Ref: **SSD-30923027**
WTJ21-112

WILLOWTREE PLANNING

ENVIRONMENTAL IMPACT STATEMENT:
WAREHOUSE AND DISTRIBUTION CENTRE (COMPASS 2)

LOT 1 EASTERN CREEK DRIVE, EASTERN CREEK
LOT 1 DP 1274322 & LOT 271 DP 1198561

—

Prepared by Willowtree Planning Pty Ltd
on behalf of Charter Hall Holdings Pty Limited

4 March 2022

SYDNEY

—

Level 10
56 Berry Street
North Sydney NSW 2060

NEWCASTLE

—

Unit 2, 56
Hudson Street
Hamilton NSW 2303

GOLD COAST

—

4
Starling Street
Burleigh Heads QLD 4220

BRISBANE

—

Level 3, 240
Queen Street
Brisbane QLD 4000

02 9929 6974
equiries@willowtp.com.au
willowtreeplanning.com.au

WILLOWTREE
PLANNING

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SECTION 4.12 CERTIFICATE

Declaration Form	**Submission of Environmental Impact Statement (EIS)** prepared under the *Environmental Planning and Assessment Act 1979 – Part 4, Division 4.3, Section 4.12*

EIS Prepared by

Name	Eleisha Burton
Qualifications	Bachelor of Planning Graduate Diploma of Environmental Management
Address	Level 10 56 Berry Street North Sydney, NSW 2060

In Respect of	SSD-30923027 Compass 2 Warehouse and Distribution Centre

Development Application

Applicant Name	Charter Hall Holdings Pty Limited
Applicant Address	Level 20 1 Martin Street Sydney NSW 2000

Land to be Developed	Lot 1 Eastern Creek Drive, Eastern Creek: ▪ Lot 1 DP 1274322 ▪ Lot 271 DP 1198561
EIS	This document contains a complete EIS
Certificate	I certify that I have prepared the contents of this EIS to the best of my knowledge: ▪ it is in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*, ▪ contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and

- that the information contained in the statement is neither false nor misleading.

Signature

Name	Eleisha Burton
Position	Senior Associate
Qualification	BPlan, JCU GradDipEnvMgt, CQU
Date	4 March 2022

Signature

Name	Andrew Cowan
Position	Director
Qualification	BURP, UNE MPD, UTS
Date	4 March 2022

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GLOSSARY OF KEY TERMS

TERM	MEANING
BAM	Biodiversity Assessment Methodology
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
BCBHS	Building Code and Bushfire Hazard Solutions
BC Regulation	*Biodiversity Conservation Regulation 2017*
BDAR	Biodiversity Development Assessment Report
BLEP2015	*Blacktown Local Environmental Plan 2015*
BOS	Biodiversity Offset Scheme
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CIV	Capital investment value
Council	Blacktown City Council
CTMP	Construction Traffic Management Plan
DA	Development Application
DCP	Development Control Plan
DP	Deposited Plan
DPE	Department of Planning and Environment
EES	Environment, Energy and Science Group
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPA	Environment Protection Authority
EPBC Act	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environmental Protection Licence
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
FSR	Floor Space Ratio
GFA	Gross Floor Area
GHG	Greenhouse has
GSC	Greater Sydney Commission
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*
LGA	Local Government Area
MNES	Matter of National Environmental Significance
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NSW RMS	NSW Roads and Maritime Services
OEH	NSW Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
RL	Reduced level
SEARs	Secretary's Environmental Assessment Requirements (SSD-30923027), dated 8 November 2021

SEPP	State Environmental Planning Policy
SEPP 33	*State Environmental Planning Policy No. 33 — Hazardous and Offensive Development*
SEPP 64	*State Environmental Planning Policy No 64—Advertising and Signage*
SEPP WSEA	*State Environmental Planning Policy (Western Sydney Employment Area) 2009*
SIDRA	Signalised & unsignalised Intersection Design and Research Aid
Sqm or m²	Square metres
Subject site/site/study area	Lot 1 Eastern Creek Drive, Eastern Creek
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
TfNSW	Transport for NSW
Vegetation SEPP	*State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*
VIA	Visual Impact Assessment
VPA	Voluntary Planning Agreement
Willowtree Planning	Willowtree Planning Pty Ltd
WM Act	*Water Management Act 2000*
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

EXECUTIVE SUMMARY

This Environmental Impact Statement (EIS) has been prepared by Willowtree Planning Pty Ltd (Willowtree Planning), on behalf of Charter Hall Holdings Pty Limited (Charter Hall). The EIS is submitted to the New South Wales (NSW) Department of Planning and Environment (DPE), in support of an application for State Significant Development (SSD), for the construction and operation of a warehouse and distribution centre, involving earthworks, provision of infrastructure and construction of warehouse facility at Lot 1 Eastern Creek Drive, Eastern Creek (Lot 1 DP 1274322). In addition, the proposal also seeks to gain access to Honeycomb Drive through 31 Honeycomb Drive, Eastern Creek (Lot 271 DP 1198561).

In short, the proposal involves the construction and operation of a warehouse and distribution centre (identified as the Compass 2 Warehouse and Distribution Centre), comprising:

- Bulk earthworks, involving cut and fill works;
- Infrastructure comprising civil works and utilities servicing;
- Construction of a single warehouse facility with ancillary office offerings;
- Heavy vehicle egress to Honeycomb Drive;
- Storage of Class 2 and Class 3 dangerous goods (DGs);
- Provision of solar panels;
- 184 on-site car parking spaces;
- Complementary landscaping;
- 24 hours per day, 7 days per week operations.

The proposed development is afforded to a newly registered land parcel at Eastern Creek Drive, Eastern Creek, more formally described as Lot 1 DP 1274322. Such land is described throughout this EIS as the 'subject site'.

As indicated above, the proposal is also made over 31 Honeycomb Drive, Eastern Creek, being described as Lot 271 DP 1198561, for the purpose of access through to Honeycomb Drive. Only a small portion of this land is considered as part of the EIS (refer to **Figure 2** and **Figure 3**), with the environmental assessment mostly relating to the subject site described above.

The subject site is located within the Blacktown Local Government Area (LGA) and is zoned IN1 General Industrial, pursuant to the *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (SEPP WSEA). The proposed development falls within the definition of 'warehouse or distribution centre', which is permissible with consent in the IN1 General Industrial zone of the SEPP WSEA.

The proposal satisfies the definition of State Significant Development (SSD) pursuant to:

- Schedule 1, Clause 12 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP), being development for "the purpose of warehouse or distribution centres (including container storage facilities) at one location and related to the same operation" with a capital investment value (CIV) of more than $30 million.

As such, this EIS must be prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs).

Under the *Environmental Planning & Assessment Act 1979* (EP&A Act), it is required that a request for SEARs must be made prior to the lodgement of any application for SSD. SEARs were requested for the proposed development (reference: SSD-30923027) and later issued by the NSW DPE on the 8 November 2021 (refer to **Appendix 1**) in the form of industry-specific SEARs, through the Rapid Assessment Framework.

The SEARs for the proposal outline several Key Issues to be addressed as part of this EIS, including:

1. Statutory Context
2. Capital Investment Value and Employment
3. Design Quality
4. Built Form and Urban Design
5. Visual Impact
6. Traffic, Transport and Accessibility
7. Trees and Landscaping
8. Ecologically Sustainable Development (ESD)
9. Biodiversity
10. Air Quality
11. Noise and Vibration
12. Ground and Water Conditions
13. Stormwater and Wastewater
14. Flooding Risk
15. Hazards and Risks
16. Contamination and Remediation
17. Waste Management
18. Aboriginal Cultural Heritage
19. Environmental Heritage
20. Social Impact
21. Infrastructure Requirements and Utilities
22. Bush Fire Risk
23. Construction, Operation and Staging
24. Contributions and Public Benefit
25. Engagement

The findings of this EIS identify that the proposal can be accommodated, subject to suitable management and mitigation measures, without any adverse environmental impacts beyond that considered appropriate by the relevant legislation.

Further, the proposed warehouse and distribution centre would be consistent with the objectives of SEPP WSEA, the Eastern Creek Precinct Plan and relevant IN1 General Industrial zone. The proposal is suitable for the local context and shall not result in any significant environmental impact. As such, it is recommended that the proposal be supported by the NSW DPE for approval, subject to reasonable and relevant conditions.

SITE CONTEXT

The subject site is legally described as Lot 1 DP 1274322, with frontage to both Eastern Creek Drive. The subject site has a total area of approximately 4.805 hectares, and positioned within the Eastern Creek Precinct. The subject site also has frontage to the future extension of Honeycomb Drive (currently under assessment by Blacktown City Council (Council) in **DA-20-01689**), which is yet to be constructed.

In order to gain access to Honeycomb Drive, the proposal seeks to facilitate access via Lot 271 DP 1198561, to the north. This site contains an existing freight transport facility, that operates under the banner of Collins Transport.

The subject site forms part of the Western Sydney Employment Area (WSEA), which intends to provide businesses in the region with land for industry and employment, including transport, logistics, warehousing and office space. Located about 50 kilometres from the Sydney central business district (CBD), the WSEA provides businesses access to roads and utility services and allows people the opportunity to work locally and spend less time commuting throughout the day.

Figure 1 Site Context Map (Source: Nearmap/Willowtree Planning, 2021)

The subject site's context is best described through its IN1 General Industrial zoning, adjoining surrounding industrial-type uses. Land surrounding the subject site is predominantly IN1 General Industrial, comprising various industrial uses, supplier warehouses, distribution centres, freight transport facilities and data centres.

The subject site contains convenient access to the major interchange of the M4 Western Motorway and Westlink M7 Motorway, with further proximity to the Erskine Park Road upgrade. The Erskine Park Road is a vital corridor servicing the growth in the WSEA with slated upgrades to enhance road safety and traffic flow efficiency for local residents and businesses within the area. Public transport is facilitated by various nearby bus stops along Old Wallgrove Road, connecting the site to Mount Druitt, Rooty Hill, St Marys and Wetherill Park.

PROJECT DESCRIPTION

The proposal represents a new warehouse and distribution centre at the subject site, to be occupied by a global pharmaceutical company, for storage and distribution only.

The development consent sought under this proposed warehouse and distribution centre, comprises the following aspects of development:

- Site preparation works, including earthworks (cut and fill works);
- Infrastructure comprising civil works and utilities servicing;
- Construction of a single warehouse building, comprising up to:
    - 21,350m^2 of warehouse area
    - 500m^2 forklift charging area
    - 1,750m^2 of ancillary office areas
    - 14 loading docks
- Heavy vehicle access to Honeycomb Drive;
- Storage of Class 2 and Class 3 DGs;
- Provision of solar panels;
- 184 on site car parking spaces;
- Complementary landscaping (2,915m^2);
- Business identification signage;
- Hours of operation being on a 24 hours per day, 7 days per week, basis.

PLANNING AND LEGISLATIVE FRAMEWORK

All relevant Federal and State legislation, as well as Environmental Planning Instruments (EPIs), have been considered in the preparation of this EIS. The proposal is satisfactory in terms of its legislative context, on the basis that:

- The proposal is permissible in the zone;
- The objectives of the zone are satisfied;
- The range of applicable SEPPs have been considered;
- Strategic documents that apply to the locality and wider region have identified that the proposed use is consistent with the strategic context of the area;
- The proposed development can satisfy the relevant provisions of the Building Code of Australia (BCA) and applicable Australian Standards.

Refer to **PART D** of this EIS.

PUBLIC NOTIFICATION AND CONSULTATION

A range of authorities have been consulted with during the preparation of this EIS. These include:

- Blacktown City Council
- Deerubbin Local Aboriginal Land Council
- Environment Protection Authority
- Heritage NSW
- NSW DPE's Environment, Energy and Science Group (EES)
- NSW DPE's Water Group
- NSW Fire and Rescue
- Transport for NSW (TfNSW)
- Water NSW
- Endeavour Energy
- Sydney Water
- Telstra
- National Broadband Network
- surrounding local landowners, business and stakeholders

The consultation process is detailed in **PART E** and **Appendix 30**.

ENVIRONMENTAL IMPACT ASSESSMENT

An assessment of environmental impact has been undertaken against the relevant planning controls and policies. Additionally, a number of expert consultants have been engaged to specifically consider relevant aspects of the proposal. The environmental impact assessment has found that the proposed development complies with the relevant controls and it is considered that appropriate mitigation measures can be put in place to minimise any identified risks.

The proposed development is considered acceptable in a legislative sense.

JUSTIFICATION FOR THE PROPOSED DEVELOPMENT

Thorough consideration of the environmental impacts of the proposal has been undertaken in the environmental impact assessment process and in the preparation of the EIS. In assessing the impacts of the proposed development, consideration has been given to social, economic and environmental matters. As identified in this EIS, proposed development is not considered to represent an environmental risk, or a development that might be out of context with the surrounding locality.

EIS FINDINGS

The findings of this EIS demonstrate that the proposed development can proceed with consent. All assessed impacts have been examined and deemed acceptable, in relation to all the relevant legislative requirements applicable to the subject site. Furthermore, the proposed warehouse and distribution centre aligns with the objectives of the *A Metropolis of Three Cities – Greater Sydney Region Plan,* the *Central City District Plan* and the SEPP WSEA.

Based on the findings of this EIS, the subject site can successfully support the proposed warehouse and distribution centre, inclusive of related development and operations, with acceptable environmental impacts. The proposed development is a logical addition to the existing Eastern Creek Precinct.

The proposed development is deemed suitable for its intended purpose, having regard to its regional and local context and would not result in any significant environmental impacts. As such, it is requested that the proposed development be approved, subject to reasonable and relevant conditions.

PART A PRELIMINARY

1.1 INTRODUCTION

This EIS has been prepared by Willowtree Planning, on behalf of Charter Hall. The EIS is submitted to the NSW DPE, in support of an application for SSD, for the Compass 2 Warehouse and Distribution Centre project, involving site preparation works and construction of warehouse and distribution centre at Lot 1 Eastern Creek Drive, Eastern Creek, more formally described as Lot 1 DP 1274322.

The proposal also seeks consent for access to Honeycomb Drive, which would be gained through 31 Honeycomb Drive, Eastern Creek, being described as Lot 271 DP 1198561.

As such, the land to which is EIS applies is:

- Lot 1 DP 1274322
- Lot 271 DP 1198561

The proposal seeks to operate 24 hours per day, seven (7) days per week, and would generate approximately 480 direct construction jobs and a total of approximately 438 operational jobs for the proposed facility.

The particulars of this proposal are summarised below:

- Site preparation works, including earthworks (cut and fill works);
- Infrastructure comprising civil works and utilities servicing;
- Construction of a single warehouse building, comprising up to:
    - 21,350m^2 of warehouse area
    - 500m^2 forklift charging area
    - 1,750m^2 of ancillary office areas
    - 14 loading docks
- Heavy vehicle access to Honeycomb Drive;
- Storage of Class 2 and Class 3 DGs;
- Provision of solar panels;
- 184 on site car parking spaces;
- Complementary landscaping (2,915m^2);
- Business identification signage;
- Hours of operation being on a 24 hours per day, 7 days per week, basis.

This EIS describes the subject site and proposed development. It also responds to the SEARs and assesses the proposed development in terms of all relevant matters set out in legislation, EPIs and associated planning policies.

The structure of this EIS is as follows:

- **PART A PRELIMINARY**
- **PART B SITE ANALYSIS**
- **PART C PROPOSED DEVELOPMENT**
- **PART D LEGISLATIVE AND POLICY FRAMEWORK**
- **PART E CONSULTATION**
- **PART F ENVIRONMENTAL RISK ASSESSMENT**
- **PART G CUMULATIVE ASSESSMENT**
- **PART H PLANNED MANAGEMENT AND MITIGATION MEASURES**
- **PART I PROPOSED DEVELOPMENT JUSTIFICATION**
- **PART J CONCLUSION**

1.2 STATUTORY REQUIREMENTS

The following categories are used to identify the statutory requirements of the project.

TABLE 1: STATUTORY REQUIREMENTS OVERVIEW	
Power to grant approval	The power to grant approval lies with the Minister for Planning (NSW DPE) as the consent authority, being SSD.
Permissibility	The proposal is wholly permissible, pursuant to the SEPP WASEA; refer to **Section 4.3.12.1** of this EIS.
Other approvals	Consistent approvals: N/A Other approvals: Post approval, there will be a Section 138 Roads Act Approval for the new connection to Honeycomb Drive.
Pre-condition to exercising power to grant approval	Pursuant to Clause 29 of the SEPP WSEA, the consent authority must not consent to development on land to which this clause applies unless the Secretary has certified in writing to the consent authority that satisfactory arrangements have been made to contribute to the provision of regional transport infrastructure and services (including the Erskine Park Link Road Network); refer to **Section 6.1.24** of this EIS.
Mandatory matters for consideration	Mandatory matters of consideration by the consent authority are outlined in **Appendix C** of this EIS.

1.3 MANDORY CONSIDERATIONS

Mandatory matters for consideration by the consent authority are outlined in **Appendix C** of this EIS.

1.4 SUPPORTING PROJECT DOCUMENTATION

Documents provided in support of the proposal are outlined in **TABLE 2**.

TABLE 2: DOCUMENT SCHEDULE		
Appendix No.	**Documentation**	**Consultant**
Appendix 1	SEARs	-
Appendix 2	Cost Summary Report	Napier & Blakeley
Appendix 3	Title Documents	Various
Appendix 4	Architectural Drawings	Qanstruct
Appendix 5	Design Report	Qanstruct
Appendix 6	Detail Survey	LTS
Appendix 7	Regulatory Compliance Report	McKenzie Group
Appendix 8	Accessibility Report	ABE Consulting
Appendix 9	Visual Impact Analysis	Habit8
Appendix 10	Transport Assessment	Ason Group
Appendix 11	Construction Traffic Management Plan	Ason Group
Appendix 12	Green Travel Plan	Ason Group
Appendix 13	Landscape Plan	Habit8
Appendix 14	ESD Report	Northrop
Appendix 15	BDAR Waiver (sought)	-
Appendix 16	Air Quality Assessment	RWDI

TABLE 2: DOCUMENT SCHEDULE		
Appendix No.	**Documentation**	**Consultant**
Appendix 17	Noise and Vibration Impact Assessment	RWDI
Appendix 18	Geotechnical Assessment	WSP
Appendix 19	Groundwater Impact Assessment	WSP
Appendix 20	Acid Sulfate Soil and Salinity Management Plan	WSP
Appendix 21	Civil Engineering Report	Costin Roe Consulting
Appendix 22	Preliminary Hazard Analysis	Riskcon
Appendix 23	Preliminary Site Investigation	JBS&G
Appendix 24	Waste Management Plan	WSP
Appendix 25	Aboriginal Heritage Assessment	Kelleher Nightingale
Appendix 26	Statement of Heritage Impact	Austral
Appendix 27	Social Impact Assessment	HillPDA
Appendix 28	Service Infrastructure Assessment	Land Partners
Appendix 29	Bushfire Assessment Report	BCBHS
Appendix 30	Engagement Report	HillPDA
Appendix 31	Development History	-
Appendix 32	S7.11 Contributions	-
Whole document	Environmental Impact Statement	Willowtree Planning

1.5 CAPITAL INVESTMENT VALUE

The CIV of the proposed development, in accordance with the CIV definition under the *Environmental Planning & Assessment Regulation 2000* (EP&A Regulation), is estimated to be $ 63,141,166.00.

A Quantity Surveyors (QS) Cost Summary Report, prepared by Napier & Blakeley, is included in **Appendix 2**.

1.6 EMPLOYMENT NUMBERS

The following employment numbers are estimated for the proposal.

1.6.1 Construction Jobs

An estimate of labour work force for the proposed development is calculated based on the following parameters:

- Construction cost (exc. Escalation) = $35,719,042.00
- Labour component – approx. 50% @ $72/hour (rounded) = 250,000 work hours
- Construction duration – 12 months, average 22 days per month = 950 work hours/day
- Workers per day (peak) - @ 60% mean point = 175 workers/day
- Average including on site and offsite labour = 120 workers/day
- Estimate of total number of worker days over construction period = 31,800 work days

Based on the above, the average number of workers per day is 120 x phase work multiplier factor of 4, results in a total number of 480 jobs.

1.6.2 Operational Jobs

An estimate of operational employments numbers has been calculated based on the operative requirements of the future tenant and the number of shifts per day.

The tenant requires a total of 136 operatives on the warehouse floor at any one time, and 30 in the office.

Total employment numbers are calculated on this basis:

- Warehouse operations: 136 staff per shift @ three (3) shifts per day = 408 staff
- Office operations: 30 staff per shift @ one (1) shift per day = 30 staff

Based on the above, the total number of operational jobs for the proposal is 438 jobs.

1.7 THE PROPONENT

See **TABLE 3** below for contact details.

TABLE 3: PROPONENT CONTACT DETAILS	
Company Details	Charter Hall Holdings Pty Limited (ABN. 15 051 363 547)
Contact Name	Theodore Berney
Position	Senior Development Manager - Industrial & Logistics
Contact Number	(02) 8651 9569
Email Address	theodore.berney@charterhall.com.au

1.8 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

An application requesting industry-specific SEARs was submitted to the DPE (reference: SSD-30923027). The SEARs were subsequently issued by NSW DPE on the 8 November 2021 and are addressed by this EIS.

For reference, the industry-specific SEARs, as issued, are annexed in **Appendix 1** of this EIS. An overview of how the SEARs have been satisfied are outlined in **Appendix A**.

PART F of this EIS provides a detailed environmental risk assessment of all SEARs items.

This EIS is also consistent with the minimum requirements for an EIS, as set out in Clauses 6 and 7 of Schedule 2 of the EP&A Regulation and has considered the *State significant development guidelines – preparing an environmental impact statement*.

PART B SITE ANALYSIS

2.1 SITE LOCATION & EXISTING SITE CHARACTERISTICS

The identified portion of land, that is the subject of this EIS is located at Eastern Creek Drive, Eastern Creek, being formally described as Lot 1 DP 1274322 (subject site). The proposal also seeks to gain access to Honeycomb Drive, through 31 Honeycomb Drive, Eastern Creek, to the north, being described as Lot 271 DP 1198561.

The site's subject to this EIS include:

TABLE 4: SITE DETAILS	
Address	**Lot/DP**
Eastern Creek Drive, Eastern Creek	Lot 1 DP 1274322
31 Honeycomb Drive, Eastern Creek	Lot 271 DP 1198561

The subject site comprises a total area of approximately 4.805 hectares. The subject site is roughly trapezoidal in shape, with a blister fronting Eastern Creek Drive at the south-western corner. The property is approximately 300m wide, with length varying between approximately 240m and 300m. The frontage along Eastern Creek Drive is approximately 48m.

To the north is Honeycomb Drive and the future Honeycomb Drive extension (which is yet to be constructed), to the east is a regional stormwater detention system, to the south is Eastern Creek Drive and existing industrial developments and to the west are further industrial developments.

The subject site generally grades down from west/north-west to east/south-east. The highest level is RL 68.5m AHD, along the western boundary. The lowest level on the site is RL 62.5m at the south-eastern and north-eastern corners of the site. The level of the frontage at Eastern Creek Drive is RL 66m AHD. An existing trunk drainage system, comprising a twin (2 no.) 2,400mm wide by 1,500mm high reinforced box culverts is located on the southern boundary and conveys runoff from Eastern Creek Drive and the surrounding catchments to the regional detention system east of the development site.

A temporary detention basin was previously located in the middle of the site, which has now been filled in as part of the regional basin construction by Jacfin Pty Ltd.

The subject site is situated within the WSEA and centrally located approximately 20km east of Penrith and 20km west of Parramatta. The subject site is within close proximity to the major arterial routes including the M4 and M7 Motorways and the Great Western Highway.

Land surrounding the subject site includes predominantly warehouse and industry-type developments, all of which is zoned IN1 General Industrial under the SEPP WSEA. Surrounding land uses in the immediate vicinity include:

- North – The subject site adjoins the future extension of Honeycomb Drive. The works for the Honeycomb Drive extension are currently under assessment by Council, as part of DA-20-01689. Beyond the Honeycomb Drive extension are a number of warehouse and industrial developments, which front Honeycomb Drive and Wonderland Drive.
- South – Directly to the south of the subject site is an approved Data Centre (SPP-19-00013), which is currently under construction. This site is also owned by the Applicant (Charter Hall).
- East – To the east of the subject site is residue land, which contains an ultimate drainage basin (stage 2 basin).
- West – Directly to the west of the subject site is the newly constructed Jaycar Distribution Centre, which was approved under DA-18-01739 for construction, fit out and use of warehouse

and distribution facility with associated office, car parking, landscaping and signage, with proposed hours of operation being 24 hours a day, 7 days a week.

The surrounding context is illustrated in **Figure 1** of this EIS.

Figure 2 Site Aerial (Source: NearMap, 2021)

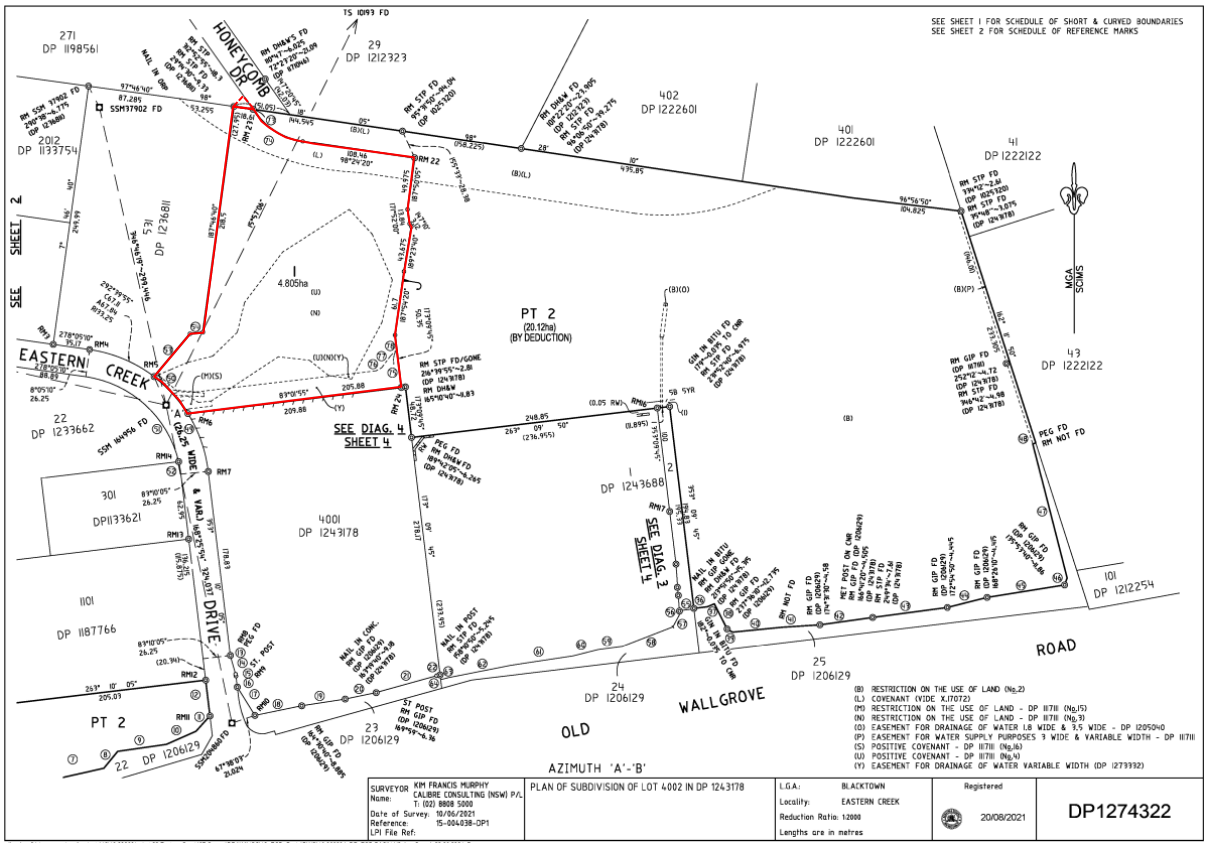

Figure 3 Cadastral Plan – Deposit Plan (Source: InfoTrack, 2021)

The subject site forms part of the Eastern Creek Precinct, Stage 3 Release Area, which came into force on 14 December 2005. The *Employment Lands Precinct Plan – Eastern Creek Precinct (Stage 3)* was adopted under the former *State Environmental Planning Policy No 59—Central Western Sydney Economic and Employment Area* (SEPP 59), which was repealed by the current SEPP WSEA.

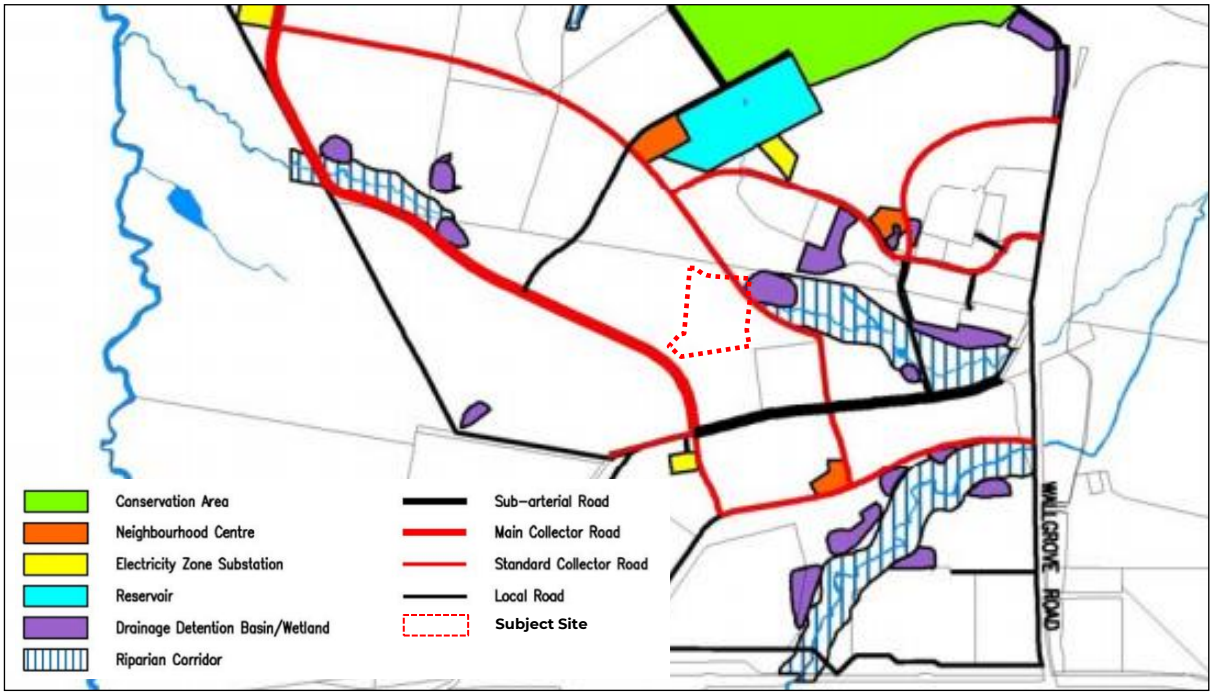

Figure 4 **Concept Masterplan for the Eastern Creek Precinct (Stage 3) (Source: Blacktown City Council, 2015)**

The status and relevance of the *Employment Lands Precinct Plan – Eastern Creek Precinct (Stage 3)* is addressed in **Section 4.5.3** of this EIS.

An overview of the site characteristics are included in **TABLE 5**, as follows.

TABLE 5: SITE CHARACTERISTICS	
Component	**Description**
Address and legal description	Eastern Creek Drive, Eastern Creek Lot 1 DP 1274322
Site area	4.805 hectares (approx.)
Current use	The subject site is vacant land.
Topography	The subject site generally grades down from west/north-west to east/south-east. The highest level is RL 68.5m AHD, along the western boundary. The lowest level on the site is RL 62.5m at the south-eastern and north-eastern corners of the site. The level of the frontage at Eastern Creek Drive is RL 66m AHD.
Access	The current vehicular access to the subject site is via Eastern Creek Drive. However, with the inclusion of part of Lot 271 DP 1198561, access via Honeycomb Drive is also achievable.

TABLE 5: SITE CHARACTERISTICS	
Component	**Description**
Vegetation	The subject site is devoid of endemic native vegetation and has been subject to clearing, earthworks and landscaping. A swale has been developed along the southern boundary of the subject site and planted with native turf species. A review of historical aerial imagery shows the subject site was initially cleared of all vegetation in 1965 and further in 1986. The vegetation within the subject site is now composed of predominantly exotic vegetation with large areas of bare ground. It is highly likely that there has been considerable disturbance from clearance and earthworks.
Watercourses	One first order stream is mapped within the subject site. The mapped stream runs from the centre of the subject site, towards the southwestern corner. Field survey did not identify evidence of a discernible bed and bank for the mapped stream.
Wetlands	No mapped local or important wetlands occur within the subject site. The closest important wetland site is Towra Point Nature Reserve, a Ramsar site, located within 60km south east of the subject site.
Biodiversity	No areas of outstanding biodiversity value lie within the study area. The Biodiversity Values Map (DPE 2021b) indicates no areas of biodiversity value are present within the study area.
Easements and encumbrances	The subject site is burdened by a number of easements and encumbrances, pertaining to various infrastructure services, including water, sewerage and electricity. Further details are included in **Section 2.4** of this EIS.
Heritage	The study area has been subject to an Aboriginal Cultural Heritage Assessment and subsequent area-based Aboriginal Heritage Impact Permit (AHIP ID # 4218) that allowed impacts to Aboriginal objects for the purposes of constructing a drainage detention basin, realignment of the riparian corridor and bulk earthworks. These works resulted in impacts to the two known Aboriginal sites within the AHIP area, Blacktown Southwest 1 Eastern Creek (AHIMS # 25-5-0588) and Blacktown Southwest 5 Eastern Creek (AHIMS # 45-5-0558), subject to a salvage excavation taking place. Both sites are located outside of the study area. As no Aboriginal heritage sites were identified within the study area and the works completed within the study area (under AHIP # 4218) are likely to have further reduced the potential for Aboriginal objects to be identified, no further assessment in accordance with the *National Parks and Wildlife Act 1974* is warranted. The study area is not listed on the State Heritage Register (or subject to an interim heritage order) under the *NSW Heritage Act 1977* and is not identified as an item of environmental heritage or heritage item on any EPIs.

The location of the subject site and existing site development are depicted in **Figure 2** and **Figure 3**.

2.2 DEVELOPMENT HISTORY

The proposed development involves the construction of a warehouse and distribution centre on a newly created industrial lot, approved and registered under **DA-20-01525**. The approved development plan is included within **Appendix 31** for clarity.

The extension and construction of Honeycomb Drive is proposed under **DA-20-01689**, which also at the time of lodgement of this DA, has not been determined. This DA is still in progress, as such an application to access information (i.e. development plans) cannot be made under the *Government Information (Public Access) Act 2009* until such time that development consent is issued.

Previous works associated with the subject site were approved for decommissioning under **DA-16-04242**, including the decommissioning of a temporary detention basin, as shown in **Figure 5**. This involved the construction of a regional basin adjacent to the subject site, which is understood to be completed by the developer. A Controlled Activity Approval is in place for **DA-16-04242** and this application does not alter the terms of that approval.

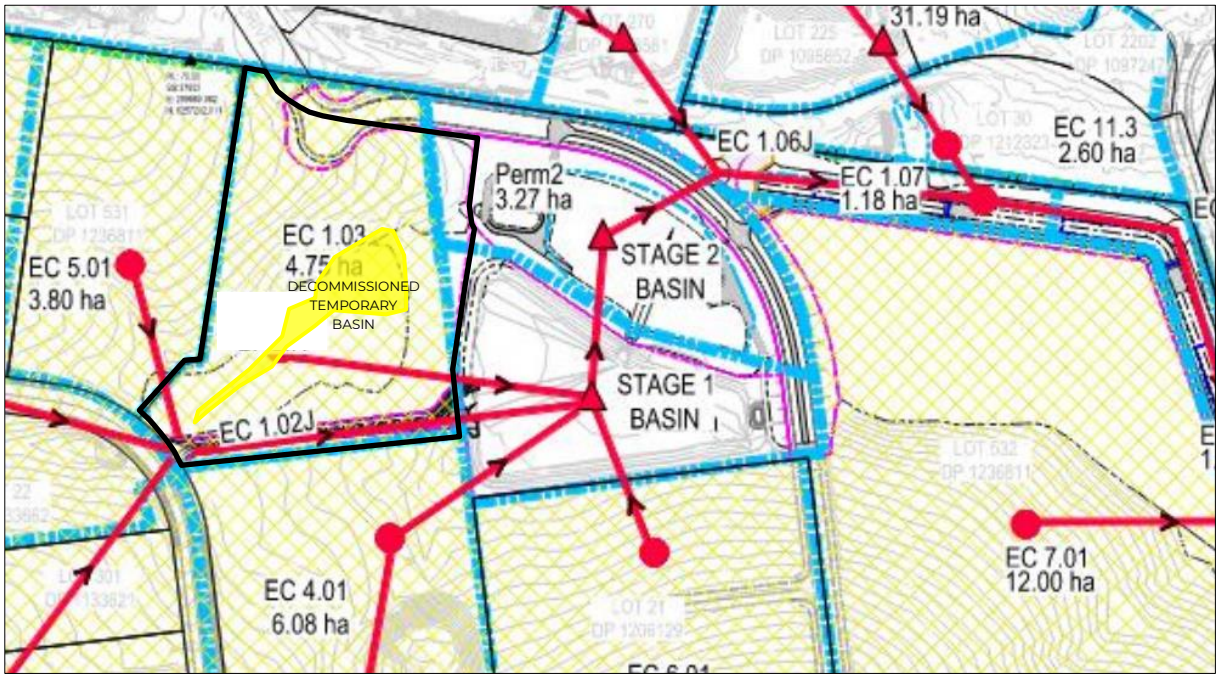

Figure 5 Eastern Creek Industrial Estate – Regional Basin (Source: Costin Roe, 2021)

Through the assessment of **DA-20-01525** several matters where addressed, which require consideration as part of this EIS. Such matters are described as follows.

2.2.1 Waterfront land

The drainage features on the land subject to **DA-20-01525** for the most part at least, not "rivers" according to the definitions provided in the *Water Management Act 2000* (WM Act). The conclusions made include:

- The drain and a temporary detention basin to the northeast of the bend in Eastern Creek Drive (on Lot C [which is now the subject site]) has been constructed to manage stormwater runoff from the existing (and temporarily some of the future) development on the subject land. These features are artificial, and are not bordered by "waterfront land".
- The swampy area formed from drainage from the temporary detention basin and from the existing industrial development to the north is also an artificial feature – created by the concentration of flows from these two features. Further, there is no "river" at this location; and there is no "waterfront land" present.

- Drainage from the swampy area occurs via a partly artificial and partly highly degraded watercourse – which flows eastwards as Eskdale Creek. Most of this watercourse and the swampy area within the subject land will be incorporated into the Stage 2 Stormwater Basin.
- The upper part of this drainage line is an artificial channel (and are also highly degraded), whilst the lower parts within the subject land may constitute "a natural channel artificially modified". Even if there is "waterfront land" within this portion of the subject land, it is in such a degraded condition that it does not warrant retention. Further, as noted above, this feature is to be incorporated into the Stage 2 Stormwater Basin – where a substantial area of enhanced swamp and wetland habitat is to be created.
- The artificial flow of stormwater runoff derived from the development south of Old Wallgrove Road) that traverses Lot A [south of the subject site] and discharges into the area that will become the Stage 1 Stormwater Basin is not a natural feature, and does not constitute a "river" pursuant to the WM Act.

2.2.2 Aboriginal heritage

DA-20-01525 included an Aboriginal archaeological assessment carried out Kelleher Nightingale Consulting Pty Ltd (KNC) to identify known or potential Aboriginal heritage in the study area, noting that the study area of the KNC investigations covered a wider area than just the subject site of this SSD Application, refer to **Figure 6** below.

From these investigations, three (3) Aboriginal archaeological sites (artefact scatters) and two (2) areas of potential archaeological deposit were identified in the study area (refer to **Figure 7**):

- Artefact scatter sites - 45-5-0588, 45-5-0556 and 45-5-0558
- Potential archaeological deposit (PAD) – PAD 1 and PAD 2.

The determination by KNC was that further detailed investigation and impact assessment would be required for proposed development activities which may affect the recorded sites and PADs. An Aboriginal Heritage Impact Permit (AHIP) would be required for any activities which may harm Aboriginal objects.

The remainder of the study area has been disturbed by past land use practices and natural processes. Based on background research, an assessment of landform, environmental context and visual inspection, it can be reasonably determined that no Aboriginal objects would be harmed by the proposed activities for the remainder of the study area. Consequentially, an AHIP was sought and granted under Section 90 of the *National Parks and Wildlife Act 1974*:

TABLE 6: AHIP DETAILS	
AHIP Number	C0003358
AHIMS Permit ID	4218
Commencement date	24 January 2018
Duration	10 years
Description of harm authorised	▪ Salvage excavations ▪ Harm to certain Aboriginal objects through the proposed works
Proposed works	All works associated with but not limited to the construction of a drainage detention basin, realignment of the riparian corridor and bulk earthworks
Areas where harm of Aboriginal objects is authorised	All Aboriginal objects in, on or under the land which is shaded orange in 'Attachment 1: Land to which this AHIP applies' of AHIP C0003358, as outlined in **Appendix 25**.

Figure 6 Aboriginal Archaeological study area (Source: KNC, 2016)

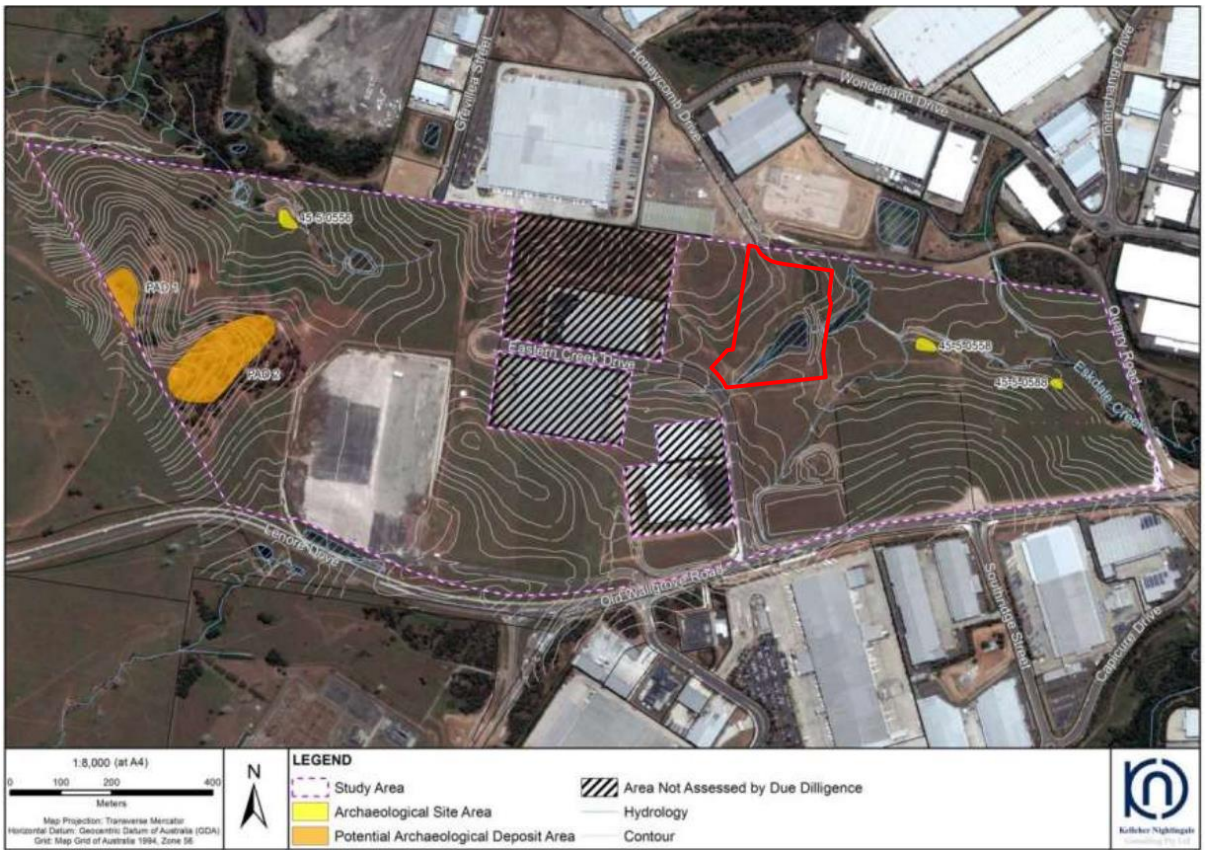

Figure 7 Archaeological sites and potential deposits (Source: KNC, 2016)

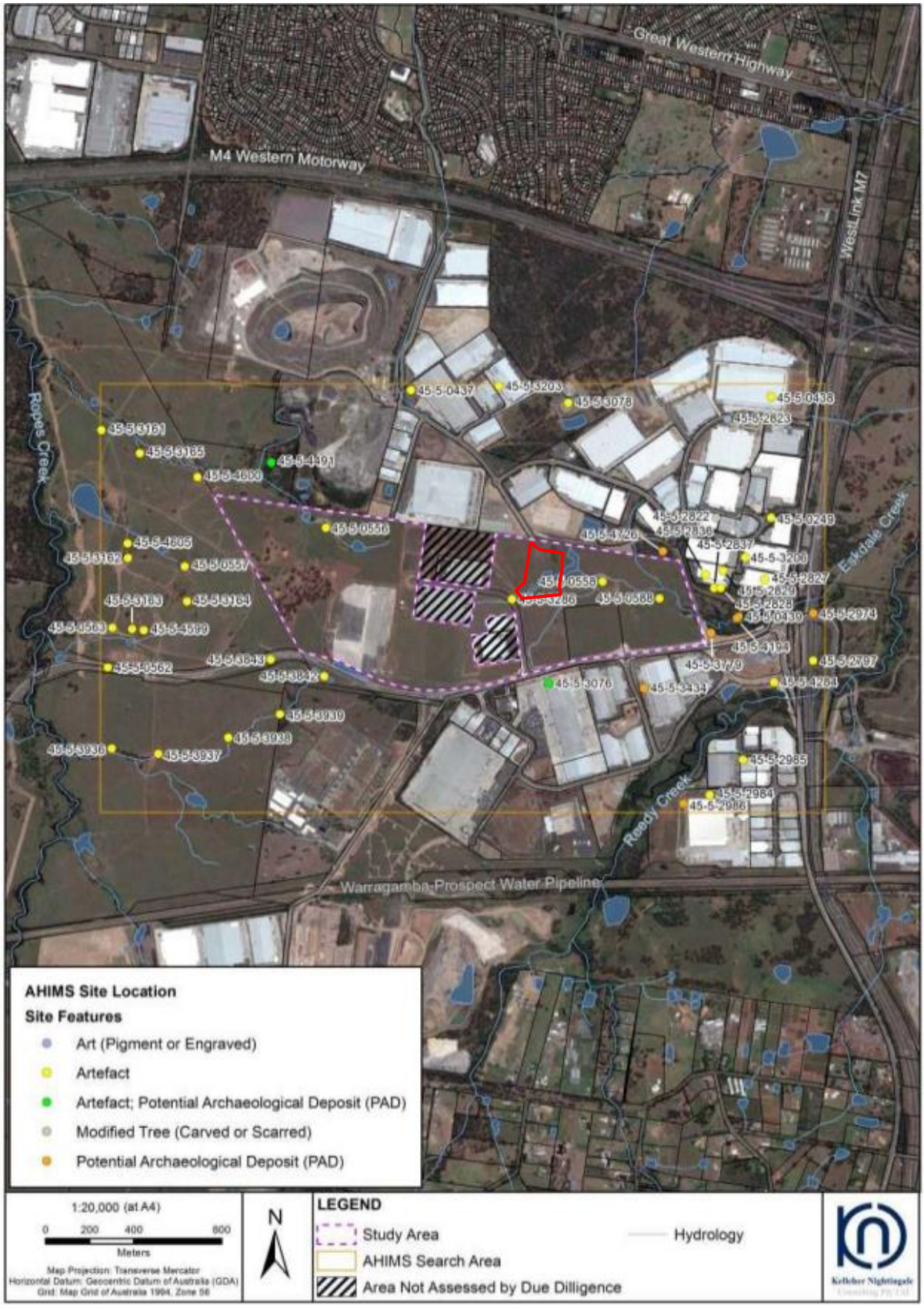

Figure 8 AHIMS Search Results (Source: KNC, 2016)

In addition, the investigations carried out by KNC, through the Aboriginal Heritage Information Management System (AHIMS), identified a record an artefact (artefact no. 45-5-3286) which is located within the vicinity of the subject stie, as shown in **Figure 8**.

Jo McDonald Cultural Heritage Management (JMCHM) undertook an archaeological survey of the sturdy area in 2002, prior to industrial subdivision of the land. The survey identified an additional archaeological site (ISF2 Jacfin) within the current study area. Site ISF2 Jacfin (AHIMS 45-5-3286) consisted of one red silcrete flaked piece that was identified on the southern edge of an old dam. The dam had been constructed on an east flowing headwater tributary of Eskdale Creek. A Section 90 Consent to Destroy (#2610) was issued for site ISF2 Jacfin in 2007 and subsequent survey confirmed this site no longer exists.

An extensive search carried out for the subject site, through the AHIMS Web Services (AWS) on 5 November 2021, has identified the site ISF2 Jacfin and the 45-5-3286 site. The status of the site is 'destroyed' meaning that the *site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.*

Reference should be made to **Section 6.1.18** of this EIS, for further detail.

2.3 LAND OWNERSHIP

The land that is the subject of this application, is owned by the following entities.

TABLE 7: REGISTERED LAND OWNERS	
Lot/DP	**Registered Land Owner**
Lot 1 DP 1274322	THE TRUST COMPANY LIMITED (in half share) THE TRUST COMPANY (AUSTRALIA) LIMITED (in half share)
Lot 271 DP 1198561	FORESTVILLE NOMINEES PTY LIMITED

Land owners consent has been obtained from all entities.

2.4 EASEMENTS AND ENCUMBRANCES

The encumbrances noted within the Certificate of Title and Title Diagram both lots described in **Section 2.3** above are summarised in **TABLE 8**, and a copy of the relevant documents included in **Appendix 3**.

TABLE 8: ENCUMBRANCES ON TITLE	
Reference	**Description and Location**
Lot 1 DP 1274322	
X17072	Covenant affecting the part shown so burdened in the title diagram
DP1117111	Restriction(s) on the use of the land referred to and numbered (2) in the S.88B instrument
DP1236811	Easement for drainage of water 3.5 metre(s) wide and variable width affecting the part(s) shown so burdened in the title diagram
DP1273332	Easement for drainage of water variable width affecting the part(s) shown so burdened on the title diagram
DP1243178	Plan of proposed easement
Lot 271 DP 1198561	
DP1025320	Easement for rising main 3 metre(s) wide appurtenant to the land above
DP1025320	Restriction(s) on the use of land referred to and numbered (8) in the S.88B instrument

TABLE 8: ENCUMBRANCES ON TITLE	
Reference	**Description and Location**
DP1025320	Restriction(s) on the use of land referred to and numbered (9) in the S.88B instrument
DP1025320	Restriction(s) on the use of land referred to and numbered (10) in the S.88B instrument
DP1049623	Restriction(s) on the use of land
AA635089	Covenant
DP1149138	Easement to drain water variable width appurtenant to the land above described
DP1149138	Restriction(s) on the use of land referred to and numbered (9) in the S.88B instrument
DP1155742	Restriction(s) on the use of land referred to and numbered (3) in the S.88B instrument
DP1164607	Easement to drain water 3.2 metre(s) wide appurtenant to the land above described
DP1171046	Restriction(s) on the use of land referred to and numbered (1) in the S.88B instrument
DP1171046	Easement to drain water 2.5 metre(s) wide affecting the part(s) shown so burdened in the title diagram
DP1171046	Restriction(s) on the use of land referred to and numbered (5) in the S.88B instrument
DP1171046	Positive covenant referred to and numbered (6) in the S.88B instrument
DP1171046	Restriction(s) on the use of land referred to and numbered (7) in the S.88B instrument
DP1171046	Restriction(s) on the use of land referred to and numbered (8) in the S.88B instrument
DP1171046	Positive covenant referred to and numbered (9) in the S.88B instrument
DP1171046	Restriction(s) on the use of land referred to and numbered (10) in the S.88B instrument
DP1171046	Positive covenant referred to and numbered (11) in the S.88B instrument
DP1174987	Restriction(s) on the use of land referred to and numbered (7) in the S.88B instrument
DP1176553	Restriction(s) on the use of land referred to and numbered (1) in the S.88B instrument
DP1176553	Restriction(s) on the use of land referred to and numbered (2) in the S.88B instrument
DP1171048	Restriction(s) on the use of land referred to and numbered (1) in the S.88B instrument
DP1224809	Easement for padmount substation 8.35 metre(s) wide affecting the part(s) shown so burdened in DP1224809
DP1224809	Restriction(s) on the use of land affecting the part(s) shown so burdened in DP1224809

The proposed development has been designed in accordance with the abovementioned easements and encumbrances.

It is understood that the abovementioned restrictions and positive covenants have been released from the land, but not removed from the title search. Reference should be made to DP1274322 (88B) attached within **Appendix 3** of this EIS.

2.5 SITE CONTEXT

The subject site forms part of the WSEA, which intends to provide businesses in the region with land for industry and employment, including transport, logistics, warehousing and office space. Located about 50 kilometres from the Sydney CBD, the WSEA provides businesses access to roads and utility services and allows people the opportunity to work locally and spend less time commuting throughout the day.

The subject site's context is best described through its IN1 General Industrial zoning, adjoining other industrial type land uses. Land surrounding the subject site is predominantly IN1 General Industrial, comprising various industrial uses, supplier warehouses, distribution centres, freight transport facilities and data centres.

The subject site contains convenient access to the major interchange of the M4 Western Motorway and Westlink M7 Motorway, with further proximity to the Erskine Park Road upgrade. The Erskine Park Road is a vital corridor servicing the growth in the WSEA with slated upgrades to enhance road safety and traffic flow efficiency for local residents and businesses within the area. Public transport is facilitated by various nearby bus stops along Old Wallgrove Road, connecting the site to Mount Druitt, Rooty Hill, St Marys and Wetherill Park.

Generally, the broader context of the subject site is typified by employment-generating industrial, supplier warehouses, distribution centres, freight transport facilities and data centre land uses. A visual representation of the surrounding land is included in **Figure 1**. **Figure 9** and **Figure 10** demonstrate the context of the current site conditions from Eastern Creek Drive and also Honeycomb Drive.

Figure 9 View towards site from Eastern Creek Drive (Source: Habit8, 2021)

Figure 10 **View over the future Honeycomb Drive extension, back towards the site (Source: Habit8, 2021)**

Figure 11 **View of southern boundary showing 6m high retaining wall (Source: Qanstruct, 2022)**

2.6 SITE SUITABILITY

The subject site is located within an evolving industrial precinct and is zoned IN1 General Industrial under SEPP WSEA. The proposed development would facilitate the intended use of the subject site for industrial purposes, which is consistent with the zoning and the surrounding context.

The proposed development falls within the definition of 'warehouse or distribution centre', being *a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made, and includes local distribution premises*, which is permissible with consent in the IN1 General Industrial zone, pursuant to Part 2, Clause 11 of SEPP WSEA.

The subject site is suitable for the size and scale of the development proposed and represents a quality outcome to facilitate a warehouse development that is commensurate to the surrounding area and its existing built form.

In summary, the subject site is highly-suited to accommodate the intended development based on the following factors:

- SEPP WSEA allows for the proposed development as a permissible use;
- The site is readily accessible via the regional road network;
- The proposed development is compatible with surrounding development and local context;
- The subject site can be serviced immediately and at no cost to Government;
- The proposed development causes minimal impact on the environment;
- The proposed built form is designed to mitigate any impacts on surrounding properties; and
- The proposed development is consistent with strategic intent of the area.

The following key elements of the site and proposed development are noted:

2.6.1 Visual Impact

The sensitivity of the landscape on average has been assessed within the baseline to be low. From understanding the development proposals, mitigation and the existing industrial character of adjacent landscape, the magnitude of change is judged to be on average high. There will be some impact to the existing site character from, but the introduction of this development typology is not uncharacteristic of the context in which it will sit. The significance of impact therefore is judged to be minor.

2.6.2 Infrastructure

The subject site is suitably located with access to infrastructure and utility services – refer to **Section 6.1.21** of this EIS.

2.6.3 Transport and Traffic

The proposal represents a less intensive development than previously considered by the strategic modelling assessment, which informed the current design of Old Wallgrove Road upgrade works. A tenant specific first principles assessment has found that the proposed development would generate 19 veh/h less than assumed by the GHD the strategic modelling assessment.

2.6.4 Cultural Heritage

The site has been subject to detailed and comprehensive assessment as part of the wider Jacfin Development Site investigations. A full consultation process with registered Aboriginal stakeholders has been completed.

The existing AHIP C0003358 is active over the Stage 2 Basin area and allows for impact to Aboriginal objects within the subject site associated with the AHIP, provided that works are undertaken in accordance with AHIP conditions. Charter Hall Holdings has confirmed with the AHIP holder that the proposal may use the existing AHIP.

No known archaeological sites containing Aboriginal objects exist within the boundaries of the subject site associated with the AHIP.

Reference should be made to **Section 6.1.18** of this EIS for further detail.

2.6.5 Stormwater and Flooding

The surrounding infrastructure, including the Eskdale Creek Regional Detention System, was designed and constructed provisioning for water quantity management for the surrounding catchment and developed site hydrology. As such the increase in local post development flows from the site will be managed prior to discharge to downstream waterways and will not adversely affect any land, drainage system or watercourse as a result of the development.

During the operational phase of the development, a treatment train incorporating the use of a proprietary filtration system is proposed to mitigate any increase in stormwater pollutant load generated by the development. MUSIC modelling results indicate that the proposed stormwater management is effective in reducing pollutant loads in stormwater discharging from the site and meet the requirements of Council's pollution reduction targets. Best management practices have been applied to the development to ensure that the quality of stormwater runoff is not detrimental to the receiving environment.

2.6.6 Summary of Site Suitability

The subject site's consistency with applicable regional and local strategies is demonstrated in the comprehensive environmental assessment, provided in **PART F** of this EIS, which includes an analysis of all potential impacts, which has been informed by the relevant consultant reports. Accordingly, the environmental assessment prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the subject site with regard to the proposed development, can be attributed to its ready ability to provide employment, its excellent access arrangements, its suitable contextual setting, and its minimal impact on the environment.

Accordingly, the EIS prescribes recommendations and mitigation measures (where necessary), to account for all identified potential impacts, by the proposed development. The suitability of the subject site to cater for the proposed development, can be attributed to:

- its ability to provide employment,
- its excellent access arrangements,
- its suitable contextual setting, and
- its minimal impact on the environment.

PART B of this EIS demonstrates the site's suitability for the proposed warehouse and distribution centre.

PART C PROPOSED DEVELOPMENT

3.1 OBJECTIVES OF THE PROPOSAL

The aim of the proposed development is to provide a purpose-built warehouse and distribution centre, in line with Industry Best Practice, resulting in:

- Support the growth and transformation of the industrial sector;
- Generate employment – during construction and once the development is operational;
- Improve access to jobs for residents of the immediate community and wider locality;
- Supplement, support and compliment the WSEA and its strategic intent;
- Demonstrate architectural excellence, through siting and design compatibility, with minimal visual impact; and
- Provide suitable mitigation measures where required, to minimise any unforeseen impacts arising in the future.

3.2 PROJECT OVERVIEW

Development consent is sought for the construction and operation of a SSD warehouse and distribution centre, pertaining to the following scope of works:

- Site preparation works, involving bulk earthworks
- Construction of retaining walls
- Provision of infrastructure, including an easement for high voltage cables
- Construction of warehouse, with ancillary offices
- Provision of separate light and heavy vehicle access
- Provision of perimeter landscaping
- 24/7 hours of operations

3.3 DETAILED DESCRIPTION OF THE PROPOSAL

Consent is sought to develop the subject site in accordance with the following provisions.

TABLE 9: PROPOSED DEVELOPMENT PARTICULARS	
Project Element	**Development Particular**
Site Area	4.805 hectares (approx.)
General	The proposed development is considered SSD, pursuant to Schedule 1, item 12 of SRD SEPP
Primary Land Use	Industrial
Operation	Warehouse and distribution
Total GFA	23,600m^2
Floor Space Ratio	0.49 : 1
Building Height	23.5m
Number of Stories	Two (2) storeys
Tree Removal	No trees to be removed
Landscaping	2,915m^2 (6% of the site) - Planting of 135 new trees, >3,000 shrubs and groundcovers
Earthworks	Refer to **Section 3.3.1** below
Car parking	184 car parking spaces
Infrastructure and Services	Refer to **Section 3.3.1** below

Machinery and Plant	Refer to **Section 3.3.3** below
CIV	$ 63,141,166.00 (exc. GST)
Construction Jobs	Approximately 480 direct construction jobs
Operational Jobs	Approximately 438 ongoing jobs

3.3.1 Site Preparation

3.2.1.1 Earthworks

Bulk earthworks will be required to facilitate the development of the subject site for industrial use. The earthworks will be undertaken to provide a large flat building pad, hardstand area and car parking areas. Earthworks are also required to facilitate access via Eastern Creek Drive and Honeycomb Drive and to provide an overland flow path through the site.A high-level earthwork volume estimate assessment has been completed for the site.

The earthworks analysis has been completed to a level of detail to enable general pad levels to be set and to obtain an order of magnitude cut and fill volume estimate. Given the preliminary nature of the assessment, an upper and lower bound of earthworks volumes has been included to allow for contingency in cost planning estimates. The assessment is based on the earthworks using a building pad RL of 66.5m AHD.

The primary drivers for the proposed earthworks levels are minimising the extent of external retaining walls which would require interface with adjacent properties to the west and south while also minimising fill as much as practical.

The earthworks volume estimates are as follows:

TABLE 10: EARTHWORKS VOLUMES

Parameter	Apparent Volume	Upper Bound (+15%)	Lower Bound (-15%)
Cut (m^3)	-11,600	-13,340	-9,860
Fill (m^3)	+81,350	+93,550	+69,150
Detail excavation (@ 1250m^3/ Ha)	-6,025	-6,930	-5,120
Retaining wall allowance	-8,300	-9,545	-7,055
Balance (m^3)	+55,425	+63,735	+47,115
Topsoil removed (m^3) (@ 50mm depth)	2,410	2,770	2,050

Given the order of magnitude of the volume of earthworks and concept nature of the earthworks modelling, fill importation is expected to be able to be achieved through detail modelling exercise. Consideration to bulking of cut materials including rock and clay materials should be allowed for. Bulking of clay would normally be expected to be 4% of the removed volume and rock bulking can be expected in the range of 8-12%.

Earthworks allowances for services trenches, retaining walls and detailed building excavation should also be made to avoid excessive unknown exports during later stages of the project. Allowances in the range of 1,250-2,500m^3/Ha can be expected depending on the type of development and final site layouts. This allowance is included in the earthworks assessment. As noted, an upper and lower bound of earthworks volumes has been included to allow for some of these items.

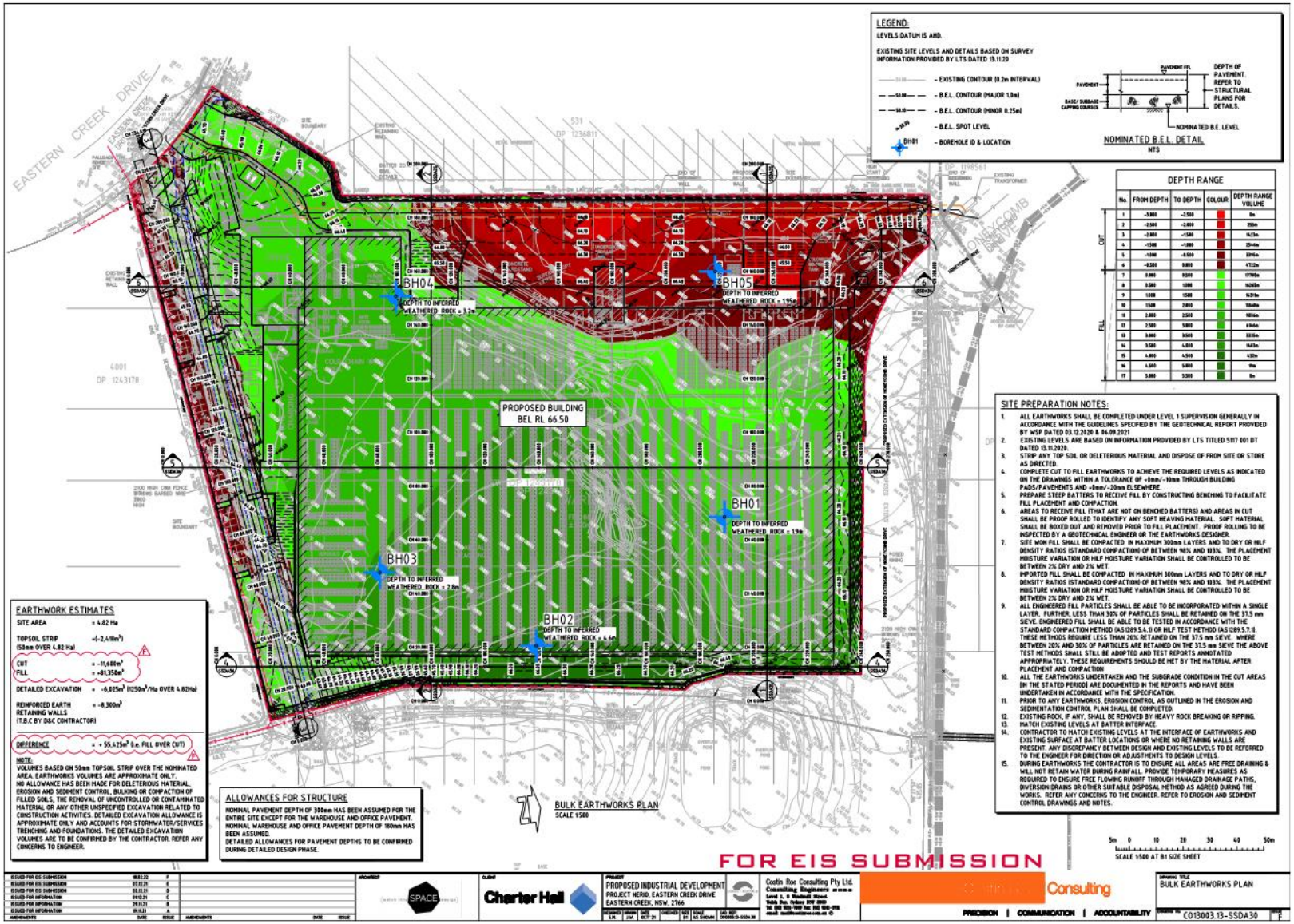

Figure 12 Earthworks Plan (Source: Costin Roe, 2022)

Soil Erosion and Sediment Control measures, including sedimentation basins are to be placed in accordance with submitted drawings and the Soil and Water Management Plan, contained within the Civil Engineering Report, prepared by Costin Roe Consulting, and affixed within **Appendix 21** of this EIS.

3.2.1.2 Retaining walls

The civil engineering objective is to minimise retaining walls within the constraints of the proposed layout, allowable grading to suit industrial development and batters in landscaped areas where possible.

Retaining will be required along the northern and east boundaries noting this will be up to 6m in height. These are anticipated to comprise modular masonry block system (Keystone) with reinforced soil backfill.

Retaining on the western property boundary is also required. This wall, being in cut up to 2m in height, is anticipated to comprise reinforced concrete block system.

Design geometry of walls has been completed in accordance with Table 6.3 and Figure 6.3 of *Blacktown City Council's DCP Part E – Development in Industrial Areas, Section 6.2*.

3.2.1.3 Embankment stability

To assist in maintaining embankment stability permanent batters in clay will be no steeper than 3 horizontal to 1 vertical while temporary batters will be no steeper than 2 horizontal to 1 vertical. Permanent batters will also be adequately vegetated or turfed which will assist in maintaining embankment stability.

Stability of batters and reinstatement of vegetation shall be in accordance with the submitted drawings.

3.2.1.4 Infrastructure

The following utility connections available/required for the proposed development.

Electrical services:

There are two major zone substations in the Eastern Creek employment precinct, one located in Wonderland Drive (a 90MVa zone substation), and another located at the corner of Old Wallgrove Road and Roberts Road (also a 90MVa zone substation). The Roberts Road zone substation supplies the subject site and surrounding areas.

Endeavour Energy have installed high voltage 11kv feeders in conduits on both sides of Eastern Creek Drive. These feeders currently supply a number of padmount substations installed in adjacent developments.

The proposed development is calculated to generate a load demand of 0.6MVa.

Depending on the rating of adjacent padmount substations there may be a possibility that any surplus capacity from those padmounts could be directed to service the proposed development of the subject site.

The more likely scenario is that a new padmount substation will be required within the proposed development. If the adjoining sites are utilising the capacity of the existing 11kv feeders (which could supply a demand need of up to 4MVa) a further feeder would need to be installed in the conduit run from the Roberts Road zone substation. This is a slim possibility but needs to be factored into the supply requirements if needed.

The proposal includes a requirement for interconnection of the high voltage (HV) reticulation network in Eastern Creek Drive and Honeycomb Drive. An easement for the HV electrical cables is shown in the proposal.

Asset delivery of electrical infrastructure will be undertaken pursuant to Endeavour Energy's Connection Load processes.

Telecommunications:

NBN Co is the network provider for this area. Prior to NBN Co becoming the provider for this area Telstra had installed a fibre optic cable system (underground) in Eastern Creek Drive – the assets are now transferred to NBN Co.

The subject site has frontage to the fibre optic cable system and these cables provide the subject site ability to connect.

Waste water:

A 375mm sewer main is constructed within the site adjacent to and parallel with the southern boundary of the site.

No inlets have been provided along this main to allow connection of the site to this sewer. An application will need to be made as part of the development of the site to Sydney Water to construct a minor extension from one of the manholes along the sewer and within the site to facilitate connection of the internal waste water system to be constructed to serve the development with this Sydney Water sewer main.

It is calculated that the average day flow from the subject site would be 13kL/day.

The Sydney Water sewer network will adequately cater for this level of discharge from the development.

Potable water:

The site is supplied from the Minchinbury Elevated reservoir system. The reservoir system is a substantial Sydney Water asset consisting of an on-ground reservoir and an Elevated reservoir, associated water pumping station and a network of distribution mains serving Erskine Park and adjacent areas.

Immediately adjacent to the site and within the Eastern Creek Drive corridor is a 200mm potable water main. This main is available for connection. On the southern side of Eastern Creek Drive is a 450mm trunk water main. This main is not available for connection.

The anticipated potable water demand for the proposal is:

- Average day demand: 14kL/day
- Max day demand: 24kL/day

Adequate capacity (pressure and flow) exists within the adjacent reticulation system to serve the proposed development.

Gas:

No gas reticulation services exist in the area.

3.3.2 Built Form

Construction of the proposal would involve no demolition activities but will comprise bulk earthworks (cut and fill), building and construction of pavements and hardstand, and construction of a new warehouse building with ancillary offices.

The building shall comprise a 21.466m high warehouse structure, which affording to the sloping nature of the site, results in a maximum building height of 23.5m measured for 'ground level existing'. Basements are not proposed. The proposed building height is set to allow for very narrow isle racking systems suitable for warehousing storage required by the tenant.

The perceived bulk of the building is managed by the existing levels on the site as the building sits roughly 2m below the neighbour to the west. The short street frontages and increased building setbacks also allows for the building to sit comfortably amongst the surrounding buildings.

The external building facade features a neutral grey palette along a series of PIR panels typically required for temperature-controlled facilities. The warehouse utilises alternating colours to visually break up the warehouse length facade components. The colours of the building alongside the adjacent soon-to-be constructed Data Centre to the south will be uniformed to create an identifiable consistency across the estate, with feature 'blue' panels used minimally to create interest. The built form materiality will be softened over time and the landscape matures within the setbacks and carparking areas. The nature of this treatment involves sing screening elements that integrate with above mentioned materials and the proposed landscape design to create a visual dialogue that is experienced by both the scale of the buildings and that of the pedestrian level. This neutral approach uses whites, greys and darker highlighting tones. The main office features a combination of precast concrete panels, prefinished perforated metal cladding with performance glazing in aluminium framing. All downpipes and services 'blend' into the building facade and talks to the architectural elements and palette across the building.

The proposed design scheme takes into account building design and storage, staging, site coverage, street setbacks, easements, overland flow paths, landscaping, building height and scale, colour palette, materials and finishes, visual façade treatments, signage and lighting.

The building is accessed via Eastern Creek Drive, with the intention of providing access to Honeycomb Drive via a crossover to the existing Honeycomb Drive cul-de-sac, to facilitate site exist for trucks. The proposal separates light and heavy vehicle movements, with a one-way thoroughfare for trucks to ensure increased safety.

The proposed building has minimal presence from Eastern Creek Drive and Honeycomb Drive. The hardstand location faces west towards the existing Jaycar facility, with a single level office addressing the Eastern Creek Drive frontage. The office is setback approximately 40m from Eastern Creek Drive, allowing for suitable landscape treatment to complement and screen the built form.

Industrial plant, storage and waste areas are suitably located away from the street frontages, providing a high-quality presentation to the streetscape.

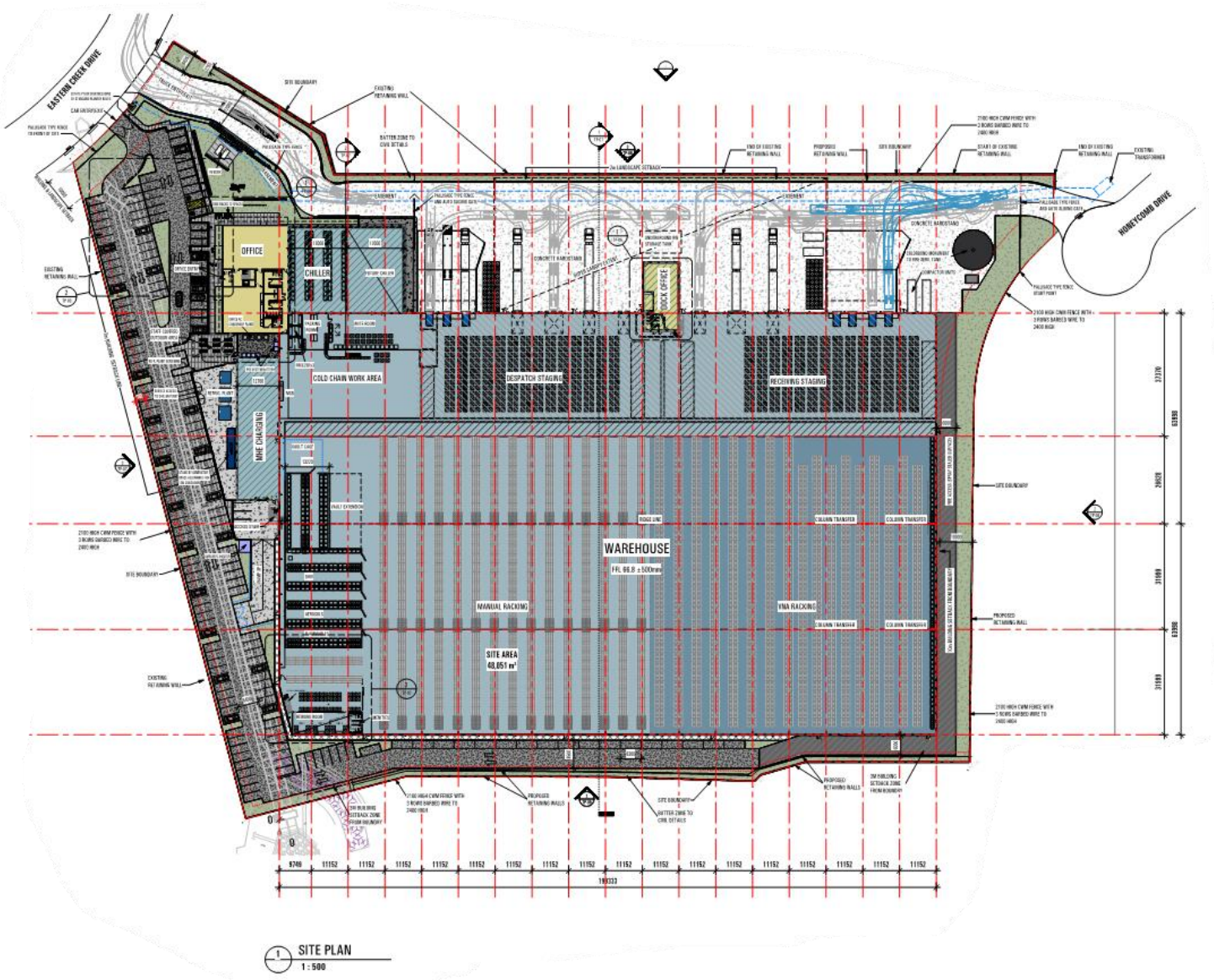

Figure 13 Proposed Site Plan (Source: Qanstruct, 2022)

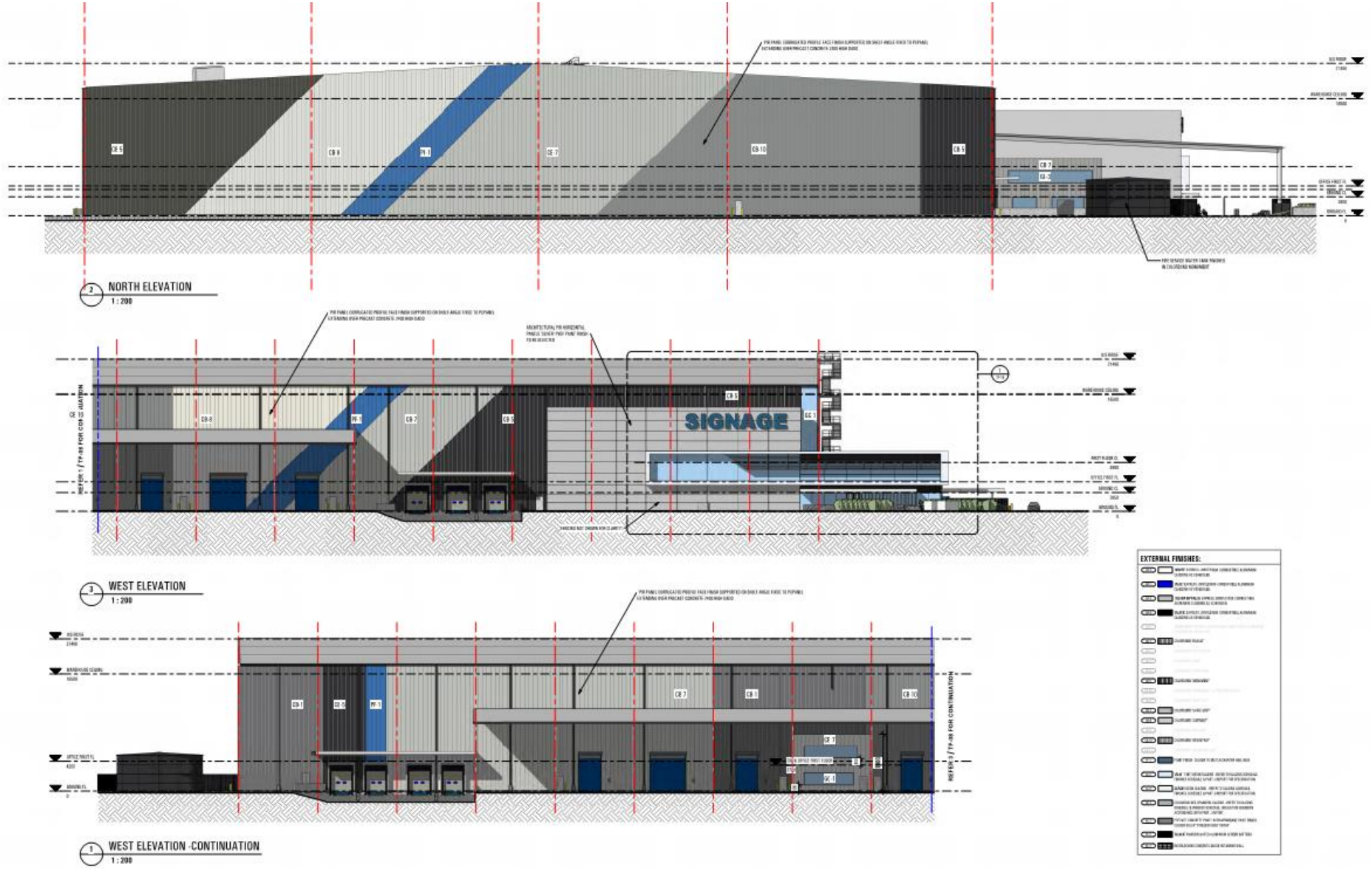

Figure 14 Proposed Elevations (Source: Qanstruct, 2022)

Figure 15 Building perspective drawing (1) (Source: Habit8, 2022)

Figure 16 Building perspective drawing (2) (Source: Habit8, 2022)

3.3.2.1 Internal fitout

The proposal includes the following areas within the warehouse:

- Vault to be fully enclosed of concrete construction with no external walls to the outside building for storage of 'Controlled Drugs' in accordance with relevant guideline and regulations.
- Vault expansion area including suitably integrated foundations for future installation of vault expansion.
- Battery charge area suitable for up to 50 x (Lead-Acid) forklifts / MHE to be incorporated outside of main warehouse in a secure structure sheltered from weather and water ingress with forklift / MHE access direct into warehouse.
- Chillers efficiently designed to maintain operating temperatures between +2 ˚C to +8 ˚C, with diversified power supply from differing distribution boards and fully backed up by both the overall facility backup generator and the dedicated essential equipment generator. Chillers to have full supplementary mechanical redundancy so chiller operations can be maintained in case of mechanical failure to the primary condenser equipment.
- Chiller expansion area including suitably integrated frost heave prevention, as required.
- Ante room between designed to maintain operating temperatures between +2 ˚C to +8 ˚C, serving as an airlock between the general warehouse, the dedicated cold-chain recessed dock, and the chiller and chiller expansion.
- Separate walk-in freezer (minimum 50m² x 4m high), including any necessary frost heave prevention to ensure floor level to be flush with warehouse.
- Areas for other operational equipment, such as commercial freezer appliances which will require diversified power supply from differing distribution board and be fully backed up by the generators.
- Secure work area.
- Secondary packaging rooms (rework room) – for repackaging and relabelling pharmaceutical products into smaller units when they arrive in bulk.
- Dangerous goods areas which will require integrated in-rack sprinklers.
- 30% of warehouse area to be suitably designed to support Very Narrow Aisle (VNA) racking.

3.3.2.2 Height / scale

The proposed development would be in keeping in terms of scale of nearby developments. The proposed maximum height of the new built form 23.5m (measured in accordance with the Standard Instrument).

3.3.2.3 Colour / materials & finishes

Colours proposed for the facade of the building are typical of this type of development with more muted recessive tones applied, that will transition well into the precinct.

External building facades for the main warehouse buildings are Cemintel compressed sheet in basalt. Forklift charging façade finish is Cemintel compressed sheet in shale grey. Office areas are a combination of exterior stud steel with concrete block finish and full-height all glass curtain wall façade system with perforated sheet roof trimmings.

Warehouse facades consist of painted Cemintel compressed sheet material with metal deck roof. The warehouse and office area utilises consistent colours to form unifying theme to connect all buildings of the industrial estate. Façade materials provide a neutrally coloured appearance to the development.

3.3.2.4 Landscape

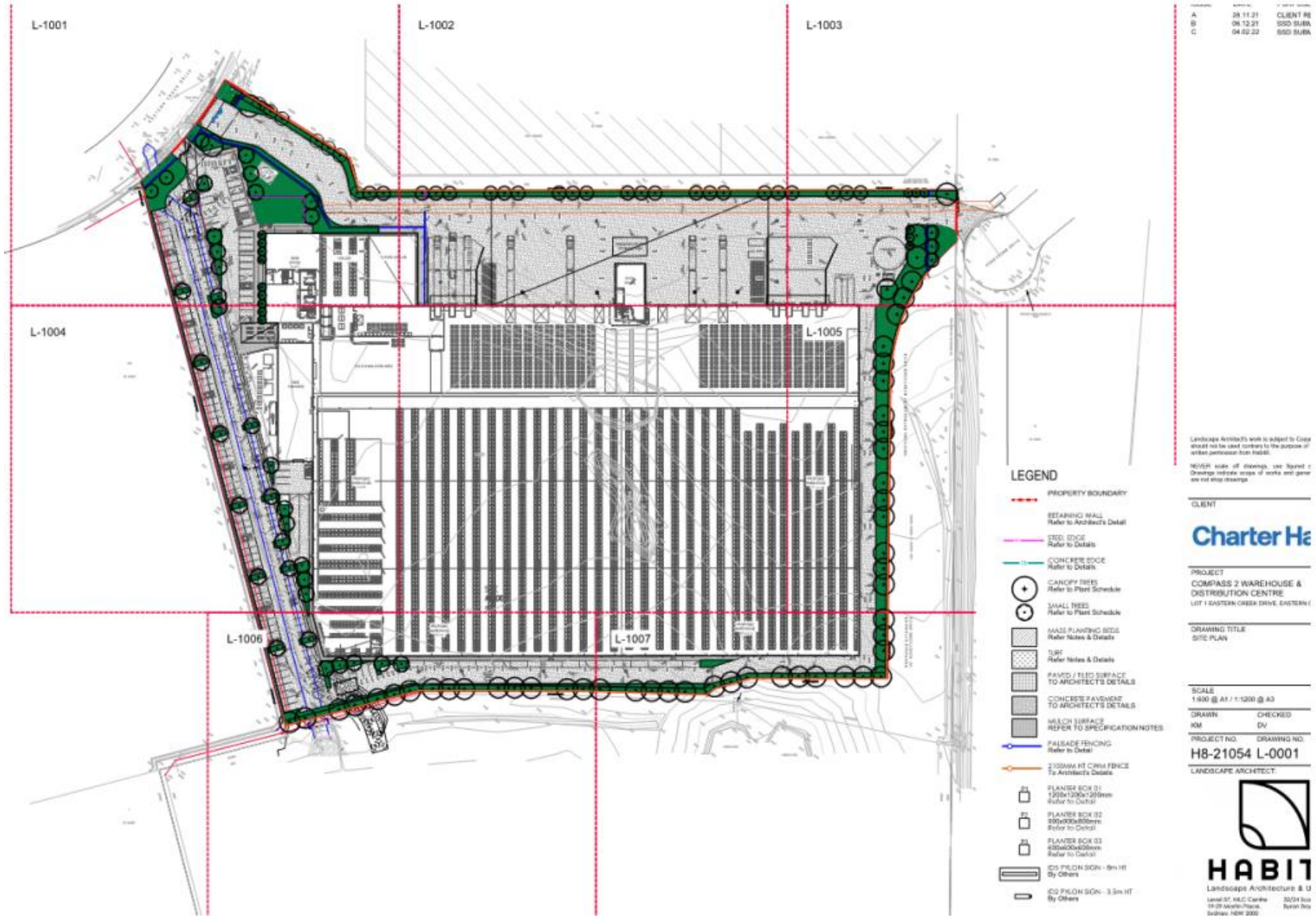

Figure 17 Proposed Landscape Plan (Source: Habit8, 2022)

To help mitigate and soften the building particularly from Eastern Creek Drive and the future Honeycomb Drive extension.

Proposed landscaping includes:

- Planting of 135 100L trees to the perimeter of the development and amongst the carparking and built form elements;
- Complementary shrubs and groundcovers; and
- High quality treatments to Eastern Creek Drive and the future interface with Honeycomb Drive.

Landscape Plans, prepared by Habit8, are included in **Appendix 13** of this EIS.

3.3.3 Operational Details

The proposed warehouse will be used for general storage and distribution of pharmaceuticals, medical devices and health food products and other related products which will need to be maintained between +15 ˚C to +25 ˚C.

3.2.3.1 Hours of operation

The facility is proposed to operate 24 hours a day, seven days a week.

3.2.3.2 Staff

The typical anticipated staffing requirements for the proposed development are as follows.

TABLE 11: STAFF SHIFTS		
Shift	**Warehouse**	**Office**
Morning shift	136	30
Afternoon shift	136	
Night shift	136	-
Total	**408**	**30**

The maximum anticipated employee numbers on site at any one time is estimated at approximately 166 staff.

3.2.3.4 Deliveries and truck movements

Trucks will enter the site via Eastern Creek Drive and manoeuvre across hardstand, reversing into loading docks. Once on site the trucks would be loaded/unloaded via electric forklifts and exit Honeycomb Drive cul-de-sac. The predicted breakdown of daily heavy vehicle trip generation is included in **TABLE 12** below.

TABLE 12: DAILY SITE TRUCK DELIVERIES		
Truck Type	**Inbound (receiving)**	**Outbound (dispatch)**
B-double	8	12
Semi-trailer	16	4
Rigid	10	8
Van	8	20

TABLE 12: DAILY SITE TRUCK DELIVERIES		
Truck Type	**Inbound (receiving)**	**Outbound (dispatch)**
Total	**42**	**44**

3.2.3.6 Dangerous goods

The proposal seeks to store a range of DGs. The proposed DGs are summarised in **TABLE 13**. At this stage, a fixed storage location within the warehouse has not been nominated; however the DGs could feasibly go anywhere within the warehouse footprint.

The proposed operations involve the storage and handling of diesel fuel and lithium-ion batteries.

TABLE 13: DG CLASSES AND QUANTITIES			
Class	**Description**	**Packing Group**	**Quantity (kg)**
2.1	Flammable gas (aerosols)	N/A	224,000 / 56,000 *
2.1	Hydrofluorocarbon (HFC) refrigerant gases	N/A	630
2.2	Non-flammable, non-toxic gas (aerosols)	N/A	76,000 / 19,000 *
3	Flammable liquids	II & III	420,000
Note: * This refers to the quantity of propellant within the aerosols and not the total package weight. The propellant content within the cannisters is typically around 25% of product weight.			

A review of the thresholds and the commodities and packing groups listed in **TABLE 13** indicates that only the proposed Class 2.1 DGs are assessable against the Major Hazard Facility (MHF) thresholds.

It has been determined that the proposed warehouse and distribution centre would not be classified as a MHF; refer to **Section 6.1.15** for further assessment and address of this matter.

3.3.4 Construction Staging

The approval strategy seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act, 1979.

The approximate phases and duration of works are as follows:

1. Phase 1 – bulk earthworks and civil works, including piling = 6 months
2. Phase 2 – construction of main building = 6 months
3. Phase 3 – deliveries and initial fitout of the warehouse, including operational plant and equipment = 9 months

3.3.5 Construction Hours

Construction works for the project are proposed to take place during standard construction hours.

However, some Out-of-Hours Works (OOHWs) may be required (for emergency works, oversized equipment delivery, etc).

3.4 PROJECT NEED

The proposed development would provide new employment opportunities through the provision of a warehouse and distribution centre to an otherwise stagnant industrial land holding. As a key contributor to the industrial sector, Charter Hall, have identified the subject site to contribute to the industrial offerings within the WSEA.

With a committed tenant for the site, the project need is evident. The proposal has been designed to respond to the requirements of the end user, which is further depicted in the following **Section 3.5**. The tenant has entered into a 15 year lease of the facility, bringing a wealth of employment offerings to the Eastern Creek precinct.

The proposal itself, being a warehouse and distribution centre, is consistent with the strategic direction of both the *Central City District Plan*, published by the Greater Sydney Commission (GSC), and the SEPP WSEA, contributing to the intended economic growth and development of the WSEA.

3.5 CONSIDERATION OF ALTERNATIVES

The purpose of the proposed development is to provide a warehouse offering, that responds to the intended industrial character and nature of the IN1 General Industrial zone; providing a logical extension of the existing developments at both Eastern Creek Drive and further north on Honeycomb Drive and beyond. The proposed development seeks to ensure:

- It is compatible with surrounding development and the local context;
- It would provide development of an otherwise vacant land holding;
- It would result in minimal impact on the environment; and
- It would allow for the implementation of suitable mitigation measures, where required.

Overall, the scale of the proposed development is considered suitable, and the built form proposed would completely enhance and renew an undeveloped and underutilised land portion into a modernised warehouse offering, which evolves as a logical extension to the evolving industrial precinct. The site design and layout of the built form proposed, seeks to maintain consistency with the zone objectives under SEPP WSEA and enhance the underlying industrial character intended for the site, which is zoned for such permissible land uses. Furthermore, this would be achieved by the resultant built form that would reinforce the nature of the land use and is sensitive to the surrounding environment.

The options considered and subsequently dismissed, in arriving to the current proposal with regard to the proposed development included:

(a) 'Do Nothing' Scenario

This option was dismissed as the objectives of the proposal would not be met. If the proposed development was not to proceed, the site would not achieve its intended development outcome.

Based on the above and the justification provided within **Section 3.4**, the 'do nothing' scenario is dismissed.

(b) Development on an Alternative Site

Consideration was given to carrying out development on alternate sites, these were dismissed as the subject site resulted in the most beneficial outcomes for the proposed development.

Beneficial characteristics of the subject site for the proposed development include:

- It's location, being subject to the provisions of the IN1 General Industrial zone pursuant to the provisions of SEPP WSEA;
- All potential environmental impacts concerning the proposed development are able to be suitably mitigated within the site;
- The proximity to the regional road network provides accessibility and linkages to the broader Western Sydney area and wider regions;
- The capability for providing employment-generating opportunities (both directly and indirectly), during both the construction and operational phases;
- It's consistency with the surrounding industrial nature of the area;
- It's large proximity to sensitive receivers; and
- The subject site can be developed with appropriate visual amenity achieved given its surrounding context.

(c) Different Site Configuration

The configuration of the proposed development was chosen based on the subject site's topography, road access, and the requirements of the end user, as well as the need to respond to the character of the surrounding areas. It is noted that a different site configuration would not have been able to respond to the abovementioned site opportunities and constraints. This option was therefore not considered appropriate.

Notwithstanding, the proposed development is justified on the basis that it is compatible with the locality in which it is proposed, resulting in positive social and economic benefits, whilst appropriately managing and mitigating any potential environmental impacts requiring consideration. The proposal also leverages from the availability of infrastructure.

From a locational perspective, the subject site was chosen as it would be able to accommodate a suitable platform and scale of development proposed. Accordingly, the site's locality is considered satisfactory from a strategic standpoint, for which the proposal responds to the industrial character intended for the site and immediate locality; and the limited environmental constraints which make the site suitable for development for the purposes of a warehouse and distribution centre.

In light of the above information, the proposal for warehouse and distribution centre at the subject site would allow for the site and tenant objectives to be suitably met.

PART D LEGISLATIVE AND POLICY FRAMEWORK

4.1 CONTROLS AND POLICIES OVERVIEW

The following current and draft Commonwealth, State, Regional and Local planning controls and policies have been considered in the preparation of this application.

Commonwealth Planning Context

- *Environment Protection and Biodiversity Conservation Act 1999*

State Planning Context

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *Water Management Act 2000*
- *Biodiversity Conservation Act 2016*
- *Rural Fires Act 1997*
- *Protection of the Environment Operations Act 1997*
- *State Environmental Planning Policy No 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No 55 – Remediation of Land*
- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy (Western Sydney Employment Area) 2009*

Strategic Planning Context

- *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River*
- *Greater Sydney Region Plan – A Metropolis of Three Cities*
- *Central City District Plan*
- *Western Sydney Employment Area*
- *Future Transport Strategy 2056*

Local Planning Context

- *Blacktown Local Environmental Plan 2015*
- *Blacktown Development Control Plan*
- *Employment Lands Precinct Plan – Eastern Creek Precinct (Stage 3)*

This proposal has been carefully assessed against the requirement and objectives of all of the above planning statutory and policy documents. A detailed analysis is set out in the following sections:

4.2 COMMONWEALTH PLANNING CONTEXT

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), any action (which includes a development, project or activity) that is considered likely to have a significant impact on Matters of National Environmental Significance (MNES) (including nationally threatened ecological communities and species and listed migratory species), must be referred to the Commonwealth Minister for the Environment. The purpose of the referral is to allow a decision to be made about whether an action requires approval on a Commonwealth level. If an action is considered likely to have significant impact on MNES, it is declared a "Controlled Action" for which formal Commonwealth approval is required.

Referral to the Commonwealth Minister is not required.

4.3 STATE PLANNING CONTEXT

4.3.1 Environmental Planning and Assessment Act 1979

Pursuant to Section 4.36(2) of the EP&A Act, a *State environmental planning policy may declare any development, or any class or description of development, to be State significant development*.

The proposed development constitutes SSD as detailed in **Section 4.3.10**.

Further, the proposal is deemed to be entirely consistent with the EP&A Act, particularly Clause 1.3.

The following responses are provided regarding each Object listed in Clause 1.3:

TABLE 14: EP&A ACT OBJECTS

Object	Description
(a)	*to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
	Response: *to promote the social and economic welfare of the community* The proposed development strongly promotes the social and economic welfare of the community. The proposal would act as an employment generator, both directly and indirectly. It is anticipated that the proposal would generate jobs in the order of: ▪ 480 construction jobs ▪ 438 direct operational full-time equivalent jobs The creation of these employment opportunities would have a direct impact on both the local and broader communities. This access to both construction and operational jobs, is highly significant, given the scale, quantum, type and location of this employment, nearer to where people live. The proposal satisfies both the objectives of *A Metropolis of Three Cities*, the *Central City District Plan* and the wider objectives of the WSEA, by creating jobs which align with the GSC's 30-Minute City Concept, enhancing liveability and elevating the role of the WSEA to a competitive and connecting working hub with direct linkages to Parramatta, Sydney and Penrith with the Eastern and Western Cities, promoting the overall social and economic welfare of the broader Sydney community. *a better environment by the proper management, development and conservation of the State's natural and other resources* Through informed architectural design, the proposed development incorporates a number of sustainable design principles and includes initiatives, designed to mitigate environmental impacts.
(b)	*to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
	Response: The intent of the proposed development is to create, through siting, design, landscaping and architecture, a high quality built form.

TABLE 14: EP&A ACT OBJECTS	
Object	**Description**
	The proposal demonstrates the architectural features proposed for the subject site, comprising the following key design elements, including: ▪ Articulation through the use of mixed materials and colouring, variation in building height, and architectural finishes; ▪ Integration of awnings, screens, glazing and feature windows; ▪ Installation of solar panels; ▪ Addition of complementary landscaping, including shade trees. The following Ecologically Sustainable Development (ESD) measures are proposed for the development: ▪ Energy – including improved energy efficiency across the buildings and its associated sources. ▪ Passive Design Principles – reducing the projects overall requirement for building services. ▪ Water Efficiency – including reduced potable water demand. ▪ Waste Management – including the incorporation of a waste treatment plant. ▪ Ecology – Maintaining ecology through landscaping where practical.
(c)	*to promote the orderly and economic use and development of land,*
	Response: The WSEA is fully recognised and promoted by State Policy for rapid transformation into employment generating land uses. The proposed development constitutes a sequential (and highly orderly) economic development. It is highly compatible with respect to immediately-surrounding land uses, as well as in the wider locality. Given its siting and location, the site is highly logical, given its proximity to existing industrial facilities and services to which it can connect. Accordingly, the proposal is consistent with the aims and objectives of the SEPP WSEA, which are comprehensively assessed in **Section 4.3.12** of this EIS. As well as fulfilling a significant role in satisfying market needs and improving the operational efficiencies of industrial and warehouse land uses within NSW, the proposal also demonstrates, a logical and orderly extension land that is already earmarked in SEPP WSEA for this very purpose pursuant to its IN1 General Industrial zoning. The site's economic development is both logical and orderly for the following reasons: ▪ It delivers employment-generating opportunities in both the construction and operational phases in an area already earmarked by both State and Regional Policy for employment. ▪ It provides both a new economically and ecologically sustainable development, delivering new industry-best-practice in industrial construction. ▪ It provides a genuine and obvious transition from existing industrial development, further reinforcing the notion of orderly development, within an area already designated for such purposes. ▪ It implements best-practice sustainability measures, to promote ecologically sustainable development. ▪ It includes increased provisions for landscaping, helping to revitalise and naturally landscape a substantial canopy cover across the site, further minimising the potential impacts of the Urban Heat Island Effect, by further reducing the site's microclimate. ▪ It improves water-quality for stormwater by fully treating it prior to discharge, filtering it through a carefully-designed, On-site Stormwater Detention (OSD)

TABLE 14: EP&A ACT OBJECTS	
Object	**Description**
	system that is in accordance with the requirements of Council's engineering guidelines. The overall scale of the proposed development and the low-interface impacts with surrounding properties, demonstrates that the site can be developed for industrial purposes immediately following the issue of development consent. In terms of appropriate use of land, the proposal is deemed appropriate for the following reasons: ▪ The proposed development provides employment on land already zoned for employment. ▪ The proposed development minimises land use conflict by being located in an established and evolving industrial precinct of similar land uses. It is for these reasons and others outlined this EIS, that the proposal represents development that promotes the orderly and economic use and development of land, in line with the objects of the EP&A Act. According to expert assessment, the overall scale of the proposed development and the low-interface-impacts with surrounding properties, demonstrates that the subject site can be developed for warehousing and distribution. This represents orderly development of the subject site as proposed under this SSD Application.
(d)	*to promote the delivery and maintenance of affordable housing,*
	Response: This objective is not applicable to the proposed development, as the proposal does not seek consent for housing.
(e)	*to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
	Response: Given that the site is has been subject to extensive works already, the proposed development would not have a significant impact on biodiversity values. A BDAR wavier has been sought, in accordance with Section 7.9 of the BC Act.
(f)	*to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
	Response: KNC has been engaged to provide advice regarding the existing Aboriginal cultural heritage assessment that has taken place within the subject site – refer to **Section 6.1.18** of this EIS. Review of background information, existing assessments and database searches have established that no archaeological sites containing Aboriginal objects are known to exist within the boundaries of the proposal site.
(g)	*to promote good design and amenity of the built environment,*
	Response: The vision of the proposed development is to create a quality built form with integrated landscaping. The proposed development is considered to promote both good design and improved amenity, through the use of new-age materials and innovative contemporary design. Colours proposed for the facades of the building are typical of this type of development with more muted recessive tones applied, that will transition well from the existing neighbouring developments.

TABLE 14: EP&A ACT OBJECTS	
Object	**Description**
	The proposed development can be seen to promote both good design and at the same time improving the amenity of the built environment through activation of the site by enhanced landscaping across the site. Through both the use of new-age materials and an innovative contemporary design, the proposed development allows the built form to connect with the natural landscape, to tie the built-form elements into a relatable thematic nexus to the natural environment, using industry-best-practice.
(h)	*to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
	Response: The proposed development would be implemented through best-industry practice standards and measures. The proposal has been designed in accordance with the BCA, and the NCC. This incorporates into the design, all statutory and functional requirements of the BCA, regarding access, egress and fire, which are deemed necessary to safeguard the safety of building occupants and the longevity of the development.
(i)	*to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
	Response: The proposed development is considered to impact positively on other existing (and proposed) developments within the wider locality, which is further reinforced throughout the supporting specialist reports and the body of this EIS. Where possible impacts have been identified, appropriate management and mitigation measures have been applied accordingly. It is noted, that throughout the assessment process, relevant agencies have been consulted and provided opportunity to both assess the proposed development and provide comments. Community consultation has been conducted which has assisted to inform the final submitted design and reinforces compliance with this objective. This has included numerous Government agency meetings and notification letters to both Government agencies and all key stakeholders. Several meetings have been held with stakeholders, which are detailed further in **PART E** of this EIS.
(j)	*to provide increased opportunity for community participation in environmental planning and assessment.*
	Response: Community and stakeholder engagement has been undertaken for the proposed development. This has included meetings and notification letters to both agencies and all potentially-impacted stakeholders. A Stakeholder Engagement Report (located in **Appendix 30**) has been prepared by HillPDA, in support of this SSD Application, offering a summary and analysis of all community and stakeholder consultation sessions, distilling into themes, and those items identified in the consultation process, as significant.

4.3.2 Environmental Planning and Assessment Regulation 2000

The EP&A Regulation is the EP&A Act's primary subordinate legislation and contains key operational provisions for the NSW planning system, including those relating to EIS'.

4.3.2.1 Schedule 1 – Forms

Pursuant to Schedule 1 of the EP&A Regulation, this EIS includes all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1, as detailed in TABLE 15.

TABLE 15: SCHEDULE 1 OF EP&A REGULATION	
Requirements	**Satisfied by**
Part 1 Development applications	
2 Documents to accompany development application	
(1) A development application must be accompanied by the following documents—	
(a) a site plan of the land,	Refer to **Appendix 4** of this EIS.
(b) a sketch of the development,	Refer to **Appendix 4** of this EIS.
(c) a statement of environmental effects (in the case of development other than designated development or State significant development),	Not applicable to this SSD Application.
(d) in the case of development that involves the erection of a building, an A4 plan of the building that indicates its height and external configuration, as erected, in relation to its site (as referred to in clause 56 of this Regulation),	Refer to **Appendix 4** of this EIS.
(e) an environmental impact statement (in the case of designated development or State significant development),	Refer to **whole EIS document**.
(f) a species impact statement (in the case of land that is, or is part of, critical habitat or development that is likely to significantly affect threatened species, populations or ecological communities, or their habitats), but not if the development application is for State significant development,	Not applicable to this SSD Application.
(g) if the development involves any subdivision work, preliminary engineering drawings of the work to be carried out,	Not applicable to this SSD Application.
(h) if an environmental planning instrument requires arrangements for any matter to have been made before development consent may be granted (such as arrangements for the provision of utility services), documentary evidence that such arrangements have been made,	Refer to **Section 6.1.24** of this EIS.
(i) if the development involves a change of use of a building (other than a dwelling-house or a building or structure that is ancillary to a dwelling-house and other than a temporary structure)— *(i) a list of the Category 1 fire safety provisions that currently apply to the existing building, and* *(ii) a list of the Category 1 fire safety provisions that are to apply to the building following its change of use,*	Not applicable to this SSD Application.
(j) if the development involves building work to alter, expand or rebuild an existing building, a scaled plan of the existing building,	N/A – the proposal involves a whole new development.

TABLE 15: SCHEDULE 1 OF EP&A REGULATION	
Requirements	**Satisfied by**
(k) if the land is within a wilderness area and is the subject of a wilderness protection agreement or conservation agreement within the meaning of the Wilderness Act 1987, a copy of the consent of the Minister for the Environment to the carrying out of the development,	Not applicable to this SSD Application.
(k1) in the case of development comprising mining for coal (within the meaning of section 380AA of the Mining Act 1992)—documentary evidence that the applicant holds an authority under the Mining Act 1992 in respect of coal and the land concerned or has the written consent of the holder of such an authority to make the development application,	Not applicable to this SSD Application.
(l) in the case of development to which clause 2A applies, such other documents as any BASIX certificate for the development requires to accompany the application,	Not applicable to this SSD Application.
(m) in the case of BASIX optional development—if the development application is accompanied by a BASIX certificate or BASIX certificates (despite there being no obligation under clause 2A for it to be so accompanied), such other documents as any BASIX certificate for the development requires to accompany the application,	Not applicable to this SSD Application.
(n) if the development involves the erection of a temporary structure, the following documents— *(i) documentation that specifies the live and dead loads the temporary structure is designed to meet,* *(ii) a list of any proposed fire safety measures to be provided in connection with the use of the temporary structure,* *(iii) in the case of a temporary structure proposed to be used as an entertainment venue—a statement as to how the performance requirements of Part B1 and NSW Part H102 of Volume One of the Building Code of Australia are to be complied with (if a performance solution, to meet the performance requirements, is to be used),* *(iv) documentation describing any accredited building product or system sought to be relied on for the purposes of section 4.15(4) of the Act,* *(v) copies of any compliance certificates to be relied on,*	Not applicable to this SSD Application.

4.3.2.2 Schedule 2 – Environmental Impact Statements

This EIS has been prepared in accordance with clauses 6 and 7 of Schedule 2, as detailed in TABLE 16.

TABLE 16: SCHEDULE 2 OF EP&A REGULATION	
Requirements	**Satisfied by**
General Provisions	
6 Form of environmental impact statement	
(1) An environmental impact statement must contain the following information—	

TABLE 16: SCHEDULE 2 OF EP&A REGULATION	
Requirements	**Satisfied by**
(a) the name, address and professional qualifications of the person by whom the statement is prepared,	Refer to **page ii** of this EIS.
(b) the name and address of the responsible person,	Refer to **page ii** of this EIS.
(c) the address of the land— *(i) in respect of which the development application is to be made, or* *(ii) on which the activity or infrastructure to which the statement relates is to be carried out,*	Refer to **Section 2.1** of this EIS.
(d) a description of the development, activity or infrastructure to which the statement relates,	Refer to **Section 3.2** of this EIS.
(e) an assessment by the person by whom the statement is prepared of the environmental impact of the development, activity or infrastructure to which the statement relates, dealing with the matters referred to in this Schedule,	Refer to **PART F** of this EIS.
(f) a declaration by the person by whom the statement is prepared to the effect that— *(i) the statement has been prepared in accordance with this Schedule, and* *(ii) the statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and* *(iii) that the information contained in the statement is neither false nor misleading.*	Refer to **page ii** and of this EIS.
(2) The person preparing the statement must have regard to the following— *(a) for State significant development—State Significant Development Guidelines,* *(b) for State significant infrastructure—State Significant Infrastructure Guidelines.*	The preparation of this EIS has given regard to *the State Significant Development Guidelines.*
7 Content of environmental impact statement	
(1) An environmental impact statement must also include each of the following—	
(a) a summary of the environmental impact statement,	Refer to **page 1** of this EIS.
(b) a statement of the objectives of the development, activity or infrastructure,	Refer to **Section 3.1** of this EIS.
(c) an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure,	Refer to **Section 3.5** of this EIS.
(d) an analysis of the development, activity or infrastructure, including—	
(i) a full description of the development, activity or infrastructure, and	Refer to **Section 3.2** of this EIS.

TABLE 16: SCHEDULE 2 OF EP&A REGULATION	
Requirements	**Satisfied by**
(ii) a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and	Refer to **PART B** and **PART F** of this EIS.
(iii) the likely impact on the environment of the development, activity or infrastructure, and	Refer to **PART F** of this EIS.
(iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and	Refer to **PART G** of this EIS.
(v) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,	Refer to **PART D** of this EIS.
(e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d)(iv),	Refer to **PART G** of this EIS.
(f) the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4).	Refer to **PART H** of this EIS.
(2) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement.	Refer to **Section 1.8** of this EIS.
(3) Subclause (1) does not apply if— *(a) the Planning Secretary has waived (under clause 3(9)) the need for an application for environmental assessment requirements in relation to an environmental impact statement in respect of State significant development, and* *(b) the conditions of that waiver specify that the environmental impact statement must instead comply with requirements set out or referred to in those conditions.*	Not applicable.
(4) The principles of ecologically sustainable development are as follows— *(a) the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by—* *(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and* *(ii) an assessment of the risk-weighted consequences of various options,*	Refer to **Section 8.1.5** of this EIS.

TABLE 16: SCHEDULE 2 OF EP&A REGULATION	
Requirements	**Satisfied by**
(b) inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations, *(c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,* *(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as—* *(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,* *(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,* *(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*	

4.3.2.3 Schedule 3 – Designated Development

Section 4(1) of the EP&A Regulation states, that any development described in Part 1 of Schedule 3, would be declared to be Designated Development for the purposes of the EP&A Act.

The proposal involves the storage of DGs, requiring consideration of Schedule 3, Clause 10 of the EP&A Regulation.

As outlined in **Section 4.3.7** of this EIS, the proposed quantity of DGs will not exceed the storage capacity thresholds of Schedule 3, Clause 10 of the EP&A Regulation.

Based on the above assessment, the proposal is not considered Designated Development.

4.3.3 Water Management Act 2000

The objective of the WM Act is the sustainable and integrated management of the state's water for the benefit of both present and future generations.

Section 91 relates to Activity Approvals and outlines that a Controlled Activity Approval confers a right on its holder to carry out a specified Controlled Activity at a specified location in, on or under Waterfront Land.

For the purposes of the WM Act, Controlled Activity means:

(a) the erection of a building or the carrying out of a work (within the meaning of the Environmental Planning and Assessment Act 1979), or
(b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
(c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
(d) the carrying out of any other activity that affects the quantity or flow of water in a water source.

Waterfront Land means:

(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or
(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or
(a2) the bed of any estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or
(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,

where the prescribed distance is 40 metres or (if the regulations prescribe a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into 2 or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.

As detailed in **Section 2.2** of this EIS, it had previously been determined that the subject site does not contain Waterfront Land, and therefore the proposal does not require a Controlled Activity Approval.

Works associated with the subject site were approved for decommissioning under **DA-16-04242**, including the decommissioning of a temporary detention basin. The involves the construction of a regional basin, which is understood to have been completed by the developer and functional around the end of May to mid-June 2021. A Controlled Activity Approval is in place for **DA-16-04242** and this application does not alter the terms of that approval.

4.3.4 Biodiversity Conservation Act 2016

The BC Act is the key legislation in NSW, relating to the protection and management of biodiversity and threatened species. The purpose of the BC Act is to "maintain a healthy, productive and resilient environment, for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development". The BC Act is supported by a number of regulations, including the *Biodiversity Conservation Regulation 2017* (BC Regulation).

Pursuant to Section 7.9 of the BC Act, an SSD *is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values*.

The BC Act requires consideration of whether a development or activity is likely to significantly affect threatened species. Based on a review of Nearmap imagery (**Figure 18**), it evident that site works since August 2020 have significantly disturbed this area.

Under section 7.9(2) of the BC Act, a BDAR wavier has been sought from the NSW DPE.

Figure 18 Site imagery comparison of recent works (Source: Nearmap, 2020-2021)

4.3.5 Rural Fires Act 19997

The subject site is identified as bushfire prone land, with a portion of its northern extent mapped as marginally containing the 100m buffer zone from Category 1 vegetation; refer to **Figure 19** below.

The proposed development for industrial-related purposes would not trigger Integrated Development under Section 4.46 of the EP&A Act and Section 100B of the *Rural Fires Act 1997* (Rural Fires Act).

Notwithstanding, the proposal must be assessed against the *Planning for Bush Fire Protection – 2019* (PBP), as required by item 22 of the SEARs. Reference should be made to **Section 6.1.22** of this EIS.

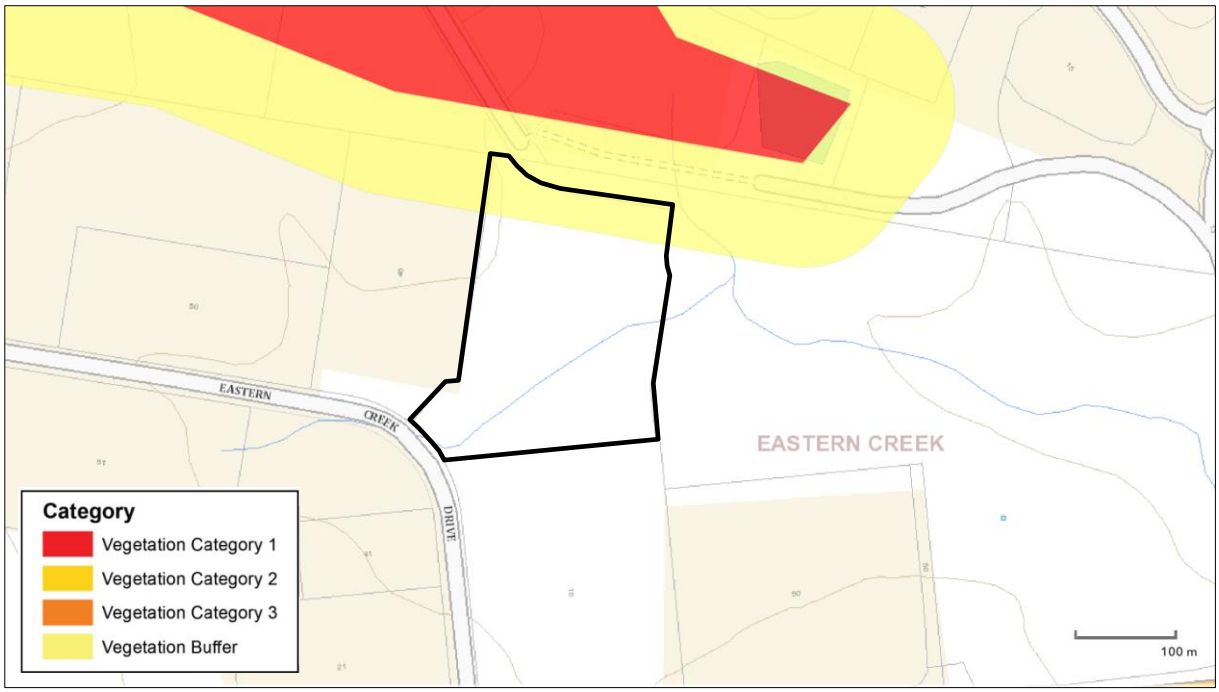

Figure 19 Bushfire Prone Land Map (Source: NSW Legislation, 2021)

4.3.6 Protection of the Environment Operations Act 1997

Another important item of legislation, against which this proposal has been assessed, is the *Protection of the Environment Operations Act 1997* (POEO Act). Schedule 1 of the POEO Act contains a core list of activities that require a licence before they may be undertaken or carried out. The definition of an 'activity' for the purposes of the POEO Act is:

> *"an industrial, agricultural or commercial activity or an activity of any other nature whatever (including the keeping of a substance or an animal)."*

4.3.6.1 Schedule 1 – Clause 9(1) – general chemicals storage

Under the POEO Act, Schedule 1, Clause 9(1) 'general chemicals storage', is a Scheduled Activity. General chemical storage is

> *the storage or packaging in containers, bulk storage facilities or stockpiles of any chemical substance classified as a dangerous good in the Transport of Dangerous Goods Code, other than the following—*
>
> *(a) petroleum or petroleum products,*
> *(b) radioactive substances within the meaning of the Radiation Control Act 1990.*

Capacity to store more than 20 tonnes of pressurised gases, 200 tonnes of liquified gases or 2,000 tonnes of chemicals in any other form, at the subject site would be a scheduled activity and require an EPL from the NSW EPA.

As outlined in **TABLE 13**, the proposal would involve the storage of the following DG quantities:

- 200 tonnes of liquified gas
- 19 tonnes of pressurised gas

Under the current design, the proposed storage capacities would not be deemed a Scheduled Activity.

4.3.7 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) provides for determining whether a development is potentially hazardous of offensive industry, and any measures proposed to be employed to reduce the impact of the development.

A review of the application guide to SEPP 33 indicates that the proposed facility would exceed the threshold criteria for the storage of DGs resulting in a classification for the site of potentially hazardous. To demonstrate that the facility is not in fact hazardous, it is necessary to prepare a Preliminary Hazard Analysis (PHA) for the site, in support of the SSD Application.

As such, a PHA has been prepared by Riskcon Engineering (**Appendix 22**), to:

- Complete the PHA according to the Hazardous Industry Planning Advisory Paper (HIPAP) No. – Hazard Analysis;
- Assess the PHA results using the criteria in HIPAP No. 4 – Risk Criteria for Land Use Planning;
- Demonstrate compliance of the site with the relevant codes, standards and regulations (i.e. NSW Planning and Assessment Regulation 1979, WHS Regulation, 2011).

The Multi-Level Risk Assessment approach, published by the NSW DPE, has been used as the basis for the study to determine the level of risk assessment required. The approach considered the development in context of its location, the quantity and type (i.e. hazardous nature) DGs stored and used, and the facility's technical and safety management control. The Multi-Level Risk Assessment Guidelines are intended to assist industry, consultants and the consent authorities to carry out and evaluate risk assessments at an appropriate level for the facility being studied.

The Multi-Level Risk Assessment approach is schematically presented in **Figure 20**.

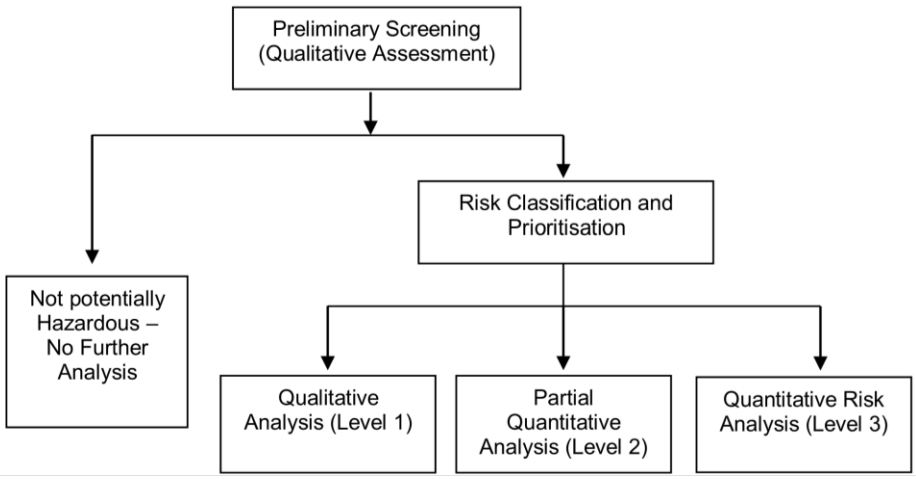

Figure 20 The Multi-Level Risk Assessment Approach (Source: Riskcon, 2021)

Based on the type of DGs to be used and handled at the proposed facility, a Level 2 Assessment was selected for the site. This approach provides a qualitative assessment of those DGs of lesser quantities and hazard, and a quantitative approach for the more hazardous materials to be used on-site. This approach is commensurate with the methodologies recommended in "Applying SEPP 33's" Multi Level Risk Assessment approach (DPE, 2011).

The full assessment process, findings and recommendation are detailed within **Section 6.1.15** of this EIS.

Based on the analysis conducted, it is concluded that the risks at the site boundary are not considered to exceed the acceptable risk criteria; hence, the facility would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

4.3.8 State Environmental Planning Policy No. 55 – Remediation of Land

Under the provisions of *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55), where a development application is made concerning land that is contaminated, the consent authority must not grant consent unless:

(a) it has considered whether the land is contaminated, and
(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land would be remediated before the land is used for that purpose.

The subject site has previously been used for agricultural/grazing purposes, which is one of the activities listed in Table 1 of SEPP 55 guidelines. However, the future commercial/industrial land use of the site will be less sensitive than the former agricultural land use for the site. As such, a detailed site investigation is not required.

Notwithstanding, intrusive investigations confirm that analytes assessed were either below the laboratory reporting limit or the adopted site criteria, including below the ecological investigation/screening levels.

A Preliminary Site Investigation undertaken by JBS&G, contained within **Appendix 23** of this EIS, satisfies the requirement of SEPP 55, confirming that the subject site is suitable for the proposed use.

4.3.9 State Environmental Planning Policy No. 64 – Advertising and Signage

State Environmental Planning Policy No 64 – Advertising and Signage (SEPP 64) applies to the proposed site signage, which includes both building and business identification signs. The signage parameters for the proposed development are detailed in **TABLE 17**.

TABLE 17: PROPOSED SIGNAGE DETAILS

Sign Type	Dimensions (width x height)	No.	Description
Building identification sign	2.85m x 8m	1	Large pylon sign to identify the premises
Building identification sign	0.9m x 1.8m	2	Medium pylon sign to direct site users to different areas within the premises
Building identification sign	0.3m x 1.5m	1	Medium pylon sign to direct site users to car parking area

All proposed signage is located within the boundaries of the subject site.

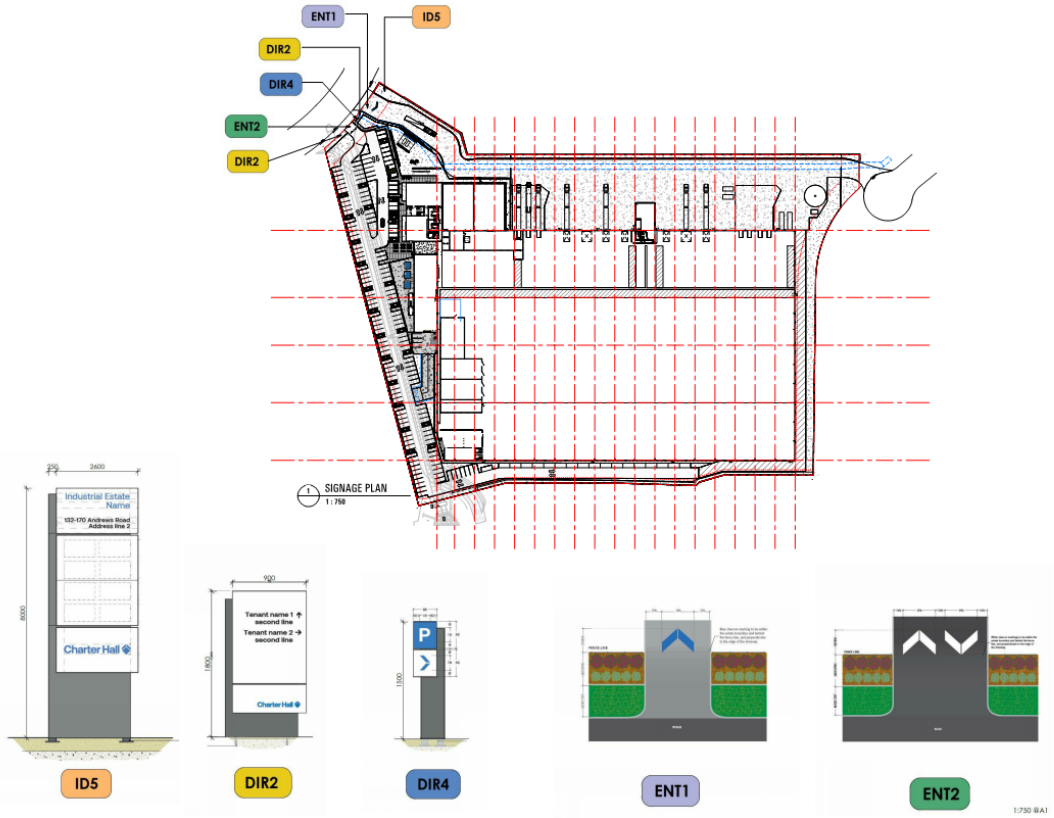

Figure 21 Signage Plan (Source: Qanstruct, 2022)

Signage will be considered on an estate wide basis such that there will be a consistency in materials and finishes of the signs across the estate. Signage will be a combination of building mounted signage, estate and tenant identification signage in landscape setbacks, at access road and driveway entries, and at building entries. The signage design will be considered as part of the landscape and language used in the architecture of the buildings to provide placemaking and wayfinding principles for safety and user experience of the estate.

Pursuant to Clause 8 of SEPP 64, a consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:

- *that the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and*
- *that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1*

These matters are addressed in detail, within **TABLE 18.**

The aims and objectives of SEPP 64 are details as follows:

(1) This Policy aims:
(a) to ensure that signage (including advertising):
(i) is compatible with the desired amenity and visual character of an area, and
(ii) provides effective communication in suitable locations, and
(iii) is of high quality design and finish, and
(b) to regulate signage (but not content) under Part 4 of the Act, and
(c) to provide time-limited consents for the display of certain advertisements, and
(d) to regulate the display of advertisements in transport corridors, and
(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

(2) This Policy does not regulate the content of signage and does not require consent for a change in the content of signage.

The proposed development seeks consent for signage for the purposes of business identification, which is considered to meet the aims and objectives of SEPP 64 for the following reasons:

- It relates directly to the proposed use of the subject site and will subsequently enhance the viability of the future operations of the site.
- The proposed signage compatible with the proposed built form, exhibiting a similar scale and design to the proposed development.
- The proposed signage will positively contribute to the locality through high quality design, construction and finish.
- Considering the existing industrial precedent and the nature of the proposed development, the proposed signage will integrate with the existing built form, in terms of sitting, scale and design.

The proposed signage is considered to be compatible with the SEPP 64 aims and objectives.

Pursuant to SEPP 64, business identification signs are to be assessed under Schedule 1. The assessment criteria under Schedule 1 of SEPP 64 are addressed in **TABLE 18**.

TABLE 18: SEPP 64 ASSESSMENT CRITERIA	
Criteria	**Proposal Compliance**
1 Character of the area	
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	Yes, the proposed signage is compatible with the existing and desired future character of the subject site and other development within the immediate area.
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	Yes, as above.
2 Special areas	
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposed signage is considered consistent with the proposed built form and would not detract from the amenity or visual quality of the surrounding area.
3 Views and vistas	
Does the proposal obscure or compromise important views?	No, the proposed signage would be of a height and scale consistent with the built form on the subject site and would not disrupt any views or dominate views toward the site.
Does the proposal dominate the skyline and reduce the quality of vistas?	No, the proposed signage is considered to be of a reasonable scale and location on the building and will not be dominant on the skyline.
Does the proposal respect the viewing rights of other advertisers?	Yes, the proposed signage would not obstruct any other signage or advertising.
4 Streetscape, setting or landscape	

TABLE 18: SEPP 64 ASSESSMENT CRITERIA	
Criteria	**Proposal Compliance**
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	Yes, the proposed signage has been designed in respect of the proposed built form on the subject site to effectively identify the operations of the site. The proposed signage is compatible with the character of the site and its surrounds as detailed above.
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	Yes, the proposed signage would visually define operations of the subject site and create a visually coherent built form.
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	Not applicable, the subject site does not contain any existing advertising.
Does the proposal screen unsightliness?	No, the proposed signage is not used as a visual screen or filter.
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	No, the proposed signage does not protrude above the proposed development.
Does the proposal require ongoing vegetation management?	No, the proposed signage would not require ongoing vegetation management.
5 Site and building	
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	Yes, the proposed signage is of a suitable scale and design for its intended purpose to effectively identify future operations of the subject site and would integrate with the existing built form and façade design to achieve visual coherence.
Does the proposal respect important features of the site or building, or both?	Yes, the proposed signage does not obscure any important architectural features of the building.
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	Yes, the proposed signage has been integrated with the layout of the site so as not to obstruct any vehicle movements and achieve a positive visual outcome.
6 Associated devices and logos with advertisements and advertising structures	
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Not applicable.
7 Illumination	
Would illumination result in unacceptable glare?	No, illumination is not proposed.
Would illumination affect safety for pedestrians, vehicles or aircraft?	No, illumination is not proposed.

TABLE 18: SEPP 64 ASSESSMENT CRITERIA	
Criteria	**Proposal Compliance**
Would illumination detract from the amenity of any residence or other form of accommodation?	No, illumination is not proposed.
Can the intensity of the illumination be adjusted, if necessary?	No, illumination is not proposed.
Is the illumination subject to a curfew?	No, illumination is not proposed.
8 Safety	
Would the proposal reduce the safety for any public road?	The simplicity and scale of the proposed signage seeks to ensure that the safety of the public road is not compromised. The intent of the signage is for business identification purposes only. The proposed signs would be fitted to the development walls and do not reduce the safety of any public road.
Would the proposal reduce the safety for pedestrians or bicyclists?	No, the proposed signage would not obstruct any pedestrian or cycle routes or infrastructure and therefore would not negate the safety of pedestrians or cyclists.
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	No, the proposed signage would not obscure any sightlines from public areas frequented by pedestrians. Nor would the proposed signage obstruct any vehicle sight lines from public roads.

4.3.10 State Environmental Planning Policy (State and Regional Development) 2011

The SRD SEPP identifies development that is SSD, State significant infrastructure and critical State significant infrastructure, and regionally significant development.

Proposed developments that are listed in Schedule 1 of SRD SEPP are identified as being SSD.

Clause 12 of Schedule 1 of SRD SEPP states:

> ***12 Warehouses or distribution centres***
>
> *(1) Development that has a capital investment value of more than the relevant amount for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation.*
> *(2) This clause does not apply to development for the purposes of warehouses or distribution centres to which clause 18 or 19 applies.*
> *(3) In this clause—*
> *relevant amount means—*
> *(a) for development in relation to which the relevant environmental assessment requirements are notified under the Act on or before 31 May 2023—$30 million, or*
> *(b) for any other development—$50 million.*

The proposed development (being for a warehouse and distribution centre development) has a CIV of $ 63,141,166.00. As the proposal exceeds the $30 million statutory threshold and meets all other criteria in SRD SEPP, it is deemed and categorised as SSD.

4.3.11 State Environmental Planning Policy (Infrastructure) 2007

The *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

4.3.11.1 Clause 45 – Electricity transmission or distribution network

The Eastern Creek Drive road reserve, adjacent to the subject site, contains existing underground electricity infrastructure, as shown in the Survey Plan contained in **Appendix 6** of this EIS. As such, the requirements of Clause 45 of the ISEPP have been duly considered.

Whilst there are works proposed within 2m of the underground electricity infrastructure, the proposed works do not involve excavation.

4.3.11.2 Clause 104 – Traffic generating development

ISEPP repeals the former State Environmental Planning Policy No. 11 – Traffic Generating Development and, pursuant to Clause 104, provides for certain proposed developments known as Traffic Generating Development, to be referred to TfNSW for concurrence.

Schedule 3 of ISEPP, lists the types of development that are defined as Traffic Generating Development. The referral thresholds for 'warehouse or distribution centres' development includes sites of:

- 8,000m^2 in site area or (if the site area is less than the gross floor area) gross floor area;

The subject site has an area of 4.805 hectares. As such, the proposal is considered Traffic Generating Development and will be referred to TfNSW for concurrence.

4.3.12 State Environmental Planning Policy (Western Sydney Employment Area) 2009

The subject site is situated within the WSEA and is therefore subject to the provisions of SEPP WSEA. The relevant provisions are summarised in the following subsections.

4.3.12.1 Zoning and Permissibility

The subject site is zoned IN1 General Industrial under the provisions of SEPP WSEA.

The objectives of the IN1 General Industrial zone are as follows:

- *To facilitate a wide range of employment-generating development including industrial, manufacturing, warehousing, storage and research uses and ancillary office space;*
- *To encourage employment opportunities along motorway corridors, including the M7 and M4;*
- *To minimise any adverse effect of industry on other land uses;*
- *To facilitate road network links to the M7 and M4 Motorways;*
- *To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment; and,*
- *To provide for small-scale local services such as commercial, retail and community facilities (including child care facilities) that service or support the needs of employment-generating uses in the zone.*

Within the IN1 General Industrial zone the following are permissible without consent:

- *Nil.*

Within the IN1 General Industrial zone the following are permissible with consent:

- *Building identification signs; Business identification signs; Depots; Environmental facilities; Environmental protection works; Food and drink premises; Freight transport facilities; Garden centres; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries (other than offensive or hazardous industries); Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Roads; Service stations; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations;* ***Warehouse or distribution centres****.*

Within the IN1 General Industrial zone the following are prohibited:

- *Any development not specified in item 2 or 3.*

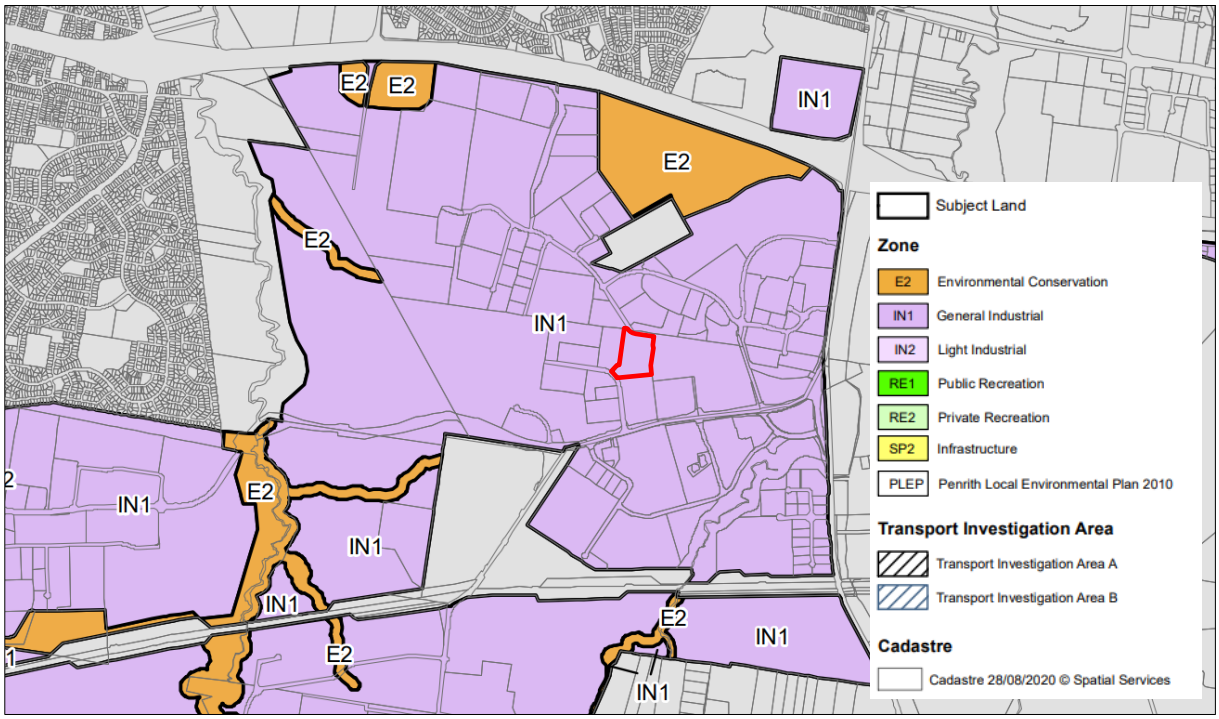

Figure 22 Land Zoning Map (Source: NSW Legislation, 2021)

The proposed development is for a warehouse and distribution centre, which is permissible with consent within the IN1 General Industrial zone.

The proposed warehouse and distribution facility and associated economic opportunities would support the viability of the WSEA, providing a consistent development that would generate employment opportunities for the growth area. The proposal is deemed consistent with the objectives of the IN1 zone.

4.3.12.2 Development Standards

The following section outlines the developments consistency and compliance with the relevant development standards and controls under SEPP WSEA.

TABLE 19: SEPP WSEA - DEVELOPMENT STANDARDS	
Clause	**Comment**
Development control plans	
Clause 18 – Requirement for development control plans	Not applicable – refer to Clause 19 below.
Clause 19 – Existing precinct plans under SEPP 59	Pursuant to Clause 19(1) of the SEPP WSEA, the consent authority may grant consent to development on any land to which the SEPP WSEA applies without a development control plan being prepared, if an existing precinct plan applied to the land immediately before the repeal of *State Environmental Planning Policy No 59—Central Western Sydney Regional Open Space and Residential* (SEPP 59). The *Eastern Creek Precinct Plan* is identified as an existing precinct plan, pursuant to Clause 19(3). Assessment against the *Eastern Creek Precinct Plan* is provided in **Section 4.5.3** of this EIS.
Principal development standards	
Clause 20 – Ecologically sustainable development	The proposed development has adopted a number of ecologically sustainable development measures. Further detail is provided in **Section 6.1.8** of this EIS.
Clause 21 – Height of buildings	No maximum building height is adopted under the SEPP WSEA. Pursuant to Clause 21, the proposed development has been designed to reflect the existing and intended built form of the Eastern Creek precinct. The proposed maximum building height is 23.5m, which is attributed to the requirements of the committed tenant for the facility and the sloping nature of the land. The subject site is not located within proximity of any residential receivers, and the proposed development would not dominate the existing or future streetscape of the area. The potential visual impacts of the proposed development are assessed in **Section 6.1.5** of this EIS.
Clause 22 – Rainwater harvesting	Rainwater harvesting is proposed for this development with re-use for non-potable applications. Internal uses include such applications as toilet flushing while external applications will be used for irrigation. The aim is to reduce the water demand for the development by 80%. Rainwater harvesting is further addressed within **Section 6.1.13** of this EIS.
Clause 23 – Development adjoining residential land	Not applicable – the subject site is not within 250 metres of land zoned primarily for residential purposes.
Clause 24 – Development involving subdivision	Not applicable – the proposed development does not involve subdivision.

TABLE 19: SEPP WSEA - DEVELOPMENT STANDARDS	
Clause	**Comment**
Clause 25 – Public utility infrastructure	A Service Infrastructure Assessment has been prepared by Land Partners, and forms **Appendix 28** of this EIS.
Clause 26 – Development on or in vicinity of proposed transport infrastructure routes	Old Wallgrove Road is mapped as a proposed transport infrastructure route on the Transport and Arterial Rod Infrastructure Plan Map. The proposal does not impact on the planned infrastructure route.
Clause 27 – Exceptions to development standards	Not applicable – the proposal does not seek to contravene any development standards.
Miscellaneous Provisions	
Clause 28 – Relevant acquisition authority	Not applicable – the subject site does not contain any areas for acquisition.
Clause 29 – Industrial Release Area—satisfactory arrangements for the provision of regional transport infrastructure and services	The subject site is identified within an Industrial Release Area (and not within a current special contributions area) pursuant to Clause 29 of SEPP WSEA, for which satisfactory arrangements with the relevant consent authority would be required for any future development of the subject site. It is understood that a Voluntary Planning Agreement (SVPA-2015-8249) has been entered into between Jacfin Pty Ltd and the Minister for Planning for the subject site and surrounding land, within which satisfactory arrangements for the provision of regional transport infrastructure and services have been addressed. Monetary contribution for Lot 1 was paid on 29 January 2021. A Satisfactory Arrangements Certificate (SAC) has been obtained and included within **Appendix 32** of this EIS.
Clause 30 – Controls relating to miscellaneous permissible uses	Not applicable to the proposed development.
Clause 31 – Design principles	The proposed development has been architecturally designed, to ensure a high quality built form of varying materials and finishes. Further, extensive landscaping has again been tastefully designed by Habit8, to integrate and complement the built form. Overall, the scale and character of the proposed development is compatible with other employment-generating development in the precinct concerned. The design outcomes of the proposed development are presented further in **Section 6.1.3** of this EIS.
Clause 32 – Preservation of trees or vegetation	Not applicable – the subject site is clear of trees and vegetation.

TABLE 19: SEPP WSEA - DEVELOPMENT STANDARDS	
Clause	**Comment**
Clause 33 – Infrastructure development and use of existing buildings of the Crown	Not applicable to the proposed development.
Clause 33A – Development near zone boundaries	Not applicable to the proposed development.
Clause 33B – Development of land within or adjacent to transport investigation area	Not applicable – the subject site is not identified as "Transport Investigation Areas A and B" on the Land Zoning Map.
Clause 33C – Development within the Mamre Road Precinct	Not applicable – the subject site is not within the Mamre Road Precinct.
Clause 33D – Development in areas subject to aircraft noise	Not applicable – the subject site is not in either an ANEF contour of 20 or greater or an ANEC contour of 20 or greater.
Clause 33E – Airspace operations	Not applicable – the obstacle limitation surface (OLS) level at the subject is approximately 223m, therefore the proposed development would not penetrate the prescribed airspace (OLS).
Clause 33F – Development of land adjacent to Airport	Not applicable – the subject site is located approximately 20km from the Airport.
Clause 33G – Water recycling and conservation	Not applicable to the proposed development.
Clause 33H – Earthworks	Before granting development consent for earthworks, the consent authority must consider the following matters— *(a) the likely disruption of, or detrimental effect on, existing drainage patterns and soil stability in the locality,* *(b) the effect of the proposed development on the likely future use or redevelopment of the land,* *(c) the quality of the fill or the soil to be excavated, or both,* *(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,* *(e) the source of fill material and the destination of excavated material,* *(f) the likelihood of disturbing relics,* *(g) the proximity to and potential for adverse impacts on a waterway, drinking water catchment or environmentally sensitive area,* *(h) appropriate measures proposed to avoid, minimise or mitigate the impacts of the development,* *(i) the proximity to and potential for adverse impacts on a heritage item, an archaeological site, or a heritage conservation area,* *(j) the visual impact of earthworks as viewed from the waterways.*

TABLE 19: SEPP WSEA - DEVELOPMENT STANDARDS	
Clause	**Comment**
	These matters have been addressed in detail within **Section 6.1.12** of this EIS.
Clause 33I – Development on flood prone land	Not applicable – the subject site is not flood prone land.
Clause 33J – Heritage conservation	The subject site is not identified as comprising any heritage items or conservation areas. Aboriginal cultural heritage has been addressed and assessed as part the preceding DAs pertaining to the subject site and surrounding land. Reference should be made to **Section 2.2.2** and **Section 6.1.18** of this EIS for further detail. It is also noted that extensive earthworks have already been carried out across the subject site, therefore the likelihood of expected finds is considered low.
Clause 33K – Consent for clearing native vegetation	Not applicable – the subject site is clear of trees and vegetation.
Clause 33L – Stormwater, water quality and water sensitive design	Before granting development consent, the consent authority must take into consideration whether— *(a) water sensitive design principles are incorporated into the design of the development, and* *(b) riparian, stormwater and flooding measures are integrated, and* *(c) the stormwater management system includes all reasonable management actions to avoid adverse impacts on the land to which the development is to be carried out, adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and* *(d) if a potential adverse environmental impact cannot be feasibly avoided, the development minimises and mitigates the adverse impacts of stormwater runoff on adjoining properties, riparian land, native bushland, waterways, groundwater dependent ecosystems and groundwater systems, and* *(e) the development will have an adverse impact on—* *(i) the water quality or quantity in a waterway, including the water entering the waterway, and* *(ii) the natural flow regime, including groundwater flows to a waterway, and* *(iii) the aquatic environment and riparian land (including aquatic and riparian species, communities, populations and habitats), and* *(iv) the stability of the bed, banks and shore of a waterway, and* *(f) the development includes measures to retain, rehabilitate and restore riparian land.*

TABLE 19: SEPP WSEA - DEVELOPMENT STANDARDS	
Clause	**Comment**
	These matters have been addressed in detail within **Section 6.1.13** of this EIS.

4.4 STRATEGIC PLANNING CONTEXT

4.4.1 Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River

The *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River* (SEPP20) applies to the subject site, with an aim of protecting the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.

The following table provides an overview of the specific planning policies and recommended strategies of SEPP20.

TABLE 20: SEPP20 – SPECIFIC PLANNING POLICIES AND RECOMMENDED STRATEGIES	
Policy	**Comment**
Total catchment management is to be integrated with environmental planning for the catchment.	Refer to Civil Engineering Report, prepared by Costin Roe Consulting, included in **Appendix 21** of this EIS.
The environmental quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and (where necessary) remediation of existing uses.	Environmentally sensitive areas in the Hawkesbury-Nepean catchment are: the river, riparian land, escarpments and other scenic areas, conservation area subcatchments, national parks and nature reserves, wetlands, other significant floral and faunal habitats and corridors, and known and potential acid sulphate soils. The site is not considered an environmentally sensitive area.
Future development must not prejudice the achievement of the goals of use of the river for primary contact recreation (being recreational activities involving direct water contact, such as swimming) and aquatic ecosystem protection in the river system. If the quality of the receiving waters does not currently allow these uses, the current water quality must be maintained, or improved, so as not to jeopardise the achievement of the goals in the future. When water quality goals are set by the Government these are to be the goals to be achieved under this policy.	Refer to Civil Engineering Report, prepared by Costin Roe Consulting, included in **Appendix 21** of this EIS.
Aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface or groundwater in the catchment.	Refer to Civil Engineering Report, prepared by Costin Roe Consulting, included in **Appendix 21** of this EIS.

TABLE 20: SEPP20 – SPECIFIC PLANNING POLICIES AND RECOMMENDED STRATEGIES	
Policy	**Comment**
The importance of the river in contributing to the significance of items and places of cultural heritage significance should be recognised, and these items and places should be protected and sensitively managed and, if appropriate, enhanced.	Refer to Civil Engineering Report, prepared by Costin Roe Consulting, included in **Appendix 21** of this EIS.
Manage flora and fauna communities so that the diversity of species and genetics within the catchment is conserved and enhanced.	The subject site is clear of trees and vegetation. It has also seen extensive earthworks over recent years.
The scenic quality of the riverine corridor must be protected.	Not applicable to the subject site.
Agriculture must be planned and managed to minimise adverse environmental impacts and be protected from adverse impacts of other forms of development.	Not applicable to the subject site.
Rural residential development should not reduce agricultural sustainability, contribute to urban sprawl, or have adverse environmental impacts (particularly on the water cycle or on flora or fauna).	Not applicable to the subject site.
All potential adverse environmental impacts of urban development must be assessed and controlled.	Not applicable to the proposed development.
The value of the riverine corridor as a significant recreational and tourist asset must be protected.	Not applicable to the subject site.
Development should complement the vision, goal, key principles and action plan of the Metropolitan Strategy.	Not applicable to the subject site.

4.4.2 Greater Sydney Region Plan – A Metropolis of Three Cities

The *Greater Sydney Region Plan – A Metropolis of Three Cities* divides the Sydney Region into three (3) Cities, with a vision of growth until 2056. The Plan aims to anticipate the housing and employment needs of a growing and vastly changing population. The overall vision pursues an objective of transforming 'Greater Sydney' into a Metropolis of Three Cities, including:

- The Western Parkland City;
- The Central River City; and
- The Eastern Harbour City.

The division into three cities puts workers and the wider community closer to an array of characteristics such as, intensive jobs, 'city-scale' infrastructure and services, entertainment and cultural facilities. By managing and retaining industrial land close to city centres and transport, this will ensure critical and essential services are readily available to support local businesses and community members and residents. Once constructed and operational, the subject site would achieve economic growth and prosperity, as well as encourage employment-generating opportunities within an area zoned for such permissible purposes, that is considered relatively close in conjunction to residential communities, providing an ease of commute. The proposed

development across the site considers the employment-generating outcomes that can be achieved for the immediate and wider localities.

The proposed development also contributes to the four (4) standardised elements communicated across for all three (3) cities, including:

- Infrastructure and collaboration – the proposed development of the site for the purposes of a warehouse and distribution facility would facilitate the provision of services to support the wider locality and region;
- Liveability – the proposed development encourages employment-generating opportunities and economic prosperity, which has positive influences on the wider locality;
- Productivity – the proposed development is situated within the *Central City District Plan* (refer to **Section 4.4.3** below); and,
- Sustainability – the proposed development would not exhibit or emit any detrimental impacts to its wider ecological surroundings.

In summary, the subject site and proposed development contributes to the objectives set out in the *Greater Sydney Region Plan – A Metropolis of Three Cities* by promoting minor environmental impacts and the further promotion of technological advancements and employment-generating opportunities to the wider locality and community, positioned within the Blacktown LGA.

4.4.3 Central City District Plan

The subject site forms part of the Central City District, as identified in **Figure 23** below and is subject to the provisions of the *Central City District Plan*.

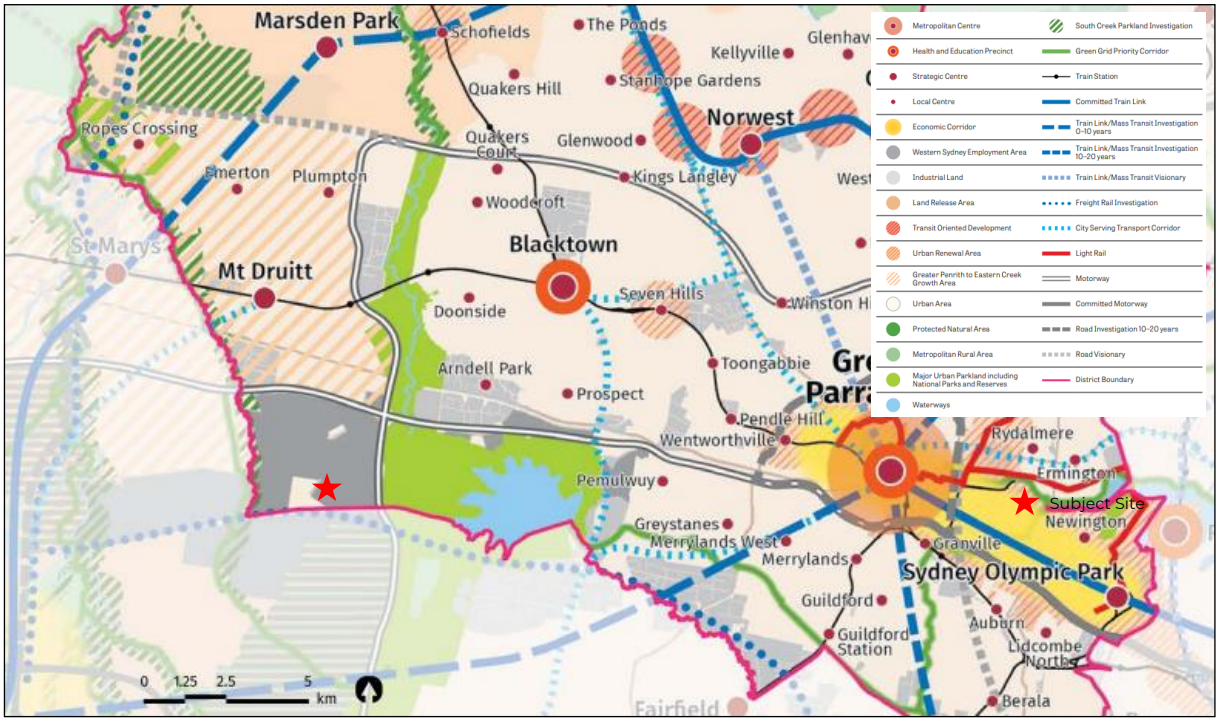

Figure 23 Central City District Plan Structure Plan (Source: GSC, 2020)

The strategic importance of the subject site, Eastern Creek and the WSEA to the regional and national economy is outlined in the *Central City District Plan*.

The *Central City District Plan* covers the Blacktown LGA. The District Plan seeks to encourage and establish goals set out in the abovementioned *Greater Sydney Region Plan – A Metropolis of Three Cities*. The District Plan is considered a 'bridge' between Regional and Local planning.

The subject site (including the proposed operations) would contribute to the objectives set out in the *Central City District Plan* by promoting a greater range of land uses of benefit to the community including the industrial zoned land and other commensurate land uses; facilitating the provision of greater and improved infrastructure; and, promoting additional employment-generating opportunities to the wider locality and community closer to home, whilst supporting an economically and environmentally sustainable operation.

The WSEA is identified as a strategic centre for employment by providing development including major warehousing, distribution, freight transport, industrial, high technology and research facilities. Outcomes supported by this proposal are consistent with the strategic direction of *A Metropolis of Three Cities* and the *Central City District Plan* and WSEA.

The need for warehouses was given a burning platform by changes to business as usual catalysed by COVID-19. The NSW DPE recognises warehousing and distribution as a type of development 'well-placed' to support short-term economic recovery from COVID-19. Warehouse and distribution centres were included as one infrastructure asset encouraging investment and job-generating development in NSW DPE's Productivity Acceleration Package. This relative importance is reflected in amendments to the SRD SEPP, which temporarily allows greater scope for warehouses and distribution centres to be assessed as SSD.

4.4.4 Western Sydney Employment Area

The subject site is located within 'Precinct 2 (Eastern Creek)' of the WSEA. The aims /objectives of the WSEA are summarised below, including:

- Promoting an economically sustainable development and reinforcing the status of an employment-generating development, that positively contributes to the WSEA;
- Encourages assurance for the coordinated planning and development of land within the WSEA;
- Ensures minimal environmental and amenity impacts – **PART F** of this EIS accurately considers potential environmental parameters which will be considered within the ensuing EIS for the proposed development; and
- Ensures development is compatible with surrounding development and the local context.

As outlined in **Section 4.3.12** of this EIS, the proposed development is considered to meet these objectives, as it enables development on land zoned for such permissible industrial-related uses.

4.4.5 Future Transport Strategy 2056

The Future Transport Strategy 2056 is a 40 year strategy, supported by plans for regional NSW and for Greater Sydney. The strategy and plans focus on the role of transport in delivering movement and place outcomes that support the character of the places and communities that are desired for the future.

The proposed development aligns with the strategies of Future Transport on the following basis:

- the site has access to regular public transport services;
- the site is accessible by active transport;
- parking provision is appropriate;
- access, servicing and internal layout will be provided in accordance with Australian Standards AS2890.1-2004 and AS2890.2-2018;
- the surrounding road network and intersections will be able to cater for the proposed development traffic.

4.5 LOCAL PLANNING CONTEXT

4.5.1 Blacktown Local Environmental Plan 2015

The Blacktown Local Environmental Plan 2015 (BLEP2015) is not applicable to the subject site, as the provisions of SEPP WSEA apply.

4.5.2 Blacktown Development Control Plan 2015

The *Blacktown Development Control Plan 2015* (BDCP2015) provides a non-statutory instrument to guide development in the Blacktown LGA. The BDCP2015 only applies to land covered by the BLEP2015, as such does not apply to the subject site.

4.5.3 Employment Lands Precinct Plan – Eastern Creek Precinct (Stage 3)

Eastern Creek Precinct Plan Stage 3 ('Precinct Plan') was prepared under *State Environmental Planning Policy No. 59 – Central Western Sydney Economic and Employment Area* (SEPP 59) and is the relevant policy document applying to the subject site.

The Precinct Plan contains a detailed description of the local and regional contexts, site characteristics, the economic context, services and infrastructure, biodiversity, heritage and traffic and transport as well as requirements and controls for stormwater management, extraction and rehabilitation, environmental management, urban design, open space and landscaping.

4.5.3.1 Stormwater

The Stormwater Management Plan for the Precinct Plan identifies a drainage basin/wetland within the vicinity of the subject site, refer to **Figure 24** below. The indicative drainage basin/wetland aligns with the constructed regional basin, adjacent to the subject site.

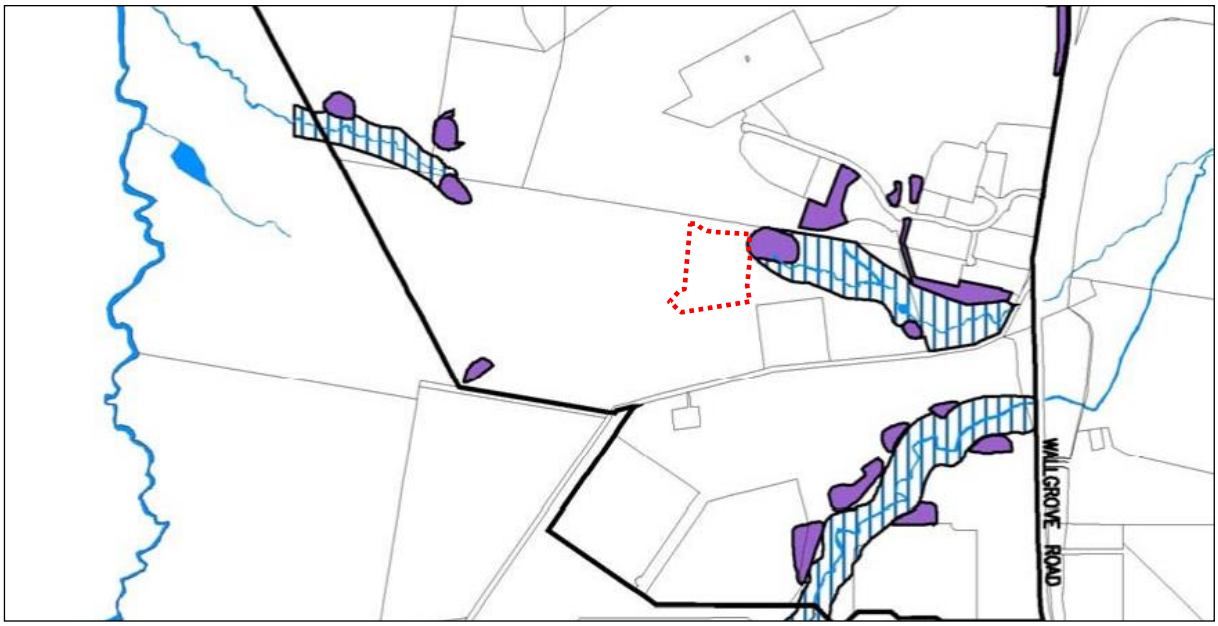

Figure 24 Precinct Stormwater Management Plan (Source: Blacktown City Council, 2005)

4.5.3.2 Environmental Management

The proposed development seeks to ensure promotion of water cycle management, energy efficiency, waste minimisation, contamination, salinity, air quality, noise and vibration.

Ecologically sustainable development:

ESD principles seek to establish best practice in terms of maintaining and nurturing our environment for today and the future. The proposed development incorporates the following ESD initiatives to minimise the consumption of energy from non-renewable sources to preserve the environment and reduce greenhouse gas emissions.

The provision of ESD is addressed within **Section 6.1.8** of this EIS.

Water conservation:

The proposed development adopts the principles of integrated water cycle management, including minimising total water usage, minimising waste water requiring treatment and disposal, minimising stormwater impacts on the environment, and maximising water retention and reuse.

The provision of integrated water cycle management is addressed within **Section 6.1.13** of this EIS.

Waste:

A Waste Management Plan (WMP) has been prepared by WSP and contained with **Appendix 24** of this EIS, based on the BDCP2015 (Section G, Site Waste Management and Minimisation) and current best practice waste management methodology and technologies commonly available in Australia.

Reference should be made to **Section 6.1.17** of this EIS.

Contamination:

The subject site has previously been used for agricultural/grazing purposes, which is one of the activities listed in Table 1 of SEPP 55 guidelines. However, the future commercial/industrial land use of the site will be less sensitive than the former agricultural land use for the site. As such, a detailed site investigation is not required.

Notwithstanding, intrusive investigations confirm that analytes assessed were either below the laboratory reporting limit or the adopted site criteria, including below the ecological investigation/screening levels.

The subject site not contaminated and has been deemed suitable for the proposed use.

Soil salinity:

The project is not expected to cause significant changes to groundwater levels and is therefore not expected to worsen known or potential salinity affected areas. Salinity management strategies are described in **Section 6.1.12** of this EIS.

Noise and vibration:

A Noise and Vibration Impact Assessment (NVIA) Report has been prepared by RWDI, which forms **Appendix 17** of this EIS.

Given the distance and the proximity of major roadways, operational noise from the proposed facility will be inaudible above the prevailing ambient noise at all surrounding residential receivers. Operational noise emissions to surrounding industrial sites will achieve the amenity level recommended under the *NSW Noise Policy for Industry* (NPfI).

4.5.3.3 Biodiversity

The Biodiversity Conservation Areas map for the Precinct Plan identifies a riparian corridor within the vicinity of the subject site, refer to **Figure 25**. As demonstrated in **Figure 18**, extensive works have been carried out at the subject site in recent years, with it now being clear of trees and vegetation.

Given the disturbed nature of the subject site, no further consideration on this matter is required.

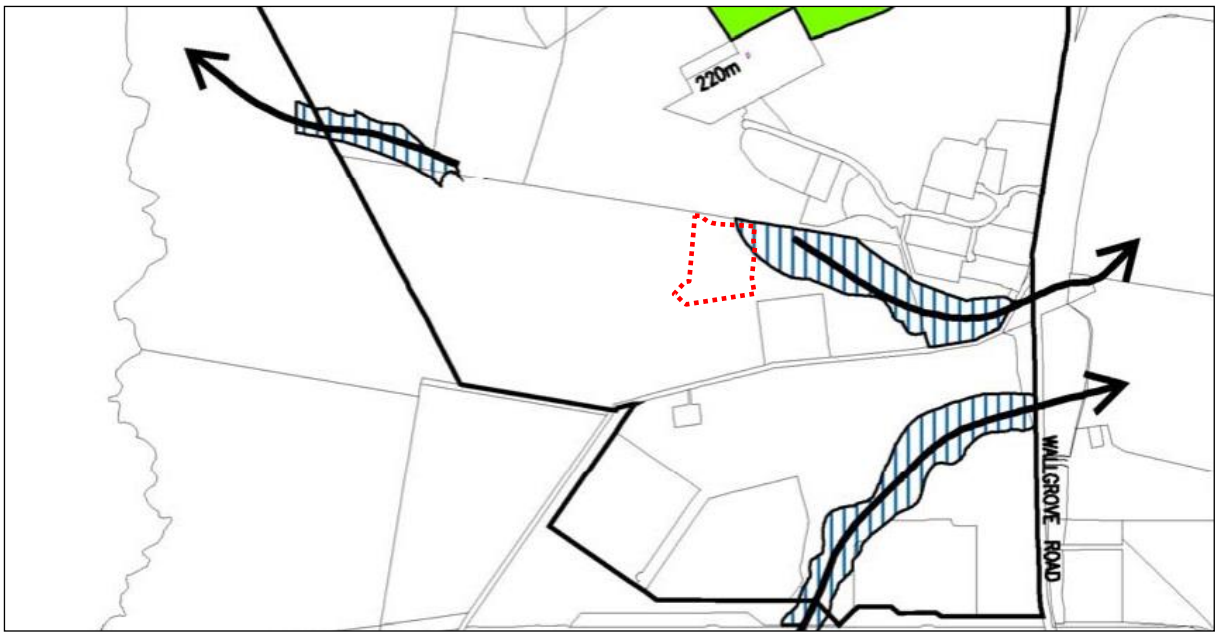

Figure 25 Biodiversity Conservation Area (Source: Blacktown City Council, 2005)

4.5.3.4 Heritage

The Precinct Plan identifies the subject site as containing existing indigenous heritage values, of low sensitivity, which appear to align with the pre-existing dam and watercourse.

KNC has previously completed comprehensive Aboriginal archaeological and cultural heritage assessments for the developer, Jacfin. This has included a full consultation process with registered Aboriginal stakeholders. The proposal site (current subject site) falls within the existing Aboriginal archaeological assessment area for the Jacfin development site, and makes up part of the Stage 2 Basin area and existing AHIP area (refer **Figure 26**).

The following documents have previously been prepared for the area:

- KNC, 2017. Jacfin Eastern Creek Development Site – Stage 2 Basin, Eastern Creek, NSW Aboriginal Cultural Heritage Assessment Report. Report prepared for Calibre Consulting (NSW) Pty Ltd on behalf of Jacfin Pty Ltd.
- KNC, 2017. Jacfin Eastern Creek Development Site – Lots 20 and 21 DP 1206129, Eastern Creek: Aboriginal Archaeological Assessment. Report prepared for Calibre Consulting (NSW) Pty Ltd on behalf of Jacfin Pty Ltd.

No archaeological sites containing Aboriginal objects were identified within the proposal site during these assessments.

Figure 26 Existing AHIP area and Jacfin development area (Source: KNC, 2021)

Reference should be made to **Section 6.1.18** of this EIS, which provides further assessment against the SEARs.

4.5.3.5 Traffic and Transport

The proposed development has been designed to promote active transport, whilst still providing sufficient facilities for staff and visitors who may choose to drive to the subject site. **TABLE 21** provides an overview of parking requirements and provision for the proposed development.

TABLE 21: PARKING PROVISION		
Aspect of Development	**Parking Rate**	**Required**
Industrial land use		
Warehouse (21,850m^2 GFA)	Buildings 7,500m^2 or less – 1 space per 100m^2 GFA	7,500m^2 GFA = 75 spaces
	Building greater than 7,500m^2 GFA – 1 space per 200m^2 GFA only for the area in excess of 7,500m^2	14,350m^2 GFA = 72 spaces
Ancillary office land use		
Office (1,750m^2 GFA)	1 space per 40m^2 GFA	1,750m^2 GFA = 44 spaces
	Total required	191 spaces
	Total provided	184 spaces

It is noted that developments of more than 50 car parking spaces must provide at least 2% or part thereof of those spaces for disabled drivers, clearly marked and signposted for this purpose. In line with this requirement, the proposed development attributes 4 spaces to people with disabilities, which equates to 2.1% of the total parking provided.

With reference to the table above, the current development scheme would require 191 car parking spaces based on the controls of the Eastern Creek Precinct Plan. The proposal offers 184 car parking spaces, which results in a technical deficit of just 7 car parking spaces when considered against Council's controls.

Nevertheless, the parking provision is considered acceptable on the basis of the analysis.

RMS Guide and Broader Wester Sydney Rates:

RMS Guide rates have been established having regard for actual parking surveys for numerous industrial sites, to arrive at a realistic parking rate which would be expected to represent such development. In this regard, the RMS Guide recommends the following rates for warehouse developments:

- 1 space per 300m^2 GFA for warehouse GFA.

Based on the RMS Guide rates, the total car parking requirement is 117 spaces.

The proposed parking provision is greater than the number of parking spaces required by the RMS Guide, by 67 car parking spaces.

It is worth noting that parking rates consistent with the RMS Guide have been adopted for the Mamre Road Precinct (MRP) as part of the MRP Development Control Plan (DCP). The MRP forms one the Western Sydney Aerotropolis initial precincts and is covered by the controls of the SEPP WSEA; the MRP DCP was finalised on 19 November 2021. The MRP provides an example of current practice with regard to parking in the WSEA, with the adopted rates more accurately reflecting a shift to more

automation in industrial warehouses. Further, it recognises that restrictive measures to car parking can assist in the shift to more sustainable travel.

While the proposed parking provision is greater than the requirements of the RMS Guide, this comparison against the RMS Guide suggests that a deficit of 7 spaces against Council's controls is entirely acceptable.

First Principles Assessment:

In addition to the above, a first principles assessment has been carried out based on the tenant requirements and their commitment to a long term lease of the site.

This includes consideration of the staffing requirements against the proposed parking provisions.

The following information and assumptions have been adopted in the following first principles parking assessment:

- A maximum of 166 staff (136 warehouse, 30 office) will be working on-site at any one time.
- On the basis of 2016 Journey to Work (JTW) data, it is anticipated that 90% of employees will drive to site.

Based on the above, this parking requirement is 150 spaces, beyond which the provision of 184 spaces exceeds the requirements of the tenant by 34 spaces.

4.5.3.6 Urban Design

The proposed development has been designed to ensure an appropriate scale, relative to the site area and surrounding developments, providing sufficient areas for parking, landscaping and manoeuvring. The proposal has been designed to offer a clear distinction between office and warehouse areas, with the office areas being suitably located and articulated to present as the forefront of each respective tenancy.

The built form of the proposed development responds to the likely operational requirements of the end-user and any future users of the subject site. With its overall site configuration and a well resolved architecture, the proposed development can create a high-quality outcome, representative of the intent for the area. The proposed development also offers highly distinguished entrances via Eastern Creek Drive, with the proposed truck entry and car entry/exit separated by complementary landscaping.

Building heights and design:

It understood that Council encourages high aesthetic standards for buildings, through the consideration of variations in fascia treatments, facade treatments, rooflines and section of building materials to achieve an attractive design.

Such standards have been met, as described in **Section 6.1.4** of this EIS.

Siting and setbacks:

TABLE 22 provides an overview of setback requirements and provision for the proposed development.

Reference should be made to **Section 6.1.4** of this EIS for further discussion around the suitability of the built form and design of the proposed development.

TABLE 22: SETBACK CONTROLS		
Setback	**Required**	**Proposed**
Front property boundary	10m of the front property boundary with an industrial collector road	Hardstand: ▪ 10m to Eastern Creek Drive Building: ▪ 45m to Eastern Creek Drive
Side and rear boundaries	3m of side and rear boundaries for any building and 2m for any hardstand area	Hardstand: ▪ 2.25m to the western boundary ▪ 2.0m – 3.0m to the eastern boundary ▪ 0.9m to the southern boundary ▪ 4.2m to 10m to the northern boundary Building: ▪ 0.6m to the western boundary (super awning structure) ▪ 7.8m to the eastern boundary ▪ 19.4m to the southern boundary ▪ 10.0m to the northern boundary
Site coverage	The site coverage of the footprint of all buildings and canopy areas (excluding hardstand areas) to the area of the allotment on which it is to be situated shall not exceed 65% of the site area.	59.5%

Cut and fill:

Bulk earthworks are proposed, as described in **Section 3.3.1** of this EIS, which have been designed in accordance with Council requirements.

Fencing:

The proposed development has incorporated boundary fencing, as shown on the Architectural Plans including within **Appendix 4** of this EIS. The proposed boundary fencing is palisade fencing of 2.1m in height.

Private open space:

The provision of accessible, well located communal private open areas within the proposed development site, for the use and enjoyment of all employees and visitors, has been provided to promote progressive workplace environments.

4.5.3.7 Landscaping

The proposed development provides landscaping that promotes both an attractive and sustainable setting for the development, commensurate with the surrounding context of the subject site. A Landscape Concept Plan has been prepared by Habit8 and contained with **Appendix 13** of this EIS.

Landscaping works are further described in **Section 6.1.7** of this EIS.

PART E CONSULTATION

An application to receive Industry-specific SEARs was submitted to NSW DPE, with the SEARs (reference: SSD-30923027) subsequently issued on 8 November 2021.

A copy of the issued SEARs is included in **Appendix 1**.

As required by item 25, project specific consultation was required with the following stakeholders:

- the relevant Department assessment team;
- the relevant local Councils;
- any relevant agencies;
- the community; and
- if the development would have required an approval or authorisation under another Act but for the application of s4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s4.42 of the EP&A Act, the agency relevant to that approval or authorisation.

A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development. This has included numerous meetings and notification letters to both agencies and all potentially-impacted stakeholders.

A comprehensive Community and Stakeholder Participation Strategy (located in **Appendix 30** of this EIS) has been prepared by HillPDA, in support of this SSD Application, offering a summary and analysis of all community and stakeholder consultations, distilling into themes, and those items identified in the consultation process, as significant.

This information is articulated within **Section 6.1.25** of this EIS, demonstrating that genuine consultation has already taken place with stakeholders, seeking feedback on the proposed development.

PART F ENVIRONMENTAL RISK ASSESSMENT

6.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The SEARs (reference: SSD-30923027), issued by the NSW DPE on 8 November 2021, identify the following Key Issues:

1. Statutory Context
2. Capital Investment Value and Employment
3. Design Quality
4. Built Form and Urban Design
5. Visual Impact
6. Traffic, Transport and Accessibility
7. Trees and Landscaping
8. Ecologically Sustainable Development (ESD)
9. Biodiversity
10. Air Quality
11. Noise and Vibration
12. Ground and Water Conditions
13. Stormwater and Wastewater
14. Flooding Risk
15. Hazards and Risks
16. Contamination and Remediation
17. Waste Management
18. Aboriginal Cultural Heritage
19. Environmental Heritage
20. Social Impact
21. Infrastructure Requirements and Utilities
22. Bush Fire Risk
23. Construction, Operation and Staging
24. Contributions and Public Benefit
25. Engagement

The abovementioned matter(s), and other necessary matters, are addressed in the following section(s).

6.1.1 Statutory Context

This section of the EIS evaluates the statutory and strategic context of the proposed development, in relation to the SEARs and addresses its specific matters.

In response to item 1 Statutory Context of the SEARs, **TABLE 23** specifies the location of each assessment of the relevant statutory and strategic documents.

TABLE 23: STATUTORY CONTEXT REVIEW	
Document	**Response / Location of Assessment**
Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.	Refer to **PART D** of this EIS.
Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.	Refer to **Section 4.3.12** of this EIS.
If the development is only partly State significant development (SSD) under clause 8(1) of the State and	**N/A** – the proposal is wholly SSD.

TABLE 23: STATUTORY CONTEXT REVIEW	
Document	**Response / Location of Assessment**
Regional Development SEPP, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD.	
Address the requirements of any approvals applying to the site, including any concept approval or recommendation from any Gateway determination.	Refer to **Section 2.2** of this EIS.

6.1.2 Capital Investment Value and Employment

As required by item 2 Capital Investment Value and Employment of the SEARs, details of CIV and employment numbers associated with the proposal have been calculated.

Reference should be made to **Section 1.5** and **Section 1.6** of this EIS.

6.1.3 Design Quality

This section of the EIS evaluates the design quality of the proposed development, as required by item 3 of the SEARs.

Itis noted that there is no requirement for design excellence or review by the State Design Review Panel (SDRP) for the proposed development. As such, the only remaining matter to address for this item is how the development will achieve good design in accordance with the seven (7) objectives for good design in *Better Placed*.

1. Better Fit

Sitting within an IN1 General Industrial zone, the proposed development is heavily informed by its local character by taking design cues from other buildings of similar bulk and scale. From Eastern Creek Drive, the building is narrowly framed by the newly built Jaycar warehouse to the west and an approved Data Centre, currently under construction, to the south. As part of the same estate, the proposed building elements intend to complement each other and create a holistic character to a growing industrial precinct.

The 'fit' of the proposal is further articulated through the visual analysis provided within **Section 6.1.5** of this EIS.

2. Better Performance

The proposed development employs a series of ESD initiatives, as described within **Section 6.1.8** of this EIS. To ensure increased performance, the proposal features:

- 2,915m^2 of landscaped area, including a variety of native endemic species, to otherwise vacant site;
- Roughly 33% of the warehouse roof area includes provision for solar panels to assist with the provision of green energy;
- A 150kL rainwater tank to enable the reuse of stormwater for non-drinking uses, such as toilet flushing, water heating systems and irrigation.

3. Better for Community

The proposal seeks to assist the ongoing trajectory of Western Sydney as an employment business district, offering more jobs closer to where people live. The proposed development is expected to provide approximately 480 during its construction and approximately 438 ongoing jobs through its operation. With its close proximity to the major M7 / M4 interchange, the subject site is easily accessible via road or local public transport. The proposal also includes bicycle parking and end of trip facilities to promote active transport.

4. Better for People

With input from Ason Group, the proposed site layout provides safe access for pedestrians, cars and trucks, each with their own separate access from Eastern Creek Drive.

The ancillary office spaces feature an abundance of external glazing, providing amply amounts of natural light and promoting wellbeing of site users. In addition, the proposal offers >150m^2 of shaded outdoor recreation facilities for staff to use whilst working on site.

The proposal also addresses all area of DDA compliance by proving appropriate access and amenity, as per AS 1428.1.

5. Better Working

The proposed building works efficiently to its intended use as a temperature-controlled facility, by separating loading, staging and storage operations for the warehouse. Whilst the proposed warehouse and distribution centre has a committed tenant and is being designed as fit-for-purpose, the facility still allows for flexibility in the future.

One-way heavy vehicle traffic has been designed to allow for efficiencies of loading and dispatch movements from the site. The layout also ensures that the future extension of Honeycomb Drive is not impacted, and the proposed design allows for potential connection to the extended road in the future, while still functioning reliably in its current design.

6. Better Value

The proposal provides ample opportunity for employment and business growth in the WSEA. It provides added value to an otherwise vacant property, but productively using the land for its intended industrial purpose and reintroducing native endemic species.

Longer term, the proposal is expected to not only provide a return on investment, but continue to contribute to the needs of a growing population.

7. Better Look and Feel

Visually, the proposal generates interest through a series of PIR cladding panels, with prominent facades featuring the 'Charter Hall blue' stripe. The materiality of the warehouse creates a dialogue with landscaped streetscapes to soften the sharpness of the built form.

The 'look and feel' of the proposal is further articulated through the visual analysis provided within **Section 6.1.5** of this EIS.

6.1.4 Built Form and Urban Design

This section of the EIS provides further details relating to the proposed built form and urban design, as requested by item 4 of the SEARs, addressing the following specific matters:

- Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.

- Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.
- Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, materials, finishes, colours, any signage and integration of services.
- Assess how the development complies with the relevant accessibility requirements.

6.1.4.1 Site Context Analysis

The subject site is located within the WSEA and is approximately 50km west of Sydney CBD. In total the site consists of approximately 4.8ha of land and is irregularly shaped. The subject site is located within Blacktown LGA and is zoned IN1 General Industrial. The site as a frontage of approximately 48m along Eastern Creek Drive to the south west, and is roughly 240m - 300m wide. The subject site also adjoins the future extensions of Honeycomb Drive extension currently under assessment by Council as part of **DA-20-01689**.

Via Old Wallgrove Road, the site is also connected to the Westlink M7 corridor and Western Motorway M4 interchange. Public transport is serviced by various bus stops along Old Wallgrove Rd, connecting the site to the neighbouring suburbs of Mount Druitt, Rooty Hill, St Marys and Wetherill Park.

The surrounding area is of an industrial nature, with majority of buildings conducting operations relating to freight transport services, as well as warehouse supply and distribution.

The intended use and design continue to provide a high quality general industrial, light industrial; warehouse and distribution and ancillary office land uses which complements the surrounding industrial context of Eastern Creek.

6.1.4.2 Built Form Response

The setbacks along Eastern Creek Drive and Honeycomb Drive integrate dense plants of native endemic species to create a natural setting of varying height and depth; refer to **Section 1.1.1** of this EIS.

Along the southern boundary, an 800mm landscape setback is provided with 2m wide landscape bays provided at every 25m interval along the carpark. An existing 14m wide drainage easement and the neighbouring 6m high retaining wall along this boundary deems it inappropriate to have extensive amounts of landscaping due to potential infrastructure damage. From a visual impact point of view, the 6m height already minimises the perceived bulk of the proposed development from the neighbouring property, and heavily landscaping this boundary would not add much value. Instead, significant amounts of landscape areas are proposed along frontages which can actually be seen from adjoining streetscapes and developments.

Car parking areas are setback from the street frontage, with a pedestrian footpath provided to the main office from Eastern Creek Drive to aid pedestrians navigate the site safely.

The proposed building has been provided with staff outdoor open space areas adjacent to the office facility, within landscaped green areas. Street front setbacks have been respected providing landscaped visual buffer zones along Eastern Creek Drive and the future Honeycomb Drive extension. The dense natural landscape proposed, screens the buildings facades along with the streetscape.

Building Heights/Bulk/ Scale:

The building height is 23.5m above ground level existing, with roof fall of 3^{O} from the ridge. This allows for high bay racking systems suitable for warehousing storage required by the tenant. The facility

includes HVAC units to be installed on the roof which sit at approximately 1.5m high and do not exceed the maximum proposed building height.

The proposed maximum building height is 23.5m, calculated in accordance with Standard Instrument definition, as follows:

> ***building height*** *(or height of building) means—*
> *(a) in relation to the height of a building in metres—the vertical distance from ground level (existing) to the highest point of the building, or*
> *(b) in relation to the RL of a building—the vertical distance from the Australian Height Datum to the highest point of the building,*
> *including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.*

The perceived bulk of the building is managed by the existing levels on the site as the building sits roughly 2m below the neighbour to the west. The short street frontages and increased building setbacks also allows for the building to sit comfortably amongst the surrounding buildings.

Building Setbacks:

Building setbacks follow or exceed the required setback along street frontages. Side and rear setbacks vary and allow for fire truck access around buildings as required by BCA requirement for large Isolated buildings and development control requirements for Developments in Industrial Areas.

Landscape setback/buffer zones are as follows:

- Eastern Creek Drive - 10m Landscape & Building Setback
- Honeycombe Drive - 10m Landscape & Building Setback

Access and Carparking:

Access for heavy vehicles to loading hardstand and waste collection areas are allocated away from street fronts. All carparking access and heavy vehicle access are separate from each other for safety and minimising the congestion of traffic flow across the estate. Council parking rates have been considered that the proposed car parking arrangement has been designed to meet the requirements of the end user.

Waste Location Area:

On-site waste areas are limited to hardstand areas. Ongoing waste management will be controlled by individual building users via private contractor.

No additional waste storage areas are included. The compactor units themselves are enclosed, however the area is not.

Water Reuse and Stormwater Management:

All buildings are provided with water recycling and reuse tanks.

Lighting:

Lighting is to be provided with a combination of light poles and building mounted lighting around the site for on-site security and safety. Lighting is to be positioned to shine inward onto the site to minimise the light spillage onto adjoining properties. The layout of the buildings and loading areas will ensure neighbouring properties will not be affected by light spill.

6.1.4.3 Building Design

The building shall comprise a 21.46m high warehouse structure, which affording to the sloping nature of the site, results in a maximum building height of 23.5m measured from 'ground level existing'. Basements are not proposed. The proposed building height is set to allow for high bay racking systems suitable for warehousing storage required by the tenant.

The perceived bulk of the building is managed by the existing levels on the site as the building sits roughly 2m below the neighbour to the west. The short street frontages and increased building setbacks also allows for the building to sit comfortably amongst the surrounding buildings.

The external building facade features a neutral grey palette along a series of PIR panels typically required for temperature-controlled facilities. The warehouse utilises alternating colours to visually break up the warehouse length facade components. The colours of the building alongside the adjacent soon-to-be constructed Data Centre to the south will be uniformed to create an identifiable consistency across the estate, with feature 'blue' panels used minimally to create interest. The built form materiality will be softened over time and the landscape matures within the setbacks and carparking areas. The nature of this treatment involves sing screening elements that integrate with above mentioned materials and the proposed landscape design to create a visual dialogue that is experienced by both the scale of the buildings and that of the pedestrian level. This neutral approach uses whites, greys and darker highlighting tones. The main office features a combination of precast concrete panels, prefinished perforated metal cladding with performance glazing in aluminium framing. All downpipes and services 'blend' into the building facade and talks to the architectural elements and palette across the building.

The proposed design scheme takes into account building design and storage, staging, site coverage, street setbacks, easements, overland flow paths, landscaping, building height and scale, colour palette, materials and finishes, visual façade treatments, signage and lighting.

The building is accessed via Eastern Creek Drive, with the intention of providing access to Honeycomb Drive via a crossover to the existing Honeycomb Drive cul-de-sac, to facilitate site exist for trucks. The proposal separates light and heavy vehicle movements, with a one-way thoroughfare for trucks to ensure increased safety.

The proposed building has minimal presence from Eastern Creek Drive and Honeycomb Drive. The hardstand location faces west towards the existing Jaycar facility, with a single level office addressing the Eastern Creek Drive frontage. The office is setback approximately 40m from Eastern Creek Drive, allowing for suitable landscape treatment to complement and screen the built form.

Industrial plant, storage and waste areas are suitably located away from the street frontages, providing a high-quality presentation to the streetscape.

The visual impact assessment contained in **Section 6.1.5** below further articulates, through visual aid, the response of the proposed development within the current site and surrounding context.

6.1.4.4 Accessibility

An Accessibility Report has been prepared by ABE Consulting, to inform the proposed development; refer to **Appendix 8** of this EIS. The Accessibility Report provides a review of the relevant project design documentation to determine the compliance status of the proposed development against Part D3, Clause E3.6 and Clause F2.4 'deemed-to-satisfy' (DtS) requirements of the BCA, *The Disability (Access to Premises - Buildings) Standards 2010* and related Australian Standards.

Following this review and with the adoption of the recommendations/Performance Solutions proposed, ABE Consulting can confirm that at the SSDA stage of design, the proposed development can readily achieve compliance with the provisions outlined in **Appendix 8** of this EIS.

6.1.5 Visual Impact

The section of the EIS evaluates the potential visual impact of the proposed development, as required by item 5 of the SEARs. The visual impact from the key receptors has been assessed with a key focus on visual receptors judged to have the highest sensitivity to the proposed development, being workers, motorists and pedestrians along the Old Wallgrove Road and Eastern Creek Drive.

Views at a variety of distances from the site have also been considered, however it is noted that the site is surrounded with existing commercial and industrial structures and is considered as IN1 in the current WSEA SEPP Land Zoning Map. It is expected that for the adjacent properties within these areas, the significance of the visual impact will be negligible/none.

6.1.5.1 Key Views – Receptor Locations

The symbols and numbering on the following map indicate the locations from viewpoints close to nearby sensitive receptors and significant vantage points within the surrounding public domain. The most visual sensitive receptors are those properties along Eastern Creek Drive. Photomontages from eye level have been generated to represent as closely as possible views from these receptor locations.

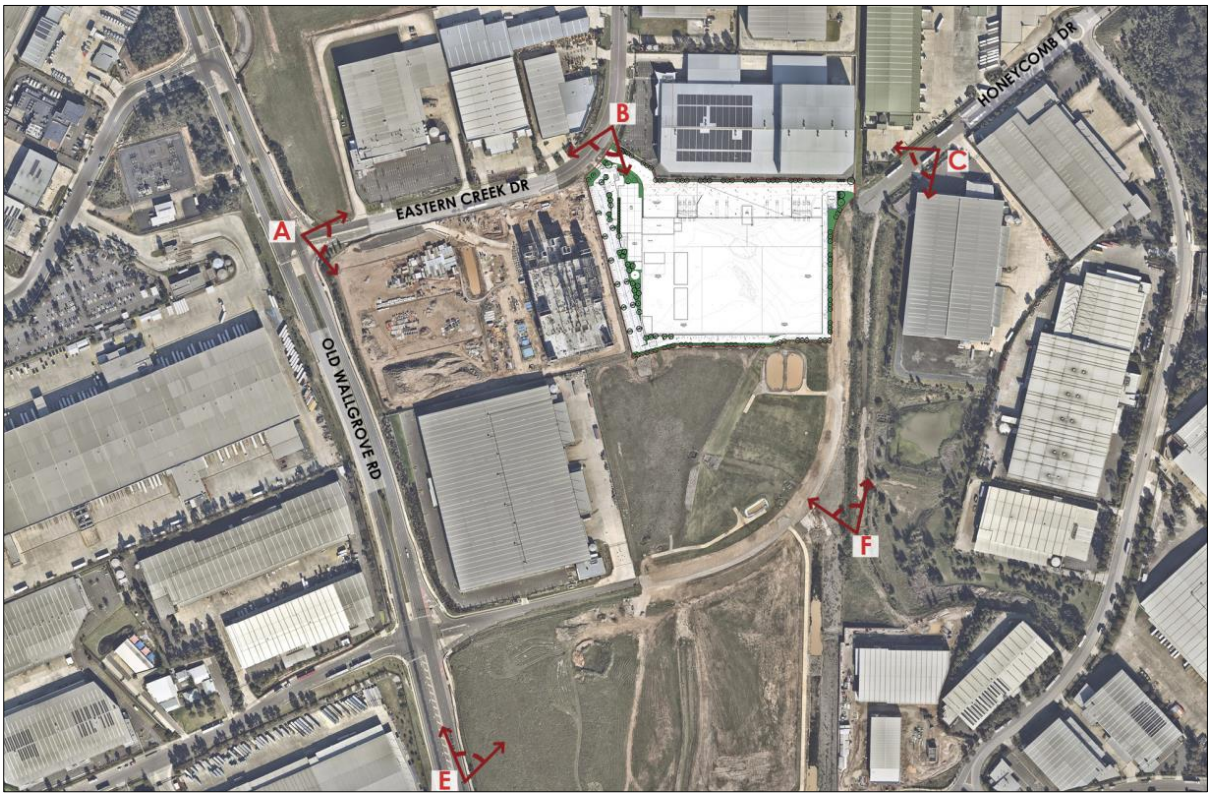

Figure 27 Visual Receptor Locations (Source: Habit8, 2022)

It has been established that the sensitivity of the landscape is low and the ability of the site to accept the proposal is judged to be appropriate. From the baseline study it is apparent that views close and across the development site are of greater importance than those views from the wider landscape, therefore the greatest impact would be most prominent from the properties across Eastern Creek Drive and Old Wallgrove Road.

The nearest residential properties to the site are around 1.6km (located at Minchinbury) and may catch glimpses over the development and horizon beyond, however it is considered too far away to experience any visual impact.

The design of the setbacks recognizes the need to provide significant mitigation to surrounding lots in the form of dense canopy tree planting together with a shrub and groundcover understory. This should help to soften the appearance of the development from the most highly sensitive receptors. It can be argued that the landscape will be enhanced by the introduction of new landscaping in setback areas that currently form a vacant site between newly built industrial warehouses. This landscape treatment is clear in the Habit8 Landscape Plans contained within **Appendix 13** of this EIS.

Photomontages of the development from Eastern Creek Drive and Old Wallgrove Road are assessed below, demonstrating views at approximately year 0 (at the time of planting) and Year 10 of the development age, where planting is expected to reach maturity and become most effective at screening the development.

6.1.5.2 Visual Impact Assessment

Viewpoint A:

Viewpoint A is taken from the corner of Old Walgrove Road and Eastern Creek Drive, looking north, approximately 313m from the subject site.

The proposed development will for a minor constituent of the view being partially visible or at sufficient distance to be a small component. Oblique views at medium or long range with a small horizontal/vertical extent of the view affected. The significance of the impact is predicted to be minor/negligible.

Figure 28 Viewpoint A – 10 year outcome (Source: Habit8, 2022)

Viewpoint B:

Viewpoint B is taken from Eastern Creek Drive, looking south-east, approximately 37m from the subject site.

The proposed development will be clearly noticeable, and the view would be fundamentally altered by its presence. Direct or oblique views at close range with changes over a noticeable horizontal and or/vertical extent. However, the significance of the impact is predicted to be moderate/minor.

Figure 29 Viewpoint B – 10 year outcome (Source: Habit8, 2022)

Viewpoint C:

Viewpoint C is taken from Honeycomb Drive, looking south-east, approximately 119m from the subject site.

Figure 30 Viewpoint C – 10 year outcome (Source: Habit8, 2022)

The proposed development will be clearly noticeable, and the view would be fundamentally altered by its presence. Direct or oblique views at close range with changes over a noticeable horizontal and or/vertical extent. However, the significance of the impact is predicted to be moderate/minor.

Viewpoint D:

Viewpoint D is taken from Old Walgrove Road, looking east, approximately 563m from the subject site.

The proposed development will for a minor constituent of the view being partially visible or at sufficient distance to be a small component. Oblique views at medium or long range with a small horizontal/vertical extent of the view affected. The significance of the impact is predicted to be minor/negligible.

Figure 31 Viewpoint D – 10 year outcome (Source: Habit8, 2022)

Viewpoint E:

Viewpoint E is taken from Old Walgrove Road, looking west, approximately 500m from the subject site.

The proposed development will for a minor constituent of the view being partially visible or at sufficient distance to be a small component. Oblique views at medium or long range with a small horizontal/vertical extent of the view affected. The significance of the impact is predicted to be minor/negligible.

Figure 32 Viewpoint E – 10 year outcome (Source: Habit8, 2022)

Viewpoint F:

Viewpoint F is taken from Lot 225 Wonderland Drive, looking west, approximately 223m from the subject site.

The proposed development will be clearly noticeable, and the view would be fundamentally altered by its presence. Direct or oblique views at close range with changes over a noticeable horizontal and or/vertical extent. The significance of the impact is predicted to be moderate/minor.

Figure 33 Viewpoint F – 10 year outcome (Source: Habit8, 2022)

Although not the main focus of the VIA, the value of the site itself has been assessed based on the character and context in which it is located. It has been concluded that the significance of the impact upon the landscape at this project development to be low. This is in part due to the surrounding industrial uses and industrial zoning designation in the WSEA SEPP.

Through the VIA it is concluded that the proposed development will cause a change in the view for a very small minority of properties. Road users, pedestrians, and cyclists have been identified as being impacted on a medium level. The horizon line and regional views are unaffected.

Views from adjacent industrial properties to the north east of the site shall have views to the proposed development but are to be mitigated with tall native canopy trees, screening shrubs and groundcovers are planted. Following maturity, these planted buffers will provide a dense screen to help to soften and screen the development.

The development proposes substantial landscape planting to offset the visual impact in the form of setbacks with dense tree and shrub planting. This will be most effective after 10 years for those receptors who experience direct views.

On average passing motorists, cyclists and pedestrians will also experience a high change in view. However, Eastern Creek Drive and Old Wallgrove Road are not on the major cycleway route and are not streets where walking is encouraged due to industrial truck movements and the lack of close by services and facilities.

As discussed within **Section 6.1.7** of this EIS, the development will be heavily landscaped in setbacks surrounding the site helping to soften and screen views for these users. Wider reaching views to the site from residential areas located in the greater landscape (around Minchinbury) and from Old

Wallgrove Road have also been considered, however the site is too far that makes viewing the site negligible from this receptor.

Based on the findings of the VIA, the proposed development is supportable from a visual impact perspective.

6.1.6 Traffic, Transport and Accessibility

Item 6 of the SEARS requires that a transport and accessibility impact assessment be provided, which includes:

- Details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes.
- An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections (using industry standard modelling).
- Plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network.
- Details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards.
- Swept path analysis for the largest vehicle requiring access to the development.
- Details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary.

In response, a Transport Assessment has been prepared by Ason Group, which forms **Appendix 10** of this EIS.

The abovementioned requirements are suitably addressed in the following subsections.

Overall, the proposal represents a less intensive development than previously considered by the strategic modelling assessment, which informed the current design of Old Wallgrove Road. A tenant specific first principles assessment has found that the subject site would generate 19 veh/h less than assumed by the GHD Report. Further to the comparisons of traffic generation, SIDRA intersection analysis has also been conducted of the key Old Wallgrove Road / Eastern Creek Drive intersection. The SIDRA analysis undertaken reveals the intersection will perform at a LOS A in the future assessment year of 2031, following the addition of development traffic. As such, it is concluded that the proposal will have no material impact on the future operation of the external road network.

6.1.6.1 Traffic Types and Volumes

Operational informational has been obtained by the facility tenant to inform the proposed design. As such, a more detailed assessment of the traffic generation has been undertaken for this component of the development.

The following information and assumptions for the operation of the proposal have been adopted in the first principles trip generation assessment. The following information has been provided by the tenant who currently operates a similar site and is based on their specific operational requirements:

- Warehouse hours: 24 hours, 7 days a week, with Ason Group's previous experience with industrial projects, it is expected that the first shift would start at 7:00am, with shift changeovers at 3:00pm and 11:00pm (i.e. 3 x 8 hour shifts every 24 hours).
- Office hours: 8:00am - 4:00pm (conservative assessment).

- On the basis of 2016 Journey to Work data, it is assumed 90% of employees will drive to site (with the other 10% travelling via other modes, i.e. walking/cycling/catching public transport/car-pooling).
- Warehouse staff: peak of 136 per shift.
  Noting the above shift times, it is expected that warehouse staff movement would be outside of road network peak hours.
- Office staff: 30.
  Noting that there are 30 office staff, and assuming a conservative assessment where all will travel to site during the morning peak hour and leave in the afternoon peak, then there would be 28 veh/h associated with the office component.
- The requirements for truck deliveries, on the basis of the information provided by the tenant, is detailed in **TABLE 12**.
- On the basis of **TABLE 12**, the vehicle movements associated with the warehouse delivery operation is 58 heavy vehicle movements per day (in and out movements); and 28 light vehicle movements (i.e. van movements).
  Assuming truck movements are spread over the course of a 24-hour day, there would be a maximum of 4 movements during the morning and afternoon peak hours.

Based on the above, the trip generation based on the prospective occupancy yields the following:

- AM Peak Hour 32 veh/hr; and
- PM Peak Hour 32 veh/hr.

On the basis of the first principles assessment, the traffic generation is anticipated to be less than that assumed by GHD, in their extensive traffic modelling and analysis undertaken as part of Old Wallgrove Road upgrades, by a total of 19 veh/hr in both peak periods.

6.1.6.2 Access Arrangements

Access to the subject site is proposed via three (3) driveways, two (2) of which will be provided on Eastern Creek Drive and one truck only egress on Honeycomb Drive. The proposal involves:

- For commercial (heavy) vehicles, an entry driveway would be provided on the south-west of the site along Eastern Creek Drive with an egress provided via Honeycomb Drive to the north.
- An entry/exit driveway for passenger vehicles to the south-west of the site along Eastern Creek Drive, for access to the car park.

The proposed access arrangements have been developed to achieve the following desirable outcomes:

- to permit entry to and exit from the site in a forward direction;
- to separate commercial (heavy) vehicle and passenger vehicle traffic; and
- to minimise pedestrian crossing distances at the driveways.

6.1.6.3 Traffic Impact Assessment

Noting that the proposal is entirely consistent with the assumptions which underpinned the now completed road network upgrades, it is already concluded that the development is acceptable from a traffic generation perspective.

Nevertheless, recognising that the road upgrades were completed in 2017, it is considered prudent to reassess the key intersection of Old Wallgrove Road / Eastern Creek Drive. For the purposes of this assessment, the following scenarios have been assessed:

- Baseline 2021;
- Baseline 2021 plus development;

- Baseline 2031;
- Baseline 2031 plus development

The future operation of the proposed signalised intersection of Old Wallgrove Road and Eastern Creek Drive has been assessed using the TfNSW approved SIDRA intersection model. The SIDRA model provides a number of outputs by which to measure the performance of an intersection, including:

- Average Vehicle Delay (AVD): AVD (or average delay per vehicle in seconds) for intersections is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection.
- Degree of Saturation (DOS): DOS is defined as the ratio of demand (arrival) flow to capacity.
- Level of Service (LOS): LOS is a comparative measure that provides an indication of the operating performance, based on AVD.

TABLE 24 provides the SIDRA recommended criteria for the assessment of intersections with reference to the RMS Guide.

TABLE 24: SIDRA LEVEL OF SERVICE CRITERIA

Level of Service	Average Delay per Vehicle (s)	Traffic Signals & Roundabout	Give Way & Stop Signs
A	Less than 15	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays	At capacity, requires other control mode
		Roundabouts require other control mode	
F	More than 70	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode or major treatment

Trip Distribution & Traffic Flows:

The proposal includes the following access strategy:

- Light vehicle access by way of Eastern Creek Drive; and
- Heavy vehicle ingress by way of Eastern Creek Drive and egress by Honeycomb Drive.

As such, the key intersection providing access to the Site of Old Wallgrove Road / Eastern Creek Drive, which would be subject to an additional:

- AM peak – 28 light vehicle entry movements, and 4 heavy vehicle entry movements; and
- PM – 28 light vehicle exit movements (noting the 4 movements consisting of vans and heavy vehicles will exit via Honeycomb Drive).

The Honeycomb Drive intersection will only be subject to 4 additional movements in the peak hour. As such, it is evident that the Proposal will not materially impact upon the performance of this intersection.

The trip distribution of these movements has been based on traffic surveys undertaken on Tuesday 16 November 2021. The existing traffic flows recorded by these surveys are detailed in **Figure 34**.

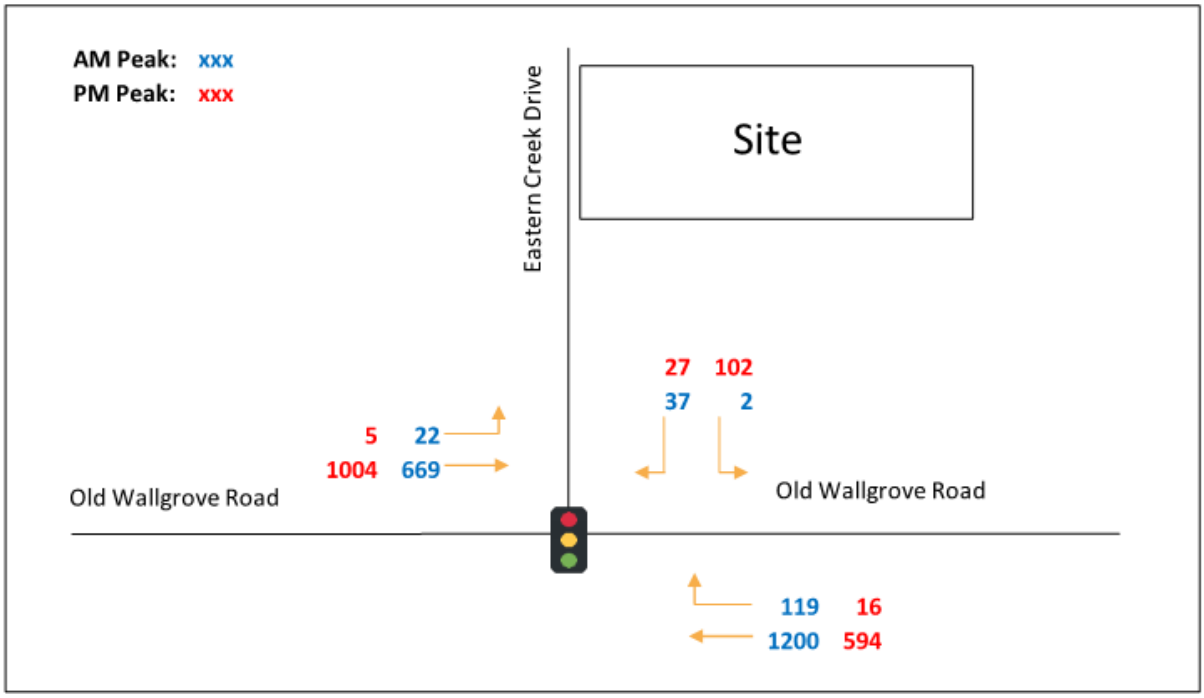

Figure 34 Existing Case (2021) Traffic Volumes (Source: Ason Group, 2021)

The existing case plus development traffic flows are presented in **Figure 35**.

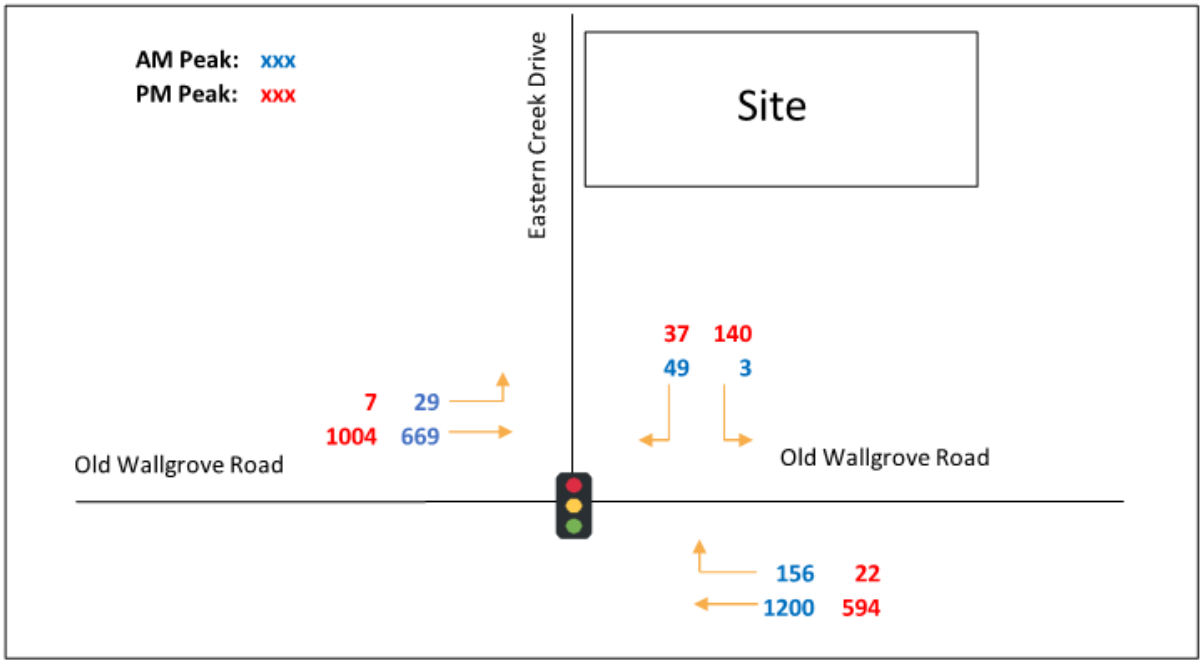

Figure 35 Existing Case (2021) + Development Traffic Volumes (Source: Ason Group, 2021)

To establish the 2031 baseline traffic flows, a growth rate of 2% was applied the 2021 surveyed flows, which is consistent with other strategic assessments completed within the area. The 2031 baseline flows are provided by **Figure 36**. The 2031 baseline plus development traffic flows are presented in **Figure 37**.

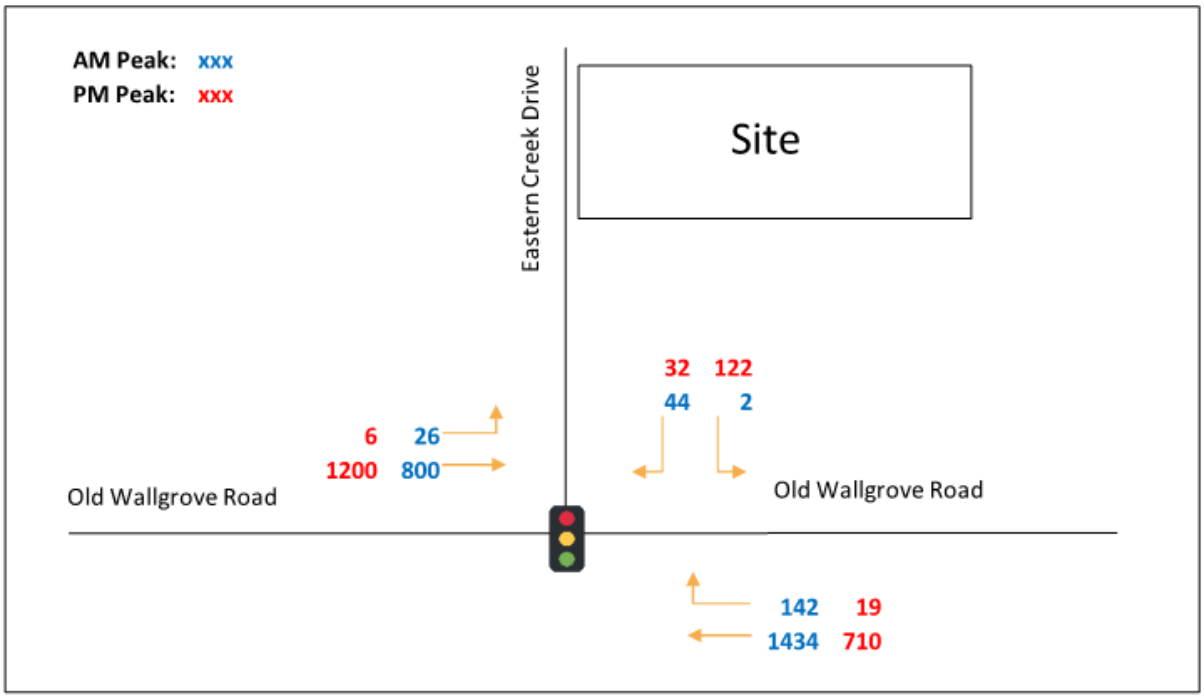

Figure 36 **Future Base (2031) Traffic Volumes (Source: Ason Group, 2021)**

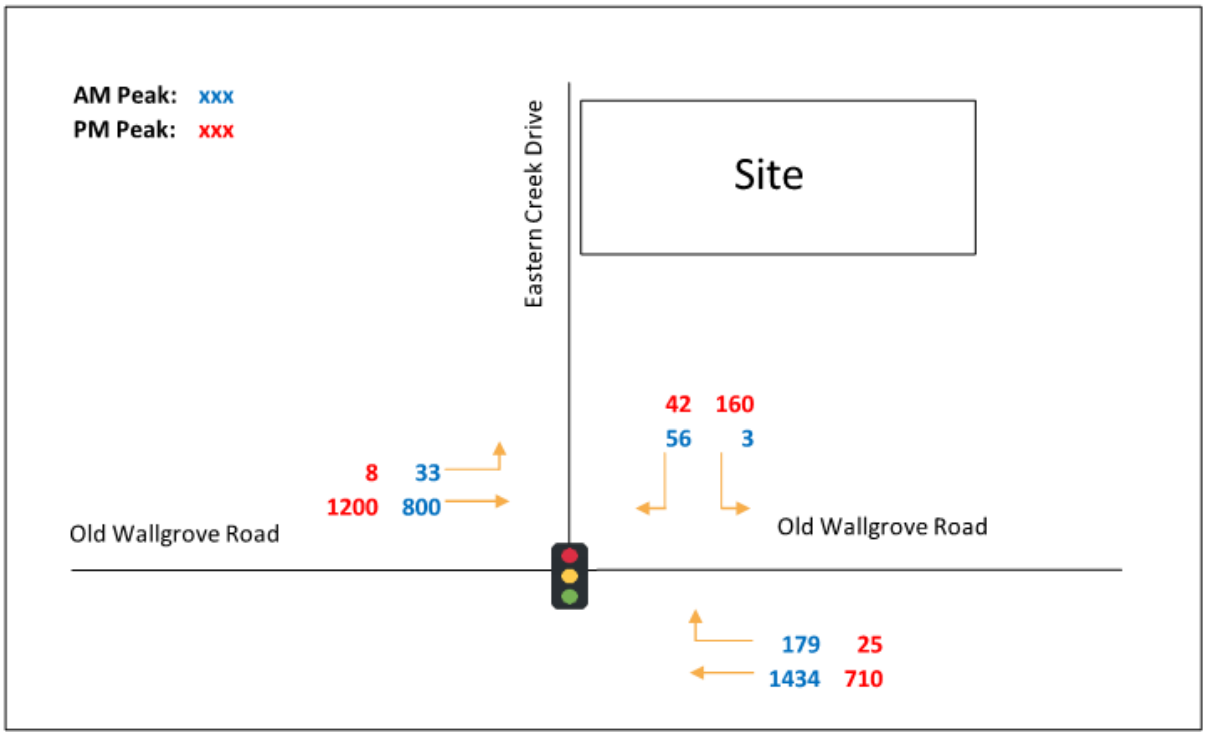

Figure 37 **Future Base + Development Traffic Volumes (Source: Ason Group, 2021)**

Intersection Performance:

TABLE 25 below provides a summary of the SIDRA results for the performance of the key intersection, with the relevant SIDRA outputs provided within the Transport Assessment of **Appendix 10**.

TABLE 25: INTERSECTION OPERATIONS					
Scenario	**Configuration**	**Period**	**DOS**	**AVD**	**LOS**
2021 Existing	Signals	AM	0.439	11.6	A

TABLE 25: INTERSECTION OPERATIONS					
Scenario	**Configuration**	**Period**	**DOS**	**AVD**	**LOS**
		PM	0.391	7.0	A
2021 Existing + Development Traffic	Signals	AM	0.439	13.6	A
		PM	0.394	8.0	A
2031 Base Case	Signals	AM	0.525	12.2	A
		PM	0.483	7.6	A
2031 Base Case + Development Traffic	Signals	AM	0.525	14.0	A
		PM	0.483	8.3	A

With reference to the above, the intersection is currently performing well under existing conditions and is expected to do so with the addition of development traffic. The intersection is also expected to maintain this performance in the future year assessed of 2031.

Further to the addition of the development traffic, the 2031 scenario maintains a consistent LOS A with an acceptable DOS throughout the assessed scenarios. As such, it is evident that the proposal will have a negligible impact on the future operation of the intersection and is acceptable from a traffic impact perspective.

6.1.6.4 Other Required Works/Upgrades

The proposal seeks to facilitate one-way circulation for heavy vehicles, with egress proposed to the cul-de-sac of Honeycomb Drive.

There are no road upgrades, new roads or road infrastructure works required to accommodate the proposal.

6.1.6.5 Construction Traffic Management

In addition, item 6 of the SEARs also requires that a CTMP be provided, detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.

Ason Group have prepared a CTMP, which forms **Appendix 11** of this EIS.

6.1.6.6 Site Configuration

The general site configuration is shown in **Figure 38** below.

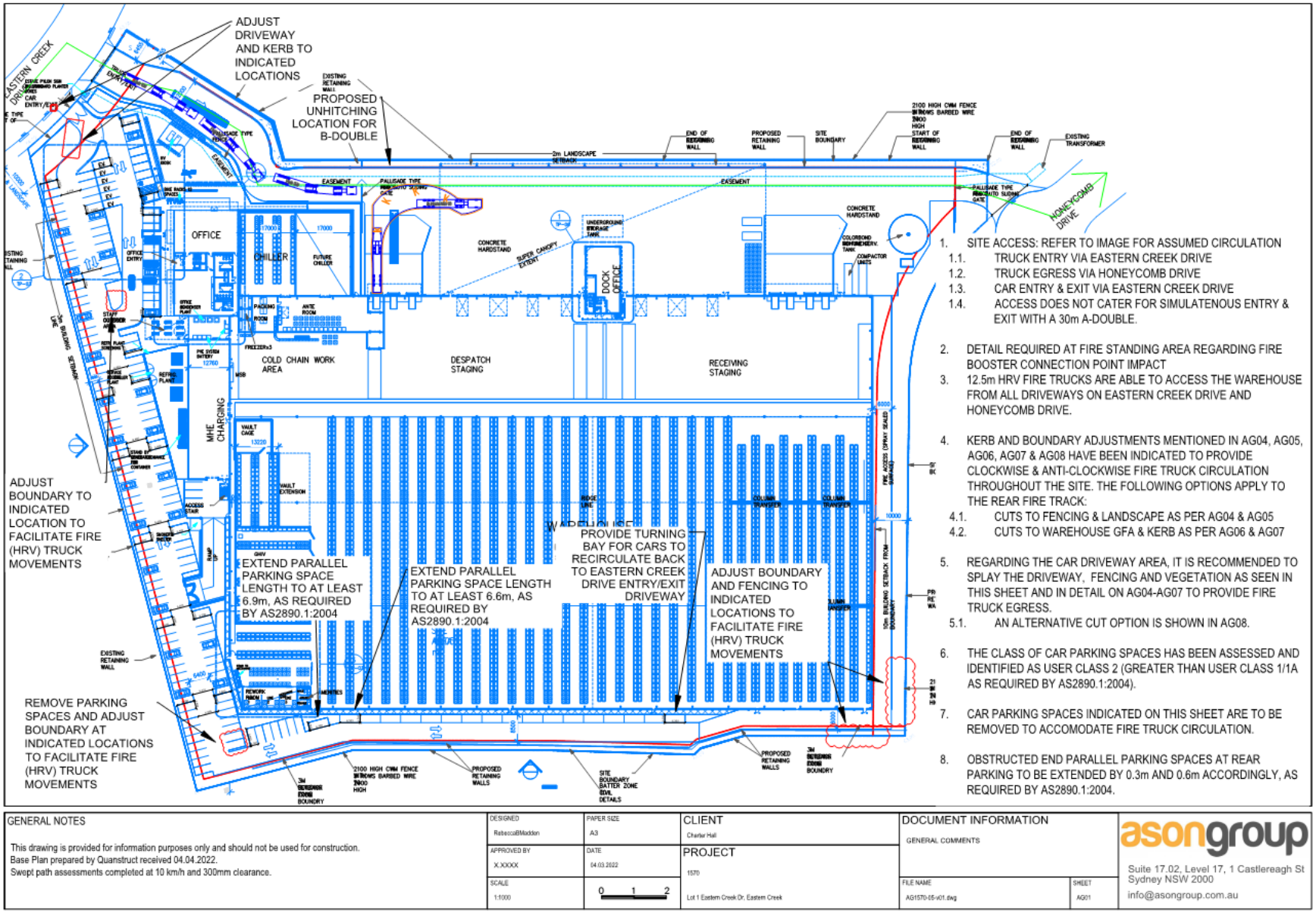

Figure 38 Site Design Commentary (Source: Ason Group, 2022)

6.1.6.7 Swept Path Analysis

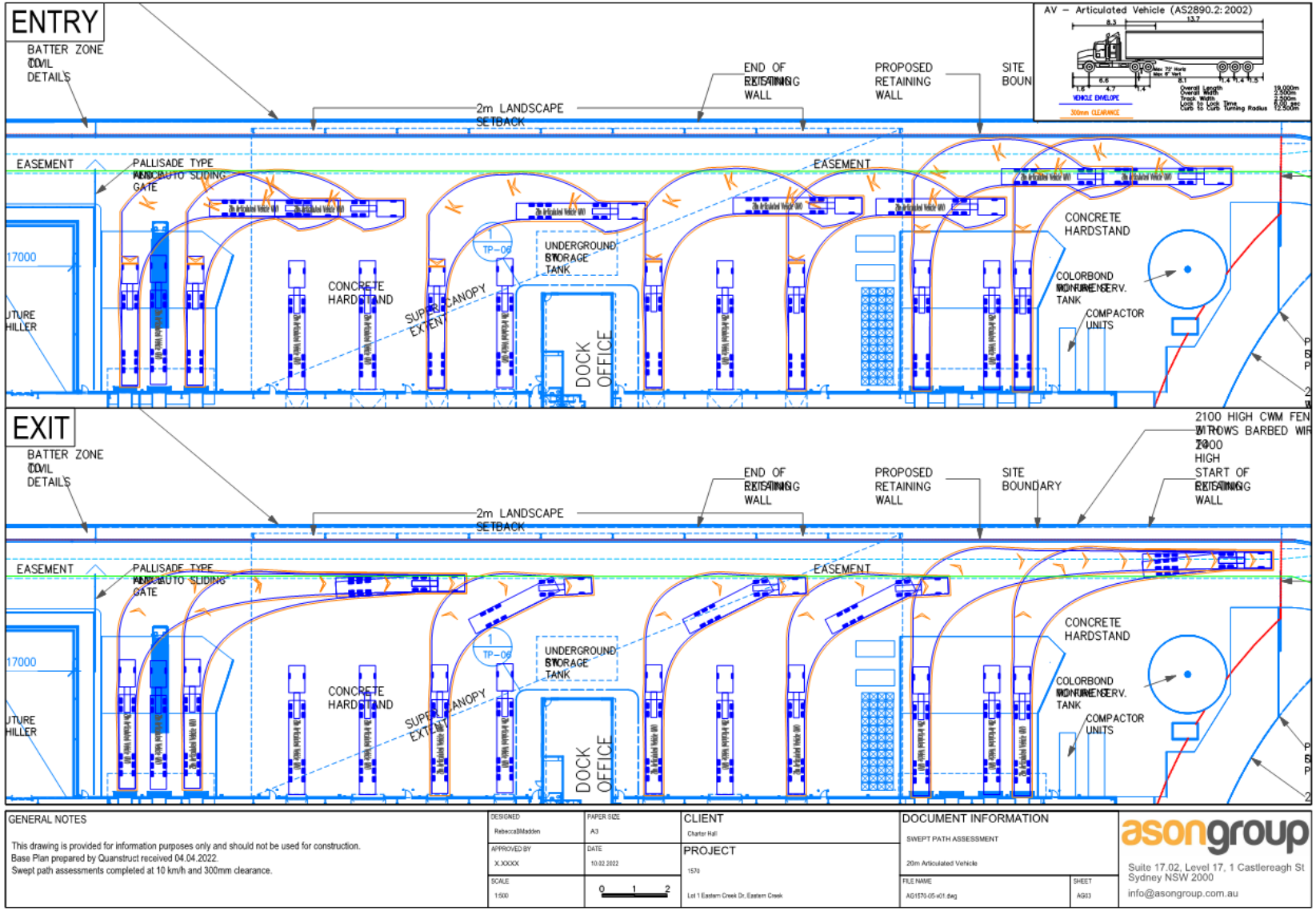

Figure 39 Swept Path Analysis – 20m Articulated Vehicle (Source: Ason Group, 2022)

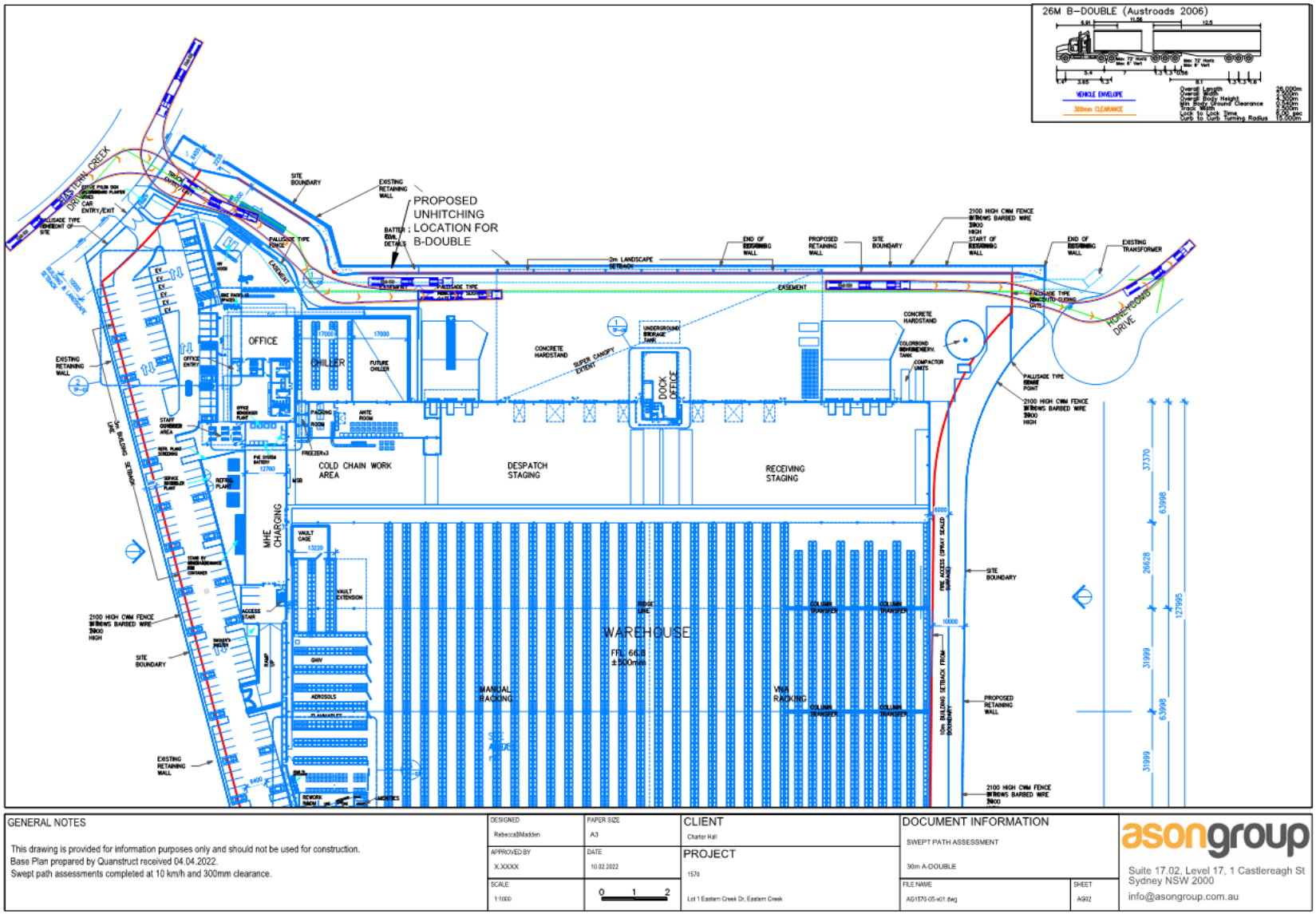

Figure 40 Swept Path Analysis – 26m B-double (Source: Ason Group, 2022)

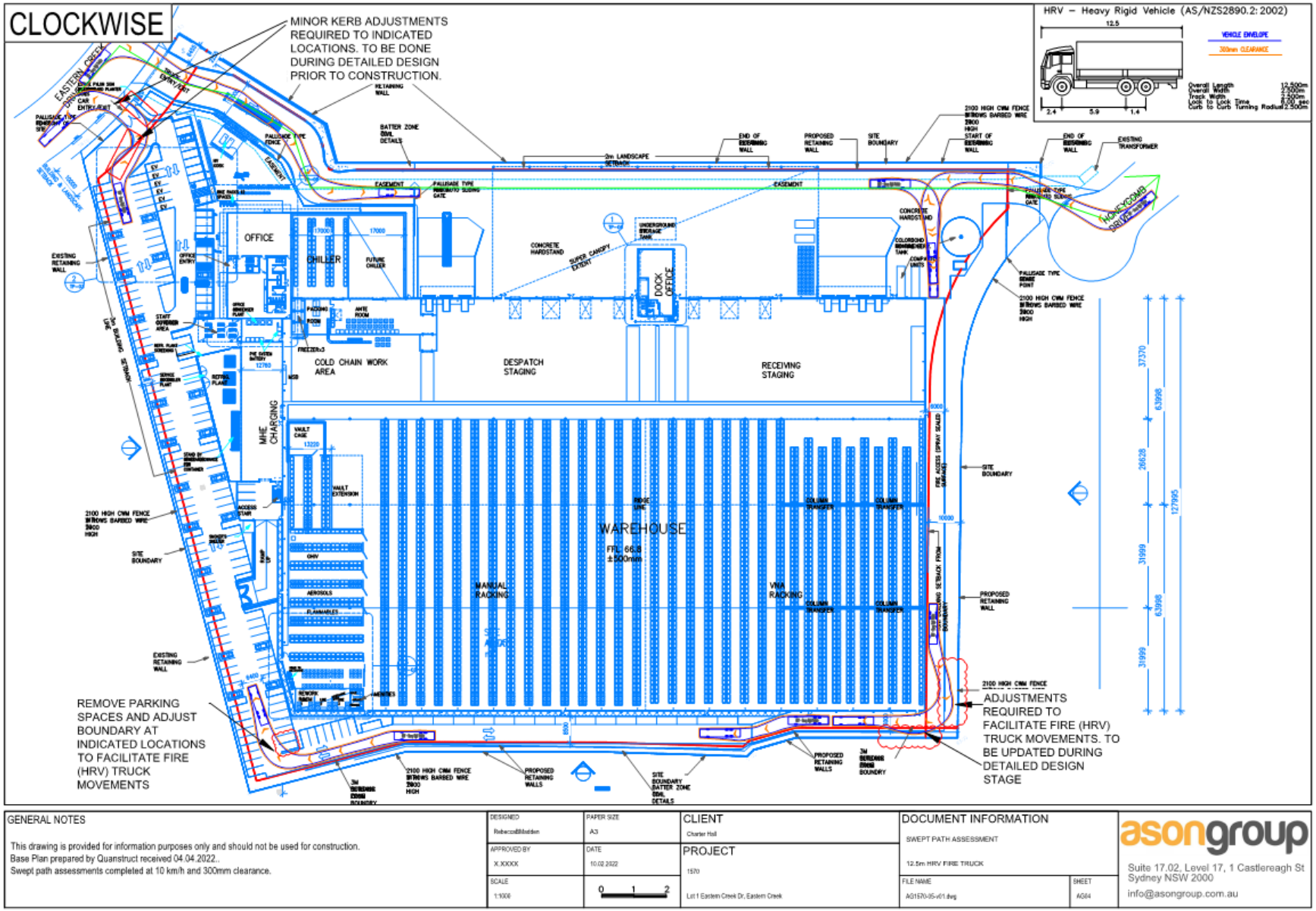

Figure 41 Swept Path Analysis – 12.5m HRV Fire Truck (Source: Ason Group, 2022)

6.1.7 Trees and Landscaping

This section of the EIS details the provision of a site-wide landscape plan, as required by item 7 of the SEARs, including:

- Identification of the number and location of trees to be removed and retained, and how opportunities to retain significant trees have been explored and/or informs the plan.
- Details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage.
- Demonstration of how the proposed development would:
    - contribute to long term landscape setting in respect of the site and streetscape.
    - mitigate the urban heat island effect and ensure appropriate comfort levels on-site.
    - contribute to the objective of increased urban tree canopy cover.
    - maximise opportunities for green infrastructure, consistent with Greener Places.

The subject site's baseline character can be described as a general industrial area. The proposed development has a vehicular entry/exit point along Eastern Creek Drive and a truck exit at Honeycomb Drive. The site has minimal slope from west to east with the Eastern Creek tributary catchment to the east. There are no significant woodland areas within the site but is near a riparian habitat corridor to the north.

As part of the VIA, as addressed in **Section 6.1.5** of this EIS, it has been established that the sensitivity of the landscape is low and the ability of the site to accept the proposal is judged to be appropriate. From the baseline study it is apparent that views close and across the development site are of greater importance than those views from the wider landscape, therefore the greatest impact would be most prominent from the properties across Eastern Creek Drive and Old Wallgrove Road.

The nearest residential properties to the site are around 1.6km (located at Minchinbury) and may catch glimpses over the development and horizon beyond, however it is considered too far away to experience any visual impact.

The design of the setbacks recognises the need to provide significant mitigation to surrounding lots in the form of dense canopy tree planting together with a shrub and groundcover understory. This should help to soften the appearance of the development from the most highly sensitive receptors. It can be argued that the landscape will be enhanced by the introduction of new landscape setback areas that currently don't exist.

In response, the proposal includes the provision of 135 100L trees, >3,000 shrubs and groundcovers.

The development proposes substantial landscape planting to offset the visual impact in the form of setbacks with dense tree and shrub planting. This will be most effective after 10 years for those receptors who experience direct views.

Photomontages of the development from Eastern Creek Drive and Old Wallgrove Road are assessed in **Section 6.1.5** of this EIS. These demonstrate a view at approximately year 10 of the development, this is when planting is expected to reach maturity and become most effective at screening the development.

6.1.8 Ecologically Sustainable Development (ESD)

This section of the EIS evaluates the ESD principles of the proposal, in line with the following requirements of item 8 of the SEARs:

- Identify how ESD principles (as defined in clause 7(4) of Schedule 2 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.

- Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.
- Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.

An ESD Report has been prepared by Northrop, forming **Appendix 14** of this EIS.

The ESD Report has addressed the ESD and Greenhouse Gas (GHG) requirements of the proposed development. Specific sustainability initiatives proposed for the building include, but are not limited to:

- Space efficient building layout
- Water Sensitive urban design principles
- High Efficiency Electrical Systems
- Large scale on-site renewable energy generation
- Increased use of daylighting to reduce power usage
- Installation of a rainwater capture and reuse system for all buildings on-site
- Energy Efficient heating, ventilation and air conditioning including natural ventilation to open spaces.
- Waste Minimisation strategies.

Overall, through the implementation of the initiatives noted within following subsections, the proposal clearly demonstrates the site's commitment to ESD principles throughout the design, construction, and operation. Additionally, the project design team has worked to optimise the sites energy performance, address key climate related risks posed to the site, and align to the NSW Government's commitment to carbon neutrality by 2050.

Additionally, through the project's commitment to Green Star and an outcomes focused approach to sustainability the project commitments exceed the required ESD measures required under the SEARs and demonstrate Global Leadership in sustainability.

6.1.8.1 ESD Principles

The following section describes how ESD principals (as defined in clause 7(4) of Schedule 2 of the EP&A Regulation) are being incorporated in the design, construction, and operation phases of the project. These initiatives illustrate how the project addresses the following;

- The precautionary principle – through the implementation of environmental management and an assessment of the building's operational maintainability, the project attempts to incorporate adaptability and resilience into the project design. The concept behind the precautionary principle is to create spaces that can both; accommodate for changes, which may eventuate in the future, and avoid the risk of serious or irreversible damage to the environment.
- Inter-generational equity to ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations – through the inclusion of zero ozone depleting refrigerants, best practice PVC and low impact paints, sealants and adhesives, alongside a focus on providing greater vegetation and support for the buildings connection with nature, the project demonstrates a strong commitment to the preservation of environmental health, diversity and productivity of the local area.
- Conservation of biological diversity and ecological integrity – through the planting of native vegetation, improvement of stormwater runoff from the site and use of integrated landscaping, the project will act to improve, conserve and support the local biological diversity and integrity.
- Improved valuation, pricing and incentive mechanisms - the design process should involve significant input from the Quantity Surveyor who will be involved ensure that the project

both remains on budget and effectively considers environmental factors in the valuation of assets and services. Furthermore, the project will look at maintainability and the operational costs associated with individual design initiatives and the overall design.

Through the inclusion of the above and the sustainability initiative outlined within this report the project clearly addresses the ESD Principles into the design, construction and operation of the building as defined in clause 7(4) of schedule 2 of the EP&A Regulation. Further detail of the general sustainability initiatives is outlined in the following subsections.

Energy Efficiency:

Energy efficiency will be considered throughout the design development process with the following improvements specifically considered by the design team. It is expected that the measures outlined in the following section, alongside a large solar array, will significantly reduce the site's grid electricity demands when compared to a standard practice building.

The project will also look to minimise the use of fossil fuels, in line with Charter Hall's commitment to becoming net-zero emissions by 2030. This will be supported by a transition plan and power purchase agreements, resulting in an elimination of Greenhouse Gas Emissions from the facility 20 years ahead of the NSW Government's goal of net zero emissions by 2050.

Natural ventilation of tertiary spaces

The project incorporates significant logistic areas, and areas for circulation and vehicles, these spaces will, where achievable, be naturally ventilated or open air in the case of truck loading areas. These areas will be able to operate as naturally ventilated spaces exploiting the buoyancy of air to draw ventilation through the space. Central circulation spaces such as bathrooms and stairs will also look to incorporate natural ventilation and the use of spill air from adjacent spaces to provide passive temperature control.

Insulation within the warehouse spaces

Given the nature of the project, an allowance has been made within the design to enable air conditioning and refrigeration within the warehouse areas, and as such the project design will incorporate insulation to minimise heat gains into these spaces and provide resilience into the future as temperatures increase.

Improved building fabric and glazing performance

The building envelope comprises several different façade types, with the proposed scheme using a combination of light-colored metal finishes, prefabricated concrete and glazing to lower heat gains throughout summer while maintaining good daylighting throughout of the building.

The use of well-designed glazing and building materials will also assist the projects targets for energy efficiency, acoustic performance and thermal comfort.

Integration of cool roofs

To address heat islanding across the site and wider area, the site should incorporate cool roofing with a high Solar Reflectivity Index (SRI 82) which will minimise the buildup of heat within the material and reduce load on the heating, ventilation, air conditioning (HVAC) system.

HVAC system control

The proposed HVAC system incorporates individual area controls for thermal comfort conditions within the office spaces allowing building occupants to maintain comfort conditions suitable to the

use and occupancy of spaces. This system assists in optimising the sites energy efficiency while maintaining comfortable conditions.

Energy metering and monitoring

An energy metering and monitoring strategy will be implemented to effectively monitor the main energy uses within the building, alongside the lighting and small power use. This aims to provide fault detection and monitoring of the different areas of the building. This will be connected to Charter Hall's portfolio monitoring system with data reported and tracked to achieve their overarching energy and water performance targets.

Improved outdoor air provision

The project will aim to improve the outdoor air provided to regularly occupied spaces. This will minimise CO_2 build up within the office areas and improve comfort for the building occupants.

To address energy use concerns the design will also look to incorporate on an outdoor air economy cycle which will allow the building to exploit periods where the buildings external conditions can effectively provide thermal comfort in the space reducing the run times of the air-conditioning system.

Highly efficient lighting system

The installation of LED lighting throughout the building will assist in the minimisation of lighting energy use. Improved lighting energy also reduces the heat loads within cooled spaces and therefore lowers the energy used to condition the building. The use of efficient controlled lighting within the warehouse areas will provide a significant improvement in energy use.

Electric-only building

All building systems and appliances will be electric, avoiding on-site use of gas and aligning the project to the NSW Government's *Net Zero Emissions by 2050 Policy*.

Energy Generation:

With the above energy efficiency measures, the energy load of the facility will be reduced significantly, allowing a large portion of the sites electrical energy demand to be met through the inclusion of a large solar array. This will assist to both offset the sites energy use and minimise the sites daytime peak demand from the grid.

Indoor environment quality

Indoor environment quality is always an important consideration in spaces that are regularly occupied such as the offices and warehouse areas. The following considerations have been considered as part of the building design:

Daylight access

The design of the project has currently allowed for roof lights within the warehouse space to provide daylight penetration into the occupied spaces. The areas for these have been informed through parametric modelling to optimise the balance between daylight and thermal comfort as part of Charter Hall's Industrial Design Standards. This optimisation or roof light area will improve access to daylight throughout the building with the aim of both minimising the energy used for lighting and improving occupant connection to their external environment.

Interior noise level control

Internal noise levels will be actively considered with the building layout and systems design with a focus on managing internal noise levels and reverberation within the facility. The use of acoustic insulation and sound isolation will ensure that interior noise levels to be maintained below acceptable limits.

Material Selection:

Materials selection for the project aims to improve the internal environment of the site with materials with low volatile organic compound and formaldehyde content preferred to help minimise respiratory issues for building occupants.

Environmentally friendly refrigerants

Where required, the use of Environmentally friendly refrigerants, such as hydrofluorocarbons (HFC's), will be considered within the project to minimise global warming potential and ozone depletion potential.

Low impact

Embodied energy will be reduced by avoiding unnecessary use of materials and procuring materials with a low carbon footprint where appropriate options are available. This will be managed in line with Charter Hall's Embodied Carbon standards for industrial projects.

Sustainable Transport:

End of trip facilities

End of trip facilities, including bicycle racks, are provided to encourage walking, and cycling by staff and visitors.

Water Efficiency:

A strong focus has been put on the effective management of water within the building with the following initiatives being included in the design in all areas throughout the project. It is expected that these initiatives will reduce the sites potable water demand by more than 50% compared to a standard practice building.

Water efficient fixtures and fittings

Water Efficient fixtures and fitting will reduce the water consumption of the site. As an indication, the following should be targeted:

- Wash hand basin taps 6-star WELS
- General taps 6-star WELS
- Toilets dual flush 5-star WELS
- Urinals 0.8 L per flush 6-star WELS
- Shower heads 7-9 L per minutes 5-star WELS

Water sensitive urban design

The project will look to incorporate a strong focus on water sensitive urban design with the external landscape design assisting to minimise water use for irrigation. The inclusion of landscaped area will also assist in the reduction of site stormwater discharge and assist in the management of the projects broader impact on urban stormwater flows.

Rainwater capture and reuse

A large rainwater capture and reuse system is required for installation to offset the sites water usage for washdown, toilet flushing and irrigation. This system would have the ability to offset most of the sites potable water usage.

Improved Ecology:

Through planting native vegetation and promoting improved interaction with the natural environment, the project will look to improve the site's ecology and minimise the ongoing environmental impact of the project. The project is currently implementing the following:

- Incorporation of a site vegetation:
- Minimisation of light spill from the facility which impacts on migratory animals and insects; and
- Reduced dissolved pollutants in stormwater discharged from the site.

Waste Management:

Effective waste management throughout construction and operation of the site will help to promote resource efficiency and minimise the adverse environmental impacts of the project. The following are being considered as part of the design process.

Waste management plan

A Waste Management Plan is prepared with the following key objectives:

1. To minimise the environmental impacts of the operations of the development
2. To minimise the impact of the management of waste within the development
3. To ensure waste is managed so as to reduce the amount landfilled and to minimise the overall quantity generated

These objectives will be achieved through strategies such as the integration of recycling bins and back-of-house separation areas, which will encourage recycling and separation of cardboard/paper waste, glass, food waste and comingled recycling and general waste.

Separated waste and recycling streams

The provision of separated waste and recycling streams could allow for more effective recycling of the project's operation waste. Providing separate bins for cardboard/paper waste, glass, food wastes, comingled recycling and general waste will improve the buildings operational efficiency and result in significant environmental benefits.

Construction waste minimisation

The project should look to minimise the construction waste associated with the project and can aim to divert over 90% of waste from landfill to recycling or reuse facilities.

Green infrastructure

Green infrastructure will be integrated into the project to provide urban cooling, slowing, and filtering of rainwater, climate resilience, strengthen biodiversity and improved community nature connection.

6.1.8.2 Climate Change Projections

As part of the design review the project has completed a risk assessment for the sites climate adaption risks based on the CSIRO climate change projections for Western Sydney. This risk assessment reviewed the following three elements:

- Consequence: what will be the effect of the development should the impact occur?
- Likelihood: how likely is it that the impact will occur?
- Risk Rating: what is the associated risk of the development when the likelihood of it happening is measured against the possible consequence of the impact?

Key risks posed to the site which will be addressed as part of this process and high-level issues are outlined below with comment on how these are addressed within the current design; further detail will be developed within the projects detailed design development stages.

- Changing Surface Temperatures should be addressed through the following.
  - Use of high reflectivity roofing to minimise heat gain and heat island effects.
  - Integration of solar panels to provide shading to areas of the roof and provide increased power to the site when peak energy use for cooling is required.
  - Incorporation of HVAC systems designed to modulate in the event of changing outside air temperatures. Equipment will be rated to continue operating during higher temperatures.
- An increase in rainfall intensity should be managed through the following.
  - Inclusion of rainwater and stormwater storage systems to modulate flows exiting the site.
  - Ability to provide increased finished floor level (FFL) designed to be 0.30 m above freeboard requirement to account for increased flooding potential at the site.
  - Inclusion of awnings to the entry access points to promote allow continued operation during adverse conditions.
- An increase to wind speed intensity should be addressed through the following.
  - The metal roof design incorporating roof bracing to fasten the roof onto the building structure to account for increasingly strong winds on site and prevent damage to the roof due to prevailing winds.
  - Improved structural integrity to ensure that the building is not significantly impacted in the event of high intensity wind loads. This includes wind loading on loading dock awnings and doors.
- Decrease in humidity and increased drought conditions will be addressed through the following.
  - Increased capacity within the fire safety systems to assist in the management of bushfire risk associated with dryer conditions.
  - Additional non potable water supply for irrigation needs and the integration of native and drought tolerant vegetation.

Overall, the current design incorporates significant measures to address key projections for climate change in the near term. The project will incorporate further initiatives to address all high and extreme risks posed to the site as per the Climate Adaption Credit within the targeted Green Star rating.

6.1.8.3 Green Star Design & As-Built v1.3

The Green Building Council of Australia's provides an internationally recognised system to assess sustainable outcomes throughout the life cycle of the built environment. It was developed by the Australian Building Industry through the Green Building Council of Australia (GBCA), which is now the nation's leading authority on sustainable buildings and communities.

This section provides a summary of elements drawn from the Green Star tool that may be applied at the proposal.

The Green Star system incorporates ESD principals across nine major categories:

- Management
- Indoor Environment Quality
- Energy
- Transport
- Water
- Materials
- Land Use and Ecology
- Emissions
- Innovation

It is noted that a Certified Six (6) Star Green Star Design & As-Built v1.3 Rating is being targeted.

Management:

The credits within the Management category promote the adoption of environmental principles from project inception, design, and construction phase, to commissioning, tuning and operation of the building and its systems. The following credits are currently being targeted:

- 1.1 Green Star Accredited Professional
- 2.0 Environmental Performance Targets
- 2.1 Services & Maintainability Review
- 2.2 Building Commissioning
- 2.3 Building Systems Tuning
- 2.4 Independent Commissioning Agent
- 3.1 Implementation of a Climate Adaptation Plan
- 4.1 Building Information
- 5.1 Environmental Building Performance
- 5.2 End of Life Waste Performance
- 6.0 Metering
- 6.1 Monitoring Systems
- 7.0 Environmental Management Plan
- 7.1 Formalised Environmental Management System
- 7.2 High Quality Staff Support
- 8B Operational Waste

Indoor Environment Quality:

The credits within the Indoor Environmental Quality category promote the provision of high-quality interior spaces within projects. These spaces are recognised based upon their Air Quality, Lighting, Acoustic and Thermal Comfort. The following credits are currently being targeted:

- 9.1 Ventilation System Attributes
- 9.2 Provision of Outdoor Air
- 9.3 Exhaust or Elimination of Pollutants
- 10.1 Internal Noise Levels
- 10.2 Reverberation
- 10.3 Acoustic Separation
- 11.1 General Illuminance & Glare Reduction
- 12.0 Glare Reduction
- 12.1 Daylight
- 12.2 Views
- 13.1 Paints, Adhesives, Sealants & Carpets
- 13.2 Engineered Wood Products
- 14.1 Thermal Comfort

Energy:

The 'Energy' category aims to facilitate reductions in greenhouse gas emissions by facilitating efficient energy usage and encouraging the utilisation of energy generated by low-emission sources. The project is targeting the following credits:

- 15E.1 Greenhouse Gas Emissions Reduction - Comparison to a Reference Building Pathway
- 16B Peak Electricity Demand Reduction – Performance Pathway

Greenhouse Gas Emissions (GHG) – Comparison to a Reference Building Pathway

The design target will be a 30% reduction in the predicted energy consumption and GHG emissions compared to a 2019 National Construction Code Section J compliant building.

Prediction of the building performance against this benchmark will be confirmed using building performance modelling that assesses potential energy use for base building services systems including:

- Mechanical Services
- Electrical Services
- Communications, AV and security systems
- Hydraulic Services
- Vertical Transportation Systems

Peak Electricity Demand Reduction – Reference Building

The design target will be a reduction in the annual peak electricity demand by at least 20% compared to a 2019 National Construction Code Section J compliant building.

Sustainable Transport:

Sustainable transport criteria aim to provide design and operational measures that reduce the carbon emissions arising from occupant travel to and from the project, when compared to a benchmark building. In addition, it also promotes the health and fitness of commuters, and the increased accessibility of the location.

A Travel Plan will be provided which demonstrates an increased use of active and low emissions travel, based on the Sustainable Transport Calculator.

Water:

The aim of this category is to encourage building design that minimises potable water consumption in operations. For this credit area, the performance pathway is currently being targeted, however the following initiatives will be included in the final development.

Sanitary fixture efficiency

Water use flow and flush fixtures, and appliances will achieve WELS ratings within one star of those stated in the table below.

TABLE 26: SANITARY FIXTURE EFFICIENCY	
Fixture / Equipment Type	**WELS Rating**
Taps	6 Star

TABLE 26: SANITARY FIXTURE EFFICIENCY	
Fixture / Equipment Type	**WELS Rating**
Urinals	6 Star
Toilet	5 Star
Showers	3 Star (>4.5 but <=\6.0)
Clothes Washing Machines	5 Star
Dishwashers	6 Star

Landscape irrigation

The landscaping system will be designed to reduce the consumption of potable water required for irrigation through use of drip irrigation with a moisture sensor override. Fire System Test Water. The fire protection system will include temporary storage for 80% of the routine fire protection system test water and maintenance drain-downs for reuse on-site calculated on the basis that any single zone is drained down annually. Each floor will be fitted with isolation valves or shut-off points for floor-by-floor testing.

Materials:

The materials category recognizes the use of building materials that are responsibly sourced or have a sustainable supply chain. The following credits are targeted:

- 19B.1 Life Cycle Impacts – Concrete
- 19B.2 Life Cycle Impacts – Steel
- 20.1 Structural & Reinforcing Steel
- 20.2 Timber Products
- 20.3 Permanent Formwork, Pipes, Flooring, Blinds and Cables
- 21.1 Product Transparency & Sustainability
- 22B Construction & Demolition – Percentage Benchmark

Concrete

At least 50% of the mix water used for all concrete are either captured or reclaimed water, and at least 40% of coarse aggregate in the concrete will be crushed slag aggregate or another alternative material, or at least 25% of fine aggregate (sand) inputs in the concrete will be manufactured sand or other alternative materials.

Steel

The mass of reinforcing bar and mesh used in concrete reinforcement in the building structure will be reduced by at least 5% when compared to standard practice.

Structural & Reinforcing Steel

95% of the building's steel (by mass) will be sourced from a Responsible Steel Maker; and at least 60% (by mass) of all reinforcing bar and mesh will be produced using energy-reducing processed in its manufacture (measured by average mass by steel maker annually).

Timber Products

At least 95% (by cost) of all timber used in the building and construction works will be certified by a forest certification scheme that meets the GBCA's 'Essential' criteria for forest certification or will be from a reused source.

Permanent Formwork, Pipes, Flooring, Blinds and Cables

Of all permanent formwork, pipes, flooring, blinds and cables, 90% (by cost) will not contain PVC or will meet GBCA's Best Practice Guidelines.

Product Transparency & Sustainability

At least 1% of all materials used in the project will meet transparency and sustainability requirements under one of the following initiatives: A. Reused Products; B. Recycled Content Products; C. Environmental Product Declarations; D. Third-Party Certification; or E. Stewardship Programs.

Construction and Demolition Waste – Percentage Benchmark

This project will target 90% of the waste generated during construction and demolition being diverted from landfill, excluding excavation waste and hazardous waste.

Land Use and Ecology:

The 'Land Use & Ecology' category aims to reduce the negative impacts on sites' ecological value because of urban development and reward projects that minimise harm and enhance the quality of local ecology. The following credits are currently being targeted:

- 23.0 Endangered, Threatened or Vulnerable Species
- 24.0 Conditional Requirement
- 25.0 Heat Island Effect Reduction

Endangered, Threatened or Vulnerable Species

At the date of site purchase or date of option contract, the project site did not include old growth forest or wetland of 'High National Importance' or did not impact on 'Matters of National Significance'.

Heat Island Effect reduction

At least 75% of the whole site area will comprise of one or combination of vegetation; green roofs; light coloured roof SRI >64.

Emissions:

The 'Emissions' category aims to assess the environmental impacts of 'point source' pollution generated by projects. Negative impacts commonly associated with buildings include damage to the environment through refrigerant leaks or disturbances to native animals and their migratory patterns as a result of light pollution. The following credits are currently being targeted by the project:

- 26.1 Stormwater Peak Discharge
- 26.2 Stormwater Pollution Targets
- 27.1 Light Pollution to Night Sky

Stormwater peak discharge

The project is aiming to achieve a post-development peak event discharge from the site which does not exceed the pre-development peak event discharge using the design Average Recurrence Interval (ARI) that corresponds to the associated flooding risk identified in the Climate Change and Adaption Assessment.

Stormwater pollution targets

All stormwater discharged from the site will meet the pollution reduction targets in the table below.

TABLE 27: MINIMUM POLLUTION REDUCTION TARGETS	
Pollutant	**Reduction Target (% of the Typical Urban Annual Load)**
Total Suspended Solids (TSS)	90%
Gross Pollutants	95%
Total Nitrogen (TN)	60%
Total Phosphorus (TP)	70%
Total Petroleum Hydrocarbons	90%
Free Oils	98%

Light pollution to night sky

Outdoor lighting will be designed to achieve control of upward light output ratio (ULOR) by demonstrating that no external luminaire on the project has a ULOR that exceeds 5%, relative to its actual mounted orientation.

Innovation:

The 'Innovation' category aims to recognise the implementation of innovative practices, processes and strategies that promote sustainability in the built environment. The following credits are currently being targeted for the project:

- 30A Innovative Technology or Process – On-site Renewable Energy
- 30C Improving on Green Star Benchmarks – Stormwater Pollution Targets
- 30D Innovation Challenge – Financial Transparency

On-site renewable energy

The installation of a large scale PV solar array on site will significantly reduce energy consumption of the development past Green Star benchmarks, and is considered innovative.

Improving on Green Star Benchmarks

The project will achieve additional points for exceeding the stringent requirements for credit achievement in several areas. The project will achieve additional points for achieving additional reductions in pollution load targets through the stormwater systems.

The project will also exceed Green Star Benchmarks through the use of ultra-low VOC paints for at least 50% of paint (by volume) and through the provision of a bicycle maintenance station will increase the support for sustainable transport and exceed the sustainable transport goals set out in the Green Star Framework.

Innovation Challenge

The project is also looking to innovate on current construction methods and will be targeting points for meeting challenges set out by the Green Star Framework. The project will be looking to provide financial transparency, by providing to the GBCA extensive details regarding the costs of construction and management of the project. Furthermore, the project will also look to ensure that the temporary site office is high performance, minimising operational energy usage during construction and reducing the carbon footprint of the project.

6.1.9 Biodiversity

As per the requirements of item 9 of the SEARs, the proposal must:

- Assess any biodiversity impacts associated with the development in accordance with the *Biodiversity Conservation Act 2016* and the Biodiversity Assessment Method 2020, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted, or the site is on biodiversity certified land.
- If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification.

The subject site is dominated by exotic vegetation and has been subject to extensive earthworks, a BDAR Wavier has been sought, but not yet decided by the NSW DPE.

Vegetation has been cleared and the landform altered to over the past 60 years. The alteration of the landform has resulted in the complete removal of any evidence of the 1st order stream, which had historically run across the subject site.

The potential extent of the vegetation on site is limited due to the built infrastructure which surrounds the subject site. The proposal will not remove any significant vegetation and the planted native species do not resemble any Plant Community Types (PCT).

No threatened flora or fauna species have been recorded or have been determined as likely to occur within the subject site. No potential habitat will be removed as part of the proposed development. The proposal does not interrupt or affect the flight path of migratory or threatened species.

The biodiversity assessment, undertaken by Ecoplanning (2021), has determined the proposal is not likely to have any significant impact on the biodiversity values of the subject site. Therefore, given the land use history, current surrounding industrial infrastructure and limited ecological value within the subject site, a BDAR waiver has been requested.

6.1.10 Air Quality

Pursuant to item 10 of the SEARs, the EIS is required to identify significant air emission sources at the proposed development (during construction and operation), assess their potential to cause adverse off-site impacts, and detail proposed management and mitigation measures that would be implemented. Where air emissions during operation have the potential to cause adverse off-site impacts, provide a quantitative air quality impact assessment prepared in accordance with the relevant NSW EPA guidelines.

In response, an Air Quality Assessment Report has been prepared by RWDI, which forms **Appendix 16** of this EIS.

The air quality assessment concludes that the construction phases can be adequately managed so that the short-term and temporary dust related impacts will remain to be low risk.

A qualitative assessment of the operational phase was carried out and it was concluded that the impacts of the operation, at residential and industrial/commercial receivers, are likely not to be significant.

6.1.10.1 Air emission sources

Air emissions are likely during the construction of the development and during the proposed operations. The most likely sources are summarised in the following sections.

Construction phase emission sources:

At the time of preparing this assessment a detailed construction programme was not developed, however the following stages and typical activities can be expected from this project:

- Site clearing and enabling works
  - Likely to be the shortest and of least impact.
  - Small number of structures to be removed using trucks, excavators and hand tools.
  - Clearing works
- Earthworks and retaining wall construction:
  - Likely to be the longest stage of works and of most impact.
  - Significant earthworks required that will involve a large number of trucks, excavators, dozers and associated equipment.
- Construction of internal road network:
  - Typical plant operating being concrete trucks, asphalt pavers, vibratory rollers, and graders.

During the earthwork activities, which includes moving of material and truck movements along haul roads (wheel generated dust), there is likely to be short-term periods of elevated dust levels.

Dust or airborne particles present in the air at elevated levels can be hazardous to human health or cause a nuisance. Potential health effects of airborne particles are closely related to particle size.

The most common particle size distributions considered in air quality studies are:

- $PM_{2.5}$ (particles less than 2.5 micrometres in diameter) – for assessment against health-based criteria
- PM_{10} (particles less than 10 micrometres in diameter) – for assessment against health-based criteria
- TSP (total suspended particles, generally up to 100 micrometres in diameter) – for assessment against predominantly nuisance-based criteria
- deposited dust particles – for assessment of dust nuisance.

PM_{10} and $PM_{2.5}$ particles are typically invisible to the naked eye. Larger particulates are typically visible to the naked eye.

Operational emission sources:

With the proposal being a warehouse and distribution centre only, the typical activities expected to generate air emissions during site operations are vehicles idling and vehicles manoeuvring the site. Such activities emit Particles (PM_{10} and $PM_{2.5}$) and NO_x from vehicles idling at the warehouse bays.

6.1.10.2 Assessment of air emissions

In order to undertake an assessment of potential to cause adverse off-site impacts, it is imperative to understand the existing environment conditions.

Existing environment:

<u>Meteorological conditions</u>

Meteorological conditions strongly influence air quality. Most significantly, wind speed, wind direction, temperature, relative humidity, and rainfall affect the dispersion of air pollutants.

Wind data was obtained from Penrith Lakes AWS, demonstrating similar patterns of wind speed and wind direction over the five-year period, with south-westerly winds being prevalent throughout the year.

Local ambient air quality

No site-specific data is available to determine the existing concentrations of air pollutants at sensitive receptors near the subject site. The NSW DPE operates a network of air quality monitoring stations (AQMS) across NSW. The nearest DPE AQMS measuring the selected pollutants are located approximately 7.6 kilometres northwest of the subject site, at St Marys.

A summary of the ambient air quality monitoring data collected for year 2018 at the St Marys AQMS is presented in **TABLE 28**. The TSP background concentrations were determined based on a relationship between measured PM_{10} concentrations.

TABLE 28 also presents the applicable air quality criteria for each pollutant of interest. Air quality criteria are benchmarks set to protect the general health and amenity of the community in relation to air quality. From the table below, it is possible to conclude that the monitoring data in the proximity to the subject site are lower than the air quality criteria.

TABLE 28: LOCAL AMBIENT AIR QUALITY MONITORING CONCENTRATIONS

Pollutant	Averaging Period	Concentration (µg/m³)	NSW EPA AQ Criteria (µg/m³)
TSP	Annual	48.5	90
Particulate Matter ≤10 µm (PM_{10})	Annual	19.4	25
	24-hour	47.6	50

Construction dust assessment:

The EPA does not at this stage have specific guidelines to consider dust from construction sites in terms of a risk assessment and management approach. It has developed a guideline entitled 'Approved Methods for the Modelling and Assessment of Air Pollutants in NSW' (2017), however, this guideline considers detailed modelling approaches and is not specifically relevant to construction dust impacts. A detailed modelling approach is not necessary for short term construction impacts that can be managed.

A risk-based approach has however been developed in the United Kingdom by the Institute of Air Quality Management (IAQM). This approach has been widely used for performing qualitative assessments of dust emissions from construction sites and has been used in NSW by RWDI and other consultants.

A qualitative assessment of potential air quality impacts associated with the proposed construction works, conducted in general accordance with the methodology described in the IAQM Guideline.

This approach presents the risk of dust soiling and human health impacts associated with four types of activities that occur on construction sites (demolition, earthworks, construction and trackout) and involves the following steps:

1. Step 1: Screen the need for a detailed assessment;
2. Step 2: Assess the risk of dust impacts arising, based on:
   - The potential magnitude of dust emissions from the works; and
   - The sensitivity of the surrounding area.
3. Step 3: Identify site-specific mitigation; and

4. Step 4: Consider the significance of residual impacts, after the implementation of mitigation measures.

For this project, the process outlined above has been applied to the worst-case on site and off site activities that are likely to result in the highest generation of dust. This approach results in a conservative assessment of the potential risks for human health and dust soiling impacts.

For this project, the earthworks phase (and associated trackout) is considered to have the greatest potential to generate short-term high levels of dust.

Step 1: Screen the need for a detailed assessment

The IAQM guidance recommends that a risk assessment of potential dust impacts from construction activities be undertaken when human receptors are located within:

- 350m of the boundary of the site; or,
- 50m of the route(s) used by construction vehicles on public roads up to 500m from the site entrance(s).

As shown in **Figure 1**, the nearest residential receivers to the east are located further than 350m of the subject site, approximately 1.5km to the north and 2.4km to the west. Moreover, the nearest childcare facility, Little Graces Childcare Centre, is located approximately 600m south-east of the subject site. Therefore, an assessment of dust impacts is not considered necessary under the guideline. Moreover, industrial and commercial areas are located in the vicinity of the subject site.

Step 2A – Potential dust emission magnitude

In accordance with the IAQM guidance, dust emission magnitudes from earthworks may be defined as:

- Large: total site area >10,000 sqm, potentially dusty soil type (e.g. clay), >10 heavy earth moving vehicles active at any one time, formation of bunds >8m in height, total material moved >100,000 tonnes;
- Medium: total site area 2,500 sqm – 10,000 sqm, moderately dusty soil type (e.g. silt), 5 – 10 heavy earth moving vehicles active at any one time, formation of bunds 4m – 8m in height, total material moved 20,000 tonnes – 100,000 tonnes; and,
- Small: total site area <2,500 sqm, soil type with large grain (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <4m in height, total material moved <20,000 tonnes.

The total area of the subject site is larger than 10,000m^2.

Regarding dust "trackout" associated with haulage activities, dust emission magnitudes may be defined as:

- Large: >50 heavy vehicle outward movements per day, potentially dusty surface material, unpaved road length >100m;
- Medium: 10 – 50 heavy vehicle outward movements per day, moderately dusty surface material, unpaved road length 50m – 100m; and,
- Small: <10 heavy vehicle outward movements per day, surface material with low potential for dust release, unpaved road length <50m.

Earthworks will result in the highest number of heavy vehicle movements, expected to be up to 60 heavy vehicles movements per day leaving the site. However, this number reduces to up to 25 heavy vehicle movements per day for the remaining of the construction activities, and all on-site haulage would include unpaved sections of road larger than 100m long.

For conservative purposes (worst-case scenario), this assessment assumed that 60 heavy vehicles movements per day will be expected during the entirety of construction and demolition operations.

The dust emission magnitude is therefore:

- Large for earthworks.
- Large for trackout.

Step 2B – Sensitivity of surrounding area

The sensitivity of the surrounding area to dust impacts considers a number of factors, including:

- Specific receptor sensitivities;
- The number of receptors and their proximity to the works;
- Existing background dust concentrations; and,
- Site-specific factors that may reduce impacts, such as trees that may reduce wind-blown dust.

In accordance with the IAQM guideline, the following receptor sensitivity has been determined:

- Industrial Receivers
  - Medium sensitivity to dust soiling.
  - Medium sensitivity to human health.
- Residential Receivers
  - High sensitivity to dust soiling.
  - High sensitivity to human health.

The sensitivity of the surrounding area (both residential and industrial receivers) has been determined to be:

- For earthworks:
  - Low sensitivity to dust soiling.
  - Low sensitivity to health impacts.
- For trackout:
  - Low sensitivity to dust soiling.
  - Low sensitivity to health impacts.

Step 2C – Define the risk of impacts

To define the risk of impacts, the dust emission magnitude ('large' for this site) is combined with the sensitivity of the area, for earthworks and trackout, respectively.

The proposed earthworks are considered to have a low risk of both dust soiling and human health impacts. The haulage activities are considered to have a low risk of both dust soiling and human health impacts.

It is important to note that the above risks assume that dust mitigation measures are not implemented.

Step 3 – Site-specific mitigation

The IAQM guidance document identifies a range of appropriate dust mitigation measures that should be implemented as a function of the risk of impacts. Such measures are presented in **Section 6.1.10.3** below.

Step 4 – Significance of residual impacts

In accordance with the IAQM guidance document, the final step in the assessment is to determine the significance of any residual impacts, following the implementation of mitigation measures. To this end, the guidance states:

> *For almost all construction activity, the aim should be to prevent significant effects on receptors through the use of effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be "not significant".*

Based on the proposed works, and the advice in the IAQM guidance document, it is considered unlikely that these works would result in unacceptable air quality impacts, subject to the implementation of the mitigation measures outlined in **Section 6.1.10.3** below.

Operational emissions assessment:

The subject site will operate a warehouse and distribution centre, located in a largely industrial area. During operation, the site is expected to generate traffic volumes of approximately 51 vehicle trips per day (two-way movements). Moreover, occupancy levels of the subject site are estimated to be of 166 employees, including warehouse and office.

The closest residential receivers are located approximately 1.5km to the north of the site boundary and the closest industrial/commercial receivers are adjacent to the site. Moreover, as suggested by wind data obtained from Penrith Lakes AWS, south-westerly winds are prevalent throughout the year.

Although south-westerly winds would be able to carry emissions downwind of the site towards the industrial/commercial areas located to the north-east of the site, it is not anticipated that these will have a large significant impact when compared to the existing industries in the surrounding area.

As regard to the residential receivers, operations at the site are not expected to significantly impact the receivers to the north of the site. Moreover, the Bingo Eastern Creek Recycling Ecology Park & Landfill is in a much closer location to the residential receivers than the subject site, for which operational impacts are more significant than this proposal. Hence, it is anticipated that the impacts from the Proposal site are likely not to be significant.

6.1.10.3 Management and mitigation measures

The assessment of potential dust impacts from the proposed works indicate that the proposed project will have a low risk of both dust soiling and human health impacts from earthworks haulage (trackout) activities if dust mitigation measures are not implemented. The potential risk for the other stages of construction will be either low or negligible given that the worst-case scenario (earthworks and associated haulage) has been considered.

To ensure best practice management, the following mitigation measures are recommended so that construction dust impacts are minimised and remain low risk.

Communications:

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site, and:
- Displays the name and contact details of the Responsible Person accountable for air quality and dust issues on the site boundary.
- Displays the head or regional office contact information.
- Develop and implement a Dust Management Plan (DMP) that considers, as a minimum, the measures identified herein.

Site management:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to relevant authorities (Council, EPA, etc).
- Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the logbook.

Monitoring:

- Undertake daily on-site and off-site inspections, where receptors are nearby, to monitor dust. Record inspection results and make available to relevant authorities. This should include regular dust soiling checks of surfaces such as street furniture, cars and window. Specific real-time dust monitoring is not necessary for this project.

Preparing & maintaining the site:

- Plan site layout so that dust generating activities are located away from receptors, as far as possible.
- Avoid site runoff of water or mud.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If being re-used, keep materials covered or contained in a way which prevents dust, for example dust suppression.
- Cover, seed or fence stockpiles to prevent wind erosion.

Construction vehicles and sustainable travel:

- Ensure all vehicles switch off engines when stationary – no idling vehicles.
- Impose and signpost a maximum-speed-limit of 25km/h on surfaced and 15km/h on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided).

Measures for general construction activities:

- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Measures Specific to Haulage:

- Use water-assisted dust sweeper(s) on the access and local roads, as necessary.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
- Access gates to be located at least 10m from receptors where possible.

6.1.11 Noise and Vibration

Pursuant to item 11 of the SEARs, the EIS is required to provide a noise and vibration assessment prepared in accordance with the relevant EPA guidelines. The assessment must detail construction

and operational noise and vibration impacts on nearby sensitive receivers and structures and outline the proposed management and mitigation measures that would be implemented.

In response, a NVIA Report has been prepared by RWDI, which forms **Appendix 17** of this EIS.

6.1.11.1 Assessment of noise

In order to undertake an assessment of potential to cause adverse noise and vibration impacts to sensitive receivers, it is imperative to understand the existing environment conditions.

Existing environment:

The environment immediately surrounding the project site is occupied by existing or developing industrial premises to the north, south, east and west. The surrounding road network carries a high percentage of heavy vehicles. The noise environment is controlled by noise emissions from road traffic, in particular heavy vehicles. Background noise levels are controlled by the nearby M7 and M4 Motorways. Given the remote location of residential receivers in relation to the proposed development, ambient noise monitoring was not considered warranted. Noise criteria was conservatively determined by applying the minimum assumed Rating Background Level (RBL) for residential receivers, as per NSW NPfI methodology.

Construction noise and vibration assessment:

People are usually more tolerant to noise and vibration during the construction phase of proposals than during normal operation. This response results from recognition that the construction emissions are of a temporary nature –especially if the most noise-intensive construction impacts occur during the less sensitive daytime period. For these reasons, acceptable noise and vibration levels are normally higher during construction than during operations.

Construction often requires the use of heavy machinery which can generate high noise and vibration levels at nearby buildings and receivers. For some equipment, there is limited opportunity to mitigate the noise and vibration levels in a cost-effective manner and hence the potential impacts should be minimised by using feasible and reasonable management techniques.

At any particular location, the potential impacts can vary greatly depending on factors such as the relative proximity of sensitive receivers, the overall duration of the construction works, the intensity of the noise and vibration levels, the time at which the construction works are undertaken and the character of the noise or vibration emissions. The following section details the assessment of potential noise and vibration impacts associated with the construction of the project.

Construction noise goals have been determined based on the relevant government guidelines and industry standards. Potential noise levels have been predicted at sensitive receivers for expected activities and where levels are above the goals, feasible and reasonable noise mitigation measures are considered.

Interim Construction Noise Guideline

The NSW EPA *Interim Construction Noise Guideline* (ICNG) requires project-specific Noise Management Levels (NMLs) to be established for noise affected receivers. In the event construction noise levels are predicted to be above the NMLs, all feasible and reasonable work practices are investigated to minimise noise emissions. Having investigated all feasible and reasonable work practices, if construction noise levels are still predicted to exceed the NMLs then the potential noise impacts would be managed via site specific construction noise management plans, to be prepared in the detailed design phase.

TABLE 29 details the ICNG noise management levels.

TABLE 29: INTERIM CONSTRUCTION NOISE GUIDELINE CRITERIA		
Time of Day	**Management Level** $L_{Aeq(15min)}$ *	**How to apply**
Recommended standard hours: Monday to Friday 7am to 6pm Saturday 8am to 1pm No work on Sundays or public holidays	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise. ▪ Where the predicted or measures $L_{Aeq(15 min)}$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. ▪ The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dB(A)	The highly noise affected level represents the point above which there may be strong community reaction to noise. ▪ Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: 1. Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences 2. If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times
Outside recommended standard hours	Noise affected RBL + 5 dB	▪ A strong justification would typically be required for works outside the recommended standard hours. ▪ The proponent should apply all feasible and reasonable works practices to meet the noise affected level. ▪ Where all feasible and reasonable practices have been applies and noise is more than 5 dB(a) above the noise affected level, the proponent should negotiate with the community. ▪ For guidance on negotiating agreements see section 7.2.2 of ICNG.

In addition, the following construction noise management levels $L_{Aeq,15min}$ are recommended for other receivers in the area:

- Industrial premises: external $L_{Aeq,15min}$ 75dBA
- Passive recreation areas: external $L_{Aeq,15min}$ 60dBA
- Classrooms at schools and other educational institutions internal $L_{Aeq,15min}$ 45dBA

Based on the above, **TABLE 30** presents the applicable noise management levels for construction activities at surrounding receivers that have been adopted for all applications.

TABLE 30: SITE-SPECIFIC CONSTRUCTION NOISE MANAGEMENT LEVELS

Receiver Location	Construction Noise Management Level (NMLs) $L_{Aeq,15min}$				Highly Noise Affected Noise Level $L_{Aeq,15min}$
	Day Standard Hours[1]	Day OOH	Evening OOH[2]	Night OOH[3]	
Residential	45	40	35	35	75
Industrial	75 external	-	-	-	-
Community facility	60 external	-	-	-	-
Childcare	45 internal	-	-	-	-

Note: [1] Standard Hours (7am –6pm Monday to Friday, 8am –1am Saturday with no work on Sundays or Public Holidays)
[2] Evening OOH (6pm –10pm)
[3] Night OOH (10pm –7am)

Construction activities

As part of the NVIA an assessment of the potential noise and vibration impacts associated with the proposed activities required for the construction of the project and supporting road network. Site-specific construction and traffic management plan is to be prepared by the Civil Contractor prior to commencing works.

The construction noise and vibration assessment has considered the following construction activities:

1. Site clearing
   - Large excavators, dozers, loaders and trucks will be used during the site clearing period.
2. Bulk earthworks
   - Large excavators, dozers, loaders and trucks will be used for the bulk excavation period. It is estimated that approximately 60truck movements will be required per day during this period.
3. Road and hardstand construction
   - Road and hardstand construction equipment including loaders, graders, backhoes, rollers and asphalt pavers will be used to construct the hardstands, internal driveways and parking areas. Piling rigs will be used during this phase.
4. Warehouse construction
   - Warehouse construction will include the use of concrete trucks, concrete pumps, forklifts, cranes, hand tools and other equipment.

At this stage, it is intended that all construction work will be conducted during standard daytime construction hours of Monday to Friday 7.00am to 6.00pm and Saturday 8.00am to 1.00pm. If OOHWs are required (for emergency works, oversized equipment delivery, etc) it is likely that they would require separate approval and will be assessed on a case-by-case basis.

Construction noise modelling

Noise modelling of the development site was undertaken using the CONCAWE noise prediction algorithm in the SoundPLAN V8.2 modelling package. Maximum sound power levels (SWLs) for the typical operation of construction equipment applied in the modelling are listed in **TABLE 31**. To assess construction noise levels against the NMLs, the maximum noise levels have been converted to equivalent LAeq,15minnoise emissions.

TABLE 31: CONSTRUCTION NOISE SOURCES

Construction Phase	Equipment	Operating minutes in 15-min period	No. of Items	Sound Power Level (dB)		
				Maximum Item (SWL)	L_{Aeq} Activity	L_{Amax} Activity
Site Clearing	Excavator –Breaker[1]	7.5	1	124	**118**	120
	Excavator (20-30T)	15	4	100		
	Loader	15	3	106		
	Dozer	15	3	110		
	Graders	15	2	108		
	Watercart	15	1	98		
	Truck and Dog	15	10	98		
Bulk Earthworks	Excavator –Breaker[1]	7.5	1	124	**121**	124
	Excavator (20-30T)	15	5	100		
	Loader	15	5	106		
	Dozer	15	4	110		
	Graders	15	4	108		
	Watercart	15	1	98		
Road and Hardstand Construction	Loader	15	1	106	**116**	119
	Grader	15	2	108		
	Backhoe (7.5T)	15	3	102		
	Watercart	15	1	98		
	Road Profiler	15	1	107		
	Asphalt Paver	15	1	111		
	Truck and Dog	15	5	98		
Warehouse Construction	Concrete Truck / Pump	7.5	3	106	**111**	119
	Crane Truck	15	2	100		
	Forklift	15	3	101		
	Hand Tools	7.5	5	97		

Note: [1] Includes a 5 dB correction as classed 'annoying' under the ICNG.

Consistent with the requirements of the ICNG, and to inform the scheduling of construction activity and management of noise during the detailed design phase, the construction noise impacts are based on a worst-case assessment. The ICNG recommends that the realistic worst-case or conservative noise levels from the source should be predicted for assessment locations representing the most noise exposed residences or other sensitive land uses. For each receiver area the noise levels are predicted at the most noise-exposed location, which would usually be the closest receiver.

For most construction activities, it is expected that the construction noise levels would frequently be lower than predicted at the most-exposed receiver as the noise levels presented in this report are based on a realistic worst-case assessment.

Operational noise assessment:

The NSW NPfI provides a framework and process for deriving noise criteria for consents and licences that enable the EPA and others to regulate premises that are scheduled under the POEO Act. Whilst specifically aimed at assessment and control of noise from industrial premises regulated by the EPA, the policy is also appropriate for use by the NSW DPE when assessing major development proposals.

Having been designed for large industrial and agricultural sources, the monitoring and assessment procedures may not be applicable to the smaller developments and noise sources regulated by local government. It is recognised however, that Councils may find the policy to be of assistance in noise assessment and land-use planning. The NPfI documents a procedure for assessment and management of industrial noise which involves several steps, including determining the project noise trigger levels for a development. The project noise trigger level is a benchmark level above which noise management measures are required to be considered. They are derived by considering short-term intrusiveness due to changes in the existing noise environment (applicable to residential receivers only) and maintaining noise level amenity for particular land uses for residents and other sensitive receivers.

Operational noise criteria

The amenity assessment is based on noise criteria specific to land use and associated activities. The criteria relate only to industrial-type noise and do not include transportation noise (when on public transport corridors), noise from motor sport, construction noise, community noise, blasting, shooting ranges, occupational workplace noise, wind farms, amplified music/patron noise.

Minimum noise level criteria for residential receivers under the NPfI have been adopted and are reproduced in **TABLE 32** to determine the Project Noise Trigger Level (PNTL) as highlighted in bold.

TABLE 32: PROJECT NOISE TRIGGER LEVELS

Receiver Location	Time of Day [a]	Recommended ANL $L_{Aeq(period)}$	Criteria for New Sources	
			Intrusive $L_{Aeq,15min}$	Amenity $L_{Aeq,15min}$
Minchinbury (Urban)*	Day	60	**40**	58
	Evening	50	**35**	48
	Night	45	**35**	43
Esrkine Park (Suburban)	Day	55	**40**	53
	Evening	45	**35**	43
	Night	40	**35**	38
Rural Area (Rural)	Day	50	**40**	48
	Evening	45	**35**	43
	Night	40	**35**	38
Childcare Centre	When in Use (inside)	35	**43**	
	When in Use (outside)	45 [b]	**43**	
Industrial	When in Use	70	**68**	

Note: [a] Day = 7am – 6pm; evening = 6pm – 10pm; night = 10pm – 7am.
[b] A conservative 10dB reduction has been assumed for a partially opened window.

TABLE 32: PROJECT NOISE TRIGGER LEVELS				
Receiver Location	**Time of Day [a]**	**Recommended ANL $L_{Aeq(period)}$**	**Criteria for New Sources**	
			Intrusive $L_{Aeq,15min}$	**Amenity $L_{Aeq,15min}$**
* Minchinbury is considered urban as it is next to a freeway and the existing background noise levels reflect that of an urban environment as recommended in the NPfI.				

Operational activity

Trucks will enter the site via Eastern Creek Drive and manoeuvre across hardstand, reversing into loading docks. Once on site the trucks would be loaded/unloaded via electric forklifts and exit Honey Suckle Drive. Predicted breakdown of daily heavy vehicle trip generation is provided in **TABLE 12** of this EIS.

Light vehicles will enter and exit the site via Eastern Creek Drive with a dedicated carpark located along the southern boundary and rear of warehouse. The carpark is proposed to facilitate a maximum of 184 light vehicles. Indicative mechanical plant has been provided by the contractor which is described as a Fusion HVAC system and includes 14 rooftop units.

Operational noise modelling

Noise modelling of the development site was undertaken using the CONCAWE noise prediction algorithm in SoundPLAN V8.2 modelling software. The noise model was constructed from a combination of aerial photography, existing ground topography, design ground topography for the development. The local terrain, design of the development, receiver buildings and structures have been digitised in the noise model to develop a three-dimensional representation of the operations of the development and surrounding environment. Noise modelling was conducted for day, evening and night time as the warehouses would be operating 24 hours per day.

Acoustic data

The following noise level data for vehicle-related noise sources has been used for the assessment. These noise levels are taken from RWDI's internal database and external assessments of similar sites.

TABLE 33: SOUND POWER REFERENCE LEVELS		
Noise Source	**Noise Characteristic**	**Sound Power Level SWL, dBA**
Forklift operational on hardstand	Quasi-steady	93 L_{Aeq}
Light vehicles on site, up to speed of 40km/h	Quasi-steady	90 L_{Aeq}
Medium vehicle @10km/h	Quasi-steady	91 L_{Aeq}
Medium vehicle reversing @5km/h	Quasi-steady	96 L_{Aeq}
Heavy vehicle[1] @25 km/h	Quasi-steady	106 L_{Aeq}
Heavy vehicle[1], unloaded @10 km/h	Quasi-steady	106 L_{Aeq}
Heavy vehicle[1], loaded @10 km/h	Quasi-steady	107 L_{Aeq}
Heavy vehicle[1], reversing[2] @5 km/h	Quasi-steady	111 L_{Aeq}
Truck idling	Quasi-steady	95 L_{Aeq}
Truck engine starting	Instantaneous	100 L_{Amax}
Truck airbrake release[2]	Instantaneous	115 L_{Amax}

TABLE 33: SOUND POWER REFERENCE LEVELS		
Noise Source	**Noise Characteristic**	**Sound Power Level SWL, dBA**
Note: [1] Heavy vehicle defined as any cargo vehicle with three or more axles with gross vehicle weight > 12,000 kg. [2] Assume that reversing operation will not take more than 30 seconds for each vehicle, includes reversing alarm and air brake release.		

Modelled onsite vehicle movements

The following 'worst case' 15-min traffic volumes during the day, evening, and tight time periods are derived from the traffic data supplied as detailed in **TABLE 34**. The vehicle movements have been modelled to reflect realistic operations, with heavy vehicles accessing and manoeuvring hardstand areas to load and unload items via forklift and light vehicles utilising carparking facilities.

TABLE 34: ONSITE VEHICLE MOVEMENTS						
Assessment Period[1]	**Light Vehicles per 15min[2]**	**Heavy Vehicles per 15min**	**Heavy Vehicle Breakdown**			
			B-double	**Semi-trailer**	**Rigid**	**Van**
Day	69	6	2	2	1	1
Eve	-	4	1	1	1	1
Night	69	4	2	1	1	0
Note: [1] Daytime (7am –6pm), Evening (6pm –10pm), Night-time (10pm –7am) [2] Assume 50% of total LV carparking activity occurs with 15-minutes						

Modelled line sources

Light vehicles are represented as line sources travelling 40km/hr with a sound power level (SWL) of 90 dBA and a height of 0.5 m. Heavy vehicle traffic movements are represented as line sources travelling 25 km/hr with a SWL of 106dBA. Heavy vehicle movements over hardstand and loading areas within each lot have been modelled travelling at 5km/hr with a sound power level of 105 dBA. Locations where heavy vehicles require greater engine capacity, such as accelerating from a stationary position, cornering, or accessing entry/exit ramps have been modelled as line sources travelling 5 km/hr with a SWL of 111 dBA. Heavy vehicles reversing into delivery docks, including reversing alarm and airbrake release have been modelled as a single line source with a SWL of 115 dBA at the location most affecting the nearest sensitive receiver within each lot. Duration of heavy vehicle reversing is assumed to be not greater than 30 seconds and includes reversing alarm and air-break release events. Source height for heavy vehicles is 1.5 m with the exception of the reversing alarm and air-brake release modelled at 1 m.

Modelled fixed sources

Fixed noise sources such as mechanical plant and forklifts have been modelled throughout the development. To account for indicative mechanical plant items, 14 point sources with a reference sound power level (80 SWL) have been modelled on rooftop with 24/7 operation.

External gas powered forklifts have been modelled as point sources with a SWL of 93 dBA at 1 m in height. It has been assumed that forklifts would operate continuously during any one 15-minute period. One forklift for every two heavy vehicles onsite has been modelled operating externally in the hardstand areas for each of the warehouses. To account for noise emissions from refrigerated trailers an additional point source (80 SWL) has been included within the hardstand.

6.1.11.2 Predicted Construction noise impacts

In the area surrounding the development site, the noise impacts have been quantitatively assessed for several construction activities. The typical $L_{Aeq,15min}$ noise levels at the surrounding noise sensitive receivers are provided in **TABLE 35** for each of the construction activities and are representative of the 'noisiest' construction periods allowing for the simultaneous operation of noise intensive construction plant in close proximity.

TABLE 35: PROJECT CONSTRUCTION NOISE IMPACTS

Stage	Receiver	Noise Level $L_{Aeq, 15min}$ - dBA		
		NML Day Standard Hours	Worst-case Predicted	Exceedance
Site Establishment and Clearing	Northern residential	45	28	No
	South residential	45	29	No
	West residential	45	25	No
	Industrial	70	57	No
	Community facility	60	25	No
	Childcare	45	31	No
Bulk Excavation	Northern residential	45	31	No
	South residential	45	32	No
	West residential	45	28	No
	Industrial	70	60	No
	Community facility	60	28	No
	Childcare	45	34	No
Road and Hardstand Construction	Northern residential	45	26	No
	South residential	45	27	No
	West residential	45	23	No
	Industrial	70	55	No
	Community facility	60	23	No
	Childcare	45	29	No
Warehouse Construction	Northern residential	45	21	No
	South residential	45	22	No
	West residential	45	18	No
	Industrial	70	50	No
	Community facility	60	18	No
	Childcare	45	24	No

No exceedances are predicted at any receivers during all construction stages. Construction noise impacts are predicted to be below Noise Management Levels at all receivers, during all stages of construction.

6.1.11.3 Predicted Operational noise impacts

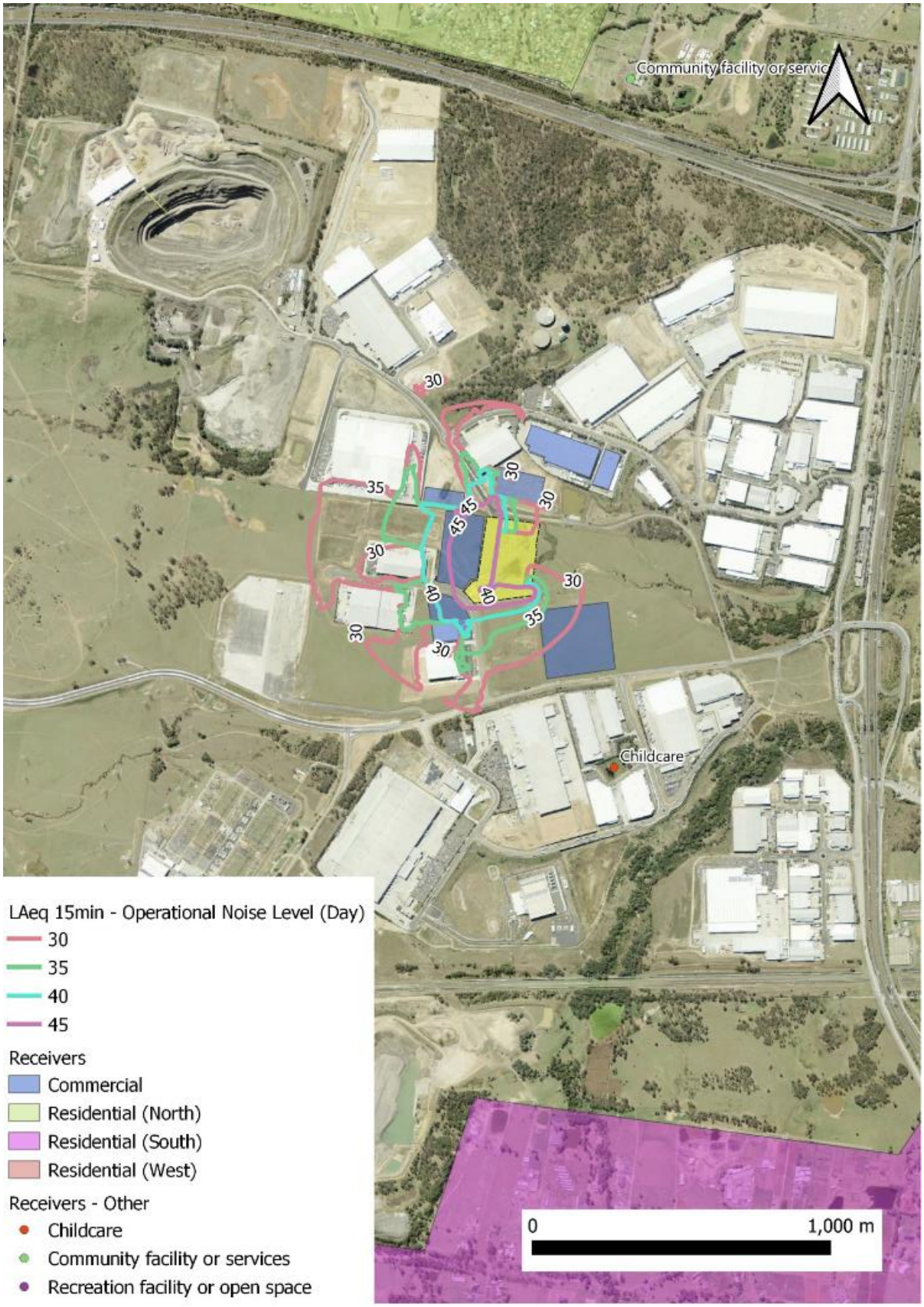

Figure 42 Operational Noise Levels - Day (Source: RWDI, 2021)

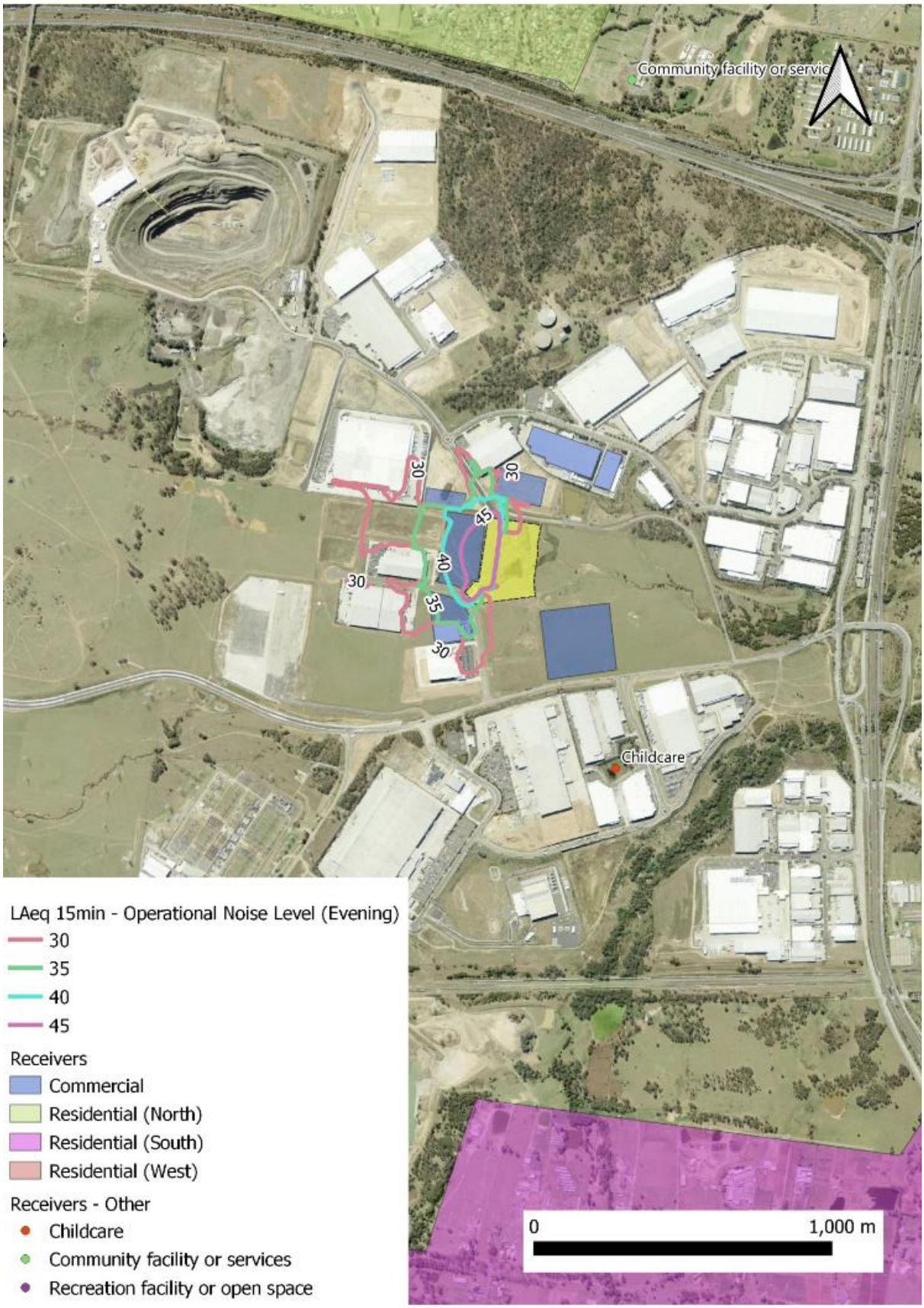

Figure 43 Operational Noise Levels - Eve (Source: RWDI, 2021)

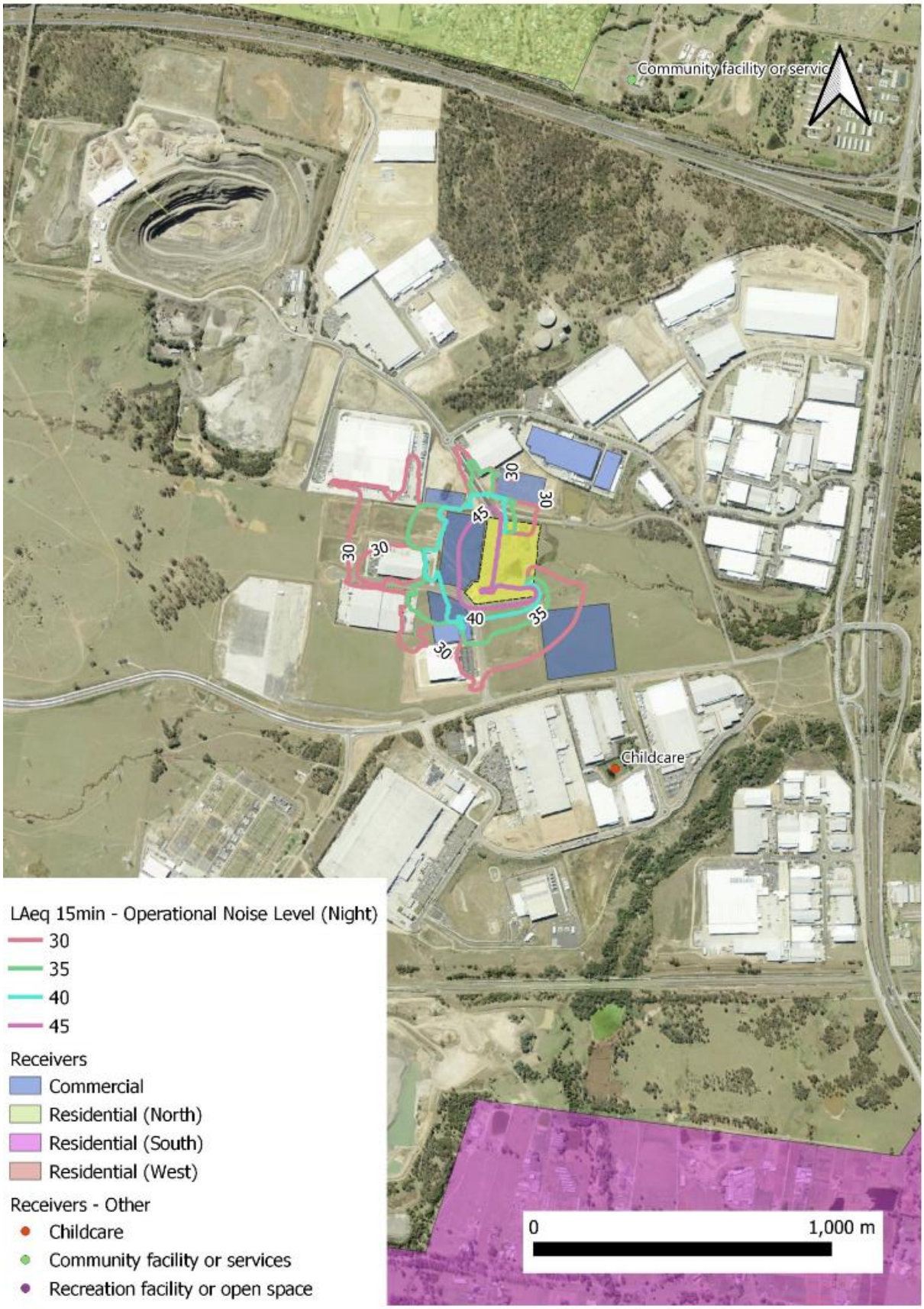

Figure 44 Operational Noise Levels - Night (Source: RWDI, 2021)

Noise contours for the daytime, evening, night time periods are presented in **Figure 42**, **Figure 43** and **Figure 44** respectively. As shown in **Figure 42**, **Figure 43** and **Figure 44** noise levels generated by the proposal will be well below the PTNLs presented in **TABLE 32** during all time periods.

Given the distance and the proximity of major roadways, operational noise from the proposed facility will be inaudible above the prevailing ambient noise at all surrounding residential receivers. Operational noise emissions to surrounding industrial sites will achieve the amenity level recommended under the NPfI.

In addition to the above, consideration must be given to the NSW Road Noise Policy (RNP), which emphasises the use of land use planning, better road design and vehicle noise emission control to avoid or minimise road traffic noise impacts. More specifically, the RNP sets an assessment criteria for residences potentially affected by additional traffic generate by land use developments. Where predicted noise levels exceed the project-specific noise criteria, an assessment of all feasible and reasonable mitigation options should be considered. The RNP states that an increase of up to 2 dB represents a minor impact that is considered barely perceptible to the average person.

A traffic study prepared for a warehousing development of similar size (over 26,000m^2) projected a traffic generation of 52vtph based on the RMS Technical Direction TDT 2013-4b.

Heavy vehicle arrival and departure will be predominantly from the M7, accessing the site from Eastern Creek Drive and Honeycomb Drive. Based upon the estimated traffic projection, the additional traffic generated by the proposed warehouse development will not result in any significant increase in the existing levels of road traffic noise on the road network surrounding the project.

Operational noise emissions from the facility will be inaudible above the prevailing ambient at residential receiver areas to the north, south and west.

Operational noise emissions to surrounding industrial properties will achieve the amenity limits recommended under the NSW NPfI.

Road traffic on the surrounding road network is unlikely to increase as a result of the proposed warehouse operations.

In conclusion, the proposed development can be supported on the basis of acoustics.

6.1.12 Ground and Water Conditions

Item 12 of the SEARs relates to ground and water conditions, requiring the EIS to:

- Provide an assessment of the potential impacts on soil resources, including related infrastructure and riparian lands on and near the site.
- Provide an assessment of the potential impacts on surface and groundwater resources (quality and quantity), including related infrastructure, hydrology, aquatic and groundwater dependent ecosystems, drainage lines, downstream assets and watercourses.
- Identify predicted water discharge points to surface/groundwater and consider discharge quality against relevant water quality criteria.
- Provide a detailed site water balance including identification of water requirements for the life of the development, and measures to ensure an adequate and secure water supply.
- Provide an assessment of salinity and acid sulfate soil impacts.

The abovementioned matters addressed in the following subsections, based on various technical inputs.

6.1.12.1 Soil Impact Assessment

The subject site was previously used for stockpiling and storage of fill during the adjacent regional detention system construction and level changes occurred during these works.

The proposed development works involve filling and some minor cutting to the existing site. These works are noted to be similar in nature and scale to those which have occurred on surrounding developments.

A Geotechnical Assessment has been undertaken by WSP, which forms **Appendix 18** of this EIS. The Geotechnical Assessment confirms there will be minimal impact to existing soil resources and soils.

It is noted that no riparian lands or watercourses are located within the subject site. However, the subject site is located adjacent to the regional detention basin and Eskdale Creek realignment. The development footprint and extent are clear of any riparian corridors or areas associated with these systems.

Soil investigations have concluded that soil at the surface of the subject site was generally non-saline to moderately saline. The underlying residual clays were predominantly ranked slightly to moderately saline. The deeper weathered siltstone was found to be generally moderately saline. The subsurface in the down gradient south-east corner of the site was generally more saline than the up gradient north-west. Soil salinity can impact upon plant growth, suitability of surface water bodies as habitat and affect construction materials and site infrastructure.

Soil testing for exchangeable sodium percentage (ESP) indicated that soils on the site were generally highly sodic. Soil sodicity reduces the ability of colloids to bind together and thus increases the risk of soil erosion. It was recommended that deeper structures (including footings, piles and service trenches) extending into the siltstone lithology should have salinity resistant materials incorporated into their design however, salinity did not present a significant risk of corrosion to shallow structures.

Potential Acid Sulfate Soils:

WSP had determined that the site has a probability rating of Acid Sulfate Soils (ASS) presence being 'Extremely Low Probability of Occurrence'. There is however the possibility of encountering Potential ASS (PASS) in the portion of the site where a former farm dam, former detention basin and associated drainage lines were historically situated.

During the proposed development works at the site (excavation and/or disturbance of soils in the former farm dam area) the preliminary visual checking of PASS will be based on material type, colour and consistency. Grey to dark grey and black, clays, silts and sands are generally suspected to be PASS. ASS screening should be undertaken should one or more of the following indicators be identified during excavation works (from the National Acid Sulfate Soil Guidance [DAWR,2018]):

- presence of unripe muds (soft, sticky and can be squeezed between fingers, blue grey or dark greenish grey mud);
- presence of silty sands or sands (mid to dark grey);
- presence of bottom sediments (dark grey to black for example monosulfidic black oozes);
- peat or peaty soils;
- coffee rock horizons; or
- sulfurous smell for example hydrogen sulfide or 'rotten egg' gas.

WSP recommends the following measures to manage PASS risk (if encountered) during excavations at the site:

- Minimise excavations within the higher risk PASS area to the extent practicable.

- Any soils excavated which exhibit one or more ASS indicators should be screened by peroxide field screening method within the shift that it is excavated, for assessment of suitability for reuse. Otherwise it should be assumed to be PASS and be transported to the acid sulfate soil treatment compound, or a licenced waste receiver for treatment, within 24 hours of excavation.
- Former farm dam sediments (if encountered) should be screened by peroxide field screening method within the shift that it is excavated, for assessment of suitability for reuse. Otherwise it should be assumed to be PASS and be transported to the acid sulfate soil treatment compound, or a licenced waste receiver for treatment, within 24 hours of excavation.
- Any material that screening shows to be a potential risk should be transported to the acid sulfate soil treatment compound and managed, or otherwise disposed of to a licenced waste receiver able to treat the acid sulfate soil.
- Daily inspection of the worksite by an environmental consultant should be undertaken, to measure pH of stockpiles, embankments and of surface water puddles to check that acid-affected soils are not forming or being distributed around the site.

Salinity:

The project is not expected to cause significant changes to groundwater levels and is therefore not expected to worsen known or potential salinity affected areas. Salinity management strategies are described in the following subsections.

Management of erosion

Soil erosion during construction on the site will require careful management. Following construction, erosion risks post-development are expected to be minimal given that approximately 95% of the site surface will comprise concrete hardstand and/or warehouse roofing. Surface water runoff from the site is to be diverted into lined stormwater drains. Levels of erosion should be able to be maintained within normally acceptable levels by adopting effective soil erosion and sedimentation control practices, including:

- Plan for soil and water management concurrently with engineering design and in advance of any earthworks.
- Minimise the area and duration of soil exposure by staged development and controlled clearing.
- Stockpile stripped soil for reuse and protect from erosion.
- Control stormwater run-off by diverting clean run-off from stripped areas, minimising slope gradient, length and run-off velocities.
- Trap soil and water pollutants using silt traps, sediment basins, perimeter banks, silt fences and nutrient traps as appropriate.
- Quick rehabilitation of disturbed areas. Use of construction materials must also take into consideration salinity impact to proposed materials, adopting guidance from Australian Standards and Council Engineering Design Specifications.

All personnel on the site involved with earthworks, land clearing or construction should be made fully aware of the issues associated with Urban Salinity. Sediment and erosion control plans must take into account saline soils.

Management of stormwater and drainage

The following principles have been considered in the design of the proposal, as outlined in **Section 6.1.13** of this EIS.

- The design and layout of retaining walls, underground services and stormwater should have minimal cut.
- Adequate surface drainage should be installed and maintained during construction.

- Implementation of measures to avoid the infiltration of stormwater during construction.
- Designing stormwater detention ponds and stormwater to reduce infiltration.
- Minimise the disturbance to natural drainage patterns.
- Avoidance of water collecting in low lying areas such as along batters and embankments, depressions or trenches. This can lead to salt mobilisation through saturated zones and can lead to concentration of salts at the surface where evaporation is occurring.
- minimise water use onsite.

Management of dispersive (sodic) soils

The following management recommendations are made to address the vulnerability of the site to dispersive (those that are subsequently highly prone to erosion) soils.

- Potential treatments
    - Soil compaction reduces dispersion potential. Compaction of clays should be specified to be close to the maximum dry density and at a moisture content 1% to 2% above Optimum Moisture Content to reduce tunnel erosion potential.
    - In areas where the proposed development is susceptible to dispersion (e.g. steep batter slopes), soils may need to be treated using chemical amelioration. Gypsum, for example, is effective in reducing the dispersion potential of soils. Gypsum increases the electrolyte concentration in the soil and displaces sodium with calcium in the clay structure.
- Potential infrastructure design and construction approaches
    - In almost all cases, tunnel and surface erosion results from the surface disturbance of soil allowing rainwater or stormwater to come into contact with dispersible subsoils. Changes to hydrology, including concentrating flow in culverts, runoff from hardstand areas, ponding of rainfall and land contouring increases the risk of tunnel erosion. Typical activities that increase the risk of exposing dispersive subsoils to rainfall and stormwater include:
        - the removal of topsoil;
        - soil excavation and ground profiling;
        - trenching and supply of services;
        - road and culvert construction; and—the construction of dams and detention basins.
- Earthworks Design
    - Some of the risks presented by a potentially dispersive site can be managed through earthworks design.
    - The risk of dispersion can be reduced by minimising the extent and depth of areas of cut within areas of potentially dispersive soils and instead designing these areas to be at grade or in fill.
    - Areas of fill should be filled with non-dispersive soils unless the dispersive soils are designed by a geotechnical engineer to be encapsulated within non-dispersive soils.
    - Following construction, soil dispersion post-development is expected to be minimal given that approximately 95% of the site surface will comprise concrete hardstand and/or warehouse roofing.
    - Landscape areas should be designed at gradients of less than 20% unless specifically designed in consultation with a geotechnical engineer.
- Utility and Drainage Design
    - Give preference to design of at-ground or above-ground utilities which avoid the need for trenching through areas of potentially dispersive soils. Any trenching that is required for services should be designed to avoid long runs down slope which could increase the chances of tunnel erosion occurring.
    - Drainage design should avoid use of table drains, trenched pipes and culverts in areas containing dispersive soils. Runoff from areas of dispersive soils should not be

designed to discharge directly to waterways or stormwater drains where itmay adversely water quality.

- Potential non-structural control measures
  - A construction management plan should be prepared in advance of the start of construction identifying the hazards associated with dispersive soils and construction practices to mitigate their impact.
  - Sediment and erosion controls should be installed prior to the commencement of any works and maintained throughout the course of construction until disturbed areas have been revegetated/ established.
  - The amount of time land is exposed should be minimised though staged development and/or staged working where possible. Particular care should be taken to avoid allowing soils to desiccate and crack, since these soils are then vulnerable to tunnel erosion after heavy rainfall.
  - Soil compaction should be verified through geotechnical supervision and field and laboratory testing.
  - Stockpiling of dispersive soil should be avoided where possible. Stockpiles should be protected from surface and rainwater.
  - Earthworks surfaces should be shaped to avoid ponding of surface water and discharged to relatively erosion resistant areas (e.g. garden beds mixed with gypsum, existing well vegetated areas with ample topsoil and stony elevated areas)away from dispersive soils.
  - Exposed dispersive subsoils should be protected as soon as possible to protect them from rainfall and surface water.
  - Runoff from areas of dispersive soils should not be discharged directly to waterways or stormwater drains.
  - Topsoil should not be removed or land re-profiled unless this forms part of the final earthworks design.

A copy of the Acid Sulfate Soil and Salinity Management Plan (ASSSMP) prepared by WSP and contained within **Appendix 20** of this EIS, should be made available for all relevant personnel working on the project and a copy should be kept on site for reference during construction. The recommendations of the ASSSMP should be referenced in conjunction with the construction environmental management plan (CEMP) as well as other works plans to include safe work method statements (SWMS).

Prior to commencement of works, all field staff will be inducted to the site and will be made familiar with their obligations under the site management plans and associated environmental and worker health and safety requirements. Any staff involved in sediment excavation and/or handling will be made familiar with the procedures discussed in the ASSSMP.

6.1.12.2 Groundwater Impact Assessment

A Groundwater Impact Assessment has been undertaken by WSP (refer to **Appendix 19**), to provide an assessment of the potential impacts to the groundwater regime at the subject site, based on the proposed development and associated infrastructure.

The existing groundwater environment was assessed through a desktop review of existing and available geological and hydrogeological information, supplemented by limited intrusive site investigations. A qualitative risk assessment was undertaken through the identification of potential impacts to groundwater (such as levels and quality), groundwater dependent ecosystems (GDEs) and other groundwater users during the construction and operation of the project. Mitigation and management measures were identified to minimise potential impacts to the groundwater regime and users.

The proposed design ground level is 66.8m AHD and there are requirements for shallow excavations of up to 2.0m, accounting for site levelling and foundation improvements.

During investigations carried out by WSP, groundwater was encountered at levels between 60.01m AHD and 63.28m AHD. Water quality observations determined groundwater to be moderately saline to saline, with an electrical conductivity between 18,745 μ S/cm and 24,700 μ S/cm.

A summary of construction and operational risks to groundwater and assessments based on the *NSW Aquifer Interference Policy 2012* are set out in **TABLE 36**.

TABLE 36: GROUNDWATER RISK SUMMARY

Risk ID	Description	Assessed Risk
C1 – Extraction of groundwater	Construction groundwater extraction resulting in an unacceptable impact to sensitive receptors	**Low**
C2 – Contamination of groundwater (construction)	Contamination of groundwater from construction activities during the construction phase	**Low**
O1 – Contamination of groundwater (operation)	Contamination of groundwater from operational activities	**Low**
O2 – Alteration of groundwater recharge	Changes to groundwater recharge through altering surface infiltration	**Low**
O3 –Alteration of groundwater flow	Changes to groundwater flow paths or groundwater discharge impacting surface water and groundwater quality	**Low**

Existing stormwater infrastructure directs stormwater from Eastern Creek Drive and the local area to either the stormwater detention basin or to the stormwater overflow area located immediately to the east of the site. The detention basin is expected to have limited connectivity with the groundwater.

The development is not expected to cause long term changes to groundwater levels and is therefore not expected to affect known or potential salinity affected areas. The current hydrogeological model would temporarily alter during construction. Potential influences include:

- Interception of groundwater during excavation activities
- A change of natural drainage patterns as a consequence of construction.

Given that these changes would be temporary no significant impact on soil salinity is anticipated.

The primary risks to groundwater were identified as low risk and did not require specific mitigation and management measures. Industry standard mitigation and management measures are recommended to reduce the potential consequence of contamination to groundwater.

6.1.12.3 Surface Water Impact Assessment

The subject site currently sheds stormwater as sheet flow to the east and south-east, off the property to the regional detention system east of the site.

The site has minimal existing formal inground drainage systems, however a box culvert (2 x 2400mm wide by 1500mm high RCBC) and overland flow swale are present adjacent to the southern property boundary. This system is a trunk drainage line which carries runoff from the Eskdale Creek Catchment which comprises Eastern Creek Drive, Honeycomb Drive and surrounding properties, from Eastern Creek Drive to the Eskdale Creek regional detention system east of the property.

The regional detention system, the Eskdale Creek Catchment Detention System is generally shown in **Figure 45**. This system was constructed in two stages with two interconnected basins. As

previously reported by Calibre, the combined Stage 1 and 2 Basins have a storage volume of 24,120m^3 in the 1% AEP.

The regional detention system has been designed and constructed to attenuate runoff from all development within the catchment, and to provide water quality for road runoff. As such individual developments do not need to provide site specific detention systems, however will need to allow for and include water quality treatment devices.

There are no impacts to the regional basins as designed and constructed. The regional systems allowed for the developed conditions of the precinct, and included the subject site.

The storage volume associated with the subject site is 2,184m^3, being approx. 9% of the total basin volume and consistent with the proportion of the contributing precinct catchment.

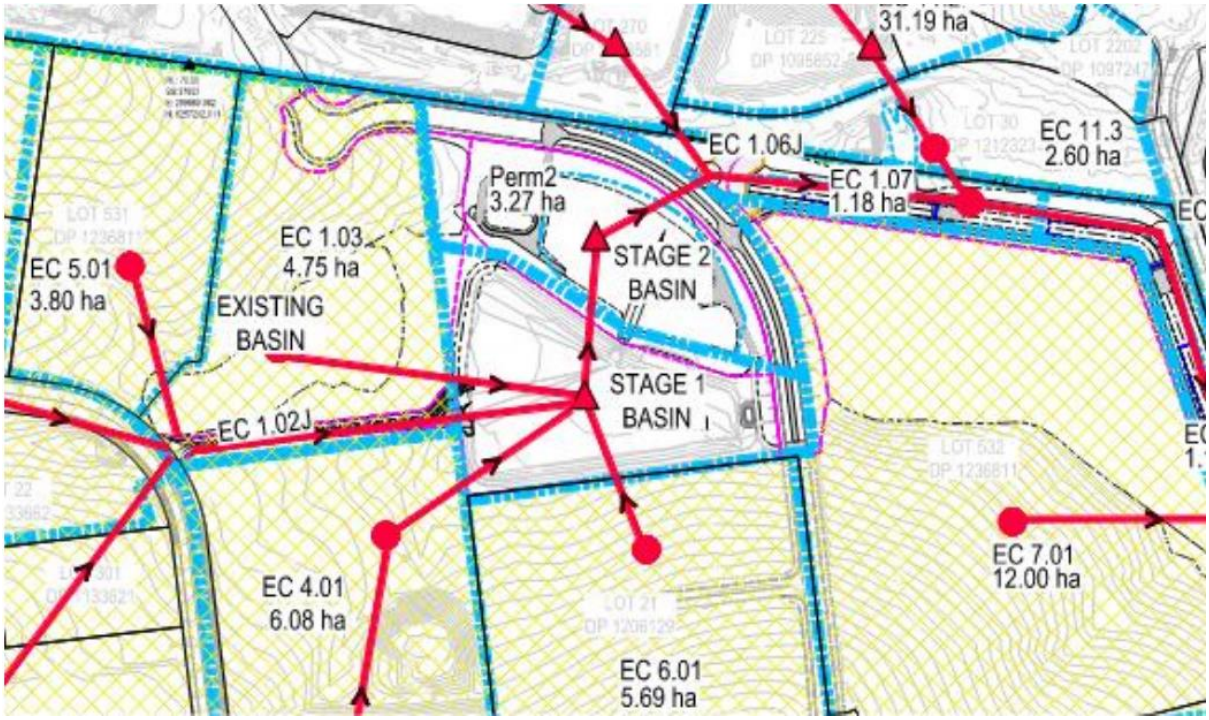

Figure 45 Location of Regional Detention Basin (Source: Costin Roe, 2021)

Surface water management, including conveyance of surface runoff, management of water quantity (through on-site detention) and water quantity (through on-site and estate wide management systems using Water Sensitive Urban Design (WSUD) principles and best practice pollution reduction objectives) has been proposed in the design.

The location of the inter-allotment trunk drainage culvert and swale which carries runoff from Eastern Creek Drive to the regional detention system (through the subject site) is shown in **Figure 13** of this EIS.

The proposal seeks to locate carparking areas over the culvert. The proposal has been designed to maintain access to existing access pits.

Further discussion on conveyance of overland flow in the pre and post development conditions is made in the following subsections.

Proposed Surface Water Drainage System:

As per general engineering practice and the guidelines of Council, the proposed stormwater drainage system for the estate development will comprise a minor and major system to safely and efficiently convey collected stormwater run-off from the development to the legal point of discharge.

The minor system is to consist of a piped drainage system which has been designed to accommodate the 1 in 20-year ARI storm event (Q20). This results in the piped system being able to convey all stormwater runoff up to and including the Q20 event. The major system will be designed to cater for storms up to and including the 1 in 100-year ARI storm event (Q100). The major system will employ the use of defined overland flow paths, such as roads and open channels, to safely convey excess run-off from the site.

The design of the stormwater system for this site will be based on relevant national design guidelines, Australian Standard Codes of Practice, the standards of PCC and accepted engineering practice. Runoff from buildings will generally be designed in accordance with AS 3500.3 National Plumbing and Drainage Code Part 3 – Stormwater Drainage. Overall site runoff and stormwater management will generally be designed in accordance with the Institution of Engineers, Australia publication "Australian Rainfall and Runoff" (2019 Edition), Volumes 1 and 2 (AR&R).

Water quality and re-use are to be considered in the design to ensure that any increase in the detrimental effects of pollution are mitigated, Council Water Quality Objectives are met and that the demand on potable water resources is reduced.

The proposed drainage system will be required to convey the overland flow from upstream catchments east of the property through the site.

The legal point of discharge is a point specified by Council where stormwater from a property can be discharged. The legal point of discharge is usually Council's stormwater infrastructure (where available), the street kerb and channel for smaller developments or downstream receiving waters like an existing stream or gully, lake, pond or waterbody. Legal discharge for this site is via the existing inter-allotment drainage culvert.

With reference to the civil design drawings, the drainage system proposed can be described as follows:

- In-ground piped drainage system designed to the 1% AEP (1 in 100yr ARI);
- Site discharge via the existing inter-allotment drainage system.
- Treatment of stormwater via one of two proprietary filtration systems;
- Conveyance of overland flow from Eastern Creek Drive safely through the proposed carparking zones to the Eskdale Creek Regional Detention Systems.

Proposed Water Quantity Management:

Council's Part J DCP and WSUD 2020 Developers Guideline require management of stormwater quantity for developments, with the intent of minimising flooding from the increased stormwater run-off due to the development. Water quantity management may be made by providing a stormwater detention system (i.e. on-site detention), to limit the runoff discharged from private property or to provide an assessment which confirms on-site detention is not necessary for the development.

Management of Stormwater Quantity has been considered for the site. As discussed above, the property discharges directly into the Eskdale Creek Regional Detention System. The Eskdale Creek Regional Detention System is a circa 24,000m^3 detention system, which was designed and constructed with provision for development of the subject site. Completion of Stage 2 construction occurred in 2020 and the system is now fully operational.

Given the provision of a regional stormwater detention system which reduces peak flows as required by Council and consistent with the Eastern Creek Business Park precinct, no on-site detention is required or proposed for the development.

Proposed Water Quality, Reuse and Maintenance:

There is a need to provide a design which incorporates the principles of WSUD and to target pollutants that are present in the stormwater so as to minimise the adverse impact these pollutants could have on receiving waters and to also meet the requirements specified by Council.

Council has nominated, in Part J of their BDCP2015, the requirements for stormwater quality to be performed on a catchment wide basis.

Stormwater Treatment System

Developed impervious areas including roof, hardstand, car parking, roads and other extensive impervious areas are required to be treated by the Stormwater Treatment Measures (STM's). The STM's shall be sized according to the whole catchment area of the development. The STM's for the development shall be based on a treatment train approach to ensure that all the objectives above are met.

Components of the treatment train for the development are as follows:

- Primary treatment to the parking, roof, and hardstand areas is to be performed via the provision of pit inserts to all grated pits;
- Tertiary treatment is to be performed via Ocean Protect Stormfilters (or approved equivalent) prior to discharge from the site;
- A portion of the roof will also be treated via rainwater reuse and settlement within the rainwater tank.

It is noted that the regional stormwater system (Eskdale Creek Regional Basin) described above does not provide any treatment for individual lots. Management of all site runoff treatment is proposed to occur on-lot.

The proposed stormwater quality device is located in the southern extent of the subject site, approximately 2m from the drainage easement boundary and 3m from the culvert, and does not impact on the existing drainage system.

Stormwater Quality Modelling

The MUSIC model was chosen to model water quality. By simulating the performance of stormwater management systems, MUSIC can be used to predict if the proposed systems and changes to land use are appropriate for their catchments and capable of meeting specified water quality objectives (CRC 2002). The water quality constituents modelled in MUSIC, of relevance to this report, include Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN).

The parameters used in the MUSIC model are presented in the Civil Engineering Report, prepared by Costin Roe Consulting and contained within **Appendix 21** of this EIS.

TABLE 37: MUSIC ANALYSIS RESULTS - % REDUCTIONS			
Water quality constituents	**Source**	**Residual Load**	**% Reduction**
TSS (kg/year)	3920	436	**88.2**
TP (kg/year)	9.2	3.01	**67.4**

TABLE 37: MUSIC ANALYSIS RESULTS - % REDUCTIONS			
Water quality constituents	**Source**	**Residual Load**	**% Reduction**
TN (kg/year)	75.3	41	**45.6**
Gross pollutants (kg/year)	871	0	**100**

MUSIC modelling has been performed to assess the effectiveness of the selected treatment trains and to ensure that the pollutant retention requirements of Council's Part J DCP 2015 have been met.

The MUSIC modelling has shown that the proposed treatment train of STM will provide stormwater treatment which will meet Council's and typical growth centre water quality reduction objective requirements in an effective and economical manner.

Given the expected low source loadings of hydrocarbons and oil/grease and removal efficiencies of the treatment devices the requirements of the Council have been met.

6.1.12.4 Site Discharge

A surface water runoff including surface water runoff, water quality and water quantity has been completed for the proposed development. The key stormwater objectives are addressed in **Section 6.1.13** of this EIS.

Discharge from the subject site is to be made to existing public trunk drainage systems via the existing inter-allotment drainage line which traverses the southern extent of the site.

6.1.12.5 Site Water Balance

Potable water demand

Based on the current proposed development, the following potable water demand has been calculated, resulting in:

Average Day Demand = 15kL/day
Max. Day Demand = 24kL/day

TABLE 38: POTABLE WATER DEMAND					
Development Type	**Floor Area**	**EP/m²**	**EP**	**PW Demand/EP**	**PW Demand**
Warehouse	25,400	1EP/250m²	102	80L/day	8kL/day
Ancillary office	1,750	1EO/20m²	88	80L/day	7kL/day
Total					**15kL/day**

Waste water discharge

An estimate of 90% of potable water for waste water discharge equates to:

Discharge = 14kL/day

Measures to reduce water demand

Rainwater harvesting is proposed for this development with re-use for non-potable applications. Internal uses include such applications as toilet flushing while external applications will be used for irrigation. The aim is to reduce the water demand for the development by 80%.

In general terms the rainwater harvesting system will be an in-line tank for the collection and storage of rainwater. At times when the rainwater storage tank is full rainwater can pass through the tank and continue to be discharged via gravity into the stormwater drainage system. Rainwater from the storage tank will be pumped for distribution throughout the development in a dedicated non-potable water reticulation system. This however would be subject to future detail design.

Rainwater tanks have been designed, using MUSIC software to balance the supply and demand, based on the below base water demands and to provide 80% reduction in non-potable water demand. Rainwater tank reuse demands were calculated based on typical water demands of toilets and irrigation of landscaped areas. Water demands for toilets was calculated using 0.1kL/day/ toilet. Water demands for irrigation of landscaped areas was calculated using 0.3kL/year/m^2.

The above rates result in the following internal non-potable demand:

27 x Toilets = 2.7kL/day

The above regime for the landscaped area of the site, gives the following yearly outdoor water demand:

Irrigated area (0.3kL/year/m^3) = 305kL/year

The use of rainwater reduces the mains water demand and the amount of stormwater runoff. By collecting the rainwater run-off from roof areas, rainwater tanks provide a valuable water source suitable for flushing toilets and landscape irrigation.

Rainwater tanks have been designed, using MUSIC software to balance the supply and demand, based on the calculated base water demands and proposed roof catchment areas. Allowances in the MUSIC model have been made for high flow bypass which will be managed by 300mm downpipe roofwater collection configuration along a portion of the northern elevation of the warehouse.

The MUSIC model, predicts that the reuse demands of 80% will be met for the development with the provision of a minimum 150kL rainwater tank; noting that the final configuration and sizing of the rainwater tanks is subject to detail design considerations and optimum site utilisation.

6.1.12.6 Stream Erosion Index

A Stream Erosion Index (SEI) calculation has been made, in accordance with the methodology set out in Council's *Water Sensitive Urban Design Handbook (2020)*. Council require that the post development duration of stream forming flows shall be no greater than 3.5 times the pre-development duration of stream forming flows with a stretch target of 1.

The SEI has been calculated for the site area relating to the new development.

The four following steps, as defined in the council document, were used in estimating the SEI:

1. Estimate the critical flow for the receiving waterway above which mobilisation of bed material or shear erosion of bank material commences.
2. Develop and run a calibrated MUSIC model of the area of interest for predevelopment conditions to estimate the mean annual runoff volume above the critical flow.
3. Develop and run a MUSIC model for the post developed scenario to estimate the mean annual runoff volume above the critical flow.
4. Use the outputs from steps 3 and 4 to calculate the SEI for the proposed scenario.

The critical flow for the receiving water (25% of the 2 year ARI) has been estimated at 0.027m^3/s.

A pre-developed model was set up based on the site being modelled as a pervious agriculture land. The pre-development runoff volume, above the critical flow, based on the calibrated MUSIC model was calculated at 4.38 ML/yr.

The post-development runoff volume, above the critical flow, based on the post-developed MUSIC model was calculated at 12.88 ML/yr.

This has been based on the proportion of the 4.81 Ha site over the total 53.8 Ha catchment draining to the regional Basin. An on-site detention system of 1015m^3, proportionate to the contributing site catchment, has been included the model to properly replicate the SEI at the receiving waters downstream of the estate detention measures.

The SEI for the development has been calculated at 2.94. This can be seen to be below the maximum allowable target of 3.5, hence the requirements of the SEI assessment have been met.

6.1.12.7 Construction Soil and Water Management

Without any mitigation measures and during typical construction activities, site runoff would be expected to convey a significant sediment load. A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), or equivalent, would be implemented for the construction of the Proposal. The SWMP and ESCPs would be developed in accordance with the principles and requirements of Managing Urban Stormwater – Soils & Construction Volume 1 ('Blue Book') with a staged approach.

In accordance with the principles included in the Blue Book, a number of controls have been incorporated into a preliminary staged ESCP (refer to accompanying Drawings in Appendix A and draft SWMP in Appendix C of the Civil Engineering Report contained in **Appendix 21** of this EIS). The staged ESCP considers initial site establishment, requirements during construction of roads and infrastructure and estate earthworks, completion of estate works and the period between this and development of individual lots.

While all construction activities have the potential to impact on water quality, the key activities are:

- Erosion and sediment control installation.
- Grading of existing earthworks to suit building layout, drainage layout and pavements.
- Stormwater and drainage works.
- Service installation works.
- Building construction works.

The subsections below outline the proposed controls for management of erosion and sedimentation during construction of the proposal. The staged approach is noted to consider initial site establishment, construction of the estate and the period between completed of the estate infrastructure works and development of individual lots in the estate as included in the ESCP drawings (**Appendix 21** of this EIS).

Sediment Basins:

Sediment basins have been sized (based on 5 day 85th percentile rainfall) and located to ensure sediment concentrations in site runoff are within acceptable limits. Preliminary basin sizes have been calculated in accordance with the Blue Book and are based on 'Type F' soils. These soils are fine grained and require a relatively long residence time to allow settling.

Sediment basins for 'Type F' soils are typically wet basins which are pumped out following a rainfall event when suspended solids concentrations of less than 50 mg/L have been achieved.

Sediment Fences:

Sediment fences are located around the perimeter of the site to ensure no untreated runoff leaves the site. They have also been located around the existing drainage channels to minimise sediment migration into waterways and sediment basins.

Stabilised Site Access:

For the proposal, stabilised site access is proposed at one location at the entry to the works area. This will limit the risk of sediment being transported onto Eastern Creek Drive and other public roads.

Other Management Measures:

Other management measures that will be employed are expected to include:

- Minimising the extent of disturbed areas across the site at any one time.
- Progressive stabilisation of disturbed areas or previously completed earthworks to suit the proposal once trimming works are complete.
- Regular monitoring and implementation of remedial works to maintain the efficiency of all controls.

It is noted that the controls included in the preliminary ESCP are expected to be reviewed and updated as the design, staging and construction methodology is further developed for the proposal.

6.1.13 Stormwater and Wastewater

This section of the EIS evaluates the stormwater and wastewater provisions of the proposed development, through the preparation of an Integrated Water Management Plan, which forms part of the Civil Engineering Report, prepared by Costin Roe Consulting and contained within **Appendix 21** of this EIS.

Item 13 of the SEARs specifically requires that an Integrated Water Management Plan be provided for the development that:

- is prepared in consultation with the local council and any other relevant drainage or water authority.
- details the proposed drainage design for the site including any on-site detention facilities, water quality management measures and the nominated discharge points, on-site sewage management, and measures to treat, reuse or dispose of water.
- demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse impacts on any downstream properties.

It is also noted that where drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority, provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and comply with the relevant standards of, the local council or other drainage or water authority.

6.1.13.1 Water Cycle Management

Water Cycle Management (WCM) is a holistic approach that addresses competing demands placed on a region's water resources, whilst optimising the social and economic benefits of development in addition to enhancing and protecting the environmental values of receiving waters.

Developing a Water Cycle Management Strategy (WCMS) at the SSD stage of the land development process provides guidance on urban water management issues to be addressed for the development as a whole. This WCMS has been prepared to inform NSW DPE, and relevant stakeholders, that the development is able to provide and integrate WCM measures into the stormwater management

strategy for the development. Several WCM measures have been included in the WCMS and engineering design, which are set out in the Civil Engineering Report (**Appendix 21** of this EIS) and the civil design drawings.

The key WCM elements and targets which have been adopted in the design are included in **TABLE 39** below.

TABLE 39: WATER CYCLE MANAGEMENT TARGETS

Element	Target	Reference
Water quantity	Minimise flooding from increased stormwater runoff due to development.	Blacktown City Council DCP Part J
Water quality	Load-based pollution reduction targets based on an untreated urbanised catchment: ▪ Gross Pollutants 90% ▪ Total Suspended Solids 85% ▪ Total Phosphorus 65% ▪ Total Nitrogen 45% ▪ Total Hydrocarbons 90%	Blacktown City Council DCP Part J
Flooding	Buildings set 0.5m above the 1% AEP flood level.	Blacktown City Council DCP Part J NSW Floodplain Development Manual
Water supply	Reduce Demand on non-potable water uses. Provide 80% reduction of non-potable uses	Blacktown City Council DCP Part J
Construction Stormwater Management & Erosion and Sediment Control	A construction stormwater management plan and appropriate associated erosion and sedimentation control measures must be described in the environmental assessment for all stages of construction to mitigate potential impacts to surrounding properties.	Landcom Blue Book Blacktown City Council NSW Department of Primary Industries
Dangerous Goods and Fire Water Containment	In the event of a fire, containment of firewater runoff is required.	NSW EPA

A summary of the how each of the WCM objectives will be achieved are described below. Reference should also be made to the Civil Engineering Report, contained within **Appendix 21** of this EIS, for further and technical details relating to the WCM measures:

Stormwater Quantity Management:

The intent of this criterion is to reduce the impact of urban development on existing drainage system by limiting post-development discharge within the receiving waters to the pre-development peak, and to ensure no affectation of upstream, downstream or adjacent properties.

Attenuation of stormwater runoff from the development is not required. The site discharges to an existing regional detention system located on the land east of the property. The regional detention system provides attenuation requirements for this site and surrounding catchments, as such a site specific system is not required or proposed.

There are no impacts to the regional basins as designed and constructed. The regional systems allowed for the developed conditions of the precinct, including the subject site. These regional systems are managed by Council.

The storage volume associated with the subject site (provisioned for in the constructed basins) is 2,184m^3, being approximately 9% of the total basin volume and consistent with the proportion of the contributing precinct catchment.

The stormwater management measures proposed have been consulted with Council in pre-application meetings held on 31 March 2021 and 19 November 2021. The pre-application meeting minutes confirm no on-site detentions measures are required for the development (due to the regional basin). Refer to submission 15 of the Stakeholder Engagement Report, contained within **Appendix 30** of this EIS, for confirmation of Council's on-site detention and WSUD requirements.

Given the provision of a regional stormwater detention system which reduces peak flows as required by Council and consistent with the Eastern Creek Business Park precinct, no on-site detention is required or proposed for the development, as confirmed by Council.

Refer to **Section 6.1.12.3** above for detailed assessment.

Stormwater Quality Management:

There is a need to target pollutants that are present in stormwater runoff to minimise the adverse impact these pollutants could have on downstream receiving waters. The required pollutant reductions are included in **TABLE 39** above and MUSIC modelling has been completed to confirm the reduction objectives can be met for the estate, as shown in **TABLE 37**.

A series of Stormwater quality improvement devises (SQID's) have been incorporated in the design of the estate. The proposed management strategy will include the following measures:

- Primary treatment of external areas will be made via pit inserts.
- Tertiary treatment of the development will be made via one of two proprietary treatment systems. The treatment systems are proposed to be syphon actuated filtration systems housed in underground tanks.
- Some treatment will also be present by provision of rainwater reuse tanks on development sites through reuse and settlement within the tanks.

Refer to **Section 6.1.12.3** above for detailed assessment.

Flood Management:

The proposed development has considered flooding and large rainfall events in relation to the adjacent regional detention system, and local runoff and overland flow paths including the overland flow from Eastern Creek Drive.

Consideration to flood requirements has been made per Council Flood Management Policy. Refer **Section 6.1.14** below for detailed assessment.

The following measures have been incorporated in the design:

- All buildings are sited 500mm above the 1% AEP design flood level of local flow paths.
- Overland flow paths to manage runoff in large storm events have been made including achieving at least 500mm freeboard to building levels from the flow paths, noting that a greater level of flood immunity is provided to the building than that required by planning to ensure an appropriate level of risk to the building for the intended use.

Water Demand Reduction/Rainwater Reuse:

Rainwater reuse measures will be provided as part of future building development designs. Rainwater reuse will be required to reduce demand on non-potable uses by 80%. The reduction in demand will target non-potable uses such as toilet flushing and irrigation.

Refer to **Section 6.1.12.3** above for detailed assessment.

Stormwater Management during Construction:

A construction stormwater management plan and associated erosion and sediment control measures is proposed based on Landcom Blue Book and Council requirements. The management measures take a staged approach from initial site establishment, construction stages and the period between the completion of the estate infrastructure works and development.

Fire Water Containment:

In the event of a fire, the intent is to ensure firewater runoff is contained on site for removal and disposal to an acceptable location in accordance with EPA requirements. The firewater runoff will be contained on site by a number of measures which will be finalised in detail design/post approval documents. It is anticipated that containment areas including recess docks (143approx. 700m^3 available), stormwater drainage system, within bunded warehouse area or similar could be adopted.

6.1.14 Flooding Risk

This section of the EIS assesses the flooding risk associated with the proposed development, specifically:

- Identifying any flood risk on-site having regard to adopted flood studies, the potential effects of climate change, and any relevant provisions of the NSW Floodplain Development Manual.
- Assessing the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions and operational procedures to mitigate flood risk where required.

Assessment of flooding and overland flow has been provided as part of the Civil Engineering Report, prepared by Costin Roe Consulting and contained within **Appendix 21** of this EIS.

The proposal requires consideration to overland flow between Eastern Creek Drive and the nearby regional detention basin. The assessments show the overland flow between Eastern Creek Drive and the regional detention basin can be conveyed safely through the development site (with low hazard categorisation), flood planning considerations are met and the site has suitable flood immunity to the known flood behaviour, acceptable flood risk has been demonstrated.

The development floor level has been set allowing for freeboard to the overland flow path of greater than 0.5m during the 1% AEP flood event. Freeboard greater than 0.5m during the 1% AEP flood event has also been achieved to the adjacent regional detention basin.

The requirements of Council and NSW Floodplain Development Manual are met for this development.

6.1.14.1 Existing Overland Flow and Flood Behaviour

The Eskdale Creek Basin, trunk drainage line and emergency flow path are depicted on **Figure 46** below. Key flow paths to the basin system are from the north, south and west. Discharge from the basin is to east toward Eastern Creek which is on the eastern side of the M7 Motorway. Design drawings by Calibre Consulting (provided by Council) show the 1% AEP water level in the basin at RL

61.37m AHD. Storm events greater than the 1% AEP are not included in the available information, however based on a review of the design arrangement of the basin and the constructed overflow level of the basin (set at RL 62.6m AHD) and the defined catchment, the PMF water level is estimated as being below, or in the range of, RL 63.0m to RL 63.5m AHD. The subject site is clear of, and does not impact, PMF flooding.

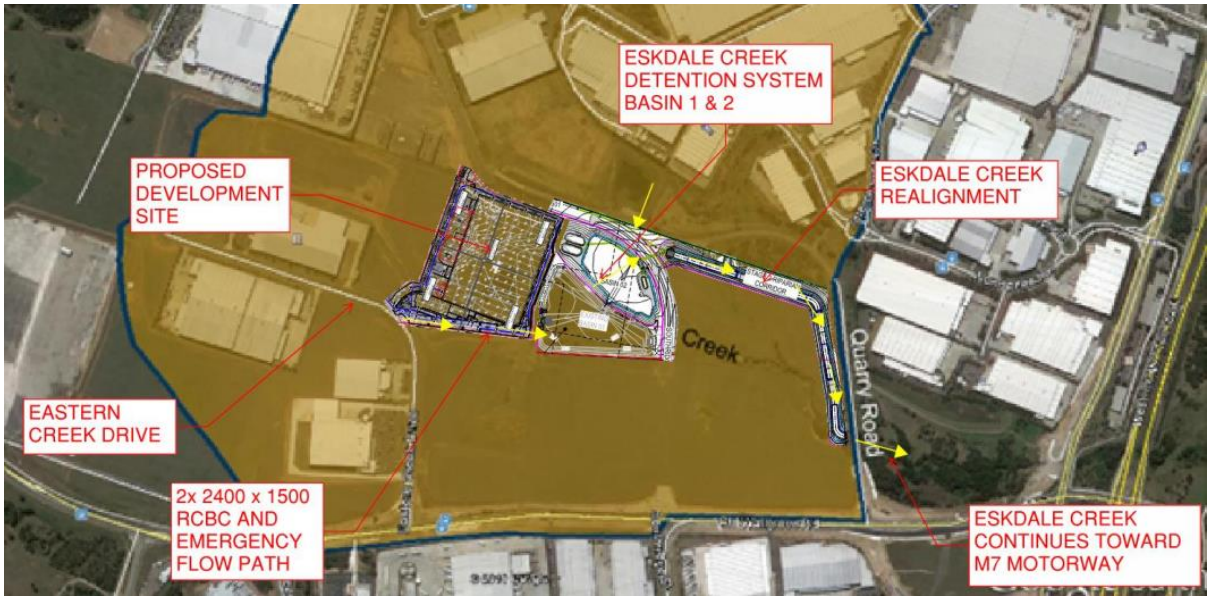

Figure 46 Site, Eskdale Creek Basin and Emergency Overland Flow Path (Source: Costin Roe, 2021)

In relation to the trunk drainage system, the design of the system (per Calibre) is based on a design capacity which allows for the 1% AEP design flow (approx. 18m³/s) and 50% blockage of both inlet pits and the culvert system. The DRAINS hydrologic and hydraulic modelling completed by our office has verified this design condition. The existing overland flow swale provides an emergency flow for events greater than the 1% AEP with 50% blockage.

The DRAINS model layout for the post development conditions is shown in the Civil Engineering Report, prepared by Costin Roe and contained within **Appendix 21** of this EIS. The drains modelling shows that the trunk drainage system is able to convey the 1% AEP with 50% blockage, and no overland flow from Eastern Creek Drive. Council's WSUD Handbook 2020 requires assessment of culverts which have the potential for blockage to be assessed based on 50% blockage. This blockage condition has been adopted in the model.

It is noted that Council's requirements for safe conveyance of flow have been allowed for within the piped culvert system as per the Calibre Design and confirmed through Costin Roe DRAINS modelling. It is also note that the provision for emergency overland flow has been allowed for in the design of the facility within the carparking area which is proposed along the southern boundary of the site. The emergency flow path allows for 4-5m³/s of flow which is H1 Hazard Categorisation or lower.

6.1.14.2 Floodplain Management Requirements

Council's Floodplain Management Policy provides relevant policy requirements relating to development in and around identified flood affected development sites. The intent of the document is to ensure that new developments do not experience undue flood risk and that existing development is not adversely flood affected through increased damage or hazard as a result of new development.

The flood planning level (FPL) for business/industrial to be at or above the 1% AEP (1 in 100-year ARI) flood level plus 0.5m freeboard. The FPL for this site is RL 61.87m AHD. The proposed building level

is RL 66.8m AHD and the lowest level on the site is noted to be RL 64.0m AHD. All levels on the site are noted to be higher than the FPL.

The PMF or extreme event provides an upper limit of flooding and associated consequences for the problem being investigated. It is used for emergency response planning purposes to address the safety of people.

As discussed in earlier sections of this report, the site is not subject to mainstream or regional flooding, however trunk drainage and an emergency overland flow path between Eastern Creek Drive and the adjacent Eskdale Creek Catchment Regional Detention System is located on the southern boundary of the site. The overland flow path, as confirmed above is able to safely convey a flow of between 4-5m^3/s, and has the ability to convey flows of much greater capacity. The southern portion of the site is the only part of the site subject to PMF overland flow. Elsewhere the building, office and hardstand are all free from PMF or other overland flow, and able to have onsite refuge during an overland flow event.

In relation to flood impact on the development or impact from the development on flooding, it is noted that the modelled 1% AEP flood extent does not encroach the subject property, hence no adverse impact to existing flood conditions or surrounding developments are associated with the proposed development.

Overall flood risk for the development, and from the development is considered low to negligible, and the proposed development meets current Council flood policy.

6.1.15 Hazards and Risks

Where there are dangerous goods and hazardous materials associated with the proposed development, item 15 of the SEARs requires that a preliminary risk screening in accordance with SEPP 33 be provided, and where required by SEPP 33, provide a PHA prepared in accordance with *Hazardous Industry Planning Advisory Paper No.6 – Guidelines for Hazard Analysis*.

A review of the application guide to SEPP 33 indicates that the proposed facility would exceed the threshold criteria for the storage of DGs resulting in a classification for the site of potentially hazardous. To demonstrate that the facility is not in fact hazardous, it is necessary to prepare a PHA for the site, in support of the SSD Application.

As such, a PHA has been prepared by Riskcon Engineering (**Appendix 22**), to:

- Complete the PHA according to the HIPAP No. – Hazard Analysis;
- Assess the PHA results using the criteria in HIPAP No. 4 – Risk Criteria for Land Use Planning;
- Demonstrate compliance of the site with the relevant codes, standards and regulations.

6.1.15.1 Dangerous Goods

The proposal involves the storge of DGs in retail packages, with the facility being designed to comply with AS/NZS 3833:2007. Specifically, the facility will comply with the Retail Distribution Centre (RDC) section of the standard which accounts for the reduced risk posed by packages stored in restricted small volumes.

The DGs stored at the warehouse are for various customers and may fluctuate with customer requirements. The classes and quantities to be approved in the facility are summarised in **TABLE 13** of this EIS, and their locations are depicted in **Figure 47**.

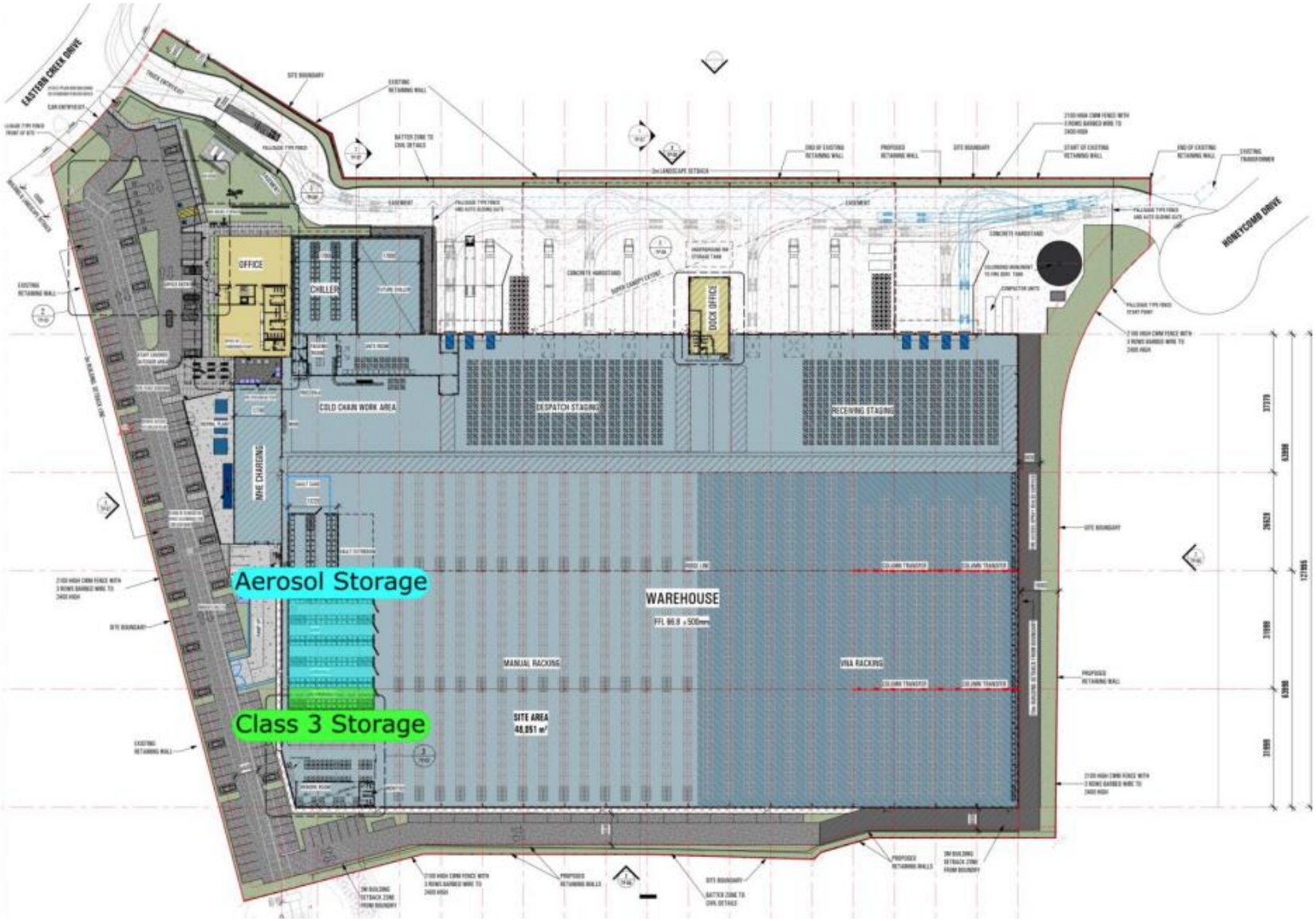

Figure 47 Layout of DGs storage (Source: Riskcon, 2022)

TABLE 40: PROPERTIES * OF DGS AND MATERIALS	
Class	**Hazardous Properties**
Class 2.1 – Flammable gas	Class 2.1 includes flammable gases which are ignitable when in a mixture of 13 per cent or less by volume with air or have a flammable range with air of at least 12 percentage points regardless of the lower flammable limit. Ignited gas may result in explosion or flash fire. Where gas released under pressure from a hole in a pressurised component is ignited, a jet fire may occur.
Class 2.2 – Non-flammable, non-toxic gases	Class 2.2 includes non-flammable and non-toxic gases which are asphyxiant (dilute or replace the oxygen normally in the atmosphere).
Class 3 – Flammable liquids	Class 3 includes flammable liquids which are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc.) which give off a flammable vapour at temperatures of not more than 60°C closed-cup test or not more than 65.6°C open-cup test. Vapours released may mix with air and if ignited, at the right concentration, will burn resulting in pool fires at the liquid surface.
Note: * The Australian Code for the Transport of Dangerous Goods by Road and Rail	

The warehouse will be protected by a bespoke automatic sprinkler system involving both ceiling mounted and in-rack sprinklers depending on commodities stored. The sprinklers which will activate upon fire detection which will suppress and control any fire that may occur. The warehouse will be naturally ventilated for occupation purposes which will provide adequate ventilation flow for preventing accumulation of any vapours released from packages in storage as required by AS/NZS 3833:2007.

All DG products will be protected by base building specified Storage Mode Sprinkler System (SMSS) sprinklers and the aerosols will be protected by in-rack sprinklers scheme A sprinkler systems designed according to AS 2118.1:2017. All DG areas will be protected by hose reel coverage in addition to hydrant coverage.

The whole site will be capable of containing at least 90 minutes of potentially contaminated fire water as required by AS/NZS 3833:2007 and the NSW "Best Practice Guidelines for Contaminated Water and Retention Systems". The water will be contained via isolation of the stormwater system which is performed by the actuation of a penstock valve upon fire detection.

The site will be subject to a hazardous area classification per AS/NZS 60079.10.1:2009 and any electrical equipment within the hazardous zone will be compliant per AS/NZS 60079.14:2017 to minimise the potential for ignition of flammable vapours which may be released during storage.

6.1.15.2 Aggregate Quantity Ratio

Where more than one class of DGs are stored and handled at the site an Aggregate Quantity Ratio (AQR) exists.

Where the ratio AQR exceeds a value of 1, the site would be considered a Major Hazard Facility (MHF). The threshold quantities for each class is taken from Schedule 15 of the *Work Health and Safety Regulation 2017* (WHS Regulation). These are summarised in **TABLE 41** noting Class 2.2, is not subject to MHF legislation.

TABLE 41: MAJOR HAZARD FACILITY THRESHOLDS			
Class	**Packing Group**	**Threshold (tonnes)**	**Storage (tonnes)**
2.1	N/A	200	56.63
2.2	N/A	Not subject to MHF	N/A
3	II & III	50,000	420

A review of the thresholds and to commodities and packing groups listed in **TABLE 13** indicates that only Class 2.1 is assessable against the MHF thresholds. The resultant AQR is 0.2916, which is less than 1; as such, the proposed facility would not be classified as an MHF.

In order to determine acceptable impact criteria for incidents that would not be considered for further analysis, due to limited impact offsite, the following approach has been applied:

Fire Impacts – It is noted in HIPAP No. 4 that a criterion is provided for the maximum permissible heat radiation at the site boundary (4.7 kW/m^2) above which the risk of injury may occur and therefore the risk must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk, for this study, incidents that result in a heat radiation less that at 4.7 kW/m^2, at the site boundary, are screened from further assessment.

Those incidents exceeding 4.7 kW/m^2 at the site boundary are carried forward for further assessment (i.e. frequency and risk). This is a conservative approach, as HIPAP No. 4 indicates that values of heat radiation of 4.7 kW/m^2 should not exceed 50 chances per million per year at sensitive land uses (e.g. residential). It is noted that the closest residential area is more than several hundred meters from the site, hence, by selecting 4.7 kW/m^2 as the consequence impact criteria (at the adjacent industrial site boundary) the assessment is considered conservative.

Explosion – It is noted in HIPAP No. 4 that a criterion is provided for the maximum permissible explosion over pressure at the site boundary (7 kPa) above which the risk of injury may occur and therefore the risk must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk, for this study, incidents that result in an explosion overpressure less than 7 kPa, at the site boundary, are screened from further assessment. Those incidents exceeding 7 kPa, at the site boundary, are carried forward for further assessment (i.e. frequency and risk). Similarly, to the heat radiation impact discussed above, this is conservative as the 7 kPa value listed in HIPAP No. 4 relates to residential areas, which are over more than several hundred meters from the site.

Toxicity – Toxic substances have been proposed to be stored at the site; hence, toxicity has been assessed.

Property Damage and Accident Propagation – It is noted in HIPAP No. 4 that a criterion is provided for the maximum permissible heat radiation/explosion overpressure at the site boundary (23 kW/m^2/14 kPa) above which the risk of property damage and accident propagation to neighbouring sites must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk to incident propagation, for this study, incidents that result in a heat radiation heat radiation less than 23 kW/m^2 and explosion over pressure less than 14 kPa, at the site boundary, are screened from further assessment. Those incidents exceeding 23 kW/m^2 at the site boundary are carried forward for further assessment with respect to incident propagation (i.e. frequency and risk).

Societal Risk – HIPAP No. 4 discusses the application of societal risk to populations surrounding the proposed potentially hazardous facility. It is noted that HIPAP No. 4 indicates that where a development proposal involves a significant intensification of population, in the vicinity of such a facility, the change in societal risk needs to be taken into account. In the case of the facility, there is currently no significant intensification of population around the proposed site; however, the adjacent land has been rezoned residential; hence, there will be housing located approximately more than several hundred meters from the site. Therefore, societal risk has been considered in the assessment.

TABLE 42: HAZARD IDENTIFICATION TABLE				
ID	**Area/Operation**	**Hazard Cause**	**Hazard Consequence**	**Safeguards**
1	Warehouse	▪ Dropped pallet ▪ Damaged packaging (receipt or during storage) ▪ Deterioration of packaging	▪ Release of Class 3 products to the environment	▪ Small retail sized packages (< 20 L) ▪ Inspection of packages upon delivery to the site ▪ Trained forklift operators (including spill response training) ▪ Storage of DGs within AS/NZS 3833:2007 compliant store
2		▪ Dropped pallet ▪ Damaged packaging (receipt or during storage) ▪ Deterioration of packaging	▪ Spill of flammable liquids, evolution of flammable vapour cloud ignition and vapour cloud explosion/flash fire ▪ Spill of flammable liquids, ignition and pool fire/racking fire	▪ Small retail sized packages (< 20 L) ▪ Inspection of packages upon delivery to the site ▪ Control of ignition sources according to AS/NZS 60079.14:2017 ▪ Automatic fire protection system (in-rack and SMSS) ▪ First attack fire-fighting equipment (e.g. hose reels & extinguishers) ▪ Fire detection systems ▪ Storage of DGs within AS/NZS 3833:2007 compliant store
3		▪ Heating of Class 2.1 from a general warehouse fire	▪ Rupture, ignition and explosion/rocketing of cylinder within warehouse spreading fire	▪ Aerosols stored in 240/240/240 FRL bunker ▪ In-rack sprinklers according to FM Global Data Sheet 7-31 ▪ Automatic fire protection system
4	Sprinkler activation	▪ Fire activates SMSS resulting in fire water release and potential contaminated fire water offsite	▪ Environmental impact to surrounding areas (e.g. stormwater drainage)	▪ Dangerous Goods Stores are bunded to contain in excess of the maximum required fire water, per AS/NZS 3833:2007 ▪ Site drainage to comply with the Best Practice Guide for Potentially Contaminated Water Retention and Treatment Systems
5	Pallet loading / unloding	▪ Dropped containers from the pallet ▪ Impact damage to containers on the pallet (collision with racks or other forklifts)	▪ Spill of flammable liquids, evolution of flammable vapour cloud ignition pool, fire under the pallet ▪ Full pallet fire as a result of fire growth	▪ Trained and licensed forklift drivers ▪ First attack fire-fighting equipment (hose reels and extinguishers) ▪ SMSS if incident occurs internally ▪ No potential for fire growth beyond the single pallet (limited stock externally)

6.1.15.3 Hazard Identification

A hazard identification table has been developed and is presented at **TABLE 42**. This table has been developed following the recommended approach in HIPAP Paper No .6, Hazard Analysis Guidelines. **TABLE 42** provides a summary of the potential hazards, consequences and safeguards at the site. The table has been used to identify the hazards for further assessment in the following subsections. Each hazard is identified in detail and no hazards have been eliminated from assessment by qualitative risk assessment prior to detailed hazard assessment in this section of the study.

Based on the hazard identification table presented in **TABLE 42**, the following hazardous scenarios have been developed:

- Hazard 1: Flammable liquid or gas release, delayed ignition and flash fire or explosion.
- Hazard 2: Flammable material spill, ignition and racking fire.
- Hazard 3: LPG release (from aerosol), ignition and racking fire.
- Hazard 4: Full warehouse fire and radiant heat.
- Hazard 5: Full warehouse fire and toxic smoke emission.
- Hazard 6: Dangerous goods liquid spill, release and environmental incident.
- Hazard 7: Warehouse fire, sprinkler activation and potentially contaminated water release.
- Hazard 8: HFC gas release, ignition and flash fire, explosion or jet fire.

Each identified scenario is discussed in further detail in the following subsections.

1. Flammable Liquid or Gas Release, Delayed Ignition and Flash Fire or Explosion:

Flammable liquids will be held at the site for storage and distribution. There is potential that a flammable liquid spill could occur in the warehouse area, due to an accident (packages dropped from forklift, punctured by forklift tines) or deterioration of packaging. If a flammable liquid spill occurred, the liquid may begin to evaporate (depending on the material flashpoint and ambient temperature). Where materials do evaporate, there is a potential for accumulation of vapours, forming a vapour cloud above the spill.

If the spill is not identified, the cloud may continue to accumulate, eventually contacting an ignition source. If the cloud is confined (i.e. pallet racking and stored products) the vapour cloud may explode if ignited, or, if it is unconfined, it may result in a flash fire which would burn back to the flammable liquid spill, resulting in a pool fire.

A similar scenario could occur with the release of Liquefied Petroleum Gas (LPG) from an aerosol; however, the formation of a gas cloud would occur immediately as the LPG would instantly flash to gas following release from the canister. It is noted that the potential for a release of LPG is low as aerosol canisters are pressure tested during manufacture and filling, hence, release would predominately result from damaged product rather than deterioration.

A review of the product list to be stored, indicates the products are small retail packages as defined by AS/NZS 3833:2007. Therefore, the release from a single flammable liquid container would result in a release <20 L. For flammable gas canisters, the quantity of flammable gas released would be <1 L in the worst-case release. The associated vapour cloud formed by the release of gas or flammable liquid would be insufficient to result in offsite impacts from ignition.

Packages are inspected for damage upon receipt at the loading dock before they are transported into the warehouse. This minimises the likelihood a damaged package is incorrectly stored. Once stored inside the warehouse, deterioration or damage are unlikely to occur.

To minimise the likelihood a flammable vapour cloud may contact an ignition source, the electrical equipment within the DG store hazardous zone will be installed according to the requirements of AS/NZS 60079.14:2017.

It has been proposed to seek approval to operate the site 24 hours a day 7 days a week. Therefore, if a spill occurred, it would be identified by personnel working in the warehouse where it could be immediately cleaned up. To ensure appropriate cleaning equipment is available, the following recommendation has been made:

- Multiple spill kits be provided around the DG storage areas to ensure spills can be cleaned up immediately following identification.

Based on the warehouse design (controlled ignition sources, etc.), operation practices and the storage of small packages, the risk of a vapour cloud being generated that is large enough to ignite and impact over the site boundary, by way of a vapour cloud explosion or a flash fire, is considered to be low (if not negligible); hence, this hazard **has not been carried forward for further analysis**.

2. Flammable Material Spill, Ignition and Racking Fire:

As noted above, it is considered that there is a low potential for a package to leak resulting in a flammable material spill and there are several controls in place to minimise the likelihood of a damaged container entering the warehouse and additional controls to minimise the potential that ignition of a flammable material spill could occur.

If a flammable material spill was to occur (e.g. dropped pallet or package during handling) and it was ignited (e.g. by the forklift), the fire would initially be small due to the majority of packages stored being 20L or less. While a fire would be limited in size, heat generated may impact adjacent packages which may deteriorate and release their contents contributing additional fuel to the fire. As the fire grows Storage Mode Sprinkler System (SMSS) would activate controlling the fire within the sprinkler array and cooling adjacent packages preventing deterioration and reducing the potential for fire growth.

Based on the limited fire size, the design of the warehouse and the installed fire systems, the risks of this incident impacting over the site boundary are considered to be low. Notwithstanding this, this incident **has been carried forward for further analysis** to demonstrate that the likely impact of an SMSS controlled fire is within the site boundary.

3. LPG Release (from Aerosol), Ignition and Racking Fire:

As noted above, the potential for release of LPG from an aerosol is considered low due to the quality assurance testing on aerosol canisters during the filling process. The release of LPG would likely result from damage to aerosols during transport and storage rather than from deterioration. Packages are inspected upon delivery and an accident involving aerosols would trigger an additional inspection to verify that damage had not occurred prior to storage within the warehouse.

Notwithstanding this, there is the potential for a release of LPG to occur within the storage racking. Due to the hazardous area rated equipment within the area and protocols, it is considered unlikely for an ignition to occur; however, in the event that an ignition of an LPG release did occur a fire could result.

The fire would consume the packaging with the generated heat impacting the adjacent aerosols. As the LPG within the adjacent aerosols expands the canisters may rupture releasing LPG which would ignite and rocket the canister throughout the aerosol cage potentially spreading the fire. As the fire grows, the SMSS is expected to activate to suppress the fire and cool adjacent packages to minimise the potential for aerosol rupture and rocketing. Activation of this system would control the fire within the sprinkler array.

A sprinkler-controlled fire within the aerosol racking would be unlikely to impact over the site boundary; notwithstanding this, this incident **has been carried forward for consequence analysis**.

Notwithstanding the above, the following recommendation has been made:

- Aerosols shall be stored in a dedicated storage area which prevents rocketing cans from escalating the incident (i.e. storage in an aerosol cage, separate storage area, or in palletised aerosol cages).
- Aerosol storage shall be subject to hazardous area classification in accordance with AS/NZS 60079.10.1:2009.
- Where a hazardous area is identified around the aerosol storage, any electrical equipment installed within the hazardous area shall be installed in accordance with AS/NZS 60079.14:2017.

4. Full Warehouse Fire and Radiant Heat:

There is potential that if a fire occurred and the fire protection systems failed to activate, a small fire may escalate as radiant heat impacts adjacent packages resulting in deterioration and release of additional fuel. While it is considered unlikely for a fire to occur simultaneously with the sprinkler system failing to operate there is the potential for this scenario to occur. Therefore, this incident **has been carried forward for further analysis**.

5. Full Warehouse Fire and Toxic Smoke Emission:

As discussed above there is the potential for a full warehouse fire to occur in the event of sprinkler failure. During combustion toxic products of combustion may be generated which will be dispersed in the smoke plume which may impact downwind from the site. Depending on the toxicity of the bi-products, this may result in injury or fatality. Therefore, this incident **has been carried forward for further analysis**.

6. Dangerous Goods Liquid Spill, Release and Environmental Incident:

There is potential that a spill of the liquid DGs (Class 3) could occur at the site which if not contained could be released into the public water course resulting in a potential environmental incident.

To prevent spills escaping from the site per the requirements of AS/NZS 3833:2007 the following recommendation has been made:

- The site shall be designed to contain any spills or contaminated water from a fire incident within the boundaries of the site.

The site will also be designed to prevent the release of any spills from the site, including potentially contaminated water. Therefore, the potential for a release is considered unlikely as this is expected to be contained within the footprint of the warehouse. Nonetheless, in the event of a catastrophic scenario and spills are released from the footprint of the warehouse, it will be necessary to prevent this from being released into the public water course. Therefore, the following recommendation has been made:

- A stormwater isolation point (i.e. penstock isolation valve) shall be incorporated into the design. The penstock shall automatically isolate the storm water system upon detection of a fire (smoke or sprinkler activation) to prevent potentially contaminated liquids from entering the water course.

As noted, the volumes of the packages are small (< 20 L) and the site will be designed with a drain

isolation system, allowing the containment of any spills within the premises; hence, in the event of a release the full volume will be contained within the warehouse area. As a spill would be contained within the bund/site drainage there is no potential for an environmental incident to occur; hence, this incident **has not been carried forward for further analysis**.

7. Warehouse Fire, Sprinkler Activation and Potentially Contaminated Water Release:

In the event of a fire, the SMSS will activate discharging fire with water to control and suppress the fire. Contact of the fire water with DGs may result in contamination which, if released to the local watercourse, could result in environmental damage. The SMSS system delivers approximately 5 m^3/min of water which, if operated for a long period, may result in overflow of site bunding and potential release. The facility has been designed to be able to contain all DG spills and liquid effluent resulting from the management of an incident (i.e. fire) within the premises.

The site will hold 60 minutes of water storage on site as required by FM Global standards; hence, to allow for additional conservatism, following a risk assessment methodology as outlined by the Department of Planning document *"Best Practice Guidelines for Potentially Contaminated Water Retention and Treatment Systems"*, an allowance of 90 minutes of potentially contaminated water has been selected noting this includes all sources of application (i.e. onsite storage and towns mains) thus far exceeding the 60 minute on site storage. In a DG fire scenario, the following protection systems are likely to be discharging:

- SMSS at 6m^3/min.
- 3 hydrant hoses at 1.8m^3/min.

The total water discharge would be 7.8m^3/min. Therefore, operation for 90 minutes would result in a total discharge of 702m^3. The following recommendation has been made:

- The warehouse and/or site boundaries shall be capable of containing 702m^3 which may be contained within the warehouse footprint, site stormwater pipework and any recessed docks or other containment areas that may be present as part of the site design.
- The civil engineers designing the site containment shall demonstrate the design is capable of containing at least 702m^3.
- Where a penstock isolation valve is incorporated into the design, it shall be able to isolate automatically upon fire detection.
- Where a penstock isolation valve is incorporated into the design, it shall be capable to manually operate the isolation valve.

Based on the design and containment for the premises, there is adequate fire water retention to meet the *"Best Practice Guidelines for Contaminated Water Retention and Treatment Systems"*, hence, this incident **has not been carried forward for further analysis**.

8. HFC Gas Release, Ignition and Flash Fire, Explosion or Jet Fire:

HFC gases are used within the existing refrigeration system and also proposed as part of a chiller in the expansion. HFC gases are classified as Class 2.1 flammable gases and are used under pressure; hence, in the event of loss of containment there is the potential for a flammable atmosphere to form which if ignited can result in a range of outcomes depending upon the environment and whether immediate or delayed ignition occurs.

Where a high-pressure release occurs with immediate ignition, a jet fire can occur which can result in jet flame extending substantial distance depending upon the pressure and the size of release. A review of burning speeds indicated HFC gases are low burning speeds which results in insufficient heat being released to maintain ignition of a jet flame without a continued ignition source. Furthermore, based upon the location of the refrigeration system, a jet fire would be unlikely to impact over the site boundary.

In the event of delayed ignition, an explosion can occur provided there is sufficient confinement to allow for pressure to build within the flammable atmosphere resulting in a detonation of the vapour cloud. As noted, the low flame speeds within HFC gases may result in insufficient heat generation to sustain the flame through the atmosphere preventing high turbulence from occurring and thus eliminating the accelerating expansion of the vapour cloud which escalates into an explosion. Therefore, an explosion is not considered to be a credible scenario.

If there is insufficient confinement, delayed ignition will result in a flash fire. If the vapour cloud migrates over the site boundary, ignition can result in a flame traversing through the vapour cloud which if someone is exposed within the atmosphere, they are likely to die due to involuntary inhalation of hot air following combustion. Based upon the refrigeration systems it is unlikely that a sufficient atmosphere of gas at flammable concentrations would impact over the site boundary; hence, a fatality from a flash fire is not considered credible.

In addition to the above discussions, refrigeration systems are typically composed of fully-welded systems minimising the potential sources of failure and resulting in only small leaks around valves, fittings, etc. further reducing the size of loss of containment. HFC refrigeration systems have become ubiquitous throughout the country with minimal observable incidents; hence, the potential for loss of containment and high consequence incidents to occur are considered low.

Finally, as flammable gases are stored, it is necessary to assess the potential for a hazardous atmosphere to exist as required by the Work Health and Safety Regulations 2017 (Ref. [10]) and hazardous area rated equipment installed per AS/NZS 60079.14:2017 (Ref. [9]). Notwithstanding this, to ensure it is captured, the following recommendation has been made:

- The HFC refrigeration systems shall be subject to a hazardous area classification in accordance with AS/NZS 60079.10.1:2009.
- Where a hazardous area is identified around the HFC refrigeration system, any electrical equipment installed within the hazardous area shall be installed in accordance with AS/NZS 60079.14:2017.

Based upon the low flame speeds, the design of refrigeration system, the ubiquitous nature of such systems, it is considered that the potential for an offsite impact is unlikely to occur; hence, HFC gas related incidents **have not been carried forward for further analysis**.

6.1.15.4 Consequence Analysis

The following incidents were identified to have potential to impact off site and carried forward for consequence analysis:

- Hazard 2: Flammable material spill, ignition and racking fire.
- Hazard 3: LPG release (from aerosol), ignition and racking fire.
- Hazard 4: Full warehouse fire and radiant heat.
- Hazard 5: Full warehouse fire and toxic smoke emission.

Each incident has been assessed in the following subsections.

2. Flammable material spill, ignition and racking fire:

There is the potential for a fire to develop involving flammable material stored within the warehouse resulting in a racking fire. As the fire grows the SMSS would activate suppressing and controlling the fire while cooling adjacent packages minimising the potential for lateral spread due to radiant heat. A detailed analysis has been conducted in the PHA and the radiant heat impact distances estimated for this scenario are presented in **TABLE 43**.

TABLE 43: HEAT RADIATION FROM A FLAMMABLE LIQUID RACKING FIRE		
Heat Radiation (kW/m²)	**Distance (m)**	
	Base Case	**Sensitivity**
35	4.6	8.5
23	5.6	10.3
12.6	7.5	13.7
4.7	12.0	22.2

Figure 48 indicates there would be no offsite impact at the 4.7kW/m² nor the 23kW/m² contour. As no offsite impact was identified, this incident **has not been carried forward for further analysis**.

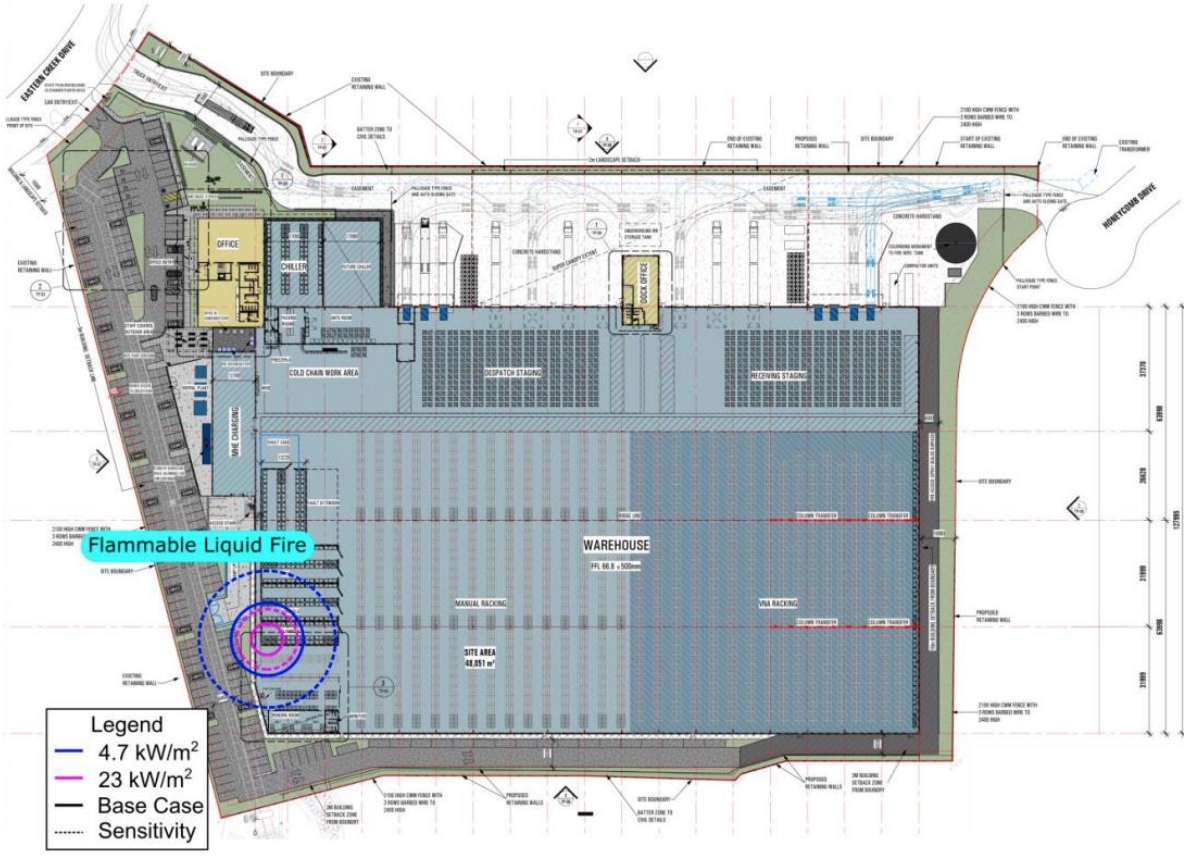

Figure 48 **Sprinkler Controlled Flammable Material Fire Radiant Heat Contours (Source: Riskcon, 2022)**

3. LPG Release (from Aerosol), Ignition and Racking Fire

A damaged aerosol canister could result in the release of LPG which if ignited may result in a fire. As the fire grows the radiant heat may impact adjacent aerosol storage heating the LPG within aerosol cans which may rupture rocketing the canisters around the aerosol store. The heat generated from the fire will activate the SMSS which will suppress and control the fire while cooling adjacent packages minimising the potential for lateral fire spread due to radiant heat. A detailed analysis has been conducted in the PHA and the radiant heat impact distances estimated for this scenario are presented in **TABLE 44**.

TABLE 44: HEAT RADIATION FROM AN AEROSOL RACKING FIRE		
Heat Radiation (kW/m²)	**Distance (m)**	
	Base Case	**Sensitivity**
35	5.4	10.1
23	6.5	12.1
12.6	8.6	15.9
4.7	13.7	25.5

A review of the contours illustrated in **Figure 49** indicates there would be no offsite impact at the 4.7kW/m² nor the 23kW/m² contour. As no offsite impact was identified, this incident **has not been carried forward for further analysis**.

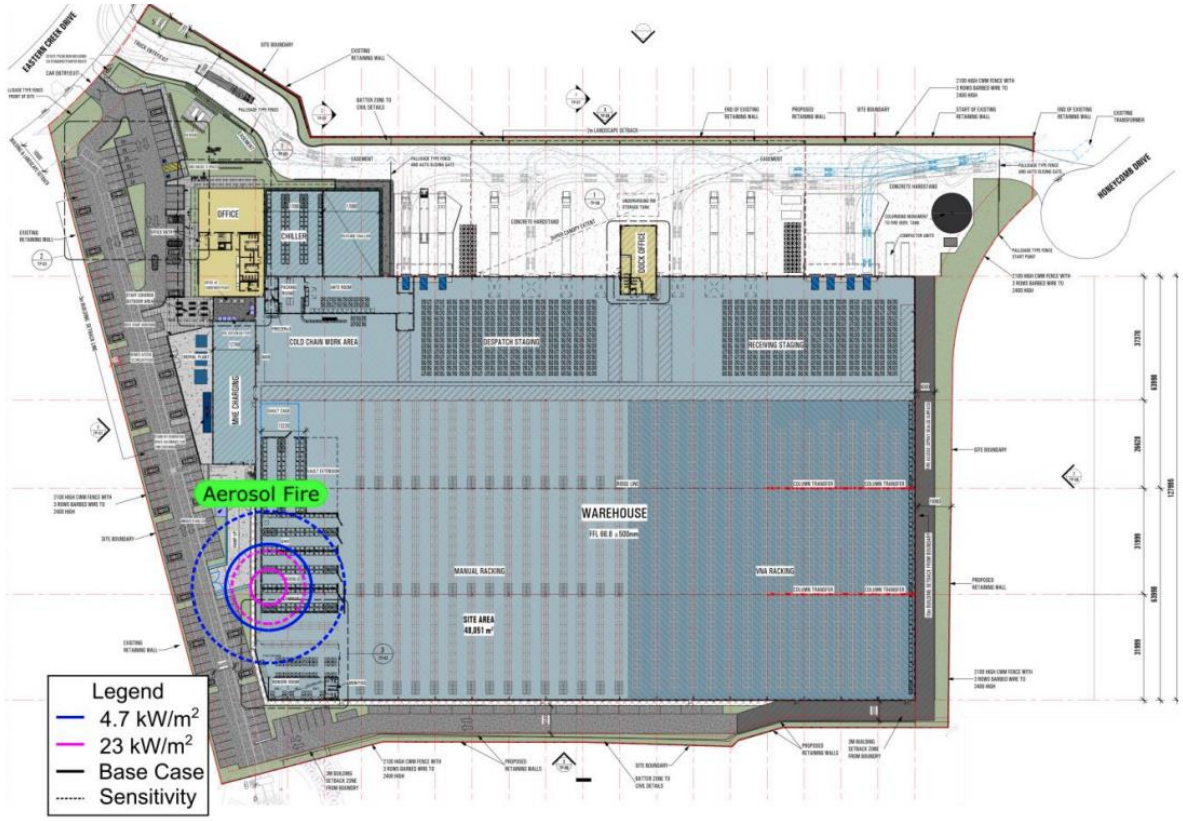

Figure 49 Sprinkler Controlled Aerosol Fire Radiant Heat Contours (Source: Riskcon, 2022)

4. Full Warehouse Fire and Radiant Heat:

If a fire occurs within the DG store and the sprinkler systems fail to activate, the fire will spread throughout the warehouse and is unlikely to be contained and would likely consume the entire warehouse. A detailed analysis has been conducted in Appendix B and the radiant heat impact distances estimated for this scenario are presented in **TABLE 45**.

TABLE 45: RADIANT HEAT IMPACT DISTANCES FROM A FULL WAREHOUSE FIRE	
Heat Radiation (kW/m²)	**Distance (m)**
35	Maximum heat reflux is 20
23	Maximum heat reflux is 20
12.6	43.9
4.7	98.6

TABLE 45: RADIANT HEAT IMPACT DISTANCES FROM A FULL WAREHOUSE FIRE	
Heat Radiation (kW/m²)	**Distance (m)**
3.0	133.7

As shown in **Figure 50**, the radiant heat impacts at 4.7kW/m² extend over the site boundary; hence, there is the potential for a fatality at the site boundary to occur. Therefore, this incident **has been carried forward for further analysis**.

It is noted that due to the fire size there will be considerable smoke emitted which would obscure the flame surface reducing the average surface emissive power (SEP) and subsequently it would not exceed 23kW/m². In addition, the distance to the closest buildings is 23m which would allow attenuation of radiant heat from of luminous spots and would not result in sustained radiant heat such that propagation to adjacent facilities would not occur.

Figure 50 Full Warehouse Fire Radiant Heat Contours (Source: Riskcon, 2022)

5. Full Warehouse Fire and Toxic Smoke Emission:

A detailed analysis has been performed in the PHA to estimate the impact of toxic bi-products of combustion on the surrounding area. The modelling identified four (4) primary pollutants of concern which may result in downwind impacts; nitrogen dioxide, sulphur dioxide, hydrogen chloride, and soot (carbon) with soot being more for visual disturbance to the surrounding area. The pollutant rates calculated for each pollutant has been shown in **TABLE 46**.

TABLE 46: FULL WAREHOUSE FIRE POLLUTANT RELEASE RATES	
Material	**Release Rate (kg/s)**
Nitrogen Dioxide	73.4
Sulphur Dioxide	127
Hydrogen Chloride	64.5
Soot (Carbon)	146

The model calculates the interaction of the plume with the inversion layer to determine whether a ground level impact would occur from a warehouse fire. The results of the analysis indicates that the heat generated from the fire would be sufficient to pierce the inversion in the most stable F1.5 conditions. As the plume cools it will settle above the inversion layer but would not re-enter below the inversion layer. Therefore, ground level impact is not expected to occur from the warehouse fire.

As the plume would not impact at ground level, the potential for injury or fatality is considered negligible and be unlikely to exceed the acceptable criteria. Notwithstanding the low potential for injury or fatality to occur downwind, this incident **has been carried forward** for conservatism.

6.1.15.5 Frequency Analysis

The following item has been carried forwards for frequency analysis;

- Hazard 4: Full warehouse fire and radiant heat.
- Hazard 5: Full warehouse fire and toxic smoke emission.

These incidents have been assessed in the following subsection.

4. Full Warehouse Fire Frequency and Risk Assessment:

The frequency of a full warehouse fire at the site can be estimated from a number of sources (e.g. general warehouse fire frequencies or the summation of individual fire frequencies for each of the initiating fire events). As this is a preliminary hazard analysis, the fire frequency has been selected from general fire frequency data.

A detailed fire frequency analysis has been conducted in the PHA (**Appendix 22** of this EIS). The results of this analysis indicate that an initiating fire frequency would be in the order of $1x10^{-3}$ per annum.

Conservatively assuming a 100% chance of fatality at the site boundary for a person exposed to radiant heat from a full warehouse fire, the probability of fatality at the site boundary becomes 3.53 chances of a fatality in a million per year (pmpy).

5. Full Warehouse Fire and Toxic Smoke Emission Frequency and Risk Assessment:

The toxic smoke emission (or toxic bi-products of combustion) is based on the initiating event which is the formation of a full warehouse fire. Therefore, the frequency of the toxic smoke emission is the same as that of the full warehouse which was identified to be $3.53x10^{-6}$ per annum.

For conservatism, it has been assumed exposure to the smoke will result in a fatality at the site boundary; therefore, the fatality risk of exposure to the toxic smoke becomes 3.53 chances pmpy.

6.1.15.6 Total Fatality Risk

The total fatality risk at the site boundary was calculated to be 7.06 chances pmpy.

6.1.15.7 Comparison against Risk Criteria

The NSW DPE has issued a guideline on the acceptable risk criteria. The acceptable risk criteria published in the guideline relates to injury, fatality and property damage. The values in the guideline present the maximum levels of risk that are permissible at the land use under assessment. The adjacent land use would be classified as an industrial site as it is restricted access and only industrial operations are permitted to occur in this area.

For industrial facilities, the maximum permissible fatality risk is 50 pmpy. The assessed highest fatality risk is 7.06 pmpy at the closest site boundary (eastern boundary); hence, the highest risk is within the permissible criteria and therefore all other risk points beyond the boundary would be within the acceptable criteria.

Based on the estimated injury risk, conducted in the analysis above, the risks associated with injury and nuisances at the closest residential area are not considered to be exceeded.

6.1.15.8 Recommendations for Hazard Reduction

The following recommendations have been made by Riskcon:

- The site shall be designed to contain any spills or contaminated water from a fire incident within the boundaries of the site.
- Multiple spill kits be provided around the DG storage areas to ensure spills can be cleaned up immediately following identification.
- The warehouse and/or site boundaries shall be capable of containing 702m^3 which may be contained within the warehouse footprint, site stormwater pipework and any recessed docks or other containment areas that may be present as part of the site design.
- The civil engineers designing the site containment shall demonstrate the design is capable of containing at least 702m^3.
- Where a penstock isolation valve is incorporated into the design, it shall be able to isolate automatically upon fire detection.
- Where a penstock isolation valve is incorporated into the design, it shall be capable to manually operate the isolation valve.
- A storm water isolation point (i.e. penstock isolation valve) shall be incorporated into the design. The penstock shall automatically isolate the storm water system upon detection of a fire (smoke or sprinkler activation) to prevent potentially contaminated liquids from entering the water course.
- The flammable liquid storage shall be subject to hazardous area classification in accordance with AS/NZS 60079.10.1:2009.
- Where a hazardous area is identified around the flammable liquid storage, any electrical equipment installed within the hazardous area shall be installed in accordance with AS/NZS 60079.14:2017.
- Aerosols shall be stored in a dedicated storage area which prevents rocketing cans from escalating the incident (i.e. storage in an aerosol cage, separate storage area, or in palletised aerosol cages).
- Aerosol storage shall be subject to hazardous area classification in accordance with AS/NZS 60079.10.1:2009.
- Where a hazardous area is identified around the aerosol storage, any electrical equipment installed within the hazardous area shall be installed in accordance with AS/NZS 60079.14:2017.
- The HFC refrigeration systems shall be subject to a hazardous area classification in accordance with AS/NZS 60079.10.1:2009.
- Where a hazardous area is identified around the HFC refrigeration system, any electrical equipment installed within the hazardous area shall be installed in accordance with AS/NZS 60079.14:2017.

6.1.16 Contamination and Remediation

Pursuant to item 16 of the SEARs, in accordance with SEPP 55, the proposal must assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.

The subject site has previously been used for agricultural/grazing purposes, which is one of the activities listed in Table 1 of SEPP 55 guidelines. However, the future commercial/industrial land use of the site will be less sensitive than the former agricultural land use for the site. As such, a detailed site investigation is not required.

Notwithstanding, intrusive investigations confirm that analytes assessed were either below the laboratory reporting limit or the adopted site criteria, including below the ecological investigation/screening levels.

A Preliminary Site Investigation undertaken by JBS&G, contained within **Appendix 23** of this EIS, satisfies the requirement of a preliminary site investigation as outlined in item 16 of the SEARs and no other contamination assessments are considered necessary under SEPP 55. Therefore item 16 of the SEARs is satisfied.

It is recommended that an unexpected finds protocol be included in future construction management plans made for the proposed development.

6.1.17 Waste Management

The section of the EIS evaluates the waste management measures the proposed development, as required by item 17 of the SEARs. Specifically, the SEARS requires that the proposal:

- Identify, quantify and classify the likely waste streams to be generated during construction and operation.
- Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.
- Identify appropriate servicing arrangements for the site.
- If buildings are proposed to be demolished or altered, provide a hazardous materials survey.

In response, a WMP has been prepared by WSP, based on the BDCP2015 (Section G, Site Waste Management and Minimisation) and current best practice waste management methodology and technologies commonly available in Australia.

The full WMP form **Appendix 24** of this EIS.

6.1.17.1 Operational Waste

Waste generation rates (per week) are outlined in **TABLE 47**. A waste generation assessment prepared in accordance with these rates is shown in **TABLE 48**.

TABLE 47: OPERATIONAL WASTE GENERATION RATES

Use	Garbage (L/100m²/week)	Carboard/soft plastics (L/100m²/week)	Commingles (L/100m²/week)
Warehouse	1210	210	-
Ancillary office	70	80	25

TABLE 48: OPERATIONAL WASTE GENERATION ASSESSMENT				
Use	**Area**	**Garbage (L/100m²/week)**	**Carboard/soft plastics (L/100m²/week)**	**Commingles (L/100m²/week)**
Warehouse	20,280m²	42,588	42,588	-
Ancillary office	1,750m²	1,225	1,400	438
Total		**43,813**	**43,988**	**438**

Waste shall be sorted on-site by users as appropriate into the following core streams:

- Garbage (General Waste)
- Cardboard/Soft Plastics (Packaging Waste)
- Commingled Recycling / Container Deposit System (CDS)

Further storage provisions will be made for the following extended waste streams:

- Dry Waste
- Metals
- Timber (Pallets)
- Secure Paper
- Bulky Waste

In accordance with the NSW EPA document *Waste Classification Guidelines (2014)*, garbage volumes will generally be treated as general solid waste (putrescible) and any additional stream as general solid waste (non-putrescible). Each waste category will be managed, stored, and collected in accordance with appropriate standards. Storage areas will only be accessible by authorised personnel.

Due to the variance between capacities and actual volumes, fewer bins and/or few collections than those specified may be required to be collected. Only full bins will be presented for collection.

TABLE 49: BIN INFORMATION AND CAPACITY				
Waste Source	**No. Bins**	**Collections/Week**	**Weekly Capacity**	**Weekly Volume**
Garbage	1 x compactor *	1	45,000 L	43,813 L
Cardboard	1 x compactor *	1	45,000 L	43,988 L
Commingles	2 x 240L bins	1	480 L	438 L
Dry Waste	1 x skip bin	As required	Variable	Variable
Metals	1 x skip bin	As required	Variable	Variable
Note:	* 15m³ compactors adopted as typical size. Sufficient area is provided to accommodate larger compactors if preferred			

Based on the above, the following cumulative area requirements (excluding circulation) and provision of waste areas have been calculated.

TABLE 50: WASTE STORAGE AREA REQUIREMENT			
Waste Store	**Item**	**Area Required**	**Area Provided**
Loading zone (ground)	2 x compactor + bin lift (garbage, cardboard)	21.56 m²	200.00 m²
	2 x 240 L bins (commingles)	0.86 m²	

TABLE 50: WASTE STORAGE AREA REQUIREMENT			
Waste Store	**Item**	**Area Required**	**Area Provided**
	2 x skip bins (dry waste / metals)	14.47 m^2	
Pallet store (ground)	Pallets	200.00 m^2	200.00 m^2
Total		**236.89 m^2**	**400.00 m^2**

Waste storage areas are accommodated for in the proposed development design.

6.1.17.2 Construction Waste

Construction waste generation rates per week are shown in **TABLE 51** and a waste generation assessment in **TABLE 52**. In lieu of a detailed material supply schedule for construction works, WSP have adopted the waste generation rates and methodologies of the document Handbook of Recycled Concrete and Demolition Waste (Pacheco-Torgal et al., 2013) as an interim assessment.
Note that the below is not intended as a comprehensive list of materials and volumes. Volumes account for the warehouse / office structure only, and do not account for any additional paving, excavation or finishing works, nor for any domestic waste generation.

Values as shown are provided as estimates only and should not be used as the basis of any C&D works or waste reporting. Detailed material estimates and strategies for on-site material reuse (with consideration for site-specific material supply schedules) should be provided as part of the Construction Management Plan (CMP).

TABLE 51: CONSTRUCTION WASTE GENERATION RATES		
Waste Stream	**Generation Rate * (m^3 waste / m^2 construction)**	**Composition * (% of total volume)**
Concrete	0.0025 – 0.0075	10 – 30 %
Plasterboard	0.005 – 0.00625	20 – 25 %
Mixed C&D waste (metals, glass, ceramics, fines, etc)	0.025 – 0.00375	10 – 15 %
Subtotal – C&D streams	**0.01 – 0.0175**	**40 – 70 %**
Carboard packaging	0.00025 – 0.001	1 – 4 %
Plastics packaging	0.0005 – 0.00075	2 – 3 %
Wood packaging	0.00625 – 0.001125	25 – 45 %
Metallic packaging	0.005 – 0.00175	2 – 7 %
Mixed packaging	0 – 0.00025	0 – 1 %
Subtotal – packing	**0.0075 – 0.015**	**30 – 60 %**
Grand total	**Approx. 0.025**	**100 %**
Note: * waste generation rates and material composition of 'lightwood construction: non residential' adopted for the purpose of this analysis.		

TABLE 52: CONSTRUCTION WASTE GENERATION ASSESSMENT		
Waste Stream	**Total Building Footprint (warehouse + office)**	**Waste Volume (m^3)**
Concrete	22,030 m^2	59 – 176
Plasterboard		117 – 147

TABLE 52: CONSTRUCTION WASTE GENERATION ASSESSMENT		
Waste Stream	**Total Building Footprint (warehouse + office)**	**Waste Volume (m^3)**
Mixed C&D waste (metals, glass, ceramics, fines, etc)		59 – 88
Subtotal – C&D streams		**235 – 410**
Carboard packaging	22,030 m^2	6 – 23
Plastics packaging		12 – 18
Wood packaging		147 – 264
Metallic packaging		12 – 41
Mixed packaging		0 – 6
Subtotal – packing		**176 – 352**
Grand total		**Approx. 581**

Waste volumes should be separated on-site wherever possible to enhance resource recovery opportunities.

In preferred order, waste streams should be managed through:

- Reuse: Maximise reuse opportunities where possible, either through:
  - Reuse of material onsite (excavation material as fill, crushed concrete as gravel, reuse of ceramics as pavers, etc.); or
  - Return of materials to manufacturer for reuse.
- Recycling: Volumes to be collected by reuse and recycling waste contractors for off-site processing (masonry crushed for aggregate, timber chipped as mulch, metals / glass recycled per industry standards, etc.)
  - Minimum 80% recovery of these mixed waste streams should be targeted, demonstrated through disposal dockets and periodic summaries from the waste contractor.
- Disposal: Volumes collected as and disposed of as landfill / cleanfill. This should be avoided where possible.

6.1.18 Aboriginal Cultural Heritage

This section of the EIS evaluates the Aboriginal cultural heritage of the subject site, as prescribed by item 18 of the SEARs. The SEARs specifically require the provision of an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site.

Charter Hall has undertaken consultation with Heritage NSW during the preparation of this EIS, relating to the history of the subject site and extent of Aboriginal cultural heritage assessment that has already been undertaken within the subject site.

As outlined in correspondence from Heritage NSW on 12 November 2021, it is understood that if the development area is within that covered by the existing AHIP and the conditions of the existing AHIP are being followed, then there is no requirement from Heritage NSW for any further assessment in relation to Aboriginal heritage.

As such, KNC have assessed these requirements and prepared an Aboriginal Heritage Assessment, which forms **Appendix 25** of this EIS.

KNC has been engaged to provide advice regarding the existing Aboriginal cultural heritage assessment that has taken place within the subject site. Review of background information, existing assessments and database searches have established that no archaeological sites containing Aboriginal objects are known to exist within the boundaries of the proposal site.

The proposal site falls within the former Jacfin Development Site (JDS) at Eastern Creek (**Figure 26**). The JDS was subject to comprehensive Aboriginal archaeological heritage assessment prior to subdivision and subsequent sale of constituent Lots, including the proposal site. No Aboriginal objects, archaeological sites or areas of Aboriginal archaeological potential were identified in the current proposal site during the assessment.

The proposal site was subsequently included in an area assessed for the Stage 2 Basin within the overall JDS. An AHIP was issued for the Stage 2 Basin area in 2018 and remains valid until 2028. This existing AHIP (AHIP number C0003358) allows for impact to identified Aboriginal heritage and Aboriginal objects within the AHIP area. Charter Hall Holdings has confirmed with the AHIP holder that the proposal may use the existing AHIP.

Based on the Aboriginal Heritage Assessment received from KNC, a request was submitted to NSW DPE and Heritage NSW to confirm that no further Aboriginal heritage assessment is required for SSD-30923027.

On 7 December 2021 advice was received from Heritage NSW, confirming *that there is no further impact to Aboriginal objects or places proposed as a result of this proposal*. Heritage NSW also confirmed that they have no further interest in this proposal as it relates to Aboriginal heritage.

6.1.18.1 Previous Aboriginal archaeological and cultural heritage assessment

KNC has previously completed comprehensive Aboriginal archaeological and cultural heritage assessment for the JDS. This has included a full consultation process with registered Aboriginal stakeholders. The site that is the subject of this SSD Application, falls within the existing Aboriginal archaeological assessment area for the JDS and makes up part of the Stage 2 Basin area and existing AHIP area (**Figure 26**). The following documents have previously been prepared for the area:

- KNC, 2017. Jacfin Eastern Creek Development Site – Stage 2 Basin, Eastern Creek, NSW Aboriginal Cultural Heritage Assessment Report. Report prepared for Calibre Consulting (NSW) Pty Ltd on behalf oof Jacfin Pty Ltd.
- KNC, 2017. Jacfin Eastern Creek Development Site – Lots 20 and 21 DP 1206129, Eastern Creek: Aboriginal Archaeological Assessment. Report prepared for Calibre Consulting (NSW) Pty Ltd on behalf of Jacfin Pty Ltd.

No archaeological sites containing Aboriginal objects were identified within the subject site during these assessments.

The archaeological assessment identified one previously recorded archaeological site in proximity to the proposal site: ISF2 Jacfin (AHIMS 45-5-3286). The site was previously destroyed under Section 90 Consent to Destroy #2610 and is no longer extant.

Within the Stage 2 Basin area, two archaeological sites were identified: Blacktown Southwest 1 Eastern Creek (AHIMS 45-5-0588) and Blacktown Southwest 5 Eastern Creek (AHIMS 45-5-0558). Both were open context sites featuring artefacts (Aboriginal objects). It was determined that both sites would be impacted by the Stage 2 Basin works.

Following the completion of the Aboriginal cultural heritage assessment process for the Stage 2 Basin, an AHIP was sought under s.90 of the National Parks and Wildlife Act 1974 for the area where potential impact to Aboriginal objects was identified. An AHIP was granted by the Office of

Environment and Heritage [now Heritage NSW] on 24 January 2018 (AHIP number C0003358; AHIMS Permit ID 4218) and is valid for ten years.

The AHIP led provision for archaeological salvage excavation at the two sites within the Stage 2 Basin area. Salvage work was completed in April 2018 and the sites are now destroyed. Neither site is located within the current proposal area.

The existing AHIP allows for impact to Aboriginal objects within the Stage 2 Basin area, provided that works are undertaken in accordance with AHIP conditions. This AHIP is current and Charter Hall Holdings has confirmed with the AHIP holder that the proposal may use the existing AHIP within the proposal area.

The existing Aboriginal heritage assessment process for the JDS and Stage 2 Basin area is compliant with relevant legislation and guidelines, including:

- Code of Practice for archaeological investigation of Aboriginal objects in NSW (OEH 2010a)
- Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (OEH 2010b)
- National Parks and Wildlife Act 1974
- National Parks and Wildlife Regulation 2019

6.1.18.2 Database search (AHIMS)

A search of the Heritage NSW Aboriginal Heritage Information Management System (AHIMS) was conducted in November 2021 to identify any registered (known) Aboriginal sites within or adjacent to the proposal site and to confirm the status of sites previously assessed as part of the Stage 2 Basin development.

The AHIMS database search was conducted within the following coordinates (GDA 94 Zone 56):

Easting: 299577.0 – 300839.0
Northing: 6256593.0 -6257309.0
Number of records on AHIMS database: 11

The AHIMS search identified no Aboriginal sites within the proposal site (**Figure 51**).

Search results confirmed that the sites within the existing AHIP C0003358 area have been destroyed. The findings of the AHIMS search correlate with the findings of the detailed Aboriginal heritage assessments.

In addition, a search was undertaken of the following statutory and non-statutory heritage registers for Aboriginal heritage items:

- State Heritage Register and State Heritage Inventory
- Blacktown Local Environmental Plan 2015
- Section 170 Heritage and Conservation Registers
- National Heritage List
- Commonwealth Heritage List
- Australian Heritage Database
- Australian Heritage Places Inventory
- Register of the National Estate – Non-statutory archive.

No Aboriginal archaeological sites or Aboriginal heritage items were recorded on these databases within the proposal area.

Figure 51 AHIMS Search Results (Source: KNC, 2021)

6.1.19 Environmental Heritage

Item 19 of the SEARs requires consideration of any potential impacts on the heritage significance of environmental heritage. Specially, the SEARs require that:

- Where there is potential for direct or indirect impacts on the heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated.

Austral Archaeology have prepared a Statement of Heritage Impact (SOHI) for the proposed development, which forms **Appendix 26** of this EIS. The SOHI assesses the potential impact from the proposed development on the significance of any archaeological values that may be present within or in the vicinity of the subject site.

It is concluded that there are minimal historical archaeological potential and sensitivity within the subject site owing to its use as an outer paddock of a large estate which was mostly used to graze cattle. There is minimal potential for archaeological remains of interest to present that relate to any phases of occupation within the Hayes and Perkins eras.

Research has shown that no significant buildings or activities occurred within the subject site and as such the site has limited heritage significance.

The proposed development consists of a range of activities that may impact on the potential archaeological remains within the subject site. However, as there is a low archaeological potential within the subject site, the effect of these impacts is likely to be minimal.

Notwithstanding, Austral Archaeology have made the following recommendations:

- Based on the lack of significance uncovered during the undertaking of this report, no further historic heritage assessment is required. Works can proceed as required.
- If historical archaeological relics not assessed or anticipated by this report are found during the works, all works in the immediate vicinity are to cease immediately and the Heritage Division be notified in accordance with the conditions of the Section 60 permit. A qualified archaeologist is to be contacted to assess the situation and consult with the Heritage Division of the Office of Environment and Heritage regarding the most appropriate course of action.
- Should the actual development be altered significantly from the proposed concept design, then a reassessment of the heritage/archaeological impact may be required.
- A copy of this assessment should be lodged by the proponent in the local history section of the local library, and in the library maintained by the Heritage Division.

6.1.20 Social Impact

As required by item 20 of the SEARs, a Social Impact Assessment (SIA) has been prepared in accordance with the *Social Impact Assessment Guidelines for State Significant Projects*. The SIA has been authored by HillPDA and forms **Appendix 27** of this EIS.

The method of the SIA has been adopted based on the *Social Impact Assessment Guidelines for State Significant Projects*, having regard to for the level of impact, the likelihood of impact, and the significance of impact, and a social risk rating matrix.

HillPDA have identified a number of key insights to direct the social impact assessment process. These are outlined below:

- The site is surrounded by developments similar to the proposal, with the nearest residential area being nearly two kilometres from the site. As such the potential for the proposed development to impact residents and their living conditions is extremely limited. Social impacts will largely be confined to the industrial area in which the site is located
- Blacktown LGA had a higher unemployment rate than Greater Sydney, NSW, and Australia. Opportunities to increase employment in the study area should be maximised.
- The highest industry of employment in the Prospect Reservoir (SA2) area was the warehousing, with relatively similar industries completing for the top five employers.
- Commute distances for workers in Blacktown (LGA) are mostly between 10 and 30 kilometres, with almost all workers commuting between 2.5 and 50 kilometres. About 64 percent of people working in the Blacktown LGA travel more than 10 kilometres to go to work with 22 per cent travelling more than 30 kilometres
- An overwhelming majority of workers in the area commute via private vehicle.
- Blacktown LGA had a younger median age than Greater Sydney, NSW, and Australia and slightly less university-educated residents. Blacktown (LGA) households earned less than Greater Sydney households.
- Crime hotpots were largely non-existent in the immediate site surrounds, though a small hotspot for motor vehicle theft was located to the south of the site.
  There is little social infrastructure near the site, although there is one childcare centre within 800 metres of the site which currently has vacancies.
  Many local stakeholders were ambivalent about the project although some raised road-related issues.

6.1.20.1 Social Impact Assessment

This subsection details the potential social impacts to arise from the proposed development. The assessment is informed by the analysis from the previous chapters and scoping of potential impacts using the NSW DPE's *Social Impact Assessment Guideline*.

Scoping:

The social impacts to arise from the proposed development will be influenced by the existing situation, the eventual consequences of the proposed development, and measures put in place to mitigate against any negative impacts and enhance positive impacts.

Social issues already in existence are relevant only as context, within which the impacts of the proposed subdivision must be examined.

Issues have been assessed based on their impact during the construction and operational period of the development.

Social impacts can involve changes to:

- Way of life
- Community
- Access to and use of infrastructure, services and facilities
- Culture
- Health and wellbeing
- Surroundings
- Personal and property rights
- Decision making systems
- Fears and aspirations

Area of influence:

Social impacts of the proposed development may extend beyond the immediate surrounds. **TABLE 53** provides an overview of potential impacts for the local and broader communities.

TABLE 53: AREA OF INFLUENCE OF POTENTIAL IMPACTS		
Impact Type	**Local Community**	**Broader Community**
Amenity	▪ Construction disturbance ▪ Noise ▪ Lighting ▪ Odours	▪ Increased truck movements on road network
Access	▪ Traffic volumes ▪ On street parking ▪ Manoeuvring of large vehicles	▪ Increased access to goods ▪ Improved efficiencies in supply chains and distribution of goods
Built environment	▪ Visual impact and local character ▪ Public domain ▪ Development of underutilised site/efficient use of infrastructure	▪ Ongoing design improvements in logistics and warehousing ▪ Maximise use of available serviced land supply
Heritage	▪ Potential impacts to European heritage items ▪ Potential impact to Aboriginal heritage items	▪ Cultural heritage
Community	▪ Health ▪ Safety ▪ Increased demand for local services and facilities	▪ Increase demand for district and regional facilities and services
Economic	▪ Job creation ▪ Livelihood ▪ Increased local spending/flow on effects	▪ Economic performance ▪ Efficient distribution of goods regionally, nationally and internationally
Natural environment	▪ Protection and enhancement of local natural features	▪ Carbon emissions (through increased truck movements)

Each of the above impacts has been considered in the context of the area of influence, with findings outlined below.

Amenity

Amenity has its meaning of pleasantness, but also has a physical (or tangible) component. This includes the character and appearance of buildings, proximity to commercial or recreational facilities, quality of infrastructure and absence of noise, unsightliness or offensive odours. It also has a psychological or social component.

Amenity is what makes one location feel different from another, but it also contributes to a place's identity and can be what makes our physical surroundings worth caring about. Amenity can affect the ability of a resident, a visitor, a worker or the community to enjoy or undertake activities within the local area.

- **Construction**

  The construction process has the potential to affect the amenity of sensitive receivers within the surrounding area. Sensitive receivers generally relate to residents but may also include childcare centres, places of worship, community and recreational facilities or businesses (such as cafes and restaurants) that rely on the amenity of a locality to attract customers.

  During construction, the following may affect local amenity:

- The introduction of construction facilities
- Noise and dust arising from construction activities
- Unpleasant odours
- Increased traffic volumes and/or congestion.

Construction impacts are considered to be short term as they will be present only while construction is occurring.

Construction impacts on local amenity are also generally contained within close proximity to a construction site.

A short-term reduction in amenity may impact the neighbouring properties within the immediate vicinity of the site. It would be appropriate for the proponent to consultation with neighbouring businesses regularly throughout the construction period to inform them of construction timelines, expectations and standards that will be met.

A range of mechanisms can be applied to minimise any potential construction impacts on amenity. Such mechanisms are typically required as a condition of development consent and are employed by most building contractors and implemented through a Construction Management Plan. Such plans tend to focus on issues such as demolition and construction staging, noise, air and water quality, construction traffic management, pedestrian safety and site management. They can include simple but effective measures such as screening, noise mitigation at source and varying work hours.

These mechanisms can be as simple as avoiding noisy or disruptive construction activities during the hours when residents are likely to want to enjoy surrounding open space or rest, for example on evenings and weekends. Considering the context of the site, the social impacts arising from construction are considered to be “minor” in the circumstances.

With these mechanisms in place, it is deemed that the impacts would be minor and “unlikely” to affect those nearby, presenting “low” social risk, with appropriate mitigation measures in place.

- **Noise**

Exposure to noise may affect the function of businesses and operations, especially where a business is dependent on a quiet environment. Noise may also affect the way people use space, their ability to communicate and the way individuals undertake daily activities. Heightened annoyance, stress and sleep disturbance can also impact productivity and wellbeing.

An acoustic assessment undertaken by RWDI (dated November 2021) provides an assessment of the noise impacts to arise from the proposed development. This assessment was carried out in accordance with NSW regulatory requirements. The report considered existing ambient noise levels with readings taken at key sensitive locations surrounding the site. With reference to the analysis in the acoustic assessment, it is noted that:

- There are no residential receivers nearby, with the closest areas being located a distance of approximately 1.5km from the site. The acoustic assessment found that operational noise emissions from the facility will be inaudible above the prevailing ambient at residential receiver areas to the north, south and west. As such the potential for the proposed development to impact on sleep disturbance and the peace experienced in homes, is minimal.
- The potential for noise, during operation of the proposed development, to impact on the operations on neighbouring premises will be minimal as operational noise

emissions to surrounding industrial properties will achieve the amenity limits recommended under the NSW NPfI.
- Construction noise impacts to neighbouring premises will be short term and are predicted to be below noise management levels at all receivers, during all stages of construction.

Based on the findings of the acoustic assessment, HillPDA identifies the social impacts to arise from noise generated at the site as an "unlikely" and "minor" negative impact. Adoption of the measures identified in the acoustic assessment will help mitigate any potential negative social impacts stemming from noise in the immediate area. As such, noise is deemed to present "low" social risk.

- **Light**

Light spill can cause disturbance to sleep and amenity. As noted earlier, there are no residential properties nearby and the potential for light spill to impact on amenity, sleep and wellbeing is considered to be minimal. Further, the proposed development will not impact on surrounding properties through obtrusive light glare or spill. Based on feedback received through the consultation process, neither community nor government stakeholders raised any issues with proposed lighting.

The potential for negative impacts from light is assessed to of "minimal" consequence and an "unlikely" impact, presenting a "low" social risk.

- **Odour**

Unpleasant odours can impact on the pleasantness of a place and ability for businesses to operate. It is unlikely that the proposed development will impact amenity in the surrounding area through odour. No impacts from odours have been identified from the operations of the proposed development and no concerns in this regard have been raised as part of the consultation process.

Accessibility

- **Access to property**

The proposed development will make no change to the existing access arrangements in the locality. Vehicular traffic to the proposed development will be via existing roads. There is unlikely to be obstruction on existing roads.

During the stakeholder engagement, concerns were raised regarding access to truck parking and the management of construction traffic, as detailed in **Section 6.1.25** of this EIS. These concerns suggest that whilst there may be some minor impacts during construction, access will not be significantly affected for neighbouring premises. In terms of impacts to truck parking, the site access is located on a bend (unsuitable for truck parking) and therefore the addition of an access point will likely have little or no impact on truck parking.

As such, the proposal is deemed to present a "low" social risk in terms of access.

- **Utilities**

Utilities are important to the day-to-day operations of the neighbouring businesses and residential properties, albeit more distant. The proposed development is unlikely to result in any disruption to utility services in the surrounds. Utilities are available at the site including water, sewer, electricity and communications. The proposed development also includes

rainwater tanks on site to collect run-off from the roof areas for re-use on site and thereby minimise the amount of potable water consumed.

The Service Infrastructure Assessment, prepared by LandPartners, notes that electricity, water, wastewater, and telecommunications services are all present adjacent to the site, and have sufficient capacity to accommodate the proposal. The Infrastructure Plan notes that connections to these existing services will need to be established in order to enable their utilisation by the proposed development.

HillPDA has consulted with Water NSW who advised that the site was too distant from their assets to be of any concern. Additionally, the proponent consulted with an authorised Sydney Water water service coordinator who advised that if the standard procedures for development above or adjacent to Sydney Water assets were followed, there would be no issues.

Overall, the potential impact is negligible. The proposal presents "low" social risk.

- **Road, rail and public transport**

There is potential for movement of construction vehicles and, once operational, movement of vehicles to and from the site to impact on the social environment. Movement of large vehicles, in particular, can lead to increased stress to drivers and pedestrians in the vicinity of the site. Reduced on street parking could impact on the convenience of workers and visitors to neighbouring businesses. Changes to access arrangement can also add to stress and inconvenience.

A Transport Assessment has been prepared by Ason Group, , which identifies that modelling and strategic planning was previously undertaken in relation to the wider planned industrial area, including modelling of nearby intersections and roads including Old Wallgrove Road. Following this investigation, a range of upgrades were undertaken including signalisation and road widening.

The assessment identifies that parking provision in the proposal is lower than requirements under the SEPP WSEA. However, the provisioning rates exceed subsequent planning policy such as the RMS guidelines for parking provision, utilised in the nearby industrial and warehousing-based Mamre Road Precinct, and the parking provision requirements under the Western Sydney Aerotropolis Phase 2 Development Control Plan. The parking provision in the proposal also aligns with the needs of the prospective tenant. As such, demand for parking generated by the proposal is expected to be accommodated within the site. The assessment also notes that provisioning rates for accessible and bicycle parking are met or exceeded. Consequently, no social impacts are expected to arise from the proposal in terms of parking.

A study of traffic generation in the area was previously undertaken as part of strategic planning under the Wallgrove Road Upgrade Project. This project estimated that developments on the site would add 21 trips per hectare in peak periods, or 51 vehicle trips per peak hour for the proposal. The Transport Assessment concluded based on the that trip generation would be significantly lower based on the proposal and the staffing requirements of the expected tenant. As this figure represents a decrease from the capacity that the surrounding roads were planned for, the proposal should not have an adverse impact on traffic. This conclusion was supported by detailed intersection modelling in the assessment by Ason Group. The assessment also noted that active transport and pedestrian access are catered for in the area, with signalised crossings and shared footpaths provided, though there are no footpaths on Eastern Creek Drive.

The report concluded that the proposal would have a negligible impact on local traffic. The assessment also notes that a range of other road access improvements are likely to occur in the area in the near future, however these are currently only in the planning stage.

With consideration of the above, the potential for social impacts to arise from increased traffic and changes in vehicular movement is "minimal." The likelihood of transport impacts is considered "unlikely", and additional capacity from any future road upgrades may reduce this likelihood to "very unlikely".

Built Environment

Potential impacts to the built environment can impact on way of life, local character and the community's sense of connectedness to a place.

The proposed development is appropriately located within an industrial area. The site has been identified through strategic planning to be a suitable location of industrial development. While the site will transition from a vacant lot to a warehousing facility, the proposed development is consistent with the character of the immediate surrounds. The visual appearance of the proposed development is not expected to impact negatively on local character or sense of community, as identified by the Landscape and Visual Impact Assessment.

The public domain plays an important role in supporting public and community life. The potential for the proposed development to impact on the public domain will be confined to roadways and the amenity of the domain immediately surrounding them including footpaths.

The review of existing social infrastructure found that there are no parks or public spaces in proximity to the subject site that would be materially affected by the activities proposed.

Landscaping proposed as part of the development could yield some improvement to the public domain, particularly once plantings have time to mature.

The acoustic assessment cited above indicate that any amenity impacts are likely to be minimal on these areas which are not presently used by pedestrians, and traffic impacts are negligible according to the transport assessment.

As such, the impact of the proposed development on the built environment is assessed as being "minor" with an "unlikely" likelihood and is deemed to present "low" social risk.

Heritage

Potential impacts to the heritage value of place can impact on way of life, local character, and the community's sense of connectedness to a place. These concepts are important constituent parts of the social environment and any impact on them could have negative flow-on effects in the community.

An Assessment of Impact on Aboriginal Cultural Heritage has been procured from KNC, finding that the site had been subject to comprehensive Aboriginal archaeological heritage assessment prior to subdivision and subsequent sale of constituent lots. During this assessment, no Aboriginal objects, sites, or areas of archaeological potential were identified within the footprint of the proposal site.

Additionally, the site is subject to an AHIP. The AHIP allows for objects to be excavated and the archaeological sites destroyed and is valid for ten years. The AHIP was granted in 2018. A

number of archaeological sites near to the proposal site were previously destroyed in this way.
KNC undertook a search of the NSW AHIMS and other relevant databases in November 2021 to identify registered Aboriginal sites near or contained within the proposal site. The search confirmed that there are no registered Aboriginal sites within the proposal site. KNC also note that a *full consultation process with registered Aboriginal stakeholders has been completed*.

HillPDA notes that the AHIP applies to any works undertaken in relation to this proposal, and as such, allows for impact to any Aboriginal objects located within the proposal site. The impact of these findings on the social environment are expected to be "minor" with a "possible" likelihood and is deemed to present "medium" social risk. Whilst previous detailed archaeological investigations at the proposal site revealed no Aboriginal sites, it is possible that works on the site may uncover archaeological items. These sites would be destroyed under the AHIP, and if this were to occur this could negatively impact the Aboriginal community. The possibility of this occurring seems small given the work previously undertaken to establish the AHIP which would have included consultation with eh Aboriginal community.

In addition, Charter Hall has procured a Statement of Heritage Impact from Austral Archaeology, dated 29 November 2021. The report notes that the site falls within a peripheral part of an agricultural estate that was significant to the area in the 1800s. The report concludes that as the area was an "unimportant outer paddock", it is likely that any heritage material located would be agricultural implements related to grazing animals and of little significance.

The recommendations contained within the report suggest that no further heritage assessment is required and works may proceed. The report also recommends that if any archaeological material is identified that was not assessed or anticipated within the report, works should cease and a qualified archaeologist be contacted to assess the situation.

Considering the low historical significance of the site, the proposal represents a "minor" social risk with an "unlikely" likelihood, therefore presenting a "low" social risk.

Community

- **Health**

The potential for increased risk to health has been considered including risk arising from disposal of waste, increased traffic emissions and dust during construction, and any air quality impacts in the operation phase. There are no waste activities associated with the proposed development that will impact on surrounding properties. Traffic movements could potentially generate some small increases in emissions, which could have a very limited impact on the health of workers in the immediate surrounds. However, this presents a low level of risk due to the minimal number of pedestrians in the area. The Air Quality Impact Assessment prepared by RWDI confirms that both the construction and operation phases of the proposed development would have a low risk to surrounding premises and residential receivers.

Overall, the potential health impacts to arise from the proposed development are considered to present an "unlikely" risk to the community of "minimal" level impacts. Overall, the proposal presents a "low" social risk to the health and wellbeing of the wider community.

- **Safety**

Developments can increase or decrease perceived and actual safety. The HillPDA investigation of the community identified low levels of crime in the immediate area. The

analysis identified a moderate crime hotspot for motor vehicle theft near the site, though this was revealed to be reflective of a low total count of incidents.

The proposed development is unlikely to change this, with the proposed warehouses being secure and illuminated. The proposed development may improve activation of the area as an industrial and logistics precinct may also restrict the development of negative perceptions of safety in the area. Additionally, the proposed 24/7 operation of the facility may boost passive surveillance.

The Transport Assessment, prepared by Ason Group, confirms that the proposed development conforms to relevant standards and does not compromise the safety of the road and pedestrian network.

The proposed development will involve the storage of aerosols on the site which are classified as dangerous goods under the Australian Standard/New Zealand Standard 3833:2007.

The PHA, prepared by Riskcon Engineering, revealed that whilst there is a risk arising to the public at the site boundary from a warehouse fire, the risk is well within the relevant risk criteria. The report concluded that the separation of the proposal from the nearest buildings would not result in fire propagation to surrounding buildings. The report also identified that the proposal would constitute the only contributor to the local risk profile, negating any increase to cumulative risk. As such, the risk to safety from storage of hazardous material are considered to be "very unlikely" with "minor" level of impact.

Based on the above, the potential risks to safety of the proposed development are considered to be "unlikely" with "minimal" level of impact. The proposed development therefore presents a "low" social risk in terms of safety.

- **Social infrastructure**

The proposed development concerns the construction of warehousing and logistics facilities being a place of employment. Given the limited social infrastructure offer in the immediate area, it is anticipated that employees would most likely access social infrastructure at their area of residence, rather than their place of work. The impact of the proposed development on services and facilities is likely to be small.

However, there may be some impacts to the demand for childcare if employees seek childcare options close to their place of work (as opposed to close to home). The long day care centre near the site currently has capacity to cater for the potential extra demand. Consequently, the impact of the additional workers would be minimal.

Overall, the proposed development is likely to result in a very minor increase to the demand for social infrastructure in the local community. The existing social infrastructure in the surrounds has capacity to accommodate short term needs. On this basis, the proposed development is considered to have an "unlikely" and "minor" level of impact. On the social risk matrix, the proposed development presents a "low" risk in terms of social infrastructure.

- **Cohesion, capital and resilience**

Community cohesion refers to the connections and relationships between individuals and their neighbourhoods. A socially cohesive society is one which works towards the wellbeing of all its members, fights exclusion and marginalisation, creates a sense of belonging, promotes trust and offers its members the opportunity of upward mobility.

The proposed development concerns the construction of a warehouse and logistics hub in a sparsely populated industrial area undergoing a rapid process of industrialisation. The site is

identified as part of the broader WSEA, which has been identified for substantial growth and economic development. As such, the proposal is consistent with broader changes throughout the region, as well as in keeping with the need to grow logistics and warehousing developments within the region.

Based on feedback gathered through the community and stakeholder engagement process, the proposed development is seen appropriate for the location. In creating additional employment opportunities, the proposed development will positively impact on cohesion by adding to opportunities for meaningful engagement in the workforce. The proposed development also creates more opportunities for residents in the area to work closer to home, thereby adding to time that they can spend with their families and in their communities.

It is understood that the Blacktown LGA has a slightly higher unemployment rate than the Greater Sydney and Australian averages. Most workers in Blacktown LGA were also shown to commute between 10 and 30 kilometres to work. Increasing employment in warehousing and logistics in Blacktown LGA would likely result in minor improvements to some of these metrics. Additionally, warehousing and road transport (along with other industrial categories) constitute the top five employment industries in Prospect Reservoir (SA2), suggesting that the proposal would be positively contributing to the already strong industrial nature of the area and leveraging existing worker skillsets, providing additionally employment opportunities for new and existing workers.

Overall, the proposed development is considered "likely" to have "moderate" positive impacts on the wider community. Consequently, the proposed development has an "high" positive social impact.

Economic

The proposal would affect the local and regional economy both during construction and operation. The extents of economic effects are discussed in the following subsections.

The construction of the development is expected to have short and long-term benefits with respect to construction employment and the purchase of materials. During construction, the proposed development would generate additional construction jobs. Local centres are also likely to benefit from increased construction related trade. The industry has strong linkages with other sectors, so its impact on the economy goes further than the direct contribution of construction.

The proponent has advised that the proposed development would generate in the order of 480 full time jobs during the construction process. During operation, the proponent has advised that the tenant would operate the warehouse 24/7 with consistent levels of staff (not including office staff), resulting in the creation of a total of 438 operational jobs.

The secondary benefits of this new employment will be money invested into businesses and services across the region. This new expenditure will benefit and grow local economies, generating further employment in service industries.

The proposed development stands to make a very positive contribution to the livelihood of residents across the wider region, creating new employment opportunities closer to residents' homes. The proposed development is considered "likely" to have a "moderate" level of positive impact and as such, presents a "high" and positive social impact.

Natural environment

For the purposes of Social Impact Assessment, impacts to the natural environment are considered in the way that peoples' surroundings are affected, including access to and use

of ecosystem services, public safety and security, access to and use of the natural and built environment and their aesthetic value and/or amenity.

The proposed development will impact on the natural environment and as such, will change people's surroundings and the local ecosystem. As the site has been identified as being suitable for industrial development for an extended period, the changes are largely anticipated by stakeholders.

The assessment of potential social impacts to arise from the proposed development has been outlined above. Opportunities to enhance the positive impacts and minimise the potential negative social risks have been considered. Key actions in this regard are outlined in **TABLE 54**.

TABLE 54: MEASURES TO MANAGE/MITIGATE SOCIAL IMPACTS

Action / Purpose / Target	Considerations
Construction management: ▪ To minimise the risk of negative impacts during construction ▪ Target neighbouring businesses	The Construction Management Plan could address potential social impacts, including reducing stress and inconvenience to neighbouring businesses, by: ▪ Identifying construction vehicle traffic routes that minimise impacts to neighbours, as far as possible ▪ Providing arrangements for parking of worker and construction vehicles on-site ▪ Storing all equipment on site ▪ Identifying management practices to minimise and manage interruptions to traffic flows ▪ establishing practices to maintain traffic and pedestrian safety to local workers ▪ minimising disruption of proposed road closures, temporary traffic routes, loss of pedestrian or cyclist access or reversing manoeuvres ▪ Providing queueing space onsite for the standing of vehicles ▪ Providing clear signage to direct construction vehicles ▪ Provide signage on site that provides a contact number for local workers and visitors to direct enquiries and report incidents (e.g., theft or break and enter to the site while unattended), should they occur.
Traffic management: ▪ To minimise inconvenience and risks to pedestrians and motorists ▪ Target neighbouring businesses	Minimise the risks to local workers from increased movement of vehicles (including heavy vehicles) by implementing the recommendations of the Construction Traffic Management Plan. Note that the provision of an additional access point during construction (noting that a permanent connection to a Honeycomb Drive extension may be under consideration by Council) via easement on neighbouring property and connection to Honeycomb Drive would spread construction traffic impact across two roads. This may aid in mitigating negative outcomes from construction traffic.

TABLE 54: MEASURES TO MANAGE/MITIGATE SOCIAL IMPACTS	
Action / Purpose / Target	**Considerations**
Community liaison: ▪ To inform neighbouring premises of construction activity ▪ To provide an avenue for conflicts to be addressed	▪ Undertake to establish good relations with neighbouring premises by regularly liaising to: o Advise them of the construction timeframe and construction activity o Monitor impacts to neighbouring premises ▪ Provide neighbouring premises with contact details to report incidents or voice complaints ▪ Establish clear responsibility within the construction team for neighbourhood liaison.
Safety: To ensure hazardous materials are contained in the event of a fire To ensure local air quality is maintained	Implement the recommendations of the PHA, prepared by Riskcon Engineering to ensure: ▪ The site is designed to contain spills within the boundaries of the site in the event of a fire. Implement the recommendations of the Air Quality Impact Assessment, prepared by RWDI to ensure: ▪ Dust generation is monitored and reported on. ▪ Dust generation is located as far from neighbouring properties as possible. ▪ Incorporate measures to limit dust generation at source.
Heritage: ▪ To ensure heritage items are identified and appropriately managed ▪ Target Aboriginal community.	Ensure that the AHIP is adhered to, or if not possible, seek variation. Consider additional measures to actively engage with Aboriginal community if additional archaeological sites are identified during construction. Implement the proposed Unexpected Finds Policy if any unexpected archaeological items or human remains are discovered during construction.
Monitoring	It is suggested that monitoring should be undertaken to: ▪ Gauge to cumulative impacts of additional truck movements along Eastern Creek Drive following construction, with consideration to street parking for trucks.

6.1.21 Infrastructure Requirements and Utilities

Item 21 of the SEARs requires consideration of the infrastructure requirements and utility services for the proposed development. Specifically, the SEARs requires that in consultation with relevant service providers, the EIS:

- assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.
- identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.

- provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.

The following subsections suitably address the above requirements.

6.1.21.1 Existing Infrastructure and Assets

The service authorities who provide infrastructure services to this area are:

(a) Sydney Water: Potable Water & Waste Water Infrastructure
(b) Endeavour Energy: Electrical Infrastructure
(c) NBN Co: Telecommunications Infrastructure
(d) Jemena: Gas Infrastructure

Potable water:

The site is supplied from the Minchinbury Elevated reservoir system. The reservoir system is a substantial Sydney Water asset consisting of an on-ground reservoir and an Elevated reservoir, associated water pumping station and a network of distribution mains serving Erskine Park and adjacent areas.

Immediately adjacent to the site and within the Eastern Creek Drive corridor is a 200mm potable water main. This main is available for connection. On the southern side of Eastern Creek Drive is a 450mm trunk water main. This main is not available for connection.

Based on the proposed development of a warehouse/logistics facility with associated office space, the potable water demand would be as follows:

Average Day Demand = 14kL/day
Max Day Demand = 24kL/day

Adequate capacity (pressure and flow) exists within the adjacent reticulation system to serve the proposed development.

Waste water:

A 375mm sewer main is constructed within the site adjacent to and parallel with the southern boundary of the site.

No inlets have been provided along this main to allow connection of the site to this sewer. An application will need to be made as part of the development of the site to Sydney Water to construct a minor extension from one of the manholes along the sewer and within the site to facilitate connection of the internal waste water system to be constructed to serve the development with this Sydney Water sewer main.

Based on the proposed development of a warehouse/logistics facility with associated office space, the average day flow from the site would be as follows:

Average Day Flow = 13kL/day

The Sydney Water sewer network will adequately cater for this level of discharge from the development.

Electricity:

There are two major zone substations in the Eastern Creek employment precinct, one located in Wonderland Drive (a 90Mva zone substation), and another located at the corner of Old Wallgrove Road and Roberts Road (also a 90Mva zone substation). The Roberts Road zone substation supplies the subject site and surrounding areas.

Endeavour Energy has installed high voltage 11kv feeders in conduits on both sides of Eastern Creek Drive. These feeders currently supply a number of padmount substations installed in adjacent developments.

Calculations indicate the proposed development will generate a load demand of 0.6Mva.

Depending on the rating of adjacent padmount substations there may be a possibility that any surplus capacity from those padmounts could be directed to service the proposed development of the subject site.

The more likely scenario is that a new padmount substation will be required within the proposed development. If the adjoining sites are utilising the capacity of the existing 11kv feeders (which could supply a demand need of up to 4Mva) a further feeder would need to be installed in the conduit run from the Roberts Road zone substation. This is a slim possibility but needs to be factored into the supply requirements if needed.

The proposed development indicates a requirement for interconnection of the high voltage reticulation network in Eastern Creek Drive and Honeycomb Drive is required. An easement for the HV electrical cables is shown in the proposal plans.

Asset delivery of electrical infrastructure will be undertaken pursuant to Endeavour Energy's Connection Load processes.

Gas:

No gas reticulation services exist in the area.

Jemena are the utility service providers for gas. Jemena will not install a gas reticulation system "on spec". Jemena requires firm commitments from end users for a known gas demand before it will invest in the installation of gas reticulation infrastructure.

Telecommunications:

NBN Co is the network provider for this area.

Prior to NBN Co becoming the provider for this area Telstra had installed a fibre optic cable system (underground) in Eastern Creek Drive – the assets are now transferred to NBN Co.

The subject site has frontage to the fibre optic cable system and these cables provide the subject site ability to connect.

6.1.21.2 Infrastructure Upgrades

As development of the subject site is contained wholly within the property, apart from driveway crossings over the footways in the public road and connections to service assets in Eastern Creek Drive and the Sydney Water sewer main within the property, there will be no impact on existing infrastructure.

The Sydney Water sewer main will be subject to the normal Sydney Water Building over/Building adjacent procedures for any construction activity over or near that asset. Sydney Water have a

consent process associated with Construction Certificate approval which ensures their assets are protected.

Connection to other utility service assets within Eastern Creek Drive will be undertaken following the normal consent procedures outlined by the utility service provider.

6.1.22 Bush Fire Risk

Item 22 of the SEARs requires consideration of whether the proposed development is on bush fire prone land, and if so, a bush fire assessment is required to detail the proposed bush fire protection measures and demonstrate compliance with PBP.

Council's Bushfire Prone Land Map (BPLM) identifies the subject property as marginally containing the 100 metre buffer zone from Category 1 Vegetation (refer to **Figure 19**), therefore PBP must apply in this instance. It should be noted that due to recent development within the area the BPLM incorrectly maps industrial buildings and formed roads as Category 1 Vegetation.

As such, a Bushfire Assessment Report has been prepared by Building Code and Bushfire Hazard Solutions (as per **Appendix 29** of this EIS) to address the relevant specifications and requirements of PBP as required by item 22 of the SEARs.

The following table sets out the proposal's compliance with PBP:

TABLE 55: PLANNING FOR BUSH FIRE PROTECTION COMPLIANCE TABLE

Parameter	North	East	South	West
Vegetation Structure	Managed land	Managed land	Managed land	Managed land
Slope	N/A	N/A	N/A	N/A
Required Asset Protection Zone	N/A	N/A	N/A	N/A
Available Asset Protection Zone	>140m	>140m	>140m	>140m
Threatened Species	APZ existing	APZ existing	APZ existing	APZ existing
Aboriginal Relics	APZ existing	APZ existing	APZ existing	APZ existing
Bushfire Attack Level	N/A	N/A	N/A	N/A
Required Construction Level	BAL low	BAL low	BAL low	BAL low

The National Construction Code (NCC) does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018 does not apply as a set of 'deemed to satisfy' provisions.

In relation to Class 5 to 8 structures PBP states:

> *The general fire safety construction provisions of the NCC are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.*

Regardless, the highest Bushfire Attack Level to the proposed building was determined to be 'BAL Low' and therefore there are no construction provisions applicable under AS3959.

In accordance with the bushfire safety measures contained in Bushfire Assessment Report (**Appendix 29**), and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

The proposal satisfies all relevant specifications and requirements of PBP.

6.1.23 Construction, Operation and Staging

Pursuant to item 23 of the SEARs, if staging is proposed, the EIS must provide details of how construction and operation would be managed and any impacts mitigated.

The approval strategy seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act, 1979.

The approximate phases and duration of works are as follows:

1. Phase 1 – bulk earthworks and civil works, including piling = 6 months
2. Phase 2 – construction of main building = 6 months
3. Phase 3 – deliveries and initial fitout of the warehouse, including operational plant and equipment = 9 months

6.1.24 Contributions and Public Benefit

This section assesses and addresses the requirements of any contributions or alternative public benefits proposed.

6.1.24.1 Section 7.11 Contributions

The subject site is within Council's Section 7.11 Contributions Plan No. 18 – Eastern Creek Stage 3.

As required by condition 3.1 of **DA-20-01525** local development contributions under section 7.11 of the EP&A Act were payable. Confirmation of compliance with condition 3.1 was obtained by Council on 22 September 2021.

The subject site (industrial lot) was created, approved and registered under **DA-20-01525**. As such, no further contributions are payable under Section 7.11 of the EP&A Act for the proposed development, as per Council correspondence dated 15 February 2022.; refer to **Appendix 32**.

6.1.24.2 Special Infrastructure Contribution

The subject site is identified within an Industrial Release Area (and not within a current special contribution area) pursuant to Clause 29 of SEPP WSEA, for which satisfactory arrangements with the relevant consent authority would be required for any future development of the subject site.

Clause 29 of the SEPP WSEA provides that the consent authority must not grant Development Consent unless the Secretary has certified in writing that satisfactory arrangements have been made to contribute to the provision of regional transport infrastructure and services.

A Voluntary Planning Agreement (**SVPA-2015-8249**) has been entered into between Jacfin Pty Ltd and the Minister for Planning for the subject site and surrounding land, within which satisfactory arrangements for the provision of regional transport infrastructure and services have been addressed.

SVPA-2015-8249 was executed on 29 May 2017, and the required monetary contribution for Lot 1 paid on 29 January 2021.

A SAC has been obtained from NSW DPE and is included within **Appendix 32** of this EIS.

6.1.25 Engagement

Pursuant to item 25 of the SEARs, the design and preparation phase of the EIS has been informed by engagement and consultation undertaken in accordance with the *Undertaking Engagement Guidelines for State Significant Projects.*

The demonstrate the consultation strategies and feedback received, HillPDA have prepared Stakeholder Engagement Report, which forms **Appendix 30** of this EIS.

6.1.25.1 Engagement Approach

HillPDA prepared a detailed engagement plan, in consultation with the proponent, that identified relevant stakeholders and engagement methods and set out a clear and transparent process for undertaking relevant stakeholder engagement. Key components of the engagement plan are provided in the following subsections.

Engagement objectives:

The objectives of the stakeholder engagement were:

- To circulate information about the project to the community throughout the project
- To facilitate an open engagement process where the community are given meaningful opportunities to have their say
- To provide accessible opportunities for community participation, acknowledging and meeting the diverse needs of the different stakeholders
- To present outcomes from the engagement in a format that can be used to inform the preparation of a State significant development application and meet SEARs obligations.

Engagement plan:

HillPDA have delivered a considered, open and evidence-based approach to this engagement to ensure it provides key community insights. To assist this process, a detailed engagement plan was prepared in consultation with the proponent.

Stakeholder identification:

Community stakeholders were divided into three groups according to the level or type of impact from the proposed development.

- Tier 1 stakeholders: those with the potential to be immediately affected by the project
- Tier 2 stakeholders: government agencies and peak organisations whose responsibilities are relevant to the proposed development
- Tier 3 stakeholders: wider community

This approach enabled engagement methods to be tailored to each stakeholder group required tailored and appropriate engagement. Details of tier one and two stakeholders are provided in the

sections below. Consultation with tier three stakeholders will occur as the proposal progresses through the SSDA process including during public exhibition.

Tier one stakeholders

Tier one stakeholders are occupants of the properties neighbouring the proposed development. These stakeholders may experience a range of impacts form the proposed development including noise and disturbance during the construction period. Tier one stakeholders are indicated in **Figure 52**.

TABLE 56: LIST OF TIER ONE STAKEHOLDERS	
Neighbouring businesses	
Ricoh Australia	Bullivants
Vermeer Australia	AP Systems
FX Factory	Crystal Productions
Blauberg Ventilation	Socrates Distributors
Independent Living Specialists	Downer Group
Silk Contract Logistics	Jaycar Electronics
DHL Brothers	Collins Sydney
Mainfreight Eastern Creek	

Figure 52 Tier one stakeholders – immediate neighbours (Source: HillPDA, 2021)

Tier two stakeholders

Tier two stakeholders include government agencies and peak organisations which may have an interest in the proposed development. Tier two stakeholders are indicated in the table below.

TABLE 57: LIST OF TIER TWO STAKEHOLDERS	
Stakeholder	**Organisations**
Indigenous community	Deerubbin Local Aboriginal Land Council
NSW Government agencies	DPE
	EES Group
	EPA
	Heritage NSW
	NSW Fire & Rescue
	RFS
	TfNSW
	Water NSW
Infrastructure providers	Endeavour Energy
	Sydney Water
	Telstra
	NBN
Local government	Blacktown City Council

Engagement methods:

Engagement methods were tailored to each stakeholder group, as not all stakeholders require the same level of engagement and different approaches are suited to each group. The method of engagement for each stakeholder group has been selected based on the level of potential impact and a resulting likelihood of desire to participate i.e. a potential high level of impact may result in a strong desire to participate in engagement. **Figure 53** displays the tiered approach to the engagement method, ensuring that those with the highest potential to be impacted by the proposal are given ample information and opportunity to provide feedback. Selected engagement methods are outlined below.

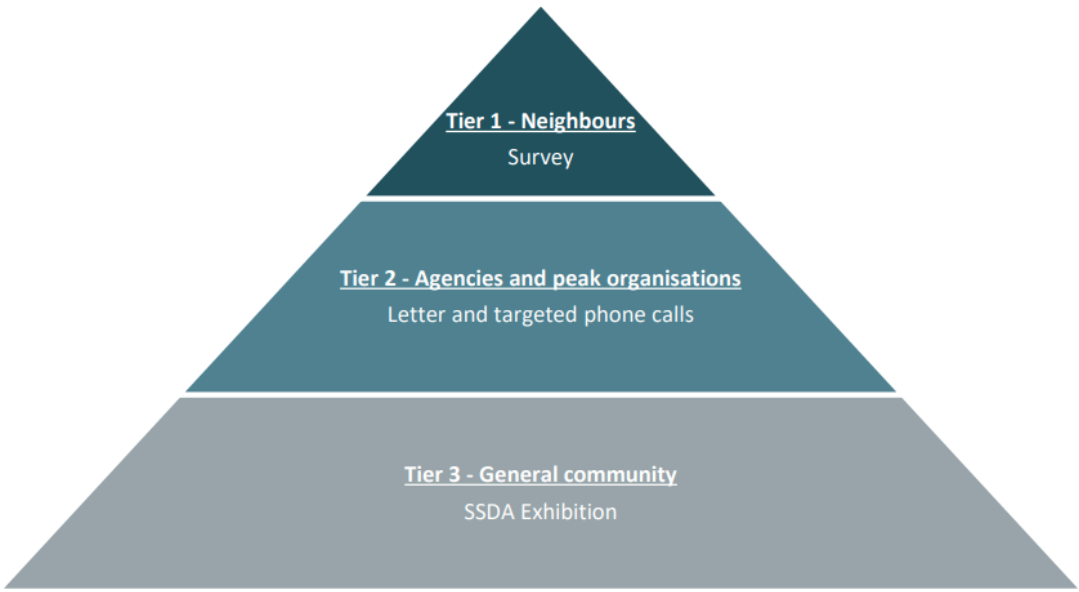

Figure 53 Engagement Method by stakeholder group (Source: HillPDA, 2021)

Questionnaire survey – tier one stakeholders

Tier one stakeholders were invited to participate in a questionnaire survey. The survey was delivered as follows:

- On 15th November 2021 HillPDA staff attended the site surrounds
- Face to face interviews were conducted at the time of the visit, where possible
- If a representative from the neighbouring business was not available at the time of the survey, a letter was left inviting the occupant to participate in the survey online.

A copy of the questionnaire survey that was provided to stakeholders is provided at Appendix A of the Stakeholder Engagement Report contained within **Appendix 30** of this EIS. A copy of the letter to occupants that was provided if no one was available to complete the survey, is provided at Appendix B of the same Stakeholder Engagement Report.

Letters to agencies – tier two stakeholders

Engagement with tier two stakeholders was through written requests for comment on the proposal. Letters were sent via email to each tier two stakeholder. Up to three follow-up emails or phone calls were undertaken to encourage a response. If no response was received after three attempts the organisation was recorded as "No Response."

A copy of the letter to agencies and tier two stakeholders is provided at Appendix B of the Stakeholder Engagement Report contained within **Appendix 30** of this EIS. HillPDA distributed the letter by email to the above stakeholders on 10 November 2021.

In addition to HillPDA's engagement activities, the proponent has undertaken engagement with Council and the NSW DPE. Outcomes from those consultations have been incorporated into this EIS.

TABLE 58: TIER TWO STAKEHOLDER ENGAGEMENT

Stakeholder	Organisations	Action
Indigenous community	Deerubbin Local Aboriginal Land Council	▪ Letter emailed 10 November 2021 ▪ No response received. ▪ Phone call on 23 November 2021 ▪ No response received.
NSW Government agencies	EES Group	▪ Letter emailed 10 November 2021. ▪ Response received 11 November 2021. Advised that the matter was referred to the EPA Hub. ▪ Phone call on 23 November 2021. Left message. ▪ Phone discussions 30 November 2021. Advised that a response will be forwarded shortly. ▪ Response received from EPA. Response from EPA received 15 September 2021 (see below).
	EPA	▪ Proponent sent letter to the Environment Protection Authority on 7 September 2021. ▪ A response was received on 15 September 2021.
	Heritage NSW	▪ Proponent engaged with Heritage NSW to establish its requirements for procuring an Aboriginal Cultural. Heritage Assessment Report (ACHAR) ▪ Dr Samantha Higgins at Heritage NSW responded on 12 November 2021. ▪ Letter emailed 10 November 2021 ▪ Response received on 23 November 2021 stated that the letter had been referred on and an advisor would respond shortly.

TABLE 58: TIER TWO STAKEHOLDER ENGAGEMENT		
Stakeholder	**Organisations**	**Action**
		▪ Response received on 30 November 2021 referring to the earlier communication undertaken by the proponent. ▪ Proponent engaged with Heritage NSW to confirm their requirements. ▪ Response received on 7 December 2021 confirming Heritage NSW was not the determining authority and had no further interest in the proposal.
	NSW Fire & Rescue	▪ Letter emailed 10 November 2021. ▪ No response received. ▪ Reminder email sent 23 November 2021. ▪ Reminder email sent 30 November 2021. ▪ Phone message left 30 November 2021. ▪ Proponent consulted with NSW Fire and Rescue (NSW FRS) and received a response on 9 December 2021 outlining a formal engagement process to be undertaken after a proposal receives consent.
	RFS	▪ Letter emailed 10 November 2021. ▪ Response received 14 November 2021 advising that queries should be directed to a bushfire consultant or their pre-DA service.
	TfNSW	▪ Letter sent 10 November 2021. ▪ Phone call to agency on 23 November 2021. Advised the matter is being reviewed and a response will be provided shortly. ▪ Phone call to agencies on 30 November 2021. Advised the matter is being reviewed and a response will be provided shortly. ▪ Proponent contacted Transport for NSW. ▪ Response received 14 December 2021 advising that no comments would be provided at the current time.
	Water NSW	▪ Letter emailed on 10 November 2021. ▪ Response received 12 November 2021; no concerns raised.
Infrastructure providers	Endeavour Energy	▪ Letter emailed on 10 November 2021. ▪ Response received. No concerns raised.
	Sydney Water	▪ Letter emailed 10 November 2021. ▪ No response received. ▪ Phone call on 23 November 2021. Message left. ▪ Phone call on 30 November 2021. Message left. ▪ Proponent engaged with a Water Service Coordinator (authorised by Sydney Water to provide advice on infrastructure) on 7 December 2021.
	Telstra	▪ Letter emailed 10 November 2021. ▪ Response received 11 November 2021. No concerns raised.
Local government	Blacktown City Council	▪ Proponent is engaged in ongoing discussions with Council. ▪ Proponent engaged in a Pre-Assessment Meeting with Council on 19 November 2021. A range of concerns were raised, largely focused on the provision of additional reporting by the proponent.

6.1.25.2 Analysis of Consultation Findings

Survey responses

The survey of neighbouring businesses was conducted on 15th November 2021. Of the fifteen tenancies surveyed, only three elected to complete the survey. Team members indicated that most people who were invited to complete the survey seemed ambivalent about the proposed development, expressing neither positive nor negative comments about the proposal. Two specific concerns were raised by stakeholders. Additionally, one stakeholder raised a concern that was not directly related to the proposal but related to a proposed road construction adjoining the site. The concerns expressed through the survey are listed in the table below.

TABLE 59: MATTERS RAISED BY SURVEY RESPONDENTS

Issue Type	Issue Raised in Survey	Action
Parking	One responded expressed concern regarding onstreet parking for trucks is a concern on Eastern Creek Drive. Trucks park in the street while waiting for their allotted delivery or pickup time. The respondent was concerned that parking for this purpose was nearing capacity and the removal of parking space through additional driveways would exacerbate the issue.	The Transport Impact Assessment notes that adequate parking will be provided on site. The site entry on Eastern Creek Drive is on a curve and therefore is likely unsuitable for truck parking in its existing state.
Traffic management safety	One respondent raised concern that the bend of Eastern Creek Drive (adjacent to the site entrance) limits visibility. As the site adjacent to the proposal site is currently under construction, there are traffic management workers located on the road. The respondent was concerned about the speed with which trucks approach the corner and suggested that any future traffic management workers be positioned further around the corner to prevent this issue.	Matter partly relates to current practices associated with a different development, which is not the proponent's responsibility. The matter can be addressed as part of the construction management plan through implementation of safe construction management practices.
Honeycomb Drive extension	One respondent (located on Honeycomb Drive) questioned HillPDA staff about a proposal to extend Honeycomb Drive.	Matter raised is not relevant to the proposed development. The respondent was encouraged to direct this question to Council.

Agency engagement

The agencies listed in **TABLE 58** were emailed the letter attached at Appendix B of the Stakeholder Engagement Report on 10 November 2021. **Appendix D** of this EIS contains the response provided by the agencies.

6.1.25.3 Previous Engagement undertaken for nearby development

To inform this engagement process, Charter Hall have provided HillPDA with the final report from a previous development of a similar type about 400 metres to north west of the site. The Consultation Strategy and Outcomes Report prepared by Ethos Urban in 2020 for Hanson Construction Materials Pty Ltd relates to development at 21, 31, and 42 Hanson Place, Eastern Creek Resource Recovery Facility; less than one kilometre from the site. Key details from this report are detailed below.

- Ethos Urban letter-dropped community stakeholders across a distribution range that included all but one of HillPDA's identified tier one stakeholders
- No feedback, phone calls, or meeting requests were received from community stakeholders
- No local community groups were identified

- The nearest residents were 1.4 kilometres to the north, and 1.6 kilometres to the west. Both of these communities are further still from the site under consideration by this report
- Ethos Urban concluded that there was limited interest in or objection to the project.

6.1.25.4 Engagement Findings

In accordance with the SEARs requirements for stakeholder engagement, HillPDA has designed and implemented an engagement plan to inform local businesses and key agencies about the proposed development. This has provided an early opportunity for the community and key stakeholders to have a clear understanding of the proposal and provide comment for consideration prior to lodgement of the SSDA.

Of the agencies and infrastructure providers consulted, none of which raised any objection to the proposed development. Comments received from neighbouring premises regarding on street parking for truck and traffic management in construction zones, have been incorporated into the range of factors considered in the formulation of the proposal. Several stakeholders were provided with information and an opportunity to comment on the proposed development but did not take up this opportunity. This suggests limited interest or objection to the proposed development, reflecting the appropriateness of the location for the proposed development.

PART G CUMULATIVE ASSESSMENT

7.1 CUMULATIVE VISUAL ANALYSIS

The sensitivity of the landscape on average has been assessed within the baseline to be low. From understanding the development proposals, mitigation and the existing industrial character of adjacent landscape, the magnitude of change is judged to be on average high. There will be some impact to the existing site character from, but the introduction of this development typology is not uncharacteristic of the context in which it will sit. The significance of impact therefore is judged to be minor.

7.2 CUMULATIVE TRAFFIC ANALYSIS

The proposal represents a less intensive development than previously considered by the strategic modelling assessment, which informed the current design of Old Wallgrove Road upgrade works. A tenant specific first principles assessment has found that the proposed development would generate 19 veh/h less than assumed by the GHD the strategic modelling assessment.

Further to the comparisons of traffic generation, SIDRA intersection analysis has also been conducted of the key Old Wallgrove Road / Eastern Creek Drive intersection. The SIDRA analysis undertaken reveals the intersection will perform at a LOS A in the future assessment year of 2031, following the addition of development traffic. As such, it is concluded that the proposal will have no material impact on the future operation of the external road network.

7.3 CUMULATIVE NOISE AND VIBRATION ANALYSIS

Given the distance and the proximity of major roadways, operational noise from the proposed warehouse and distribution centre will be inaudible above the prevailing ambient noise at all surrounding residential receivers. Additionally, operational noise emissions to surrounding industrial sites will achieve the amenity level recommended under the NPfI.

As required by the NSW RNP consideration has also been given to the additional traffic generated by the proposal and the potential cumulative impacts resulting from increased traffic on arterial and sub-arterial roads within the vicinity of existing residential areas.

Based upon the estimated traffic projection, the additional traffic generated by the proposed warehouse development will not result in any significant increase in the existing levels of road traffic noise on the road network surrounding the project.

7.4 CUMULATIVE AIR QUALITY ANALYSIS

A qualitative assessment of the operational phase was carried out and it was concluded that the impacts of the proposed operation, at residential and industrial/commercial receivers, are likely not to be significant.

With the proposal only involving warehousing and distribution activities, the operations are not considered to contribute to the cumulative emissions for the area.

7.5 CUMULATIVE HAZARD ANALYSIS

A review of the surrounding area indicates there are several warehouses within the vicinity, including a new data storage facility to the south. A detailed review of the development applications for these sites indicates none of these facilities exceed the SEPP 33 thresholds.

Specific developments within the vicinity of the subject site are:

- Data centre which was identified to be below SEPP 33 thresholds
- Jaycar warehouse which stores a range of DGs all below SEPP 33 thresholds.

As the premise of SEPP 33 is where storage is below the thresholds, offsite impact is not expected to occur, these neighbouring facilities are not considered to result in an increase to the cumulative impacts within area. Therefore, the only contributor to the area would be the warehouse subject to assessment within this PHA; hence, cumulative risk are not considered any further.

PART H PLANNED MANAGEMENT AND MITIGATION MEASURES FOR THE PROPOSED DEVELOPMENT

Charter Hall plans to undertake the construction and operation of the proposed warehouse and distribution centre, in accordance with the planned management and mitigation measures outlined within **Appendix E** of this EIS.

PART I PROPOSED DEVELOPMENT JUSTIFICATION

8.1 JUSTIFICATION

The proposed development is justified on environmental, social and economic grounds and is compatible with the locality in which it is proposed. The proposed development would enhance the subject site from an otherwise vacant landholding to a productive employment generating facility.

This EIS is submitted on the following basis.

8.1.1 Supports State, Regional and Local Planning Objectives

The proposed development is consistent with the objectives, provisions and vision contained within *A Metropolis of Three Cities – Greater Sydney Region Plan*; the *Central City District Plan*; and SEPP WSEA. The proposal would contribute to employment generation in an area already earmarked for employment through both State and Regional planning policies.

The need for warehousing and distribution was given a burning platform by changes to business as usual catalysed by COVID-19. The NSW DPE recognises warehouse and distribution centres as a type of development 'well-placed' to support short-term economic recovery from COVID-19. Warehouse and distribution centres were included as one infrastructure asset encouraging investment and job-generating development in NSW DPE's Productivity Acceleration Package. This relative importance is reflected in amendments to the SRD SEPP, which temporarily allows greater scope for warehouses and data centres to be assessed as SSD.

8.1.2 Demonstrates an Appropriate Use of a Permissible Development

The proposed development would retain and contribute to the growth of new industry for the immediate locale and the wider region. The proposed development would be a highly appropriate and compatible (given its contiguousness to other existing warehousing and industrial developments) response to the strategic goals and objectives of the whole region as set out in *A Metropolis of Three Cities – Greater Sydney Region Plan* and the *Central City District Plan*, which all envisage employment-generating land uses at this location.

8.1.3 Minimises Environmental Impacts

Specialist consultants have assessed the potential impacts of the proposed development, determining that it could be undertaken with minimal environmental impacts. The commissioned reports (also as listed in **TABLE 2**) have collectively concluded that no significant risk to the locality would result from the proposed development. Where impacts have been identified, these fully-developed strategies are set out in detail for management and mitigation. These measures are described in **PART F** of this EIS.

8.1.4 Creates Compatibility with Surrounding Development

The proposed development is compatible with existing land uses on adjacent lands, all of which provide very similar industrial functions. All are within the immediate vicinity of the proposed development. Detailed investigations undertaken, as part of this application, conclude that no significant environmental cumulative impacts, would occur from the proposed facility.

8.1.5 Delivers Ecologically Sustainable Development

The principles of ESD as outlined in Clause 7(4) of the EP&A Regulation have been carefully considered in the formulation of this proposal and are addressed as follows:

8.1.5.3 Precautionary Principle

After careful assessment by both the project team and expert consultants, it is concluded that no unmanageable threat or irreversible damage to the environment, would result from the proposed development.

8.1.5.2 Inter-generational Equity

The project team and expert consultants have examined the overall effects of the proposed development, on both the natural environment and the existing built environment within the vicinity of the subject site.

This detailed assessment has concluded that no unreasonable use of resources, affectation of environmental processes or prevention of the use of land for future generations would occur from the proposed development. The proposed development would improve the status of the subject site and contribute to the economies of the region through both substantial investment and new employment, thereby improving the inter-generational equity.

8.1.5.3 Improved Valuation, Pricing and Incentive Mechanisms

The proposed development would enable operational efficiencies for the end user, through the provision of tailored design outcomes.

8.1.5.4 Environmental Management

The proposed development implements significant and elaborate measures that avoid, contain and address any possible air quality, noise, waste and pollution impacts, through avoidance, better design and management. This is exemplified through the measures, which would be implemented throughout both the construction and operational phases of the proposed development, outlined within **PART F** and **PART G** of this EIS.

PART J CONCLUSION

This proposed development is deemed to SSD pursuant to Schedule 1, Clause 12 of SRD SEPP. This EIS has been prepared in accordance with the Industry-specific SEARs dated 8 November 2021.

The proposed development is considered to be entirely consistent with the Objects of the EP&A Act under Section 1.3, particularly the notion of promoting the orderly and economic development of the land.

Based on the specialist studies and extensive investigations carried out for the proposed development, the following conclusions are made:

1. **Statutory Context**

   The proposal is entirely consistent with the Objects of the EP&A Act. The appropriateness of the proposed development is also demonstrated through compliance with the SEPP WSEA and SRD SEPP, in that it achieves the employment generating outcomes envisaged for the subject site, with minimal impact on surrounding uses and environments.

2. **Capital Investment Value and Employment**

   The proposed development would provide new employment opportunities through the provision of a warehouse and distribution centre to an otherwise stagnant industrial land holding. As a key contributor to the industrial sector, Charter Hall, have identified the subject site to contribute to the industrial offerings within the WSEA.

3. **Design Quality**

   The proposal responds to the seven (7) objectives for good design in *Better Placed*.

4. **Built Form and Urban Design**

   As clearly demonstrated in the various design plans and reports, the proposed development provides a suitable urban design outcome that reflects the existing locality. The intended use and design continue to provide a high quality general industrial, light industrial; warehouse and distribution and ancillary office land uses which complements the surrounding industrial context of Eastern Creek.

5. **Visual Impact**

   The proposed development will cause a change in the view for a very small minority of properties, which has therefore been heavily landscaped in setback areas to soften and screen views for these users.

6. **Traffic, Transport and Accessibility**

   Overall, the proposal represents a less intensive development than previously considered by the strategic modelling assessment, which informed the current design of Old Wallgrove Road.

   Further to the comparisons of traffic generation, SIDRA intersection analysis has also been conducted of the key Old Wallgrove Road / Eastern Creek Drive intersection. The SIDRA analysis undertaken reveals the intersection will perform at a LOS A in the future assessment year of 2031, following the addition of development traffic. As such, it is concluded that the proposal will have no material impact on the future operation of the external road network

7. Trees and Landscaping

The proposal offers tall native canopy trees, screening shrubs and groundcovers. Following maturity, these planted buffers will provide a dense screen to help to soften and screen the development.

8. ESD

Through the implementation of the initiatives noted within following subsections, the proposal clearly demonstrates the site's commitment to ESD principles throughout the design, construction, and operation. Additionally, the project design team has worked to optimise the sites energy performance, address key climate related risks posed to the site, and align to the NSW Government's commitment to carbon neutrality by 2050.

Additionally, through the project's commitment to Green Star and an outcomes focused approach to sustainability the project commitments exceed the required ESD measures required under the SEARs and demonstrate Global Leadership in sustainability.

9. Biodiversity

The subject site has been significantly altered over the past 60 years, involving alterations of the landform and removal of any evidence of the first order stream that historically ran across the subject site. The biodiversity assessment of the subject site has determined that the proposal is not likely to have any significant impact on the biodiversity values of the subject site. Therefore, given the land use history, current surrounding industrial infrastructure and limited ecological value within the study area, a BDAR waiver has been requested.

10. Air Quality

The air quality assessment concludes that the construction phases can be adequately managed so that the short-term and temporary dust related impacts will remain to be low risk.

A qualitative assessment of the operational phase was carried out and it was concluded that the impacts of the operation, at residential and industrial/commercial receivers, are likely not to be significant.

11. Noise and Vibration

No exceedances are predicted at any receivers during all construction stages. Construction noise impacts are predicted to be below Noise Management Levels at all receivers, during all stages of construction.

Operational noise emissions from the facility will be inaudible above the prevailing ambient at residential receiver areas to the north, south and west. Operational noise emissions to surrounding industrial properties will achieve the amenity limits recommended under the NSW NPfI.

12. Ground and Water Conditions

The subject site's soils are clays derived from the underlying very fine grained sedimentary shale bed rock. As such, the soils are generally considered to be low to very low permeability.

Groundwater was encountered at levels between 60.01m AHD and 63.28m AHD. Water quality observations determined groundwater to be moderately saline to saline.

The primary risks to groundwater were identified as low risk and did not require specific mitigation and management measures. Industry standard mitigation and management measures are recommended to reduce the potential consequence of contamination to groundwater.

13. Stormwater and Wastewater

Several WCM measures have been included in the WCMS and engineering design to ensure the proposal achieves compliance with BDCP2015 Part J and other legislative requirements.

14. Flooding Risk

The overall flood risk for the development, and from the development is considered low to negligible, and the proposed development meets current *Blacktown City Council flood policy*.

15. Hazards and Risks

The storage of DGs has been analysed, and it is concluded that the risks at the site boundary are not considered to exceed the acceptable risk criteria; hence, the facility would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

16. Contamination and Remediation

The subject site has previously been used for agricultural/grazing purposes, which is one of the activities listed in Table 1 of SEPP 55 guidelines. However, the proposed commercial / industrial land use of the site will be less sensitive than the former agricultural land use for the site. As such, a detailed site investigation is not required.

17. Waste Management

A Waste Management Plan has been provided, which considers construction and operational waste measures to be undertaken for the proposed development. All buildings have considered the provision for waste management areas to ensure the effective management and disposal of waste can occur.

18. Aboriginal Cultural Heritage

Review of background information, existing assessments and database searches have established that no archaeological sites containing Aboriginal objects are known to exist within the boundaries of the proposal site.

Consultation with Heritage NSW has confirmed *that there is no further impact to Aboriginal objects or places proposed as a result of this proposal*. Heritage NSW also confirmed that they have no further interest in this proposal as it relates to Aboriginal heritage.

19. Environmental Heritage

There is minimal historical archaeological potential and sensitivity within the subject site owing to its use as an outer paddock of a large estate, which was mostly used to graze cattle. There is minimal potential for archaeological remains of interest to present

Research has shown that no significant buildings or activities occurred within the subject site and as such the site has limited heritage significance.

20. Social Impact

Long term socio-economic impacts of the proposal are expected to be positive, with benefits to be felt by groups extending beyond the immediate locality.

21. Infrastructure Requirements and Utilities

The proposed development can be adequately serviced and does not necessitate any infrastructure upgrades.

22. Bush Fire Risk

The highest Bushfire Attack Level to the proposed building was determined to be 'BAL Low' and therefore there are no construction provisions applicable under AS3959.

The proposal satisfies all relevant specifications and requirements of PBP.

23. Construction, Operation and Staging

The approval strategy seeks to obtain Development Consent to complete the construction works over several construction stages upon issue of the relevant Construction Certificates; however, any such staging does not constitute staged development as defined under Section 4.22 of the EP&A Act.

24. Contributions and Public Benefit

The proposal site has provided all satisfactory contributions required under Section 7.11 of the EP&A Act and Clause 29 of the SEPP WSEA.

25. Engagement

This EIS and supporting reports have been prepared in accordance with the matters prescribed by the SEARs. A comprehensive level of community and stakeholder engagement has been undertaken for the proposed development.

Based on the findings of this EIS, it is concluded that the proposed development would support the continued and targeted growth of the WSEA. The proposal would contribute to the retention and growth of the Eastern Creek precinct. The proposed development is therefore considered suitable from both a local and regional context and is considered orderly and appropriate, based on social, cultural, economic and environmental matters.

Given the above reasons and the satisfaction of both of the Objects of the EP&A Act and the aims of SEPP WSEA, it is recommended that the proposed development, for the purposes of a warehouse and distribution centre, be supported subject to relevant and reasonable conditions.

APPENDIX A
SEARS TABLE

HOW THE SEARS HAVE BEEN SATISFIED	
Issue and Assessment Requirements	**Satisfied by**
1. Statutory and strategic context	
▪ Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.	Refer to **PART D** of this EIS.
▪ Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.	Refer to **Section 4.3.12** of this EIS.
▪ If the development is only partly State significant development (SSD) under clause 8(1) of the State and Regional Development SEPP, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD.	**N/A** – the proposal is wholly SSD.
▪ Address the requirements of any approvals applying to the site, including any concept approval or recommendation from any Gateway determination.	Refer to **Section 2.2** of this EIS.
2. Capital Investment Value and Employment	
▪ Provide a detailed calculation of the capital investment value (CIV) of the development, prepared by a qualified quantity surveyor.	Refer to **Section 1.5** and **Appendix 2** of this EIS.
▪ Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided.	Refer to **Section 1.6** and **Appendix 27** of this EIS.
3. Design Quality	
▪ Demonstrate how the development will achieve: – design excellence in accordance with any applicable EPI provisions. – good design in accordance with the seven objectives for good design in Better Placed.	Refer to **Section 6.1.3** and **Appendix 5** of this EIS.
▪ Where required by an EPI or concept approval, demonstrate how the development has been subject to a competitive design process or reviewed by the State Design Review Panel (SDRP). Recommendations are to be addressed prior to lodgement.	**N/A** – the proposal is subject to a competitive design process, not is it to be reviewed by the SDRP.
4. Built Form and Urban Design	
▪ Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning and design approach.	Refer to **Section 6.1.4** and **Appendix 4**, **Appendix 5** and **Appendix 6** of this EIS.
▪ Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.	Refer to **Section 6.1.4** and **Appendix 4** and **Appendix 5** of this EIS.
▪ Demonstrate how the building design will deliver a high-quality development, including consideration of façade	Refer to **Section 6.1.4** and **Appendix 4** and **Appendix 5** of this EIS.

design, articulation, materials, finishes, colours, any signage and integration of services.	
▪ Assess how the development complies with the relevant accessibility requirements.	Refer to **Section 6.1.4** and **Appendix 7** and **Appendix 8** of this EIS.
5. Visual Impact	
▪ Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.	Refer to **Section 6.1.5** and **Appendix 9** of this EIS.
▪ Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment.	Refer to **Section 6.1.5** and **Appendix 9** of this EIS.
6. Traffic, Transport and Accessibility	
▪ Provide a transport and accessibility impact assessment, which includes: – details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes. – an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections (using industry standard modelling). – plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network. – details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards. – swept path analysis for the largest vehicle requiring access to the development. – details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary.	Refer to **Section 6.1.6** and **Appendix 10** and **Appendix 12** of this EIS.
▪ Provide a Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	Refer to **Section 6.1.6** and **Appendix 11** of this EIS.
7. Trees and Landscaping	
▪ Provide a detailed site-wide landscape plan, that: – identifies the number and location of trees to be removed and retained, and how opportunities to retain significant trees have been explored and/or informs the plan.	Refer to **Section 1.1.1** and **Appendix 13** of this EIS.

– details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. – demonstrates how the proposed development would: o contribute to long term landscape setting in respect of the site and streetscape. o mitigate the urban heat island effect and ensure appropriate comfort levels on-site. o contribute to the objective of increased urban tree canopy cover. o maximise opportunities for green infrastructure, consistent with Greener Places.	
8. Ecologically Sustainable Development (ESD)	
▪ Identify how ESD principles (as defined in clause 7(4) of Schedule 2 of the EP&A Regulation) are incorporated in the design and ongoing operation of the development.	Refer to **Section 6.1.8** and **Appendix 14** of this EIS.
▪ Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards.	Refer to **Section 6.1.8** and **Appendix 14** of this EIS.
▪ Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.	Refer to **Section 6.1.8** and **Appendix 14** of this EIS.
9. Biodiversity	
▪ Assess any biodiversity impacts associated with the development in accordance with the *Biodiversity Conservation Act 2016* and the *Biodiversity Assessment Method 2020*, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted, or the site is on biodiversity certified land.	A BDAR Waiver has been sought from NSW DPE, refer to **Section 6.1.9** of this EIS.
▪ If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification.	**N/A** – the subject site is not biodiversity certified land.
10. Air Quality	
▪ Identify significant air emission sources at the proposed development (during construction and operation), assess their potential to cause adverse off-site impacts, and detail proposed management and mitigation measures that would be implemented. Where air emissions during operation have the potential to cause adverse off-site impacts, provide a quantitative air quality impact assessment prepared in accordance with the relevant NSW Environment Protection Authority (EPA) guidelines.	Refer to **Section 6.1.10** and **Appendix 16** of this EIS.
11. Noise and Vibration	
▪ Provide a noise and vibration assessment prepared in accordance with the relevant EPA guidelines. The assessment must detail construction and operational	Refer to **Section 6.1.11** and **Appendix 17** of this EIS.

noise and vibration impacts on nearby sensitive receivers and structures and outline the proposed management and mitigation measures that would be implemented.	
12. Ground and Water Conditions	
▪ Provide an assessment of the potential impacts on soil resources, including related infrastructure and riparian lands on and near the site.	Refer to **Section 6.1.12** of this EIS.
▪ Provide an assessment of the potential impacts on surface and groundwater resources (quality and quantity), including related infrastructure, hydrology, aquatic and groundwater dependent ecosystems, drainage lines, downstream assets and watercourses.	Refer to **Section 6.1.12**, **Appendix 19** and **Appendix 21** of this EIS.
▪ Identify predicted water discharge points to surface/groundwater and consider discharge quality against relevant water quality criteria.	Refer to **Section 6.1.12** and **Appendix 21** of this EIS.
▪ Provide a detailed site water balance including identification of water requirements for the life of the development, and measures to ensure an adequate and secure water supply.	Refer to **Section 6.1.12** and **Appendix 21** of this EIS.
▪ Provide an assessment of salinity and acid sulfate soil impacts.	Refer to **Section 6.1.12** and **Appendix 20** of this EIS.
13. Stormwater and Wastewater	
▪ Provide an Integrated Water Management Plan for the development that: – is prepared in consultation with the local council and any other relevant drainage or water authority. – details the proposed drainage design for the site including any on-site detention facilities, water quality management measures and the nominated discharge points, on-site sewage management, and measures to treat, reuse or dispose of water. – demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse impacts on any downstream properties.	Refer to **Section 6.1.13** and **Appendix 21** of this EIS.
▪ Where drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority, provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and comply with the relevant standards of, the local council or other drainage or water authority.	Refer to **Section 6.1.13** and **Appendix 21** of this EIS.
14. Flooding risk	
▪ Identify any flood risk on-site having regard to adopted flood studies, the potential effects of climate change, and any relevant provisions of the NSW Floodplain Development Manual.	Refer to **Section 6.1.14** and **Appendix 21** of this EIS.
▪ Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions and operational procedures to mitigate flood risk where required.	Refer to **Section 6.1.14** and **Appendix 21** of this EIS.

15. Hazards and Risks	
▪ Where there are dangerous goods and hazardous materials associated with the development provide a preliminary risk screening in accordance with SEPP 33.	Refer to **Section 6.1.15** and **Appendix 22** of this EIS.
▪ Where required by SEPP 33, provide a Preliminary Hazard Analysis prepared in accordance with *Hazardous Industry Planning Advisory Paper No.6 – Guidelines for Hazard Analysis*.	Refer to **Section 6.1.15** and **Appendix 22** of this EIS.
▪ If the development is adjacent to or on land in a pipeline corridor, report on consultation outcomes with the operator of the pipeline, and prepare a hazard analysis.	**N/A** – the subject site is not adjacent to or on land in a pipeline corridor.
16. Contamination and Remediation	
▪ In accordance with SEPP 55, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.	Refer to **Section 6.1.16** and **Appendix 23** of this EIS.
17. Waste Management	
▪ Identify, quantify and classify the likely waste streams to be generated during construction and operation.	Refer to **Section 6.1.17** and **Appendix 24** of this EIS.
▪ Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Refer to **Section 6.1.17** and **Appendix 24** of this EIS.
▪ Identify appropriate servicing arrangements for the site.	Refer to **Section 6.1.17** and **Appendix 24** of this EIS.
▪ If buildings are proposed to be demolished or altered, provide a hazardous materials survey.	**N/A** – the proposal involves a completely new build.
18. Aboriginal Cultural Heritage	
▪ Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site.	Refer to **Section 6.1.18** and **Appendix 25** of this EIS.
19. Environmental Heritage	
▪ Where there is potential for direct or indirect impacts on the heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated.	Refer to **Section 6.1.19** and **Appendix 26** of this EIS.
20. Social Impact	
▪ Provide a Social Impact Assessment prepared in accordance with the *Social Impact Assessment Guidelines for State Significant Projects*.	Refer to **Section 6.1.20** and **Appendix 27** of this EIS.
21. Infrastructure Requirements and Utilities	
▪ In consultation with relevant service providers: – assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.	Refer to **Section 6.1.21** and **Appendix 28** of this EIS.

– identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. – provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.	
22. Bush Fire Risk	
▪ If the development is on bush fire prone land, provide a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with Planning for Bush Fire Protection.	Refer to **Section 6.1.22** and **Appendix 29** of this EIS.
23. Construction, Operation and Staging	
▪ If staging is proposed, provide details of how construction and operation would be managed and any impacts mitigated.	Refer to **Section 6.1.23** of this EIS.
24. Contributions and Public Benefit	
▪ Address the requirements of any relevant contribution plan(s), planning agreement or EPI requiring a monetary contribution, dedication of land and/or works-in-kind and include details of any proposal for further material public benefit.	Refer to **Section 6.1.24** and **Appendix 32** of this EIS.
▪ Where the development proposes alternative public benefits or a departure from an existing contributions framework, the local council, the Department and relevant State agencies are to be consulted prior to lodgement and details, including how comments have been addressed, are to be provided.	Refer to **Section 6.1.24** of this EIS.
25. Engagement	
▪ Detail engagement undertaken and demonstrate how it was consistent with the Undertaking Engagement Guidelines for State Significant Projects. Detail how issues raised and feedback provided have been considered and responded to in the project. In particular, applicants must consult with: – the relevant Department assessment team. – any relevant local councils. – any relevant agencies. – the community. – if the development would have required an approval or authorisation under another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s 4.42 of the EP&A Act, the agency relevant to that approval or authorisation.	Refer to **Section 6.1.25** and **Appendix 30** of this EIS.

APPENDIX B
SITE SPECIFIC MAPS AND INFORMATION

Applicant Details

Your reference EASTERN CREEK DRIVE, EASTERN CREEK

INFO TRACK
DX 578
SYDNEY

Certificate Details

Certificate no. PL2021/19404

Date issued 15 November 2021

Receipt no. ePay Ref 180379

Property information

Property ID 400006 **Land ID** 398360

Legal description LOT 1 DP 1274322

Address EASTERN CREEK DRIVE EASTERN CREEK NSW 2766

County CUMBERLAND **Parish** MELVILLE

PLANNING CERTIFICATE (Section 10.7(2 & 5))

Blacktown City Council prepared this Planning Certificate under Section 10.7 of the *Environmental Planning and Assessment Act 1979*. The form and content of the Certificate is consistent with *Environmental Planning and Assessment Regulation 2000*.

Disclaimer

Blacktown City Council gives notice and points out to all users of the information supplied herein, that the information herein has been compiled by Council from sources outside of Council's control. While the information herein is provided with all due care and in good faith, it is provided on the basis that Council will not accept any responsibility for and will not be liable for its contents or for any consequence arising from its use, and every user of such information is advised to make all necessary enquiries from the appropriate organisations, institutions and the like.

Blacktown City Council also gives notice to all users of the information supplied herein, wherever any particular enquiry herein remains unanswered or has not been elaborated upon, such silence should not be interpreted as meaning or inferring either a negative or a positive response as the case may be.

Section 10.7(2)

The following information is provided under Section 10.7(2) of the *Environmental Planning and Assessment Act 1979*. The information relates to the subject land at the date of this Certificate.

---

1. Names of relevant planning instruments and development control plans

1.1 Environmental Planning Instrument

As at the date of this certificate the abovementioned land is not affected by Blacktown Local Environmental Plan 2015.

The land is affected by the *State Environmental Planning Policy (Western Sydney Employment Area) 2009.*

1.2 Proposed Local Environmental Plans

On 16 August 2021, Council placed a housekeeping amendment Planning Proposal to amend Blacktown Local Environmental Plan 2015.

The proposal amends:

- Clause 4.1AA Minimum subdivision lot size for community title schemes, and Clause 4.1A Minimum subdivision lot size for strata plan schemes, to remove inconsistency with Clause 4.1(4) Minimum subdivision lot size,
- Clause 4.1 C relating to the subdivision of a lawfully erected dual occupancy development on a corner lot, by including an objective and clarifying what is defined as a corner lot, and
- Schedule 1 – Additional permitted uses to update the legal description of No 22 John Hines Avenue, Minchinbury

A copy of the Planning Proposal is available on the NSW Planning Portal: https://pp.planningportal.nsw.gov.au/ppr/pre-exhibition/housekeeping-amendment-no2-blacktown-local-environmental-plan-2015

1.3 Other Applicable State Environmental Planning Policies

Attachment 1 contains a list of State Environmental Planning Policies that may apply to the carrying out of development on the subject land.

1.4 Proposed State Environmental Planning Policies

The following draft State Environmental Planning Policies (SEPPs) or Explanation of Intended Effects (EIE) are currently on exhibition or have been exhibited. For further information refer to https://www.planningportal.nsw.gov.au/draftplans

- The NSW Department of Planning, Industry and Environment has placed on exhibition the draft State Environmental Planning Policy (Housing) 2021 (SEPP). The draft SEPP proposes to consolidate five existing housing-related SEPPs:
    - State Environmental Planning Policy (Affordable Rental Housing) 2009 (ARHSEPP);
    - State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004 (Seniors SEPP);
    - State Environmental Planning Policy No 70 – Affordable Housing (Revised Schemes) (SEPP 70);
    - State Environmental Planning Policy No 21—Caravan Parks; and
    - State Environmental Planning Policy No 36—Manufactured Home Estates.

  The draft State Environmental Planning Policy (Housing) 2021 is on exhibition from 31 July to 29 August 2021. For more information visit: https://www.planningportal.nsw.gov.au/housing-sepp

- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect from 31 March to 9 May 2021 to amend State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Building Business Back Better).

- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect between 26 February and 28 April 2021 for the Design and Place SEPP.

- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect between 31 March and 12 May 2021 to review Clause 4.6 of the Standard Instrument Local Environmental Plan

- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect from 2 March to 16 March 2020 to amend State Environmental Planning Policy (State and Regional Development) 2011 to facilitate the efficient delivery of upgrades to existing water treatment facilities in NSW

- The NSW Department of Planning, Industry and Environment exhibited and Explanation of Intended Effect from 20 November to 17 December 2020 to amend the Infrastructure SEPP related to health services facilities.

- The NSW Department of Planning, Industry and Environment exhibited and Explanation of Intended Effect from 20 November to 17 December 2020 to amend the State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

- The NSW Department of Planning, Industry and Environment exhibited and Explanation of Intended Effect from 26 August to 2 November 2020 to recommend the creation of a new State Environmental Planning Policy for strategic conservation planning
- The NSW Department of Planning, Industry and Environment exhibited a Flood Prone Land Package from the 30 April to 25 June 2020
- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect from 7 September to 28 September 2018 to amend State Environmental Planning Policy (Sydney Region Growth Centres) 2006
- The NSW Department of Planning, Industry and Environment exhibited an Explanation of Intended Effect between 31 October 2017 and 31 January 2018 for the proposed Environment SEPP.

1.5 Development control plans

The *Eastern Creek Precinct Plan - Stage 3* applies to the subject land. The Plan outlines the provisions relating to development of the Stage 3 Release Area within the Eastern Creek Precinct of *State Environmental Planning Policy No. 59 - Central Western Sydney Economic and Employment Area*. The draft Precinct Plan was adopted by Council on 7 December 2005, and came into force on 14 December 2005.

2. Zoning and land use under relevant environmental planning instruments

The following information will assist in determining how the subject land may be developed. It is recommended that you read this section in conjunction with a full copy of any relevant environmental planning instrument as there may be additional provisions that affect how the land may be developed.

2.1 Zoning

Under *State Environmental Planning Policy (Western Sydney Employment Area) 2009,* the land is zoned:

IN1 General Industrial

For information about the types of development that may or may not be carried out on the land, please refer to a full copy of the Environmental Planning Instrument identified above.

2.2 Minimum land dimensions for the erection of a dwelling house

Not applicable

2.3 Critical habitat

The land does not include or comprise a critical habitat.

Note: Critical habitat registers are kept by the National Parks and Wildlife Service under the *Threatened Species Conservation Act 1995* and the Department of Fisheries under the *Fisheries Management Act 1994*.

2.4 Conservation areas

The land is not within a conservation area.

2.5 Environmental Heritage

The land does not contain an item of environmental heritage under the protection of State Environmental Planning Policy (Western Sydney Employment Area) 2009

3. Complying development

Complying development may or may not be carried out on the subject land under an Environmental Planning Policy. Council does not have sufficient information to determine the extent to which specific complying development may or may not be carried out.

4. Coastal protection

The subject land is not affected by the operation of Sections 38 or 39 of the *Coastal Protection Act, 1979*.

5. Mine subsidence

The subject land has not been proclaimed to be a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 1961*.

6. Road widening and road realignment

The subject land is not affected by road widening or road realignment under an environmental planning instrument.

7. Council and other public authority policies on hazard risk restrictions

7.1 Contaminated Lands Policy and Asbestos Policy Schedule 6

Council has adopted a Contaminated Lands Policy and an Asbestos Policy which may restrict development on the subject land.

The Land Contamination Policy applies when zoning or land use changes are proposed on land which has previously been used for certain purposes or has the potential to be affected by such purposes undertaken on nearby lands. The Asbestos Policy applies where land contains, or is likely to have contained in the past, buildings or structures that were erected prior to the banning of asbestos. Both policies should be considered in the context of relevant State legislation and guidelines.

Council's records may not be sufficient to determine all previous uses on the land, or determine activities that may have taken place on this land.

7.2 Other policies on hazard risk restrictions

Council has not adopted any other policies to restrict the development of the subject land by reason of the likelihood of landslip, bushfire, tidal inundation, subsidence or the occurrence of acid sulphate soils.

Note: Although Council has not adopted a specific policy to restrict development bushfire prone land, it is bound by state-wide bushfire legislation that may restrict development on the subject land. Additional information relating to bushfire prone land is provided at point 11 below.

7a. Flood related development controls information

The Flood Inundation maps prepared by Council are based on results of Engineering flood studies commissioned by Government authorities or Council. The information provided in this section is general advice based on Council's current adopted flood mapping. For more detailed flood information, please contact Council's Flooding Section and/or email Floodadvice@blacktown.nsw.gov.au

8. Land reserved for acquisition

State Environmental Planning Policy (Western Sydney Employment Area) 2009 makes provision for land included on the Land Reservation Acquisition Map to be acquired by a public authority.

9. Contributions plans

Council currently levies contributions under Section 7.11 of the *Environmental Planning & Assessment Act 1979* for facilities and services. The further development of the subject land may incur such contributions.

Contributions Plan No. 18 - Eastern Creek Stage 3 applies to the subject land.

9a. Biodiversity certified land

The land is not biodiversity certified land as defined by Part 7AA of the *Threatened Species Conservation Act 1995*.

10. Biobanking agreements

The land is not subject to any biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995*.

11. Bushfire prone land

The Rural Fires and Environmental Assessment Legislation Amendment Act 2002, which came into force on 1 August 2002, introduced development provisions for bush fire prone land as shown on a Bush Fire Prone Land Map. "Bush fire prone land" is land that has been designated by the Commissioner of the NSW Rural Fire Service as being bush fire prone due to characteristics of vegetation and topography. The land the subject of this certificate has been identified on Council's Bush Fire Prone Land Map as being:

Bushfire - 100m buffer

On land that is bush fire prone, certain development may require further consideration under Section 4.14 or Section 4.46 of the *Environmental Planning & Assessment Act 1979* and under Section 100B of the *Rural Fires Act 1997*.

12. Property vegetation plans

The subject land is not affected by a property vegetation plan under the *Native Vegetation Act 2003*. The Blacktown local government area is excluded from the operation of the *Native Vegetation Act 2003* (refer Schedule 1 Part 3 of that Act).

13. Orders under *Trees (Disputes Between Neighbours) Act 2006*

No. Council has not been notified of any order made under the *Trees (Disputes Between Neighbours) Act 2006* in relation to the subject land.

14. Site compatibility certificates and conditions for seniors housing

Land to which this Certificate applies is not subject to the above.

15. Site compatibility certificates for infrastructure

Land to which this Certificate applies is not subject to the above.

16. Site compatibility certificates and conditions for affordable rental housing

Land to which this Certificate applies is not subject to the above.

17. Paper subdivision information

Not applicable

18. Site verification certificates

Council is not aware of any site verification certificate applying to the subject land.

Under the *Contaminated Land Management Act 1997* and *Contaminated Land Management Amendment Act 2008*

(a) The land to which this certificate relates has not been declared to be significantly contaminated land at the date when the certificate was issued

(b) The land to which the certificate relates is not subject to a management order at the date when the certificate was issued

(c) The land to which this certificate relates is not the subject of an approved voluntary management proposal at the date when the certificate was issued

(d) The land to which this certificate relates is not subject to an ongoing maintenance order as at the date when the certificate was issued

(e) The land to which this certificate relates is not the subject of a site audit statement provided to the Council.

19. Affected building notices and building product rectification orders

19.1 Affected building notices

Council is not aware of any affected building notice in force for the subject land.

19.2 Building product rectification orders

(a) Council is not aware of any building product rectification order in force for the subject land.

(b) Council is not aware of any notice of intention to make a building product rectification order being given for the subject land.

Section 10.7(5)

The following information is provided under Section 10.7(5) of the *Environmental Planning & Assessment Act 1979*. As per section 10.7(6) of the Act, Council shall not incur any liability in respect of any advice provided in good faith under section 10.7(5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter not referred to in this Certificate.

Planning Instruments and Covenants

The provisions of any covenant, agreement or instrument applying to this land that restrict or prohibit certain development may be inconsistent with the provisions of an environmental planning instrument. In such cases, the provisions of any such covenant, agreement or instrument may be overridden.

Loose-filled Asbestos Insulation

Some residential homes located in the Blacktown Local Government Area may potentially contain loose-fill asbestos insulation, for example in the roof space. NSW Fair Trading maintains a Register of homes that are affected by loose-fill asbestos insulation.

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates and, if it contains a building constructed prior to 1980, the council strongly recommends that any potential purchaser obtain advice from a licensed asbestos assessor to determine whether loose-fill asbestos is present in any building on the land and, if so, the health risks (if any) this may pose for the building's occupants.

Contact NSW Fair Trading for further information

Biodiversity and Threatened Species Conservation

The land is affected by a tree preservation control under Clause 5.9 of the Blacktown Local Environmental Plan 2015. A person shall not ringbark, cut down, lop, top, remove, injure or wilfully destroy any tree, or cause any tree to be ringbarked, cut down, topped, lopped, injured or wilfully destroyed, except with the consent of the Council.

The provisions of any covenant, agreement or instrument applying to this land purporting to restrict or prohibit certain development may be inconsistent with the provisions of a Regional Environmental Plan, State Environmental Planning Policy or Blacktown Local Environmental Plan 2015, in which case the provisions of any such covenant, agreement or instrument may be overridden.

The *Threatened Species Conservation Act 1995* provides for the conservation of threatened species, populations and ecological communities of animals and plants.

The *Threatened Species Conservation Act 1995* amended the *Environmental Planning and Assessment Act 1979* to require, amongst other things, that:

(a) A critical habitat (as defined in the *Threatened Species Conservation Act 1995*) be identified in environmental planning instruments, and

(b) Consent authorities and determining authorities must, when considering proposed development or an activity, assess whether it is likely to significantly affect threatened species, populations and ecological communities, or their habitats, and, if a significant effect is likely, to require the preparation of a species impact statement in accordance with the requirements of the *Threatened Species Conservation Act 1995*, and

(c) Consent authorities and determining authorities must, when considering proposed development or an activity, have regard to the relevant recovery plans and threat abatement plans.

The *Environment Protection and Biodiversity Conservation Act 1999* provides protection for items of national significance. Items of national environmental significance include nationally threatened animal and plant species and ecological communities.

The Act requires a separate Commonwealth approval to be obtained where an action is likely to have significant impacts on items of national environmental significance.

For further information on this matter, please contact the Australian Government's Department of the Environment.

This land contains an Aboriginal archaeological site under the protection of the National Parks and Wildlife Service Act, 1974. Before any development can proceed in an area known to contain Aboriginal archaeological sites, a consent to destroy must be obtained from the Director of the National Parks and Wildlife Service.

Attachment 1 – State Environmental Planning Policies

In addition to the principal environmental planning instrument identified in section 2.1 of this Certificate, the following State Environmental Planning Policies may also affect development on the subject land.

SEPP (Affordable Rental Housing) 2009

This policy aims to facilitate the increased supply and diversity of affordable rental and social housing in NSW and covers housing types including in-fill affordable housing, along with secondary dwellings (granny flats), boarding houses, group homes, social housing and supportive accommodation. Part 3 of the policy provides for the retention of existing affordable rental housing stock. Development applications to demolish, alter or add, change the use of, or strata subdivide existing low cost rental dwellings may require a contribution towards the provision of alternative affordable housing.

SEPP (Building Sustainability Index: BASIX) 2004

This policy aims to ensure consistency in the implementation of the BASIX scheme throughout the State by overriding provisions of other environmental planning instruments and development control plans that would otherwise add to, subtract from or modify any obligations arising under the BASIX scheme.

SEPP (Exempt and Complying Development Codes) 2008

This policy is also known as the Codes SEPP and includes a number of Codes that allow for certain types of development to be undertaken without the need for council approval as either Exempt Development or approved under a fast track system known as Complying Development, if the relevant standards are met.

SEPP (Sydney Region Growth Centres) 2006

This policy provides for the coordinated release of land for residential, employment and other urban development in the North West Growth Centre, the South West Growth Centre and the Wilton Growth Area. It provides development controls to enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high quality local amenity.

SEPP (Housing for Seniors or People with a Disability) 2004

This policy is also known as Seniors Housing SEPP and encourages the development of high quality and well-designed housing for older people and people with disabilities, while ensuring that it is in keeping with neighbourhood character. In October 2018, an amendment was made to change some

rules for site compatibility certificates and to make the relevant planning panel the determining authority for site compatibility certificates issued under the Seniors Housing SEPP.

SEPP (Infrastructure) 2007

This policy assists the NSW Government, private infrastructure providers, local councils and the communities they support by simplifying the process for providing infrastructure like hospitals, roads, railways, emergency services, water supply and electricity delivery, while ensuring appropriate levels of environmental assessment and consultation are undertaken. Recent changes introduce new provisions for correctional services, emergency and police services facilities and bushfire hazard reduction, ports and roads infrastructure, including facilities for electric vehicles, and other operational and housekeeping improvements.

SEPP (Miscellaneous Consent Provisions) 2007

This policy contains provisions for the erection of temporary structures, subdivision, the demolition of a building or work, certain change of use and fire alarm communication links.

SEPP (State Significant Precincts) 2005

The purpose of this Policy is to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State. It also aims to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes.

SEPP (Mining, Petroleum Production and Extractive Industries) 2007

This policy is also known as the Mining SEPP and governs the way that mining, petroleum production and extractive material resource proposals are assessed and developed in NSW.

SEPP No 1 - Development Standards

This policy provides flexibility in the application of development standards and allows Council to approve a development that does not comply with a development standard where it can be shown that the development standard is unreasonable or unnecessary.

SEPP No 19 - Bushland in Urban Areas

This policy protects and preserves bushland within urban areas because of its natural heritage, its aesthetic value and its value for recreational, educational or scientific purposes. The policy aims to protect bushland areas in public open space zones and reservations and ensures that bushland

preservation is given priority when local environmental plans are prepared.

SEPP No 21 - Caravan Parks

This policy applies to development for the purpose of caravan parks and camping grounds. The policy ensures that development consent is required for new caravan parks and camping grounds and for additional long term sites in existing caravan parks. It also requires that development consent be obtained from Council for the subdivision of land for lease purposes under the Local Government Act.

SEPP No. 30 - Intensive Agriculture
Requires development consent for cattle feedlots having a capacity of 50 or more cattle or piggeries having a capacity of 200 or more pigs. The policy sets out information and public notification requirements to ensure there are effective planning control over this export-driven rural industry. The policy does not alter if, and where, such development is permitted, or the functions of the consent authority.

SEPP No. 32 - Urban Consolidation
States the Government's intention to ensure that urban consolidation objectives are met in all urban areas throughout the State. The policy focuses on the redevelopment of urban land that is no longer required for the purpose it is currently zoned or used, and encourages local councils to pursue their own urban consolidation strategies to help implement the aims and objectives of the policy. Councils will continue to be responsible for the majority of rezonings. The policy sets out guidelines for the Minister to follow when considering whether to initiate a regional environmental plan (REP) to make particular sites available for consolidated urban redevelopment. Where a site is rezoned by an REP, the Minister will be the consent authority.

SEPP No 33 - Hazardous and Offensive Development

This policy applies to development defined as ‘potentially hazardous industry’ or ‘potentially offensive industry’. The policy ensures that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account.

SEPP No 55 - Remediation of Land

This policy promotes the remediation of contaminated land for the purpose of reducing risk of harm to human health. The policy includes considerations that are relevant in rezoning land and in determining development applications where remediation of land is required.

SEPP No. 62 - Sustainable Aquaculture
Encourages the sustainable expansion of the industry in NSW. The policy implements the regional strategies already developed by creating a simple approach to identity and categorise aquaculture development on the basis of its potential environmental impact. The SEPP also identifies aquaculture development as a designated development only where there are potential environmental risks.

SEPP No 64 - Advertising and Signage

This policy sets out planning controls for advertising and signage in NSW and requires signage to be compatible with the future character of an area, provide effective communication in suitable locations and be of high quality design and finish. The policy also bans advertisements on parked trailers on roads, road shoulders, footpaths and nature strips, excluding advertising associated with the primary use of the trailer.

SEPP No 65 - Design Quality of Residential Apartment Development

This policy aims to improve the design quality of residential apartment development through the application of 9 design quality principles. The policy also provides requirements for a constituted design review panel to provide independent expert advice to council on the merit of residential flat developments. A design review panel is not mandatory.

Sydney Regional Environmental Plan No 30 - St Marys

This plan provides the planning framework for the planning and development of land known as Australian Defence Industries (ADI) site at St Marys.

SEPP (Western Sydney Employment Area) 2009

This policy aims to protect and enhance land in the Western Sydney Employment Area for employment purposes and to promote economic development and the creations of employment opportunities in Western Sydney. The policy provides for a coordinated approach to the planning, development and rezoning of land within the Western Sydney Employment Area and includes controls to ensure that development occurs in a logical, environmentally sensitive and cost-effective manner.

SEPP (Western Sydney Parklands) 2009

This policy provides the framework to enable the Western Sydney Parklands Trust to develop the Western Parklands into a multi-use urban parkland to meet a range of community needs and interests, including those that promote health and well-being in the community for Western Sydney.

SEPP (Western Sydney Recreation Area)
This policy enables development to be carried out for recreational, sporting and cultural purposes within the Western Sydney Recreation Area, including the development of a recreation area of state significance.

Authorised by Blacktown City Council
Proforma ID: 1046880

End of Certificate

APPENDIX C
STATUTORY COMPLIANCE TABLE

MANDATORY CONSIDERATIONS OF THE CONSENT AUTHORITY			
Statutory document	**Section reference**	**Mandatory consideration**	**Section of the EIS**
Considerations under the EP&A Act and EP&A Regulation			
EP&A Act	Section 1.3	Relevant objects of the Act	**Section 4.3.1** **TABLE 14**
	Section 4.15(1)(a)	the provisions of— (i) any relevant environmental planning instruments, and ... (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), ... that apply to the land to which the development application relates,	Refer below **Section 6.1.24** Refer below
	Section 4.15(1)(b)	the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	**PART F**
	Section 4.15(1)(c)	the suitability of the site for the development	**Section 2.6**
	Section 4.15(1)(d)	any submissions made in accordance with this Act or the regulations	Part of the forthcoming exhibition and response to submissions phases
	Section 4.15(1)(e)	the public interest	**Section 6.1.25**
EP&A Regulation	Clause 50(1)	A development application must— (a) be in the form that is approved by the Planning Secretary and made available on the NSW planning portal, and (b) contain all of the information that is specified in the approved form or required by the Act and this Regulation, and (c) be accompanied by the information and documents that are specified in Part 1 of Schedule 1 or required by the Act and this Regulation, and (d) be lodged on the NSW planning portal	The EIS will be lodged via the NSW planning portal and will be in the form that is approved by the Planning Secretary.
	Schedule 2(6)	Form of environmental impact statement	**TABLE 16**
	Schedule 2(7)	Content of environmental impact statement	**TABLE 16**

Considerations under EPIs			
ISEPP	Clause 45	Electricity transmission or distribution network	**Section 4.3.11.1**
	Clause 104	Traffic generating development	**Section 4.3.11.2**
SEPP 33	Clause 8	Consideration of departmental guidelines	**Section 4.3.7** **Section 6.1.15**
SEPP 55	Clause 7	Consideration of land contamination	**Section 4.3.8** **Section 6.1.16**
SEPP WSEA	Clause 11(2)	Objectives and land uses for IN1 zone	**Section 4.3.12**
	Clause 19(2)	Consideration of *Employment Lands Precinct Plan – Eastern Creek Precinct (Stage 3)*	**Section 4.5.3**
	Clause 20	Ecologically sustainable development	**Section 6.1.8**
	Clause 21	Height of buildings	**Section 6.1.5**
	Clause 22	Adequate arrangements are made to connect the roof areas of buildings to such rainwater harvesting scheme	**Section 6.1.13.1**
	Clause 25	Public utility infrastructure that is essential for the proposed development is available or adequate arrangements have been made	**Section 6.1.21**
	Clause 29	Satisfactory arrangements have been made to contribution to the provision of regional transport infrastructure and services	**Section 6.1.24**
	Clause 31	Consideration of design principles	**Section 6.1.3** **Section 6.1.4**
	Clause 33G	Water recycling and conservation	**Section 6.1.13**
	Clause 33H	Consideration of earthworks	**Section 6.1.12**
	Clause 22L	Consideration of stormwater, water quality and water sensitive urban design	**Section 6.1.12** **Section 6.1.13**
Considerations under other legislation			
Biodiversity Conservation Act 20016	Section 7.9	An SSD is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.	**Section 4.3.4**

APPENDIX D
COMMUNITY ENGAGEMENT TABLE

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
Indigenous community	Deerubbin Local Aboriginal Land Council	No response received.	N/A
NSW Government agencies	EES Group	No response received.	N/A
	EPA	Response with no comment.	N/A
	Heritage NSW	Charter Hall have engaged with Heritage NSW to establish its requirements for procuring an ACHAR. Heritage NSW have advised Charter Hall that as the site is covered by an AHIP, an ACHAR should not be required. Further formal advice from Heritage NSW defers to DPE as the determining authority under the SSDA process, stating Heritage NSW have no further interest in the proposal as it relates to Aboriginal heritage.	Refer to **Section 6.1.18** and **Appendix 25** of this EIS.
	NSW Fire & Rescue	The proponent attempted to consult with FRNSW, however FRNSW advised that they have a formal process that they follow subsequent to consent and they are experiencing significant volumes of applications at the moment and did not have the resources to respond. FRNSW have a formal process following consent whereby the proponent is to lodge a Fire Engineering Brief Questionnaire which they respond to for the proponent's reference in preparing the Fire Engineering Report (FER). The proponent advised that they will lodge the FER and seek FRNSW feedback prior to Construction Certificate, and will also bring FRNSW to site for a final inspection under the Section 152 process prior to the issue of Occupation Certificate.	Proponent to lodge FER and complete any other NSW Fire and Rescue requirements as necessary, pending consent being granted.
	RFS	Advised that the proponent should engage a bushfire consultant or contact their pre-DA service.	Refer to **Section 6.1.22** and **Appendix 29** of this EIS.
	TfNSW	TfNSW has considered the information provided and notes that it is not sufficient to provide a comprehensive response at this stage. TfNSW notes that further review and commentary will occur as part of any SSDA that is lodged.	N/A
	Water NSW	Due to the separation of this site from WaterNSW lands, assets and infrastructure, WaterNSW has no specific comment to make and	N/A

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
		advised that they will not be providing any further comments to the SSDA.	
Infrastructure providers	Endeavour Energy	No concern – provided attachment with general guidance on potential issues to be aware of.	Advice from Endeavour Energy has assisted in formulating the final DA design and documentation.
	Sydney Water	Proponent engaged with a Water Services Coordinator (authorised by Sydney Water) who advised the proponent about required works to connect to existing water assets.	N/A
	Telstra	Advised that there are existing infrastructure assets on the northern side of Eastern Creek drive along the boundary of Lot 1. Existing assets to the north of Eastern Creek Drive will not be affected provided existing separations are maintained during driveway construction.	N/A
Local government	Blacktown City Council	The proponent has conducted ongoing engagement with Blacktown Council on the proposal. A pre-development assessment meeting between Charter Hall and Council representatives was conducted in March 2021. Subsequently a pre-assessment meeting was held in November 2021. Further engagement with Council to request drainage models and stormwater management reporting, and to discuss relevant site requirements and options. Additional discussions were held over Honeycomb Road (a proposed road adjacent to the rear of the site).	Refer to **Whole EIS**.
Community	Neighbouring businesses	Parking	Refer to **Section 6.1.6** and **Appendix 10** and **Appendix 12** of this EIS.
		Traffic management and safety	Matter partly relates to current practices associated with a different development, which is not the proponent's responsibility. The matter can be addressed as part of the construction management plan through implementation of safe construction management practices.

COMMUNITY ENGAGEMENT TABLE			
Stakeholder Group	**Organisations**	**Matters Raised**	**Satisfied by**
			Refer to **Appendix E** of this EIS.
		Honeycomb Drive extension	Matter raised is not relevant to the proposed development. The respondent was encouraged to direct this question to Council.

APPENDIX E
MITIGATION MEASURES TABLE

By:	Charter Hall Holdings Pty Limited
In relation to:	State Significant Development Application (SSD-30923027) For Compass 2 Warehouse and Distribution Centre
Site:	Eastern Creek Drive, Eastern Creek Lot 1 DP 1274322

Charter Hall Holdings Pty Limited (CHH), plan to undertake the construction and operation of the proposed warehouse and distribution centre, in accordance with the following planned management and mitigation measures.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-30923027		
ID	**Management / Mitigation Measure**	**Timing**
Administrative Commitments		
A1	**Commitment to Minimise Harm to the Environment** CHH will commit to implement all reasonable and feasible measures, to prevent and/or minimise any harm to the environment, that may result from the construction or operation of the proposed development	Prior to construction, during construction, and during operation.
A2	**Terms of Approval** CHH will carry out the project generally in accordance with the: (a) Environmental Impact Statement; (b) Drawings; (c) Management and Mitigation Measures; (d) Any Conditions of Approval. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.	Prior to construction, during construction, and during operation.
A3	**Occupation Certificate** CHH will ensure that Occupation Certificates are obtained prior to the occupation of the facilities.	Prior to operation.
A4	**Compliance** CHH will ensure compliance with any reasonable requirement(s) of the Secretary of the NSW DPE arising from the assessment of: (a) Any reports, plans, programs, strategies or correspondence that are submitted in relation to this Approval; and (b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.	Prior to construction, during construction, and during operation.
A5	**Structural Adequacy** CHH will ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the National Construction Code.	During construction.
A6	**Construction Environmental Management Plan**	Prior to construction.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-30923027		
ID	**Management / Mitigation Measure**	**Timing**
	Prior to the commencement of construction, CHH would prepare a Construction Environmental Management Plan (CEMP) that addresses the following: (a) Air Quality; (b) Noise and Vibration; (c) Waste Classification; (d) Erosion and Sediment Control; (e) Materials Management Plan; (f) Acid Sulfate Soils and Salinity; and (g) Community Consultation and Complaints Handling.	
A7	**Site Induction** All staff employed on the site by the construction contractor will be required to undergo a site induction.	Prior to construction.
A8	**Operation of Plant and Equipment** CHH will ensure that all plant and equipment used on-site, is maintained and operated in proper and efficient manner, and in accordance with relevant Australian Standards.	During operation.
A9	**Monitoring the State of Roadways** CHH will monitor the state of roadways leading to and from the subject site, during construction, and will take all necessary steps to clean up any adversely impacted road pavements as directed by the Blacktown City Council.	During construction.
A10	**Waste Receipts** CHH will ensure that a permanent record of receipts, for the removal of both liquid and solid waste from the subject site, be kept and maintained up to date at all times. Such records will be made available to authorised person upon request.	During construction and operation.
A11	**Complaints Handling** CHH will prepare an Operational Complaints Handling Protocol for the development, prior to the commencement of operations.	Prior to operation.
A12	**Soil and Water Management** A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), or equivalent, will be implemented for the construction of the proposed development.	Prior to and during construction.
Specific Environmental Commitments		
Air Quality		
AQ1	Air quality mitigation and monitoring will form part of the CEMP, to be prepared for the project, as outlined in **A6**.	Prior to construction.
Traffic and Transport		
TT1	CHH will finalise and implement the Construction Traffic Management Plan (CTMP).	Prior to and during construction.
Hazards & Risks		

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-30923027		
ID	**Management / Mitigation Measure**	**Timing**
HR1	Multiple spill kits will be provided around the DG storage areas to ensure spills can be cleaned up immediately following identification.	During operation.
HR2	Aerosols shall be stored in a dedicated storage area which prevents rocketing cans from escalating the incident (i.e. storage in an aerosol cage, separate storage area, or in palletised aerosol cages).	During operation.
HR3	The site shall be designed to contain any spills or contaminated water from a fire incident within the boundaries of the site.	Prior to construction.
HR4	A stormwater isolation point (i.e. penstock isolation valve) shall be incorporated into the design. The penstock shall automatically isolate the storm water system upon detection of a fire (smoke or sprinkler activation) to prevent potentially contaminated liquids from entering the water course.	Prior to construction.
HR5	Acid Sulfate Soil and Salinity management will form part of the CEMP, to be prepared for the project, as outlined in **A6**.	Prior to construction.
HR6	Adopt a construction stormwater management plan and associated erosion and sediment control measures in accordance with Landcom Blue Book and Council requirements.	Prior to construction.
Cultural Heritage		
H1	An Unexpected Finds Policy will be developed, in the unlikely event that relics are identified during ground disturbing works.	Prior to construction.
H2	Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity will cease immediately. A qualified archaeologist would be contacted to assess the find and Heritage NSW and Metropolitan Local Aboriginal Land Council would be notified.	During construction.
H3	If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity will cease, the site would be secured, and the NSW Police and Heritage NSW would be notified	During construction.
H4	All relevant staff, contractors and subcontractors will be made aware of their statutory obligations for heritage under the NSW *Heritage Act 1977* and best practice as outlined in *The Burra Charter 2013*, during site inductions.	Prior to construction.
Socio-Economic		
SE1	CHH will notify surrounding businesses and residents one (1) week before commencement of construction activities. Notices should include: ▪ Details of the proposal, including contact details of management team ▪ Hours and expected period of construction	Prior to construction.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-30923027		
ID	**Management / Mitigation Measure**	**Timing**
	▪ Details regarding process should businesses or residents have concerns, questions or complaints	
SE2	CHH will set up a feedback process to manage and respond to stakeholder concerns, questions, or complaints. CHH will ensure that this process is clear and accessible to stakeholders such as surrounding businesses and residents.	Prior to and during construction.
SE3	CHH will prioritise engaging with local businesses, where practicable, e.g. site induction for visiting workers to include profile of surrounding food and beverage retailer.	During construction.
Waste Management		
WM1	Effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, would be conducted. Only wastes that cannot be cost effectively reused or recycled will be sent to landfill or appropriate disposal facilities.	During construction.
WM2	Waste materials produced from site preparation and construction activities will be separated at the source and stored separately on-site.	During construction.
WM3	The Site Manager or equivalent role will: ▪ Arrange for suitable waste collection contractors to remove any construction waste from site ▪ Ensure waste bins are not filled beyond recommended filling levels ▪ Ensure that all bins and loads of waste materials leaving site are covered ▪ Maintain waste disposal documentation detailing, at a minimum: o Descriptions and estimated amounts of all waste materials removed from site o Details of the waste and recycling collection contractors and facilities receiving the waste and o recyclables o Records of waste and recycling collection vehicle movements, for example, date and time of loads o removed, licence plate of collection vehicles, tip dockets from receiving facility, and o Waste classification documentation for materials disposed to off-site recycling or landfill facilities. ▪ Ensure lawful waste disposal records are readily accessible for inspection by regulatory authorities such as Blacktown City Council, SafeWork NSW or NSW EPA, and ▪ Remove waste during hours approved by Council.	During construction.
WM4	Site inductions, as required under **A7** will ensure the following training is covered: ▪ Legal obligations and targets	Prior to construction.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-30923027		
ID	**Management / Mitigation Measure**	**Timing**
	▪ Emergency response procedures on-site ▪ Waste priorities and opportunities for reduction, reuse, and recycling ▪ Waste storage locations and separation of waste ▪ Procedures for suspected contaminated and hazardous wastes ▪ Waste related signage ▪ The implications of poor waste management practices, and ▪ Responsibilities and reporting, including identification of personnel responsible for waste management and individual responsibilities.	
ESD		
E1	CHH will target a Certified Six (6) Star Green Star Design & As-Built v1.3 Rating.	Prior to construction, during construction, and during operation.