012 to revised 2013 EA

The revised EA identifies a revised staging program, with the following amendments:

> Original EA included the construction of the initial 650m rail siding comprising four tracks within Stage 1. The revised EA does not include rail construction on site, only the rail link to the site.

> The revised EA staging program does not include construction of the onsite rail sidings.

> The original EA aimed to commence construction of Stage 1 in mid-2012, with completion mid-2015.

> The revised EA aimed to commence construction of Stage 1 at the end of 2014, with completion mid-2015 in Section 2.5.3. Section 3.4 of the revised EA proposes the design and construction program commence in early 2015, with completion in mid-2017.

5.2.2 Cardno Assessment

The staging program proposed by the revised EA has been compressed, with Stage 1 construction taking six months, whereas the original EA proposed a three year timeframe for Stage 1. Justification for the substantially reduced timeframe is not provided. Based on the likely extent of civil and structural works proposed it is unlikely that the reduced program is feasible. Consequently, based on the MIT proposal construction timeframe with commencement in early 2015 there would be cumulative impacts associated. The revised EA has not considered concurrent construction and the associated magnification of cumulative impacts as stated in **Section 2.5**.

The staging program within the original EA included construction of the initial 650m of rail siding within Stage 1, which is removed from Stage 1 in the revised EA. The construction of the rail sidings is not identified in the revised EA. It is unclear whether this is a deliberate omission, in which case the actual stage of construction for the rail sidings should be identified along with justification, or an error.

5.2.3 Recommendations

The following recommendations are made to address the project staging:

> Clarify the extent of the Stage 1 construction works

> Provide environmental assessment of construction impacts associated with the concurrent development of both the SIMTA and MIT sites, with the assessment including noise, air quality, sediment control, traffic, safety and amenity of the site and surrounds.

> Clarify the timeframe for construction of the rail sidings.

5.3 Location of SIMTA and other IMT's

5.3.1 Summary of changes from 2012 to revised 2013 EA

Limited additional information is contained within the revised EA at Section 3.3 associated with the location of SIMTA and other existing and proposed IMTs. The primary difference is the inclusion of additional catchment demand information considering an 'unconstrained' and 'constrained' scenario within the Freight Demand Modelling. The implications of this demand modelling are discussed further within **Section 5.2** of this submission.

5.3.2 Cardno Assessment

As discussed at **Section 5.3.1** changes to the revised EA associated with the location of SIMTA in the context of other IMTs and the target market are limited. Consequently, the recommendations contained within the submission to the original EA remain. Furthermore, as discussed in **Section 5.1** inefficiencies and a high level of redundancy are created by the colocation of two IMT's that are proposed to operate in isolation from each other. A more appropriate solution would be to undertake a government led masterplanning process considering both the IMT's within the surrounding land use context, with parties including State Government Departments, Council and the two proponents involved to ensure that the best and most efficient use of the land is achieved.

5.3.3 Recommendations

Cardno is unable to make a full assessment of the SIMTA catchment analysis due to the lack of clarity regarding the data used and unclear assumptions. In order to understand the full implications of SIMTA's assessment, the following additional information is requested and recommendations made:

> There is no information on the source of the base year container distribution data, other than quoting a survey undertaken in March 2000. There is no source of the survey and no indication of the detail, assumptions or methodology of such survey. This information should be provided and the raw data from the survey submitted.

> Using employment data and employment projection to determine container distribution is not considered appropriate without understanding the assumptions behind the original employment projection. It is more appropriate to use the current and future industrial land use data (i.e. current and future zoning) to determine container distribution. Additional analysis of zoning should be undertaken to further derive a pattern of container distribution for the base year and future years.

> No consideration of the MIT proposal and its impact on SIMTA's catchment is provided. The report notes that the Commonwealth proposal is not as advanced as the SIMTA proposal. However, the Eastern Creek IMT, which has not even progressed to a development application stage, is included, illustrating the inconsistency in the assumptions used by SIMTA. A new catchment analysis should be submitted taking into account all planned proposals, including SIMTA, MIT and Eastern Creek.

> The catchment plans and distribution forecast do not include any indications of the truck route assumptions used in the model. It is noted that the model uses the 'most cost effective supply chain' to determine the catchment area of the individual industrial activity. The modelling results and truck routes need to be presented in the additional information submitted by SIMTA, as well as the data behind the model.

> As identified in the traffic assessment in **Chapter 4.1** above, the traffic report has not considered the impacts on the local road network and there is insufficient information to determine the likely truck routes and the potential impacts. This information should be submitted for further consideration of the impacts on local roads.

> A government led master planning process should be undertaken addressing development across both the SIMTA and MIT sites, with both Local and State Government, as well as the proponents involved.

> Based on the revised catchment demand analysis, justification is required for the reasons for co-locating two IMTs at the same location with a total capacity of 2.7 million TEUs per annum. If the demand within the identified catchment does not justify such capacity, the proposal needs to be revised to consider the following alternatives:

- Reduce the capacity of this development to meet the required demand within the appropriate timeframe.
- Consider the opportunities to upgrade or expand the existing IMTs, based on the catchment demand, current and future warehouse distribution and truck movements and undertake appropriate environmental assessment to consider cumulative impacts at this higher level of throughput.

6 Conclusion

This section provides a summary of findings and overall conclusion to the study.

A revised scheme for the Sydney Intermodal Terminal Alliance (SIMTA) project was prepared, with the associated 2013 Environmental Assessment (EA) placed on public exhibition by the Department of Planning and Infrastructure (DP&I) in order to satisfy the designation of the project under Clause 8F(1)(e) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

Liverpool City Council (Council) and its community have raised their strongest objection to the proposal and have raised significant issues about the scale of impacts associated with the development. Council has engaged Cardno to review the revised EA and prepare a submission to DP&I on behalf of Council due to concern regarding the scale of impacts associated with the proposal. This submission to the 2013 EA comprises a review of the EA and supporting documentation to establish the extent of revisions to the previous scheme and to assess the potential impacts in the context of the previous submission. This submission focuses on the key components of the EA including the development scope, standalone and cumulative impact assessment and justification. Additional impacts created by the revised scheme are identified, along with recommended actions to address these measures. Previously submitted comments have been retained or removed depending on whether they have been adequately addressed in the revised scheme.

It is concluded that the revised scheme considered by the 2013 EA and supporting documents does not contain sufficient information to allow a comprehensive assessment of the project, with a key shortcoming being the lack of consideration of cumulative impacts in the context of realistic Twenty-foot Equivalent Unit (TEU) throughput generated by two adjacent intermodal terminals (IMTs). Additionally, the assumptions on which the assessments have been based contain flaws and inconsistencies placing the assessment findings in question. Key shortcomings associated with the project are summarized in the following subsections.

6.1 Scope of Development

> The clear definition and delineation of all off-site infrastructure upgrades and increased maintenance requirements (i.e. road, rail, utilities, re-vegetation), as well as who is responsible for funding and implementing such work requires consideration within the proposal. There is very limited discussion regarding how developer contributions (i.e., Section 94 or 94A plans) would be applied and how any funding contributions would be agreed with key stakeholders such as Council, RMS, ARTC, RailCorp, private landowners etc. This financial risk to third parties has been identified as a key issue and is a significant omission from the current proposal.

> There is limited consideration of the off-site works required to undertake the project in its initial phases. Design of the rail corridor link should avoid or at least minimize impacts on the two threatened plant species. Furthermore, Offset sites have not been identified in the Biodiversity Offset Strategy (BOS) document, although the BOS does include proposed offset policies and three broad offset measures that could be used for in this project. However, Offset Measure A, which has been identified as SIMTA's priority option, relies on obtaining offset land that meets specific criteria to allow the offset biodiversity to flourish, yet the BOS provides no recognition that a suitable offset site is available to offset the clearing proposed by the project.

> The land use on the site is unclear and inconsistent between different reports.

> It is unclear whether there will be refrigerated, frozen materials handling and storage or space heating of warehousing, with fuel consumption and emissions data not provided. Clarification is required to enable thorough assessment of impacts.

> The location, scale and height of the structures on the site is unclear, with the quality and scope of the submitted Concept Plan not containing sufficient information to allow valid assessment of the proposal.

> There is no indicative commitment from the landowners, whose lands will be affected by the off-site works of this proposal, to allow for this development, hence the requirement for the designation of the project

subject to Clause 8F(1)(e) of the EP&A Regulation. The lack of landowner support for the project is a significant risk to the viability of the project given that the proponent does not own the site or the associated rail corridor, both of which are required to allow the proposal to function.

> The timing of the proposal does not align with the existing lease term and there is no indication that the existing tenant will vacate the site to allow the construction of the project to commence in mid-2012.

> The concept design does not take into account the adjoining MIT proposal, with no obvious coordinated design between the two proposals. Cumulative assessment is based on a combined capacity of 1 million TEUs once both the SIMTA and IMT sites are fully operational in 2025, whereas the total design capacity is anticipated to be 2.7 million TEUs per annum. Furthermore, traffic generation is anticipated to be approximately a third higher than proposed in the 2013 EA due to the favorable assumptions used in the modelling. The reduced number of traffic movements would have follow-on impacts for a range of the associated specialist studies including noise, air quality, greenhouse gas (GHG), visual and hazard and risk. Consequently, a review of the assumptions informing the traffic modelling should be undertaken, with the revised trip generation numbers used to update the associated studies.

> Road intersection performance summary tables have not been provided, nor have the network updates incorporated into the Paramics modelling, or the basis for the estimation of 2031 traffic flows. Therefore, the impact of the SIMTA proposal and required road upgrades cannot be accurately substantiated and it is not identified who would pay for the network upgrades and their effectiveness. Furthermore, the proposed MIT facility is not included in the traffic model, which was also requested in the TfNSW submission CD12/05199, point 6.1.

> The Non-indigenous Heritage Assessment does not detail how impacts on items of non-indigenous heritage would be addressed and managed as required by the DGR's. Specifically, the Assessment is lacking a description of how the items of heritage would be addressed and managed and an appropriate level of assessment of the potential impacts. Furthermore, consultation with the relevant Commonwealth heritage body should be undertaken to ensure appropriate management and mitigation measures are identified.

> Prior to the submission of the 2013 EA, 9 additional sites were registered on the Aboriginal Heritage Information Management System (AHIMS) adjacent to the proposed site, which have not been recognised in the Assessment. Due the recent discovery of these sites, the Assessment should be revisited in order to ensure that the Aboriginal significance of the location is adequately assessed, particularly given that two sites are located within areas that will be impacted by the proposed rail road.

> The 2013 EA provides only limited details as to the site layout and design treatments. Consequently, it is difficult to ascertain the extent of visual impacts associated with site construction and operation. The transport, loading and stacking of containers is likely to be a highly visible activity due to their size and colour. The visual assessment does not address container stacking or appropriate treatment. In order to minimize visual impacts sensitive receivers particularly at residences to the north and east should be identified with appropriate management and mitigation measures used including vegetation screening and the limiting of stacking heights.

6.2 Environmental Impact Assessment

> The environmental impact assessments are not based on the full scope of the development and there is limited assessment of the offsite works. Specifically, in relation to the traffic assessments the higher trip generation rates anticipated in the Aurecon report highlights that the potential trip generation could be double that identified within the revised 2013 EA, with the report recommending that the actual trip generation rate be surveyed after 24 months of the SIMTA site opening. Consequently, without confidence of the possible trip generation beyond 24 months of operation, the consent authority may find it appropriate to only approve the first stage of development until development scaling beyond 24 months operation can be confirmed.

> All recommended mitigation measures identified in the impact assessments are not included in the proposed scope of works and the report simply defers these works to the project application stage. Even though this is a Concept Application, the full scope of the development is fundamental to ensure the

project can be delivered as per the applicant's proposal. The lack of information does not allow an appropriate level of impact assessment.

> There is no indication of the proposed routes of truck movements between the warehouses and the intermodal terminal. The environmental impacts resulting from the increase in truck movements on local and regional roads cannot be assessed.

> The proposal appears to have significantly over-estimated the economic and employment benefits of the development and does not consider the current high levels of Defence employment, along with the extensive economic and job creating multiplier effects created for the area through the employment of a large number of Defence personnel, many of whom also reside locally.

> Design of the rail corridor link should avoid or at least minimize impacts on the two threatened plant species including the *Grevillea parviflora subsp. parviflora* and Commonwealth listed *Persoonia nutans.* While the revised EA acknowledges a potentially significant impact on *Persoonia nutans* there appears to have been no changes in the rail alignment through this area to minimize impacts on this listed endangered species. Furthermore, impacts on *Grevillea parviflora subsp. Parviflora* are not identified as significant. However, as 11% of the species is proposed to be cleared it is considered that there would be a significant impact on this species. Accordingly, agency consultation should be undertaken to determine the severity of this impact and the appropriate mitigation measures and offsets required to protect this species.

> There is no consideration of the cumulative impacts as a result of the SIMTA development and other proposed development within the area. The background levels of some air quality pollutants are already high, while the emissions from the SIMTA site alone would not exceed the head room available for new industry, particularly given the other proposed developments in proximity to the site including the MIT and Goodman Fielder proposals, consideration of cumulative air quality impacts is required.

> Analysis of the thresholds for cumulative environmental aspects including Noise, Air Quality, Traffic and Greenhouse Gas should be undertaken to establish the combined development threshold that cannot be exceeded without impact. A combined threshold limit would provide a realistic understanding of the level of development possible without significant impact. These levels would require further research and analysis with the involvement of the applicable government bodies including the EPA, Council and DP&I.

> The appropriateness of the consultation methodology (when taking into account local demographics) is questioned and there is no evidence to show that the issues identified by the public have been addressed in the proposal. The Community Information Centre (CIC) is remotely located with limited opening hours resulting in a low level of community visitation. This is supported by the 2013 EA comments, which state that members of the community have not visited the CIC since the exhibition of the 2012 EA. There has been extensive media coverage associated with the proposal and community opposition, therefore, it is not considered that the lack of visitation equates to a low level of community interest, rather a lack of commitment by the proponent to engage with the community. Furthermore, the extent of community consultation undertaken is not adequate or representative of the community which will be impacted upon by the proposal. The consultation area should be expanded to include the suburbs of Glenfield and Macquarie Fields, which are along the route of Cambridge Avenue and connecting roads that will receive increased traffic as a result of the proposal, as well as the surrounding suburbs of Prestons, Lurnea, Liverpool and Chipping Norton, which are likely to utilize areas which will be impacted by increased traffic flows as a result of the proposal.

> Due to the un-coordinated design between the SIMTA and MIT proposals, the development represents an inefficient use of land and likely redundancy of resources, which is contrary to the objective of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

> The proposed development does not comply with the local planning controls identified by Liverpool Local Environmental Plan 2008. Limited detail is provided in the 2013 EA, therefore it is unclear whether the requirements of the Liverpool Development Control Plan are addressed.

6.3 Strategic Justification

> There is limited environmental, social or economic consideration of the need for two IMTs in one location. The combined SIMTA and MIT capacity of 2.7 million TEUs per annum would result in supply substantially exceeding demand, which is likely to lead to a high level of redundancy and the inefficient use of the site and associated resources, or a lowering of prices to attract additional throughput. Commercial reality would demand the two sites maximise throughput to reach the design capacity resulting in a throughput of approximately 2.7 million TEUs per annum.

> There are no commitments from stakeholders, in particular the ARTC, to allow connection from the site to the SSFL. The current rail network configuration would not be able to accommodate the proposed SIMTA throughput, with ARTC advising that appropriate investment on expansionary infrastructure is required. Detailed modelling is required to ensure that the rail network has the capacity to accommodate the additional freight movements proposed, as the rail network upgrades identified are not adequately justified by network analysis.

> The location of two IMTs on adjacent land results in cumulative impacts and the duplication of infrastructure including the provision of two rail spur lines; sidings; warehousing; access roads; and services provision. Duplication and associated redundancy would lead to the inefficient use of resources and unnecessary disturbance of land for no net gain, while increasing overall environmental impacts. It would be more appropriate to identify a second IMT site to service a separate freight catchment, providing a higher level of service with reduced environmental impacts.

> There is limited assessment on the volume of container import/export within the Liverpool catchment area and there is limited evidence to justify the proposed 1.0 million TEU. The methodology for the catchment demand analysis is inappropriate and there is no evidence to show that there is sufficient demand in the catchment to support two IMTs in Moorebank.

> There is no consideration of an alternative design or proposal, either by expanding the existing IMTs in Sydney or by combing the SIMTA and MIT proposals to address the demand.

7 References

This section identifies the sources used within the study.

Cardno, 2012, SIMTA Intermodal Terminal Proposal, Peer Review of Environmental Assessment

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Golder Associates (2011) Preliminary Environmental Site Assessments

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Hyder, 2012, Waste Management Strategy

Hyder, [a] 2013, Freight Demand Modelling

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Hyder, [c], 2013, Transport and Accessibility Impact Assessment

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Hyder, [h], 2013, Environmental Risk Analysis Report

National Parks and Wildlife Service (NPWS), 2002, Environmental Impact Assessment Guidelines: Grevillea parviflora subsp. Parviflora.

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Pacific Environment Limited, 2013, Air Quality Impact Assessment

Reid Campbell, June 2013, Urban Design and Landscape Report

Urbis, 2012, Sydney Intermodal Terminal Alliance Transitional Part 3A Concept Application: Environmental Assessment, Prepared for Sydney Intermodal Terminal Alliance.

Urbis, [a] 2013, Sydney Intermodal Terminal Alliance Transitional Part 3A Concept Application: Environmental Assessment, Prepared for Sydney Intermodal Terminal Alliance.

NSW GOVERNMENT | Transport for NSW

Mr Sam Haddad
Director General
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Mr Haddad

Thank you for your letter received 4 September 2013 inviting Transport for NSW (TfNSW) to comment on the *Exhibition of revised Environmental Assessment for SIMTA Intermodal Terminal Facility (MP10_0193).*

Transport for NSW (TfNSW) has coordinated comments from the transport cluster including Roads and Maritime Services, Sydney Trains and RailCorp (property issues). In providing this response Transport for NSW also reiterates the response to the previously exhibited concept plan that was publicly exhibited between 28 March and 28 May in 2012.

It is understood that the proponent has lodged this concept plan to provide an overview of what is proposed and to establish the framework for more detailed development of the proposal. Furthermore, it is also understood that the proponent will need to come back to the Department of Planning and Infrastructure for any approval to construct the proposed terminal and TfNSW may expect to be consulted by DP&I at that time.

TfNSW considers that the proponent's statement of commitment currently lacks the necessary detail to provide an adequate overview or framework of how the development will mitigate the regional impacts it causes.

It is suggested that a way forward would be for this SIMTA proponent as well as the adjacent Moorebank Intermodal Terminal (MIT) proponent to jointly engage with Transport for NSW to arrive at mutually agreeable statements of commitment on transport related issues. At full cost to SIMTA and MIT these commitments would at a minimum address:

- Commit to upgrade Moorebank Avenue from the most southerly point of access point onto Moorebank Avenue to four lane access up to the intersection of Moorebank Avenue and the M5. This should be inclusive of intersection treatments; including Anzac Road, signal plans, traffic analysis, staging and cost information to RMS's satisfaction.

- Commit to the upgrade of the Moorebank Avenue, Newbridge Road, and Heathcote Road intersection. This should be inclusive of signal plans, traffic analysis, and staging information to RMS's satisfaction.

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- Commit to the upgrade of Moorebank Avenue and the M5 Interchange. This should expand the descriptions and diagram at Section 8.1 to provide detailed plans including signal plans, traffic analysis and staging options to RMS's satisfaction.

- TfNSW acknowledges Appendix H Rail Access Report and Appendix B Rail Quadruplication sketches within that report. The sketches should instead be scaled plans that show to RailCorp/TfNSW satisfaction how the East Hills Line Corridor will accommodate a freight rail alignment, a quadruplicated East Hills Line (solely for passenger purposes), a service road and a separating fence for RailCorp use that also takes into account infrastructure constrictions (gas line and 33KV electrical line) immediately adjacent to and on either side of the rail corridor. It is presumed the proponent wishes to lease or licence the subject RailCorp land, but no information has been forthcoming. The above issues should be addressed by the proponent to the satisfaction of RailCorp/TfNSW.

- A joint commitment to examine a freight rail alignment that is integrated with the MIT proposal and located well to the north of the East Hills Line corridor. This will allow TfNSW to preserve a viable and cost effective corridor option for quadruplication of the East Hills Line for passenger service purposes unencumbered in any way by construction or operation of the SIMTA freight line.

- Incursions into the Moorebank Station site will require further negotiation with RailCorp Property Section and TfNSW.

- TfNSW Freight and Regional Development and Transport Services Divisions have requested that the proponent clarifies a number of issues in the Rail Access Report and the public transport attachment to the Transport and Accessibility Impact Assessment. These are addressed at Tab A.

If the above and more detailed issues outlined in the attachment can be satisfactorily addressed by the proponent to TfNSW satisfaction then TfNSW would be likely to be supportive of this proposal moving into Assessment Report/Planning Assessment Commission consideration stage.

The contact officer for this matter is Ms Anissa Levy, Acting General Manager, Land Use and Integrated Transport Branch. She may be contacted on 8202-2712.

Yours sincerely

19.11.13

Tony Braxton-Smith
Acting Director General

CD13/17339

Tab A

The following comments against each of the Department of Planning and Infrastructure Director General Requirements (in bold) relevant to Transport for NSW in its current concept application are provided below:

The need for and the objectives of the project, taking into consideration container trade numbers (import and export) at the international, national and state levels; future trends in container origin/destination in Sydney; intermodal capacity and demand; and identification of the terminal's freight catchment area and freight split;

TfNSW is satisfied this requirement has been adequately addressed at the concept plan level.

Its relationship to and interaction with adjoining development, including the proposed intermodal on the Steele Barracks/School of Military Engineering site and the investigations being undertaken by the Moorebank Project Office; and

- ***its consistency with the aims and objectives of relevant State policies and plans including the NSW State Plan, Metropolitan Transport Plan, State Infrastructure Strategy, Metropolitan Plan, Draft Subregional Strategy for the South West Subregion, Railing Port Botany's Containers, Action for Air, the Commonwealth's draft National Ports Strategy and National Freight Strategy, and project objectives.***
- ***Need to demonstrate how freight corridor would be accommodated within the East Hills Line***

TfNSW notes the proponent has referenced the Long Term Transport Master Plan as well as the Draft NSW Freight and Ports Strategy in addition to the above policy documents.

The proponent will then be aware that the Long Term Transport Master Plan at page 84, 89, 93 and particularly page 153 references the need for capacity augmentation, most likely to be quadruplication, of the East Hills Line Railway Corridor for passenger purposes. This is necessary to support green field development and urban renewal in South West Sydney.

It is therefore vital that the proponent addresses further details of how their freight line might share the East Hills Line. This will be best demonstrated by submitting a scale plan showing how the freight line, a quadruplicated passenger rail track, a passenger rail service road and a separating fence and utilities (including the major gas line and the 33kV electrical line) can all be accommodated within the East Hills Line Corridor. These issues need to addressed to the satisfaction of the landowner, RailCorp, and TfNSW. This issue is dealt with in further detail below.

Common rail access point encouraged

TfNSW continues to encourage the proponents of both the SIMTA development and the Moorebank Intermodal Terminal Project to consider common rail access. At present both SIMTA and the Commonwealth Moorebank Intermodal Terminal proposal are both proposing to have their own lines and connection points requiring the provision of duplicate facilities.

An assessment of the key issues for all components of the project (including the rail link connection to the Southern Sydney Freight Line), with the following aspects addressed for each key issue (where relevant):

- ***describe the existing environment;***
- ***assess the potential impacts of the proposal, in accordance with relevant policies and guidelines. Direct, indirect and cumulative impacts must be considered (including regard to other existing and proposed development and activities in the locality);***
- ***Identify how relevant planning, land use and development matters (including relevant strategic and statutory matters) have been considered in the impact assessment and/or in developing management/mitigation measures;***
- ***document the types of activities that will require licensing and how licensing will be applied under relevant legislation; and***
- ***describe measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the impacts of the project and any residual impacts.***

RailCorp is the owner of the East Hills corridor land which the proponent proposes to use for freight rail access. The proposed freight line alignment also traverses the centre of the RailCorp owned Moorebank Station site.

The rail quadruplication sketch in Appendix H of the EIS report is acknowledged. It does not contain an adequate level of detail to ascertain the impact on the rail corridor. One of the issues it has not included is the location of the gas pipeline in the rail corridor on the southern side. The pipeline is protected by an easement (minimum 6 metres wide) and registered on title. It should therefore be easily identifiable on all drawings.

The location of the 33KV power supply on the northern side of the corridor will need to be relocated. The only practicable option is on the southern side. It will then be difficult to accommodate quadruplicated passenger tracks, a service road, a fence for the service road, the freight line the 33KV supply line and the gas line which is a legal entitlement on corridor land.

TfNSW maintains the corridor described above and it will be difficult to accommodate all of the above uses and it may be necessary to acquire land on the southern side of the corridor. If this is necessary it needs to be understood from the outset so the appropriate arrangements can be initiated and put in place with the proponent.

TfNSW first preference remains for the SIMTA freight line alignment to be integrated with the MIT proposal and located well to the north of the East Hills Line corridor such that TfNSW can preserve a viable and cost effective corridor option for quadruplication of the East Hills Line for passenger service purposes unencumbered in any way by construction or operation of the SIMTA freight line.

In regards to the Moorebank Station site and the proponent's lack of ownership over this site, RailCorp has advanced a view that this may constitute an unsolicited proposal. TfNSW is giving this issue consideration as well as the potential commerciality implications of severing a site for a freight line on a site that previously had the potential to deliver a range of other land use outcomes.

A draft Statement of Commitments (SoC). The SoC must incorporate or otherwise capture measures to avoid, minimise, manage, mitigate, offset and/or monitor impacts identified in the impact assessment sections of the EA and ensure that the wording of the SoC clearly articulates the desired environmental outcome of the commitment. The SoC must be achievable, measurable (with respect to compliance) and time specific, where relevant.

This is a key area where Transport for NSW believes more work is required by the proponent. Transport for NSW suggests the proponent should engage with Transport for NSW to arrive at a mutually agreeable statement of commitment on transport related issues that would at a minimum:

- Commit to upgrade Moorebank Avenue from the proponents most southerly point of access point onto Moorebank Avenue to four lane access up to the intersection of Moorebank Avenue and the M5. This should be inclusive of intersection treatments including Anzac Road, signal plans, traffic analysis and staging information to RMS's satisfaction.

- Commit to the upgrade of the Moorebank Avenue, Newbridge Road, and Heathcote Road intersection. This should be inclusive of signal plans, traffic analysis and staging information to RMS's satisfaction.

- Commit to the upgrade of Moorebank Avenue and the M5 Interchange. This should expand the descriptions and diagram at Section 8.1of Appendix F *Transport and Accessibility Impact Assessment* to provide detailed plans including signal plans, traffic analysis and staging options to RMS's satisfaction.

- TfNSW acknowledges Appendix H Rail Access Report and Appendix B Rail Quadruplication sketches within that report. The sketches need to be revised to scale plans showing the proposed freight line alongside a quadruplicated East Hills Line for passenger purposes and a service road and a separating fence for RailCorp use that also takes into account infrastructure constrictions (major gas line and 33KV rail electrical line) immediately adjacent to and on either side of the rail corridor.

- It is presumed the proponent wishes to lease or licence the subject RailCorp land, but this is not documented in the Environmental Assessment.

Transport and Access – including but not limited to:
• a Transport and Accessibility Impact Assessment demonstrating how the project will facilitate freight transport objectives, meet freight infrastructure requirements and address impacts to local and regional transport networks;
• access to and from the project (including rail access to the Southern Sydney Freight
Line), and interaction and integration with existing and planned transport infrastructure
and services; and details of internal transport and logistic requirements to minimise external transport impacts and access to public transport for employees;
• the number of train and truck movements, origin and destination, types of road transport likely to be used (for example B-Doubles) and the capacity of existing and proposed road and rail routes to handle predicted increases in traffic, based on appropriate empirical analysis and strategic and project modelling; and identification of
whether any road and rail infrastructure upgrades are required;
• cumulative impacts, particularly with regard to existing and proposed freight distribution
facilities in the locality and potential cumulative mitigation measures; and
• taking into account of the *Guide to Traffic Generating Developments (RTA)* and the *Integrating Land Use and Transport Package*.

Transport for NSW Freight and Regional Development Division has requested the following clarifications be provided in respect of Appendix H *Rail Access Report.*

Rail Access Report

Page 1 – Third paragraph refers to "future Southern Sydney Freight Line". The SSFL has been operational since January.

Page 5 – Dismisses the possibility of proposed MICL rail access servicing the whole precinct "given the complexities in crossing Moorebank Avenue." This assertion requires further justification. Superficially, it would appear that the capital cost difference of either option is not substantial. i.e. Moorebank Ave over rail is a shorter rail link (also there is no impact on East Hills Line as indicated elsewhere). Also the costs of the proposed bridge over Georges River and longer rail link need to be considered.

Page 5 – The train path analysis based on 365 days per year is not realistic. The figures in the unlabelled table are under the assumed 80% utilisation set out on page 6. This should be clarified.

Page 6 – The sentence should be modified to read "With the SIMTA proposal requiring 21-22 paths each way at its peak"

Page 6 – Train turnaround times. Are trains push-pull? If not, time is needed to run-around and do brake tests. Need to be able to hold trains on siding ready to enter the SSFL, while another leaves the SSFL. This issue requires clarification.

Page 8 – Second last paragraph. Why will ARTC need to validate that 21 trains per day is sufficient to support 1 mil TEU p.a.? Is this not the role of SIMTA? This issues requires clarification.

Page 8 – Last paragraph states:

ARTC also advised that there is a considerable amount of attention being directed at the future transport solutions for the cross-metropolitan container task and that they are working closely with the NSW Government over the next six months to assist in identifying a preferred strategy for this task and this is likely to lead to a firmer assessment of the scope and timing of capacity enhancements.

Can the proponent provide further details?

Page 9 – Can SIMTA cater for 1800m interstate trains on a joint siding if MICL shares access? Also, does sufficient capacity exist for MICL interstate trains (if introduced)? If not, what additional infrastructure may be required? This issue requires clarification.

Page 11 – The noise impacts of the tight radius curve needs to be assessed and mitigation identified. Also, what are the engineering issues of having loaded trains being held on the super/elevation? Will the points be remote/interlocked, so that trains don't need to stop? Will the turnout be installed with super elevation?

Page 16 – Operationally the proposal includes one set of points at the rear of the tip to split traffic to the north and south. Effectively this means that there are no crossing/holding facilities on the line which will affect capacity and reliability. A train cannot leave SIMTA once a Down train passes Leightonfield. This becomes particularly relevant if it is a joint access line. This issue requires clarification.

Page 17 – Noise impacts from tight radii curves need to be assessed and mitigation measures identified.

Page 21 – "Longer trains operating from the south will be broken up elsewhere prior to entering Glenfield" What if MICL comes on board (particularly 1800m trains). This issue requires clarification.

Page 22 – A correction is required. Air quality: The SIMTA proposal would accommodate up to 21 (should be 42) train movements per day.

Page 22 – Noise: Does not consider wheel/rail noise from tight curves.

Appendix A Page 6 – Is the Moorebank Avenue bridge over the East Hill rail line a RailCorp or Army asset? Clarification should be provided.

Noise and Vibration – including but not limited to:

- **noise and vibration from all activities and sources (on and offsite), and impacts to adjoining receivers (including nearby residential areas of Moorebank, Wattle Grove and Casula and sensitive land uses); and**

- **taking into account the *NSW Industrial Noise Policy (DEC), Assessing Vibration: A Technical guidelines (DECC), Environmental Criteria for Road Traffic Noise (DEC), and the Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DEC and DoP).***

Public Transport Assessment

It is acknowledged that the proponent has now included TfNSW's previously suggested bus servicing arrangement. This includes the provision of a Glenfield Station to Liverpool Station shuttle bus to serve the development and the rationalisation of bus routes 870, 871 and 872. These requirements have been included in a list of Suggested Public Transport Measures.

TfNSW seeks to incorporate the following matters into the proponents Statement of Commitment.

1. The proponent notes that all proposed public transport measures suggested are subject to appropriate funding and consultation.

2. Consideration must be given to any potential impacts to regular public bus services and school bus services operating in this area from the proposed traffic and truck movements. Should any impacts be identified, the measures proposed to mitigate these must be committed to being enforced.

3. A Construction Management Plan should specify any potential impacts to regular bus services and school bus services operating on roads within the vicinity of the site from construction vehicles during construction of the proposed works. Potential impacts to pedestrian access to public transport infrastructure including bus stops must also be specified. Should any impacts be identified, the duration of the impacts and measures proposed to mitigate these must be clearly explained.

4. The impact of the proposal and any changes to roadways on existing bus stop locations and the identification of any new bus stop locations to support the development must be assessed.

5. The proponent acknowledges that if the road closure of Cambridge Avenue occurs, it is highly unlikely that the shuttle bus will operate to the south of the site as Cambridge Avenue is the only suitable route for this service.